Medical Marijuana Dispensary License Application

Instructions & Min. Requirements

HELPFUL INFORMATION FOR FILLING OUT THIS FORM:

- 1. You can save your work on this form by checking the 'Save my progress and resume later' box and then clicking the 'Save form and resume later' button at the bottom of each screen
- IMPORTANT: Remember to do this every time you leave your application or you will lose the information you have entered.
- 2. To keep your information secure, remember to log out of your application each time you finish working on it.
- 3. Use a current version of Google Chrome or Firefox browser when completing this form.
- 4. Save the form every 20 minutes to avoid timing out. When entering information in a spreadsheet, save and exit the form first.
- 5. Do not include single or double quote marks (' or ") or more than one period (.) in your document names.

INSTRUCTIONS FOR THE MEDICAL MARIJUANA DISPENSARY LICENSE APPLICATION

Before applying for a medical marijuana dispensary license, applicants must acknowledge that they have read the statute and administrative rules on medical marijuana dispensary licensing. Click on the links below to be redirected to the statute and administrative rules.

Hawaii Revised Statute (HRS) 329D

aware of the application and licensing requirements.

Hawaii Administrative Rules (HAR) Chapter 11-850

acknowledge that I have read HAR, Chapter 11-850 (http://health.hawaii.gov/medicalmarijuana/wp-content/blogs.dir/93/files/2015/12/Dispensary-Rules-Chapter-11-850-signed-by-Gov-12-13-15.pdf), and I am aware of the application and licensing requirements.

Disclaime

wirely understand that the use and possession of marijuana is illegal under federal law, and is illegal under State law except as provided specifically by Chapters 329 and 329D, HRS. MINIMUM REQUIREMENTS

All individual applicants and applying entities must meet the requirements listed below or the application will not be accepted. Applicants must attach proof to the online application as described in the respective sections.

INDIVIDUAL APPLICANT

- * Individual applicant shall be at least 21 years old.
- * Shall be a legal resident of the State of Hawaii for at least five (5) uninterrupted years immediately preceding the date of the license application.
- * Shall not have any felony convictions or any other disqualifying background history.
- * Shall be authorized by the applying entity to submit an application for a dispensary license, and act as the primary point of contact with the department.

APPLYING ENTITY

- * The applying entity must be organized under the laws of the State of Hawaii.
- * Have a Hawaii tax identification number.
- * Have a Department of Commerce and Consumer Affairs Business Registration Division number and suffix.
- * Have a federal employer identification number.
- * Not be less than fifty-one percent held by Hawaii legal residents or entities wholly controlled by Hawaii legal residents who have been legal residents for not less than five years immediately preceding the date the application was submitted.
- * Have financial resources under its control of not less than \$1,000,000 for each license applied for, plus not less than \$100,000 for each retail dispensing location allowed under the license applied for, in the form of bank statements or escrow accounts, and those financial resources shall have been under the control of the applying entity for not less than ninety days immediately preceding the date the application was submitted.
- * Be composed of owners, principals, or members, each of whom is not less than twenty-one years of age and has no felony convictions or any other disqualifying background history.

APPLICATION FEE

The license application fee of \$5,000 by certified check or cashier's check payable to the State of Hawaii, Department of Health, is part of the minimum requirements and must be received at Department of Health, Medical Marijuana Dispensary Licensing, Room 337, 601 Kamokila Blvd., Kapolei, HI 96707 or be postmarked by 4:30 pm Hawaii Standard Time on the last day of the open application period January 29, 2016.

Please note the application number on the check. This is found in the heading of the email confirmation you receive upon submittal, and is also visible when you view your completed application online.

NOTE: ALL QUESTIONS MUST BE ANSWERED TO SUBMIT YOUR APPLICATION UNLESS OTHERWISE INDICATED.

SECTION A: APPLICATION FOR COUNTY

NOTE: An applicant may apply for a license for more than one county, but may only receive one license. Indicating here that you are applying for a license for more than one county does not constitute applying for a license in another county; separate applications must be submitted. The applicant and applying entity must complete a separate application with all required documentation for each application and submit a non-refundable application fee of \$5,000 for each application. The financial resources required (\$1,000,000 plus not less than \$100,000 for each retail dispensing location) may apply across applications since the money can only apply toward one license, if granted.

1. For which county are you requesting a license?

County of Hawaii

2. Are you also applying for a dispensary license in another county?

Nο

SECTION B: INDIVIDUAL APPLICANT INFORMATION

GENERAL INFORMATION

3. Legal Name of Applicant

Richard Ha Jr.

4. Upload Proof of Legal Name of Applicant

Scan and submit a certified copy of AT LEAST ONE (1) of the following:

- * Certified copy of a birth certificate or marriage certificate filed with a state office of vital statistics or equivalent agency in the individual's state of birth or marriage;
- * Valid, unexpired U.S. passport [inside cover and first page only] or U.S. passport card;
- * Consular report of birth abroad Form FS-240, DS-1350 or FS-545 issued by the U.S. Department of State;
- * Valid, unexpired permanent resident card (Form I-551) issued by the Department of Homeland Security (DHS) or the U.S. Citizenship and Immigration Services (USCIS);
- * Unexpired employment authorization document issued by the DHS, Form I-766 or Form I-688B;
- * Unexpired foreign passport with the following: a valid, unexpired U.S. visa affixed, and an approved I-94 form documenting the applicant's most recent admittance into the United States or a DHS admittance stamp on the passport;
- * Certified copy of the Certificate of Naturalization issued by DHS, Form N-550 or Form N-570;
- * Certificate of citizenship, Form N-560 or Form N-561, issued by DHS;
- * Court-issued, certified copy of a divorce decree;
- * Certified copy of a legal change of name order

5. Date of Birth (must be at least 21 years old)

6. Upload Proof of Date of Birth of Applicant

Scan and submit a certified copy of AT LEAST ONE (1) of the following:

- * Certified copy of a birth certificate or marriage certificate filed with a state office of vital statistics or equivalent agency in the individual's state of birth or marriage;
- * Valid, unexpired U.S. passport [inside cover and first page only] or U.S. passport card;
- * Consular report of birth abroad Form FS-240, DS-1350 or FS-545 issued by the U.S. Department of State;
- * Valid, unexpired permanent resident card (Form I-551) issued by the Department of Homeland Security (DHS) or the U.S. Citizenship and Immigration Services (USCIS);
- * Unexpired employment authorization document issued by the DHS, Form I-766 or Form I-688B;
- * Unexpired foreign passport with the following: a valid, unexpired U.S. visa affixed, and an approved I-94 form documenting the applicant's most recent admittance into the United States or a DHS admittance stamp on the passport;
- * Certificate of naturalization issued by DHS, Form N-550 or Form N-570;
- * Certificate of citizenship, Form N-560 or Form N-561, issued by DHS;
- * Valid, unexpired driver's license or government issued photo identification card.

7. Social Security No. or Identifier No. (last 4 digits only):

8. Applicant's Address

United States

9. Daytime Phone No.

10, Fax No.

11. Email

CRIMINAL HISTORY INFORMATION

- 12. Has the individual applicant ever been convicted of a felony? If YES, STOP, you are not an eligible applicant.
- 13. Has the individual applicant ever been convicted of a crime?

13a. If YES, please describe (e.g., conviction, date, disposition, etc.)

14. Has the individual applicant ever been arrested?

14a. if YES, please describe (e.g., date, disposition, etc.)

Obtain a Criminal History Report

Copy the Validation code from an eCrim report for the individual applicant generated by the Hawaii Criminal Justice Data Center no earlier than December 12, 2015 at 8:00 a.m.

(Hawaii-Aleutian Standard Time).

Visit eCrim.ehawaii.gov (https://ecrim.ehawaii.gov/ahewa/) to obtain the eCrim report.

15. Enter the eCrim Validation Code here:

16. NOTICE: Pursuant to Chapter 329D HRS and Chapter 11-850 HAR, applicants are required to provide consent to a background check, including fingerprinting, to be conducted by the Department of Health or its designee.

Further information and instructions will be provided on http://health.hawaii.gov/medicalmarijuana/. If the information and instructions are not yet posted, please check the website often.

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RESIDENCY INFORMATION 17. Is the Applicant a legal resident of the State of Hawaii for at least five years? If NO, STOP, you are not an eligible applicant.

18. Upload Proof of Hawaii Residency:

Scan and submit AT LEAST ONE (1) of the following source documents as proof of Hawaii state residency for at least five years:

- * State of Hawaii tax return Form N-11 without schedules, worksheets, or attachments, and redacted to remove all financial information and all but the last four digits of the individual's social security number;
- * Evidence of voter registration;
- * Ownership, lease, or rental documents for place of primary domicile;
- * Billing statements including utility bills; or
- * Vehicle registration.



19. Authorized to Act on Behalf of Applying Entity

Scan and submit evidence of the authority of the individual to act on behalf of the applying entity, and supporting documentation (e.g. corporate resolution, bylaws, articles of incorporation):

Applying Entity Data

SECTION C: APPLYING ENTITY INFORMATION

20. Name of Applying Entity

Lau Ola LLC

21. Applying Entity's Business Address

United States

22. Entity Phone #

23. Entity Email

24. Entity Fax #

25. Is the applying entity organized under the laws of the State of Hawaii? If the answer is 'NO', STOP, you are not an eligible applicant.

26. Upload Applying Entity Incorporation or Business Status Documentation:

Upload a certified copy of applying entity's incorporation documents in the State of Hawaii.

Visit <u>Hawaii Business Express (https://hbe.ehawaii.gov/documents/search.html)</u> for available documents.

26.

27 Provide the entity's Hawaii Department of Commerce & Consumer Affairs Business Registration Division Number & Suffix (file number).

Visit <u>Hawaii Business Express - Business Name Search (https://hbe.ehawaii.gov/documents/search.html)</u> to locate your entity's file number. 136115 C5

28. Upload a copy of the entity's Certificate of Good Standing from the Department of Commerce and Consumer Affairs.

28.

29 Hawaii Tax Identification Number:

Provide the number along with a copy of the State of Hawaii Tax Identification Number (see question immediately below).

Visit Tax ID Search (https://dotax.ehawaii.gov/tis/app) for this information.

W75587196-01

30. Upload a copy of the entity's State of Hawaii Tax Identification document.

31. Federal Employer Identification Number: Provide the Federal Employer Identification Number.

32. Upload a copy of the entity's Federal Employer Identification Number document.

Owner, Principal, Member Data

OWNER(S), PRINCIPAL(S), & MEMBER(S) INFORMATION

33. Enter the total number of Owner(s), Principal(s), and Member(s) of the applying entity here:

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34. Upload Owner, Principal, and Member Information Spreadsheet

INSTRUCTIONS: Download the EXCEL spreadsheet below, enter the following information in the format required, and upload it to attach it to your application.

Information to be provided:

1) List of Owners, Principals, and Members of the Applying Entity

For each Owner, Principal, and Member of the Applying Entity:

- A) Name, Address, Phone number, and Email Address
- B) Each individual's percent interest in the company
- C) State of primary residence
- D) Number of years each person has lived in Hawaii (the most recent, uninterrupted number of years that the person has been a resident), and
- E) A criminal background check for each Owner, Principal, and Member.

Copy the validation code from an eCrim report for the individual generated by the Hawaii Criminal Justice Data Center no earlier than December 12, 2015 at 8:00 a.m. (Hawaii-Aleutian Standard Time).

Visit eCrim.ehawaii.gov (https://ecrim.ehawaii.gov/ahewa/) to obtain the eCrim report.

Please include a signed statement by each Owner, Principal, or Member certifying that the information is complete and accurate. Upload the signed statements in the following question (35.)

2) Other Businesses Holding an Interest

If there are businesses that hold an interest in the company, list the business names and percent interest on a separate tab on the spreadsheet.

Download Owner Principal Member Information Spreadsheet (/mmjdisp/templates/Owner Principal Member Report.xls)

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35. Upload Proof of Name, Date of Birth, and Residency for each Officer, Principal, or Member listed on the spreadsheet

1) Proof of Legal Name of Each Owner, Principal, and Member:

Scan and submit a certified copy of AT LEAST ONE (1) of the following:

- * Certified copy of a birth certificate or marriage certificate filed with a state office of vital statistics or equivalent agency in the individual's state of birth or marriage;
- * Valid, unexpired U.S. passport [inside cover and first page only] or U.S. passport card;
- * Consular report of birth abroad Form FS-240, DS-1350 or FS-545 issued by the U.S. Department of State;
- * Valid, unexpired permanent resident card (Form I-551) issued by the Department of Homeland Security (DHS) or the U.S. Citizenship and Immigration Services (USCIS);
- * Unexpired employment authorization document issued by the DHS, Form I-766 or Form I-688B;
- * Unexpired foreign passport with the following: a valid, unexpired U.S. visa affixed, and an approved I-94 form documenting the applicant's most recent admittance into the United States or a DHS admittance stamp on the passport:
- * Certificate of naturalization issued by DHS, Form N-550 or Form N-570;
- * Certificate of citizenship. Form N-560 or Form N-561, issued by DHS:
- * Court-issued, certified copy of a divorce decree;
- * Certified copy of a legal change of name order;
- 2) Proof of Date of Birth

Scan and submit a certified copy of AT LEAST ONE (1) of the following:

- * Certified copy of a birth certificate or marriage certificate filed with a state office of vital statistics or equivalent agency in the individual's state of birth or marriage;
- * Valid, unexpired U.S. passport [inside cover and first page only] or U.S. passport card;
- * Consular report of birth abroad Form FS-240, DS-1350 or FS-545 issued by the U.S. Department of State;
- * Valid, unexpired permanent resident card (Form I-551) issued by the Department of Homeland Security (DHS) or the U.S. Citizenship and Immigration Services (USCIS);
- * Unexpired employment authorization document issued by the DHS, Form I-766 or Form I-688B;
- * Unexpired foreign passport with the following: a valid, unexpired U.S. visa affixed, and an approved I-94 form documenting the applicant's most recent admittance into the United States or a DHS admittance stamp on the passport:
- * Certificate of naturalization issued by DHS, Form N-550 or Form N-570;
- * Certificate of citizenship, Form N-560 or Form N-561, issued by DHS;
- * Valid, unexpired driver's license or government issued photo identification card.
- 3) Proof of Hawaii Residency:

Scan and submit AT LEAST ONE (1) of the following source documents as proof of Hawaii state residency for at least five years:

* State of Hawaii tax return Form N-11 without schedules, worksheets, or attachments, and redacted to remove all financial information and all but the last four digits of the individual's social security number;

* Billing statements including utility bills; or * Vehicle registration.	
Document size limit is 2 MB. Up to 10 documents may be attached.	
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Financial Resources

SECTION D: FINANCIAL INFORMATION

Evidence of voter registration;

36. FINANCIAL RESOURCES GENERAL INFORMATION

INSTRUCTIONS: Download the EXCEL spreadsheet below, enter the following information in the format required, and upload it to attach it to your application.

Information to be provided:

1) Financial Resources the applying entity has under its control. List each financial resource, amount of the resource (round to nearest dollar, no cents), and verifying information (account type, account number, account name, name of financial institution, applicant contact information) as shown on the spreadsheet

2) Date Resource/Dollar amount under the applying entity's control

Download Financial Resources General Information Spreadsheet (/mmjdisp/templates/Financial Resources General.xls)

Upload the completed Financial Resources General Information Spreadsheet

37. Upload Financial Resources General Information Supporting Source Documents

Upload supporting source documents, i.e. bank statements, escrow account information, balance sheets etc. Supporting source documents for Financial Resources General Information must be provided as proof of the financial resources.

Document size limit is 10 MB. Up to 5 documents may be attached.

38. FINANCIAL RESOURCES -

RETAIL DISPENSING LOCATION INFORMATION

INSTRUCTIONS: Download the EXCEL spreadsheet below, enter the following information in the format required, and upload it to attach it to your application.

Data to be provided:

- 1) Financial Resources the applying entity has under its control for each retail dispensing location allowed (2 locations maximum)
- 2) Dollar Amount (total aggregate for each retail dispensing location shall be not less than \$100,000, or \$200,000 for 2 locations)
- 3) Date Resource/Dollar amount under the applying entity's control (resources have been under the Applying Entity's control for not less than 90 days)

Download Financial Resources - Retail Dispensing Location Information Spreadsheet (/mmjdisp/templates/Financial Resources Retail Dispensing Location.xls)

Upload the completed Financial Resources - Retail Dispensing Location Information Spreadsheet

Upload supporting source documents, i.e. bank statements, escrow account information, balance sheets etc. Supporting source documents for retail dispensary locations must be provided as proof of the financial resources. Document size limit is 10 MB. Up to 5 documents may be attached. Merit Data SECTION E: MERIT INFORMATION - OPTIONAL Responses for each criteria shall be no longer than specified for each criteria, double spaced, font size no smaller than 12, and margins no less than 1 inch on all sides. (1) Ability to operate a business, including but not limited to education, knowledge, and experience with: (A) Regulated industries; (B) Agriculture or horticulture; (C) Commercial manufacturing; (D) Pharmaceutical companies; (E) Operating or working in a medical marijuana dispensary business; (F) Creating and implementing a business plan, including a timeline for opening a business; (G) Creating and implementing a financial plan; (H) Retail sales; (I) Secure inventory tracking and control; (J) Protecting confidential customer information; (K) Owning or managing a business that required twenty four hour security monitoring; and (L) Any other experience the applicant considers relevant; Response to (1) shall be no longer than five (5) pages. Upload Response to (1) (2) Plan for operating a medical marijuana dispensary in the county for which the applicant is seeking a license, including but not limited to a timeline for opening a retail dispensing location: Response to (2) shall be no longer than five (5) pages. Upload Response to (2) (3) Proof of financial stability and access to financial resources, including but not limited to: (A) Legal sources of finances immediately available to begin operating a dispensary; (B) A summary of financial statements in businesses previously or currently owned or operated by the applicant; (C) A financial plan for operating a medical marijuana dispensary in Hawaii; (D) Good credit history; and (E) History of bankruptcy by the applicant or entities owned or operated by the applicant; Response to (3) shall be no longer than five (5) pages. Upload Response to (3) (4) Ability to comply with the security requirements of Chapter 11-850 and Section 329D-7, HRS; Response to (4) shall be no longer than five (5) pages. Upload Response to (4) (5) Capacity to meet the needs of qualifying patients, including but not limited to: (A) Educating patients on how marijuana can be used to assist patients with debilitating medical conditions and about the marijuana and manufactured marijuana products that will be available in the applicant's retail dispensing locations; (B) Producing and maintaining a supply of marijuana that is sufficient to meet the needs of qualifying patients; (C) Providing safe, accessible retail dispensing locations; and (D) Measuring and improving customer satisfaction;

Response to (5) shall be no longer than five (5) pages.

Upload Response to (5)

(6) Ability to comply with criminal background check requirements pursuant to Chapter 11-850 and Sections 329D-7, 329D-12, and 846-2.7, HRS;

Response to (6) shall be no longer than three (3) pages.

Upload Response to (6)
(7) Ability to comply with the requirements in Chapter 11-850 and Sections 329 and 329D, HRS, for inventory tracking, security, and dispensing limits for qualifying patients;
Response to (7) shall be no longer than five (5) pages.
Upload Response to (7)
(8) Ability to maintain confidentiality of a qualifying patient's medical condition, health status, and purchases of marijuana or manufactured marijuana products;
Response to (8) shall be no longer than three (3) pages.
Upload Response to (8)
(9) Ability to conduct or contract for certified laboratory testing on marijuana and manufactured marijuana products pursuant to Chapter 11-850 and Sections 329D-7 and 329D-8, HRS;
Response to (9) shall be no longer than three (3) pages.
Upload Response to (9)
(10) Ability to comply with requirements for packaging, labeling, and chain of custody of products;
Response to (10) shall be no longer than three (3) pages.
Upload Response to (10)
(11) A plan for secure disposal of marijuana and manufactured marijuana products;
Response to (11) shall be no longer than five (5) pages.
Upload Response to (11)
(12) Ability to ensure product safety, in accordance with Chapter 11-850 and Sections 329D-8, 329D-10, 329D-11, HRS.
Response to (12) shall be no longer than five (5) pages.
Upload Response to (12)
(13) No history of having a business license revoked.
Response to (13) shall be no longer than three (3) pages.
Upload Response to (13)

Certification

SECTION F: CERTIFICATION AND SUBMITTAL

Certification

I hereby certify under penalty of law that the information submitted as part of this application is correct and complete.

By checking the box above and entering the individual applicant's name below, the applicant has electronically signed this application.

Applicant Name

Richard Ha Jr.

Department of Health

1250 Punchbowl Street, Honolulu, HI 96813

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Ability to Operate a Business:

The Lau Ola LLC team has specifically been assembled to build a business plan, obtain financing and launch a start up to operate a successful medical marijuana business in Hawaii State in strict accordance with Chapter 329DHRS and 11-850 HAR.

A. Regulated Industries

Lau Ola LLC CEO, Richard Ha, is a multi-generational Hawaiian who has been operating agricultural businesses in the County of Hawaii for decades. These businesses included experience in food safety, growing, processing and compliance regulations. A significant example being the Hilo Egg Producers Cooperative.

Chief of Dispensary Operations,
Chief Compliance Officer, Doctor of Pharmacy, is a licensed pharmacist in
the State of Hawaii, with experience as a pharmacy manager and laboratory director. She has
implemented systems and procedures for compliance, security and patient safety.
MD, Lau Ola LLC Medical Director, has been practicing in Hawaii since
1996. He is very familiar with regulations regarding patient privacy and safety.

B. Agriculture or Horticulture

Richard Ha has been operating farms in Hawaii for decades and was CEO the Mauna Kea Banana farm, the largest banana producer in the United States. He sits on the Hawaii State Board of Agriculture, the USDA's Fruit and Vegetable Industry Advisory Committee, and the Western Region Sustainable Agriculture Research and Education committee. He has been Hawaii's representative for the Council on Agriculture, Research, Extension and Teaching. In 2015, the University of Hawai'i's College of Tropical Agriculture and Human Resources named him "Outstanding Farmer of the Year."

Chief of Production, currently runs a diversified agricultural operation in Hawaii County that includes a 40-acre foliage nursery, a 50-acre tropical fruit orchard, a 400-acre cattle ranch, 10-acre heart of palm orchard and 20 acres of rotating ginger and purple sweet potato crops. He is responsible for complying with Hawaii Department of Agriculture requirements for shipping and certification, and he coordinates the logistics of large container shipments of agricultural products into inter-island and mainland markets.

Environmental Science from the University of Hawai'i at Hilo, and is an Interim Professor for Sustainable Agriculture at that University. Mr. operates an organic food crop and hydroponic production facility at Kulani Correctional Facility, which provides the institution with most of its fresh vegetables for use in the mess hall. The model for Lau Ola LLC cultivation practices will be based on the hydroponic model as developed by Mr. of the University of Hawaii.

, Operations Consultant, of and is owner and operator of the United States, with over 50,000 trees in production.

C. Commercial Manufacturing

, Manufacturing Director, has designed and worked with medicinal cannabis extract systems and will be responsible for that department at Lau Ola LLC. It should be noted, that this is one of many opportunities that Lau Ola LLC will seek to repatriate native Hawaiians with solid employment.

D. Pharmaceutical companies

, **PharmD** successfully completed an externship at Novartis, and included work in the field of patient safety and evaluating clinical trials for monitoring of adverse drug reactions.

E. Operating or working in a medical marijuana dispensary business

has worked at several dispensaries. He has experience as a patient consultant and responsible for handling up to 30 patients per day. Most of this work consisted of providing viable and accurate recommendations and keeping accurate tracking and inventory records at the dispensary. He was also responsible for handling patient check-in, and processing both new and returning patients in strict compliance with California State and County laws including approval of patient documents.

F. Creating and implementing a business plan, including a timeline

Richard Ha created and implemented several business plans, beginning with his first banana farm, Ha Brothers Inc. Richard has had to adjust his business plans to meet market conditions, and has done so successfully. As Banana Bunchy Top Virus (BBTV) became prevalent, he diversified geographically.

LMHC, worked as a business planning consultant for Hawaiian Board member, agricultural business in Hawaii from 1993 – 2010. She also served as CEO for a technology company in San Francisco from 1988 – 1993. As CEO, was involved in all areas of executive management including business planning, market development, public relations, financing, operations, quality control and contract negotiation. G. Creating and Implementing a Financial Plan created and implemented financial plans for their farming Richard Ha and enterprises. Lau Ola has the experience of the largest banana and mango growers in the United States to accurately project farming and operating expenses. has created and implemented financial plans. Under her leadership, the company grew to become a multi-million dollar enterprise featured in the INC Magazine list of the 500 fastest growing American companies for three consecutive years. H. Retail Sales PharmD, both have extensive experience running and and managing retail pharmacy locations, as detailed previously. was the CEO of a retail computer sales and services company. The company set itself apart for its commitment to personalized customer service. have extensive retail experience with agricultural products. For Richard Ha and managed the retail distribution of over four million pounds of example, in 2015 alone

I. Secure Inventory Tracking and Control

agricultural product.

J. Protecting Confidential Custon	
, MD,	and , PharmD, ha
extensive experience understanding	, implementing, and long term execution on confid
procedures in the healthcare arena a	nd includes compliance with HIPAA and State pri
is a licensed behavior	ral healthcare provider who complies with HIPAA
as well as all legal and ethical stand	ards related to confidentiality in a behavioral heal
setting. As Director of Counseling S	Services at UH Hilo, she implemented a secure ele
recordkeeping system for students'	health information.
K. Owning or managing a busine	ss that required 24-hour security monitoring
and	, PharmD are both involved in managing se
pharmacy environment. A pharmacy	y business requires both external and internal secu
prevent theft and diversion by outsi	ders and employees.
L. Other relevant experience	
, MBA has extensive	experience in community relations for health-rela
organizations. She will address con-	cerns raised by stakeholders such as law enforcem
personnel, parents, healthcare organ	nizations and community members.
	en carefully handpicked by Lau Ola LLC to help;

Appendix 1.2

LAU OLA

Applicant for Medical Cannabis Dispensary License on Hawai'i Island

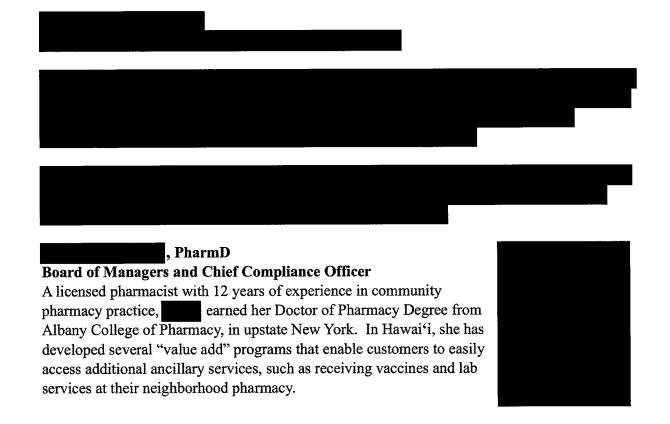
Principal Managers

RICHARD HA CEO and Chairman, Board of Managers

Richard is founder and president of Hamakua Springs Country Farms, a 600-acre family farm on the Island of Hawai'i that sustainably produces bananas and hydroponic vegetables. A former U.S. Army captain and Vietnam War veteran, he started farming after he graduated from UH Mānoa with a degree in accounting in 1973. Richard has been a board member of the Hawai'i Island Economic Development Board, Hamakua Soil and Water Conservation District, Hawai'i Banana Industry Association, Keaholoa STEM Program, and Boys and Girls Club of Hawai'i. He served as a member of The Kohala Center and represented the County of Hawai'i on the State of Hawai'i Board of Agriculture Executive Board.



He is a frequent speaker at conferences addressing agriculture and sustainability, and is a pioneer in sustainable agricultural production, using a state-of-the art hydroelectric system on his farm on Hawai'i Island. In 2008, Richard was inducted to the Shidler College of Business Hall of Honor because of his extensive business acumen and his long history of giving back to the community.



She is skilled in pharmacy management and human resources, as well as having extensive handson experiencing counseling patients.

MA, LMHC Board of Managers

is an enterprise development consultant with over 30 years experienced in business planning and grant proposal/RFP development. Prior to becoming a consultant, she co-founded Abacus, Inc., a computer sales and services company in 1984. She served as the company's CEO and president from 1988-1993. Under her leadership, Abacus grew to become a multi-million dollar enterprise that was featured in the INC Magazine list of the 500 fastest growing American companies for three consecutive years.

In 1993, moved to Hawai'i to pursue her dream of living sustainably and creating an organic farming enterprise. She ran a successful greenhouse operation – growing tomatoes, peppers, greens and other vegetables – between 1994 and 2001, and continued to offer consulting services to non-profit community organizations and small business value added farmers through 2007. In 2008, she returned to school to pursue a Masters' degree in psychology. She currently runs a behavioral health practice, while continuing her consulting business as well.

is a passionate and outspoken patient rights advocate, and continues to bring her skills and experience to her work with underserved populations within her Hawai'i Island community.

Board of Directors, Production Operations Officer

Raised on the Hawai'i Island, graduated from Hawai'i Preparatory Academy before earning a double major in real estate finance and international business at the Shidler College of Business on the University of Hawaii Manoa campus. With five generations of farming preceding him, took over management of his family's agriculture business, Aloha Green. In addition, his operations include sustainable land management and real estate development; he has created several agricultural subdivisions on the Hamakua coast. He serves on the Board of the Hamakua Soil and Water Conservation District, Hawaii Export Nursery Association, Hawai'i Floriculture and

Nurseryman's Association, Hawai'i Island Board of Realtors Steering Committee and is a member of the Rotary Club of South Hilo.

, MBA

Board of Managers, Communications Officer

brings more than 25 years of experience to Lau Ola in marketing, brand management and communications. With deep experience in healthcare, she has led Marketing for Hawai'i Island's HHSC East Hawaii Region's hospitals and clinics and consulted for the island's Federally Qualified Health Centers and hospice organizations. She has also consulted for island non-profits, where she orchestrated a variety of health related programs. Mary has lead strategic communications programs for Fortune 500 corporations, public relations agencies, academic and non-profit organizations, trade associations and advocacy groups. She holds a BA in Journalism from the University of Southern California and an MBA from Georgetown University.



. MD

Medical Director

A specialist in Functional Medicine, Dr. has practiced in Kona for more than 20 years. He has held numerous positions at Kona Community Hospital, including Chief of the Department of Medicine. Additionally, he founded the Hospitalist program at the hospital and attended patients in that role for five years. Dr. was an Internist at Kaiser Permanente in Kona for a decade. He completed his Internal Medicine Residency at UC Irvine and Long Beach Veterans Administration Medical Center.

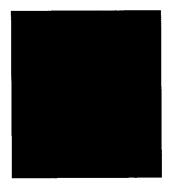
DR. Formulary Development, Dispensary Operations

is a native-born lomilomi practitioner and master teacher with more than 30 years' experience in therapeutic massage and Native Hawaiian Healing on the Big Island. He learned the healing arts of lomilomi from his kupuna, and integrates the teachings of master healers from Hawai'i, Asia and North America into his practice with patients. He has taught Hawai'i Healing Arts abroad as well as on island, where he extends the teachings through apprentice programs.

Dr. brings unmatched understanding of Hawaii's tradition of healing arts to Lau Ola's culturally sensitivity in developing and providing patients medical cannabis medications. His engaging presence and extensive knowledge is a cornerstone of Lau Ola's outreach efforts, particularly to help Native Hawaiians understand the appropriate and beneficial use of cannabis medications.

Facilities Directory

has 40 years of experience in comprehensive facilities design, development and management. He is sole proprietor of Kelly Earthworks, Inc., a site work and utility business he started in Olympia, Washington in the 1980s. has supervised construction teams and designed and installed everything from foundations, roads, and retaining walls to advanced septic systems, water systems, and HVAC and humidity control systems. He has built dozens of structures, from homes to commercial steel buildings, always with attention to minimizing environmental impact. He currently manages three properties, including a business, and is responsible for overseeing all maintenance and upgrades.



In 2004, purchased 20 acres in Hakalau, Hawaii. At the time it was an old gravel mine on sugar cane land, and now is a self-sufficient organic farm complete with off-grid power systems. Locally, consults on and provides machine work for all aspects of sensitive off-grid land development including site preparation, road building, installing solar electric systems, cesspool and septic systems, catchments, bridges, security gates and fencing.

, MA Cultivation Director

has a Bachelors of Science in Tropical Plants and Soil Sciences from the University of Hawai'i at Manoa and a Master of Science degree from UH Hilo in Tropical Conservation Biology and Environmental Science. In 2012, he became the Agriculture Coordinator for Hawai'i Community College's Office of Continuing Education and Training in Hilo. He is currently a Professor of Sustainable Agriculture at UH Hilo's College of Agriculture, Forestry, and Natural Resource Management. Previously, he served as an instructor for the Hawaii State Rural Development Project.

designed and implemented Hawaii-based agriculture education programs for local farmers and groups.

also runs his own consulting business, which provides services to local farmers, agriculture professionals, and research institutions who need help in developing sustainable crop and fertilizer production systems, business operations and management plans, and post-harvest sales and marketing plans. The company also provides assistance for medical marijuana patients who need help developing production systems to meet their medical marijuana needs. He is an expert on proper techniques for medical marijuana production in Hawai'i's unique tropical

environment.

Manufacturing Director

A native of Hawai'i Island, has extensive expertise in cannabis production using both indoor and outdoor cultivation methods. He has built cultivation operations that include HVAC, irrigation systems, nutrient regimens, strain selection, harvesting and processing, lighting and electrical systems, and custom soil mixes. He has legally cultivated in Oregon, Hawai'i and British Columbia for commercial medical use.

's experience encompasses all aspects of dispensary operations and human resource training and management.

Appendix 1.3

RICHARD HA JR.



	Resume
	Businesses History
2006 - Present	Big Island Container Sales LLC, Owner & Operator, Partnership
1982 - Present	Panaewa Distribution Company, Inc. Owner & Operator, Sole Ownership
1992 - Present	Mauna Kea Banana Company, Inc. Owner & Operator, Majority Owner
1978 - 1988	Ha Bros. Inc., Minority Owner
	Board and Committee Memberships
2014 - Present	Western Region Sustainable Agriculture Research and Education Committee
2014 - Present	Hawaii Island Energy Cooperative, President
2014 - Present	USDA Fruit and Vegetable Industry Advisory Committee
2010 - Present	Hawaii State Board of Agriculture
2010 - 2011	Geothermal Working Group, Senate Concurrent Resolution 99
	Education
1973	Bachelor of Arts, Accounting, Shidler College of Business, University of Hawaii at Manoa
	Military
1965 - 197 1	U.S. Army Captain, Vietnam veteran
	Awards and Certifications
2015	Ka Lei Hano Heritage Award, College of Tropical Agriculture and Human Resources,
	University of Hawai`i at Manoa
2008	National Finalist of the USDA Patrick Madden Award for Sustainable Agriculture,
1993	The first banana company in the world certified ECO OK by the Rainforest Alliance 501(c)(3)
2011	Distinguished Alumni Award, University of Hawaii at Manoa
2012	Hall of Honor Award Honoree, Shidler College of Business, University of Hawaii at Manoa

Experience

June 2006-Present Foodland Pharmacy, Sullivan Family Company

Kamuela, HI 96743

- Current
 - o Foodland Pharmacy Virtual Online Care Model
 - Collaborating on a pilot program involving Foodland Pharmacy, HMSA, and an online provider network
 - Foodland Pharmacy enhancing clinical services by creating a virtual urgent care in 3 key locations
 - Pilot program addresses online care enrollment, acute care, lab
 testing based on standing orders, gaps in care, continuity of
 care, attributing HMSA's "unattributed" patients, use of
 Cozeva for lab results and/or to see what biometric testing is
 the needed based on HMSA's quality care metrics
 - Coordinating with a team of professionals including HMSA's Operations Manager and Online Care Team Leader, independent medical providers, and various departments of Sullivan Family Company
- Lab Director 2014
 - Responsible for the execution of our hybrid Community Pharmacy/CLIA
 Waived Laboratory model launching September 2014
 - Integrating Rapid-Diagnostic Tests and Biometric Testing into pharmacy workflow
 - Expansion of biometric testing to local employer group wellness programs with a focus on diabetes screening and counseling
- Clinical Coordinator 2009
 - o Implement profitable clinical service models for our 9 community pharmacies
 - Facilitated the expansion of Foodland Pharmacy Immunization Program
 - Statewide flu clinic program
 - Hepatitis B vaccine clinics for OSHA mandated employer groups
 - Developed relationships with various Hawaii employer group HR Directors, and Benefits Managers
 - o Responsible for chain-wide DMEPOS Accreditation
 - Durable Medical Equipment, Prosthetics, Orthotics, and Supplies
- Pharmacy Manager 2007
 - Responsible for daily pharmacy operations of 2nd largest volume pharmacy chain-wide, and management of 10 employees
- Staff Pharmacist 2006

January 2010-Present

To Find Health

Kamuela, HI 96743

- In-house Pharmacist
 - o MTM
 - o Active Professional Member
- Reporter for Health Focused Interviews
 - Hawaii State Senator and Vice Chairman of the Health Committee: Dr. Josh Green, MD (6/30/10)
 - Yaron Brook PhD Finance, Forbes Magazine Contributor, regular on CNBC,
 Fox Business network and Fox News Channel. (7/8/10)
 - o Dr. Dale Carrison, DO, FACEP, Chairman of Nevada's Homeland Security Commission, and former FBI agent. (9/9/10)

March 2007-Present

Kmart Pharmacy

Kona, HI 96740

• Per Diem Staff Pharmacist

2007-2008

Big Island Pharmacy, LLC

Kamuela, HI 96743

- One of 3 founding members of Big Island Pharmacy, LLC, holding company for PharmaSafe+
- Participated in the development of inventory control software for PharmaSafe+
- Participated in the development of Virtual Pharmacy Staffing (VPS)
- Involved with the marketing materials and tradeshow booth at McKesson 2008 Las Vegas and NACDS 2008 San Diego

Spring/Summer 2006

Traditional Oriental Medical College of Hawaii

Kamuela, HI 96743

Taught an Introduction to Western Pharmacology class to 4th year students

June 2003-Feb 2006

Porter Health Systems Pharmacy Services

Middlebury, VT 05753

Marble Works Pharmacy; Vermont Mail Order Pharmacy; New England Mail Order Pharmacy

- Dispensing, compounding, counseling, drug utilization reviews, demonstrations, drug information for local healthcare providers and patients, and community volunteer projects
- PowerPoint presentations including
 - o Grand Rounds for Porter Hospital-Complimentary and Alternative Medicine
 - Court Diversion-<u>Pharmaceutical Drugs of Abuse and Interactions with Illicit</u> <u>Drugs</u>

 Developed a community-based program to educate the Vermont State Medicare eligible population about the benefit based on ongoing, and updated information;
 Additionally, created a process to handle Medicare specific counseling to patients in the retail portion of our operation

June 2002-May 2003

PharmD Externships

Various Locations

Clinical Rotations include Clinical Research at Novartis; Clinical Pharmacy Practice at the Department of the Army in Ft Meade, MD; HIV/AIDS Pharmacotherapy at Albany Medical Center; Psychopharmacotherapy in the acute unit of the Capital District Psychiatric Center; Institutional Pharmacy Practice at Orange County Medical Center (NY)

Education

May 2003 Albany College of Pharmacy Doctor of Pharmacy Albany, NY 12208

May 1999 Orange County Community College Associates of Science in Chemistry Middletown, NY 10940

Licensure

Registered Pharmacist:

Vermont State: July 2003 (Naplex & MPJE)

State of Hawaii 2006 (MPJE)

Certifications, & Conferences

August 2015	NACDS Train-the Trainer POCT	Aurora, CO
August 2015	NACDS Point of Care Testing (POCT) Certification	Aurora, CO
Oct 2010	Train-the Trainer Immunization Certification APhA	Memphis, TN
Oct 2010	MTM Certification APhA	Memphis, TN
July 2009	Diabetes Certification APhA	Orlando, FL
April 2007	Immunization Certification APhA	Hilo, HI
Dec 2008	CPR	Kamuela, HI
Sept 2005	ISSA Certified Personal Trainer	Orlando, FL
2007-Present	McKesson Idea Share Pharmacy Conference(s)	

Awards, & Achievements

2010	Recipient of the Sully Award of Excellence
	 Highest recognition at Foodland/Sack N Save, Supermarket Ltd.
2001-02	APhA-ASP Albany College of Pharmacy Chapter Student President
	 Largest and most active group on campus
1998	Phi Theta Kappa Society
1998	American Chemical Society Award
	 Outstanding Achievement in Chemistry

Research

2001-02 Glycylglutamine effects on positive place preference of nicotine in rats.

Stratton VA Medical Center, Albany NY

• William R. Millington, Ph.D., Project Leader

Personal

Present	Own and operate a sustainable off-grid family farm	Hakalau, HI
2004	20 hours flight time toward Personal Pilot License	Middlebury, VT



WORK HISTORY

December 2012 - Current: Private Practice Mental Health and Employee Assistance Counselor

- Mental Health Counseling with specialties in treating depression, anxiety disorders and trauma.
- Employee Assistance Counseling to address career direction, workplace concerns and personal challenges. Contractor with several local and national Employee Assistance Programs.
- Wellness Counseling for health-related behavioral concerns.
- Personal Coaching to clarify values and goals and to assist in dealing with life issues such as grief/bereavement, divorce, relationship conflict, job loss, sexuality and self-development.
- Clinical supervision and private practice business consulting for mental health professionals.

Spring 2011 - Current: Lecturer for UH Hilo Psychology Department

Develop curriculum and teach undergraduate level psychology classes using both classroom and online instruction as well as experiential group format. Classes include Introduction to Psychology, Group Psychotherapy, and Psychology of Personality.

June 2009 - August 2012: Counselor at University of Hawaii at Hilo Counseling Center

Duties included:

- · Clinical assessment, counseling and crisis intervention for individuals, couples and groups
- Case management, treatment planning and mental health referrals
- Psycho-educational activities, outreach screenings and mental health presentations
- · Consulting with faculty, staff and mental health professionals regarding students' mental health
- Strategic planning and supervision of staff and interns (as Interim Director in 2011)

Key Accomplishments in Counseling Position:

- Spearheaded development of formal intake process and procedures including consent to treatment, intake assessment and treatment planning.
- Implemented and customized TitaniumSchedule an electronic patient management system for college counseling centers.
- Established relationship with Center for Collegiate Mental Health (CCMH) and arranged for UHH to contribute data to large national study on college student mental health.
- Submitted suicide prevention grant proposal to SAMHSA (a division of HHS), which was funded at \$265,000 for three years.
- Collaborated in development of Hui Kokua, a peer-to-peer student support network with the goals of reducing stigma and facilitating early intervention.
- Developed staff training in emergency protocol, crisis intervention and referral skills.

February 2008 - May 2010: Research Corporation of the University of Hawai'i

Assisted with research, program development, proposal writing and implementation for federally funded projects such as Minority Biomedical Research (MBRS), Research Infrastructure for Minority Institutions (RIMI) and projects to promote minority recruitment and retention in STEM disciplines.

January 2004 - Spring 2007: Research Assistant for Dr. Ronald Amundson at UHH

Areas of inquiry included biological normality as it relates to equal rights for people with disabilities, disability in different cultures and the role of bioethics in setting health care policy.

October 1993 - May 2010: Enterprise Development Consultant

Provided administrative, technical, financial, grant and business proposal writing, and editing services to many successful companies and non-profit organizations in Hawai'i and throughout the United States. Funds received through proposal writing services included 3M for Native Hawai'ian charter schools and 1M for value-added agricultural businesses.

1984 – 1993 Abacus, Inc. San Francisco, CA Chief Executive Officer

Co-founded Abacus, Inc., a computer sales and services business, in 1984. By 1991, the company had reached \$35M/year revenue and employed over 100 workers. Abacus was in the Inc. magazine list of the 100 fastest-growing private companies from 1989 – 1991. Served as CEO and president of Abacus from 1988-1993. Involved in all areas of executive management including business planning, market development, public relations, financing, operations, quality control, vendor contract negotiation, and account management.

EDUCATION

- MA in Counseling Psychology, University of Hawaii at Hilo, 2010.
- BA in Philosophy & Anthropology, 2007

SPECIALIZED TRAINING

- · Cognitive Behavioral Therapies for Depression, Anxiety Disorders and Trauma
- Acceptance and Commitment Therapy
- · Motivational Interviewing for Behavior Change in Addiction, Eating Disorders and Chronic Illness
- · Mindfulness Based Stress Reduction
- Eye Movement Desensitization & Reprocessing (EMDR) for PTSD
- ASIST: Applied Suicide Intervention Skills Training
- Mentors in Violence Prevention: Bystander Intervention Training
- Fundamentals of Distance Counseling: Legal, Ethical and Clinical Considerations

PROFESSIONAL ORGANIZATIONS

- American Counseling Association (ACA)
- Association for Contextual Behavioral Science (ACBS)
- Counseling and Technology Interest Network

PUBLICATIONS

- With Ron Amundson. (2007) "On a Bioethical Challenge to Disability Rights," in Journal of Medicine and Philosophy: A Forum for Bioethics and Philosophy of Medicine, 32:6.
- With Ron Amundson. (2008) "Bioethics and Disability Rights: Conflicting Values and Perspectives," in Journal of Bioethical Inquiry, 5:3.

Experience Aloha Green LLC. – 2011 – Present Co-Owner - Management ⇒ Manage 6-12 employees in a diversified agricultural operation that includes a 40 acre foliage nursery, 50 acre tropical fruit orchard, 400 acre cattle ranch, 10 acre heart of palm orchard and 20 acres of rotating ginger and purple sweet potato crops. ⇒ Comply with Hawaii Department of Agriculture requirements for shipping and certification protocols ⇒ Coordinate the logistics of large container shipments of agricultural products into inter island and mainland markets ⇒ Marketing and sales of all products grown and sold ⇒ Oversight of all accounting, information technology, insurance and employee labor laws. Shropshire Group LLC. – 2011 – Present Co-Owner - Management → Manage 6 residential, commercial and agricultural real estate development projects along the Hamakua coast totally 2800 acres ⇒ Worked directly with County and State Governmental agencies to complete 5 different subdivisions, including 2 water variances, 1 major and 2 minor special management area permits. ⇒ Drafted, executed and managed over 70 land and building leases with 30 tenants currently actively leasing ⇒ Control and manage all business information technologies including company databases, mapping and website Ag-Eco Properties LLC. – 2013 – Present Co-Owner - Management ⇒ Located, guided and solidified the purchase of 513 acres in Pepeekeo, Hawaii through bankruptcy court. ⇒ Management of a 100 head grass fed cattle operation ⇒ Drafted, executed and managed over 10 land leases ⇒ Guided survey team through old Hawaiian deeded language to perform entire property survey and parcel consolidation resubdivision Aloha Pacific LLC. - 2011 - Present Co-Owner - Management ⇒ Management of 200 acres which incudes a 20 acre tropical fruit orchard and 2 agricultural real estate development projects → Worked directly with County and State Governmental agencies to complete a 150 acre, 5 lot agricultural subdivision ⇒ Drafted, executed and managed over 15 land leases Hawaii Life Real Estate Brokers – 2013 – Present Real Estate Salesperson ⇒ Average sales of 1.45 million within 2.5 years with the brokerage ⇒ Currently managing a listing portfolio of 17 active listings totally 6.5 million in value.

⇒ Comply with National Board of Realtors ethics of conduct with no

infringement or infractions on record

	- 1 5 4 1 1 0044 1 0044	
	Bank of America – Merrill Lynch – Jan. 2011 – May. 2011 Internship	
	 ⇒ Prepared financial information and investment portfolios for clients ⇒ Researched securities with the extensive tools provided by the 	
	company to form intuitive investment strategies	
Education		
	Shidler College of Business – University of Hawaii at Manoa Bachelor of International Business and Finance	
	⇒ Gained an extensive understanding of business finance on an international scale and graduated with a 3.8 GPA	
	→ Held an active membership with the Financial Management Association, Hawaii chapter	
	Semester at Sea – University of Virginia	
	Participant in an Academic Voyage Around the World	
	 ⇒ Circumnavigated the entire globe visiting 13 countries ⇒ Obtained a global understanding through life changing 	
	international experiences	
	Hawaii Preparatory Academy – Kamuela, Hawaii High School Diploma	
Organizations		
3 - 3	Howeilan Export Nursam, Association	
	Hawaiian Export Nursery Association ⇒ Board of Director	
	Working to enhance Hawaii's tropical plant industry by working with top growers to come up with solutions to increase our attractiveness in the global market	
	Hamakua Soil Water Conservation District	
	⇒ Board of Director	
	⇒ Helping to establish and maintain the Hamakua community's relationship with the NRCS, and promote proper conservation practices	
	Hawaii Floriculture and Nursery Association	
	⇒ Director of Foliage	
	Rotary Club of South Hilo	
	⇒ Member	
Certifications		
	Hawaii Real Estate Salesperson License	
	Member of the National Association of Realtors	
	University of Hawaii Forest Steward Certificate	
	Teaching English as a Foreign Language Certificate	

, MBA

Profile

Experienced professional with a proven track record of achieving targeted results. Highly motivated self-starter with a passion for communicating the value that companies and organizations bring to customers and stakeholders. Deep expertise includes:

PR strategy development

Brand management

Traditional and social media

Event management

Crisis management

Public speaking

Writing and editing

Fund Raising

Marketing and PR collaterals

Education

Masters of Business Administration, Georgetown University Bachelors of Arts, Public Relations, University of Southern California

Current Position

Managing Principal at SHINE Ventures LLC

SHINE is a boutique marketing and strategic communications firm. Our services center on marketing strategy, public relations, program development and branding.

Healthcare Employment Summary

Healthcare Systems and Hospitals

Hawaii Health Systems Corporation, East Hawaii Region – Director of Marketing Hilo Medical Center, Hale Ho'ola, Kau Hospital

Specialty Healthcare Management – Director of Marketing 35+ psych and medical rehabilitation units within rural hospitals throughout the U.S.

Manor Care Health Services – Director of Marketing Communications Nation's largest nursing home and assisted living company

National Medical Enterprises, Inc./Tenet Healthcare – Assistant Vice President, Communications \$4 billion company operating acute care, psych and medical rehabilitation hospitals, longterm care facilities and outpatient centers

USC Keck Medical Center and USC Norris Cancer Hospital - Consultant

UCLA Medical Center - Publications Editor

Medical Technologies & Policy and Legislative Advocacy

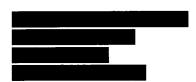
Advanced Medical Technology Association – Vice President, Public Affairs

Trade association for nation's medical technology and diagnostic developers and
manufacturers; worked with members of Congress and their staffs to gain favorable
policy and Medicare coverage of products

GE Healthcare, Siemens, Kodak, Thoratec, Kyphon, Baxter - Consulting clients

Medical Rehabilitation Education Foundation – Executive Director \$2 million industry sponsored campaign to publicize the benefits of physical rehabilitation

Curriculum Vitae

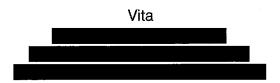


PROFESSIONAL EXPERIENCE

Private Practice as sole proprietor Kona Family Health Center	03/07-12/15
Hospitalist (Founder of program) Kona Community Hospital	01/02-02/07
Partner in Malama I Ka Ola (Holistic Health Center)	01/02-Present
Intensive Care Unit Co-Chair Kona Community Hospital	01/02-02/07
Private Internal Medicine Practice at Kona Community Hospital	12/99-01/02
Instructor, Traditional Chinese Medical College of Hawaii	09/00-09/02
Kealakehe High School Spanish Teacher	01/01-06/01
Internist, Kaiser Permanente Kona Clinic	08/09-12/99
Chief, Department of Medicine, Kona Community Hospital	1996-2000
Certified ACLA Instructor	04/89-02/07
Member, Bioethics Committee, Long Beach Veterans	06/89-06/90
Administration Medical Center	
Member, Quality Assurance Review Committee, Long Beach	06/89-06/90
Administration Medical Center	
Bilingual Teacher, Santa Ana Unified School District	03/86-06/87
Ski Patrolman, Snow Summit Ski Program	11/83-4/84
EDUCATION AND TRAINING	
EDUCATION AND TRAINING	
Internal Medicine Residency Program, University of California,	07/88-07/90
Irvine and Long Beach Veterans Administration Medical Centers	
Fifth Pathway Program, University of California, Irvine	09/87-06/88
Internship, Long Beach Veterans Administration and	12/84-12/85
University of California, Irvine Medical Centers	
Clinical Training, University of California, Irvine and	04/84-12/85
Long Beach Veterans Administration Medical Centers	
M.D. Universidad Central del Este, Universidad Nordestana,	09/79-12/82
CETEC University School of Medicine, Dominican Republic	
P.S. Psychobiology, University of California, Los Angeles	09/74-12/78

BIOGRAPHICAL INFORMATION

My wife and I live on our small coffee farm in Kona, Hawaii, where we raised our three boys. I believe in family and community. I am active in the maintenance of our community's health through coaching sports, teaching, organic farming, and the practice of patient centered functional medicine. I retired from full-time private practice in December 2015.



Areas of Specialty

Sustainable Agriculture, Ecology, Natural Farming, Soil Science, Integrated Pest Management, Farm Business Plan Development, and the Modern Hawaiian Agriculture System.

Current Academic Status

Graduating student at the University of Hawaii at Hilo in the Tropical Conservation Biology and Environmental Science Graduate Program where I have just completed the requirements for Masters of Science with an Agricultural Ecology Specialty.

Education

08/2011 B.S. in Tropical Plants and Soil Sciences

University of Hawaii at Manoa

12/15 M.S. in Tropical Conservation Biology and Environmental Science.

University of Hawaii at Hilo

Awards

2010 Kenneth Cassman Scholarship Award for Academic Excellence Recipient

2010 Charles Chu Hing Endowed Scholarship Recipient

2012 Great Lakes National Scholarship Recipient

Thesis Proposal Abstract

"Indigenous Microorganism 4 (IMO 4) as a soil inoculant"

A large group of farmers in Hawaii have recently begun practicing Natural Farming which utilizes indigenous microorganisms (IMO) and naturally derived soil amendments to improve soil quality and plant health. However, the practical and commercial use of these techniques have not become more popular in the agriculture community due to a dearth of peer reviewed reports that exist on the subject. Because of this lack of scientific data discussing Natural Farming, this research proposal addresses the need for scientific research that investigates the dynamics of IMO inoculated Natural Farming materials, and the effect of this practice on the production of *Zea Mays* under controlled conditions. The first objective of this proposal is to conduct physical, chemical, and biological analysis of 6 samples of IMO 4 which is produced along an elevation gradient measuring from sea level to 900 m of elevation. The second objective is to conduct a controlled environment experiment which will observe the effect of each IMO 4 replication on the leaf area, crop yield, and mineral content of *Zea Mays*. The third objective is to determine the effect of IMO 4 on agricultural soils, by comparing soils which have been inoculated to those who have not.

Research Interests

My research interests include the use of sustainable farming techniques that utilizes site specific indigenous soil and plant microorganisms as a source for agricultural nutrients, has been used to decrease crop pathogen infestation, and has been used to increase microbial metabolic activity. I would also like to research sustainable farming practices as a tool in the bioremediation of eroded, sodic and other agricultural soils. Most of my techniques also utilize locally available and site specific materials, which are sourced from agricultural by-product and organic waste materials. Currently, these techniques types are being practiced by over 100 farmers in Hawaii. This is where I would like to study the environmental, economic, and sociological implications of using these practices. I would use the isolated environment of the islands as a model for other areas of world with unique political, economic and geographic issues which prevent the development of a sustainable agricultural system.

In addition to sustainable tropical agricultural practices, my research interests include discovering new types of cover crops for tropical soils, vermicompost production as a waste management tool, native crop production in

Hawaii, molecular ecology, microbial ecology, integrated pest management, entomology, and increasing the sustainability of the Hawaiian system through education programs.

Research and Laboratory Experience

I began my research and laboratory experience working with Dr. Theodore Radovich in the Sustainable Farming Systems Laboratory at the University of Hawaii at Manoa. I worked as a field lab assistant at the university's Waimanalo Experimental Research Station, which is a large farm experiment site where faculty and extension agents from the College of Tropical Agriculture and Human Resources conduct field trials. At this location, I designed and maintained organic agriculture experimental plots for use in research, as well as collected data for analysis. Specifically, I worked as a field lab assistant on the experiment which was referenced in the report titled ,"Pak choi (Brassica rapa, Chinensis Group) yield, phytonutrient content, and soil biological properties as affected by vermicompost to water ratio used for extraction" (Pant et al., 2012) which was published in HortScience.

While working on my masters degree at the University of Hawaii at Hilo, I worked with Dr. Bruce Mathews, a soil scientist and Dean of the College of Agriculture, Forestry, and Natural Resource Management on his research project studying marshland soils and the dynamics of phosphorus within anaerobic conditions. For a period of four months, I worked as a lab technician for this project at the university's Analytical Laboratory, under Lucas Mead and Tara Holitzki Laboratory Manager.

Under the advice of Dr. Norman Arancon, I have also competed my masters degree thesis project titled "Indigenous microorganism 4 (IMO 4) as a soil inoculant" In this experiment, I am observing the effects of a natural farming soil amendment, called IMO 4, on the growth, plant tissue nutrient content, and biomass production of corn. In this experiment, I have personally conducted the soil and plant tissue analysis. These analyses include total nutrient content, extractable cation exchange capacity, dehydrogenase enzymatic activity, and microbial carbon dioxide respiration. I am submitting several papers for publication based on this project and these are expected to be released in late 2015 and early 2016.

Teaching Experience

Since the summer of 2012, I have been working at Hawaii Community College as the Agriculture Program Coordinator and Agriculture Instructor for the Office of Continuing Education and Training, which is a grant funded division of the college that provides high quality, extension classes to the community. Through this office, I have over 500 hours of Hawaiian agriculture teaching experience. I have designed and taught several different non-credit course series for this group including: Business Plan Development Training For Farmer, Natural Farming, Keaukaha Panaewa Farmers Association CORE Agriculture and Business Skills, Agriculture Science Series, Horticulture Operation Preparation, and Hawaiian Agriculture Skills. Each of these course series consist 4-8 hour classes for 3-12 weeks. For curriculum development of these programs, I have built on my personal knowledge and community needs assessments. I purposely designed these course to excite, stimulate, and motivate the students to be successful, despite any social or economic set backs they may have. When teaching, I strive to be entertaining, engaging, and interesting for the students. My utilization of media, applicable stories, and real world scenarios allows me to engage the students no matter what the demographic.

Additional Graduate Coursework

Directed Studies Courses: Natural Farming for Hawaii, Laboratory Soil Analysis, Curriculum Development of Agriculture Courses

Electives: Microbial Ecology, Tropical Organic Crop Production, Plant Pathogens, Geographic Information Systems, Enterprise Management, Vegetable and Tropical Fruit Crop Production, Research Methodology

Publications/Works-In-Progress

I recently finished my masters research project titled "The Physical, Chemical, and Biological Properties of IMO 4 Soil Inoculant and Its Effect on Plant and Soil Health". Four papers have been/will be submitted for publication in the Fall 2015. The first paper "Natural Farming: A Review" is a literature review discussing the history, design, and adaptation of natural farming techniques in field application and research, was submitted to Compost Science and Utilization. The second publication "The Physical, Chemical, and Biological Properties of Indigenous Microorganism 4

(IMO4) Soil Inoculant" details the specific properties of a commonly used natural farming soil inoculant. This piece will submitted to Agriculture, Ecosystems, and Environment in December 2015. The third publication titled "The Effect of IMO 4 on the Physical, Chemical, and Biological Properties of Andisol Soil and the Growth and Production of Corn (Zea mays)" describing a comprehensive greenhouse experiment observing the effects of IMO 4 on soil dynamics and plant health. This paper will be submitted to Hortech in January 2016. A forth paper titled "The Effect of IMO 4 as an Organic Fertilizer Enriched Compost on the Growth and Production of Corn (Zea mays)" describes a greenhouse experiment conducted on corn, observing the effect of IMO 4 that had been enriched with organic fertilizers. This piece will be submitted to The Journal of Plant Nutrition in March of 2016.

Presentations/Seminars/Workshops

"Business Plan Development Training For Farmers." A comprehensive workshop organized by the Office of Continuing Education and Training at Hawaii Community College which is designed to teach farmers on the Big Island of Hawaii how to succeed as an agriculture business. Presented 8/12-10/12 at the North Hawaii Education and Research Center in Honokaa, HI, on 10/12-2/13 at Hawaii Community College in Hilo, HI, and from 08/13-12/13 this class was offered in Hilo, Honokaa, Kona, Hawi and Pahoa simultaneously. Additional cohorts of this class are scheduled to begin in April, June, and August of 2014.

"Agriculture Skills CORE: Keaukaha Panaewa Farmers Association" A series of courses offered by the Office of Continuing Education and Training at Hawaii Community College which are designed to teach native Hawaiian Farmers comprehensive agricultural and farm management skills. Presented from 5/13-11/13 at Hawaii Community College in Hilo, HI.

"Business Plan Development for UPLOAD JOBS Program" This workshop was conducted at the University of the Philippines in Los Banos in January of 2014. The University of Hawaii at Manoa invited me to lecture business plan development to a group of students and faculty from Southern Christian College in Cotabato and various youth organizations from Mindanoa. Over four days, the students learned about how to draft a proper agricultural business plan and present their ideas to potential funders.

"Hawaiian Natural Farming" is a workshop series offered by the Office of Continuing Education and Training at Hawaii Community College detailing the growing interest in Hawaiian Natural Farming practices. Students are not only taught how to produce Natural Farming amendments but why these amendments are used. This class is designed to explain the science behind Natural Farming to help local farmers understand the plant and soil dynamics going on on in a naturally farmed area. Students also learn how to apply these amendments and when to use specific materials and practices to correctly utilize this sustainable farming system. These classes have periodically been offered since the summer of 2013.

"Natural Farming: An Alternative Approach to Sustainable Agriculture" was a lecture presented at the 2014 Pacific Island Sustainability Conference in Guam. Conference attendees learned how natural farming practices can improve plant and soil health and the importance of of indigenous microorganisms biodiversity. My graduate research project was also detailed during this lecture.

"Agriculture Series" A series of classes supporting the science behind farming. Students actively learn about soil science, botany, microbiology, entomology, and nematology. In an effort to increase the knowledge of local farmers, these classes take the confusing parts of these agricultural sciences, breaks them down to easily understood concepts, and presents them in an entertaining and stimulating manner.

Professional Experience in Agriculture and Education

7/15 - Present University of Hawaii at Hilo

College of Agriculture, Forestry, and Natural Resource Management

200 W. Kawili St. Hilo, HI 96720-2700

Position: Professor

3/15 - Present Hawaii Community College

Office of Continuing Education and Training 200 W. Kawili St. Hilo, HI 96720-2700

Position: Instructor

11/13 - 12/13 Community College Career Training Grant

Hawaii Community College

200 W. Kawili St. Hilo, HI 96720-2700

Position: Farm Coordinator for C3T-1 Grant, Curriculum Reviewer

05/12 - 12/13 Rural Development Project

Hawaii Community College

Office of Continuing Education and Training 200 W. Kawili St, Hilo, HI 808-934-2700

Position: Agriculture Program Coordinator, Curriculum Developer and Instructor

08/07 - Present Kupono Mahi Research and Consultation Services

46-3885 Pu'aono Rd, Honoka'a, HI 312-498-3716

Position: Owner

07/11 - 08/11 Hawaiian Cloud Forest Estate Coffee

45-3523 Kahana Dr, Honoka'a, HI 808-936-3188

Position: Intern, Plant and Soil Specialist

12/09 - 05/11 Research Corporation of the University of Hawaii

UH Waimanalo Agriculture Research Station

41-698 Ahiki Street, Waimanalo and Sustainable Farming Systems Laboratory

3190 Maile Way, St. John 102, Honolulu, HI 808-956-7909

Position: Field Lab Assistant

05/10 - 12/10 Sharon's Plants

41-614 Waikupanaha Street, Waimanalo, HI 808-259-7137

Position: Intern, Plant and Soil Specialist

Additional Work Experience

08/08 - 08/11 Captain Bruce's Scuba Charters

86-22 Moeha Street, Waianae, HI 808-373-3590

Position: Dive Master

Professional and Academic Associations/Affiliations Community Involvement

American Society of Agronomy, member since 2009
Crop Science Society of America, member since 2009
Soil Science Society of America, member since 2009
Hawaii Organic Farmers Association, member since 2010
Natural Farmers of Hawaii, member since 2011
Know Your Farmer Alliance, member since 2011
Puna Pono Alliance, member since 2013

Professional References

Deborah Shigehara

Interim Director, Hawaii Community College, Office of Continuing Education and Training Supervisor

200 W. Kawili Street, Hilo, Hawaii 96720-4091 (808) 934-2516 deborahs@hawaii.edu

Dr. Theodore Radovich

Associate Specialist, University of Hawaii at Manoa, College of Tropical Agriculture and Human Resources, Sustainable and Organic Farming Systems Laboratory

Supervisor and Professor

3190 Maile Way, St. John 102, Honolulu, Hawaii 96822 (808) 956-7909 theodore@hawaii.edu

Dr. Norman Arancon

Assistant Professor of Horticulture, University of Hawaii at Hilo, College of Agriculture Forestry and Natural Resource Management

Academic Advisor and Professor

200 W. Kawili Street, Hilo, Hawaii 96720-4091 (808) 932-7030 normang@hawaii.edu

Dr. Bruce Mathews

Interim Dean, University of Hawaii at Hilo, College of Agriculture Forestry and Natural Resource Management Graduate Committee Member

200 W. Kawili Street, Hilo, Hawaii 96720-4091 (808) 932-7038 bmathews@hawaii.edu

Dr. Kheng Cheah

Associate Specialist, University of Hawaii at Manoa, College of Tropical Agriculture and Human Resources, Nursery Management

Co-worker and Professor

3190 Maile Way, St. John 108, Honolulu, Hawaii 96822 (808) 956-7902 kheng@hawaii.edu

Michael DuPonte

CTAHR Extension Agent, Komohana Extension Office

Co-worker

875 Komohana Street, Hilo, HI 96720

OBJECTIVE

Employment at Lau Ola

Director of Production

EDUCATION

Bachelors Degree in General Media and Minor in Spanish

2010-2015

Pacific University, Forest Grove, OR

WORK EXPERIENCE

Patient Consultant and Receptionist

Urban Pharm, San Francisco, CA

1/16-present

- •Assisted up to 30 patients with medicinal Cannabis product selection daily
- •Responsible for record keeping, HIPPA compliance, identification approval of every patient who enters dispensary premises

Founding member and Lead Project Coordinator

11/15- present

Paka Connoisseur Cannabis, Sonoma County, CA

- •Learned California Cannabis Industry law including the MMRSA, Prop 215 and SB 420
- •Manage start-up projects including but limited to the acquisition of property and legal consul

Freelance Cultivation Technician

9/15-11/15

Scully Farms, Jackson, CA

- •Managed crew of 9 in cultivation, harvesting, processing projects
- •Performed Trimming, Harvesting, and Quality Control duties at medicinal cultivation site

Founding member and Lead Project Coordinator

10/14-10/15

NutraSol Holdings, Big Island, HI

- •Experienced in Cannabusiness start-up components and strong interest in obtaining operational skills
- $\bullet 1\frac{1}{2}$ years of Cannabusiness knowledge including understanding of government compliance in multiple states in both the adult-use and medicinal Cannabis subcategories

Indoor Grower

Self-Employed, Oregon, USA

9/14-5/15

Mastered indoor soil growing concepts and techniques

•Managed 30 plants from seed to finished product

Carpenters Apprentice

6/14-8/14

Haven Contracting, Novato, CA

- Acquired basic design skills
- •Utilized Spanish to coordinate completion of projects with co-workers

Promoter

1/14-4/14

Sala Cosmos, Seville, Spain

- •Acquired interpersonal communication skills making use of trilingual abilities
- •Promoted up to 3 events to 50+ international strangers per week

Lava Tour Guide

5/13-8/13

Kalapana Cultural Tours, Kalapana, HI

- Learned occupational safety
- •Responsible for the safety and entertainment of up to 30 individuals per tour over 5+ miles of lava fields

Founder and General Manager

5/11-8/12

The Warehouse, Kamuela, HI

- •Established an underground music nightclub 80+ guests per event
- Obtained basic business management skills

Field Technician

5/12-7/12

Three Mountains Alliance, Volcano National Park, HI

- •Learned basic pest management, horticulture, botany, and applicable OSHA standards
- •Worked on 300+ acre parcels propagating dozens of native plant species

Houseman

5/11-8/11

Four Seasons Resort, Hualalai, HI

- Learned basic customer service and hospitality skills
- •Serviced up to 30 guest rooms per day

Outdoor Grower

8/9-6/10

Self-Employed, Big Island, HI

- •Studied Cannabis horticulture, pharmacology, and botany in order to produce high quality medicinal Cannabis
- •Identified the needs of 40 patients in order to suggest appropriate strains and products

REFERENCES

Niall Scully

•Relationship: Supervisor at Scully Farms

Ricky Heaven

•Relationship: Supervisor at Heaven Contracting

Andrew Christie

•Relationship: Supervisor at Volcanos National Park

Appendix 1.4

- Multimedia
- Features
- Sports
- · Research News
- People
- Campus News

Search

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2011 Distinguished Alumni Awards

April 25th, 2011 | by Alumni Relations Staff | Published in UHAA News | 2 Comments

Join the University of Hawai'i Alumni Association and guests in celebrating recipients of the 2011 Distinguished Alumni Awards on May 12, 2011, at the Sheraton Waikīkī Hotel.

The awards event includes dinner, entertainment and a silent auction; proceeds support UHAA scholarships and benefit association programs. For details or to make reservations, visit <u>the website</u>, call 808 956-2586 (toll-free 1-877-842-5867) or email <u>events@uhalumni.org</u>.

Meet the awardees

L. Tammy Duckworth



L. Tammy Duckworth (BA in political science '89 Mānoa) is assistant secretary for public and intergovernmental affairs at the U.S. <u>Department of Veterans Affairs</u> and a major in the <u>Illinois Army National Guard</u>.

An attack on the Black Hawk helicopter she was co-piloting in Iraq resulted in the loss of both of her legs and partial use of one arm. Since recovering, Duckworth has testified on disability rights and veterans before Congress and delivered a key address on veterans' rights at the 2008-Democratic National Convention.

1/29/16, 5:04 AM



Richard Ha (BBA in accounting '73 Mānoa) is founder and president of <u>Hāmākua Springs Country Farms</u>, a 600-acre family operation on the Island of Hawai'i that sustainably produces bananas and hydroponic vegetables.

A former U.S. Army captain and Vietnam War veteran, he started growing bananas on his father's chicken farm at Waiākea Uka and started several businesses over the years. He serves on the Hawai'i Island Economic Development Board, represents the County of Hawai'i on the state Agriculture Executive Board and co-chairs the Geothermal Working Group.

A 2008 <u>Shidler College of Business</u> Hall of Honor inductee, he has served on advisory boards for Mānoa's <u>College of Tropical Agriculture and Human Resources</u> and <u>UH Hilo</u> and organized community support for UH's proposed \$1 billion Thirty Meter Telescope project on Mauna Kea.

Elected to the Social Science Association, an organization of community leaders, Ha speaks frequently on agriculture and sustainability and promotes hydroelectric energy on the Big Island.

John T. Komeiji



John T. Komeiji (BEd in secondary education and political science '75 Mānoa) is senior vice president and general counsel of <u>Hawaiian Telcom</u>, overseeing legal, governmental and external affairs.

Formerly a senior partner with Watanabe Ing and Komeiji, he litigated complex commercial, personal injury and professional liability cases and represented the National Football League, Viacom, Dole Foods, First Hawaiian Bank and other clients. He is an arbitrator and master mediator and founding board member of the Hawaii Institute for Public Affairs.

Past president of the Hawai'i State Bar Association and a lawyer representative to state and federal judicial conferences, he is active in numerous professional organizations and has served on the boards of several for-profit and nonprofit organizations, including the UH Foundation. He taught pretrial litigation in the William S. Richardson School of Law, where he received the 2002 Co-Adjunct Professor of the Year Award.

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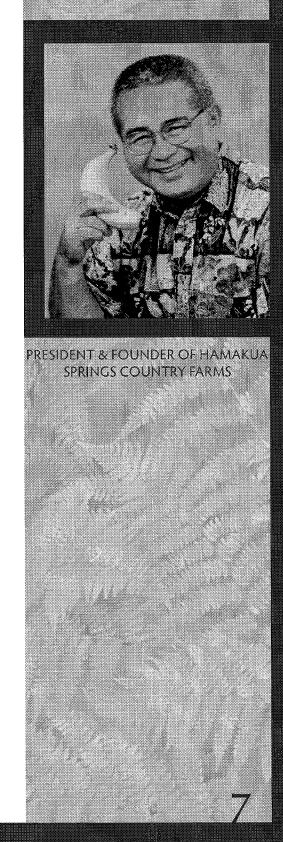
RICHARD HA

RICHARD HA is the president and founder of Hamakua Springs Country Farms. His company, formerly Kea'au Banana Plantation, is a vast 600 acres of fee simple diversified agricultural land located in Pepe'ekeo on the Big Island. With 500 acres in bananas and approximately 20 acres devoted to hydroponic vegetable production, Ha believes in sustainable farming and takes into account the long term well being of employees, the community and the environment. As a businessman, Ha recognizes the energy issues of the future and is developing a hydro-electric project and a bio-fuel project in anticipation of higher oil prices.

Recognized by the Rainforest Alliance headquartered in New York City, with branches throughout Central America, Ha was presented with The ECO O.K. award for the first banana company in the world to use sustainable banana farming operations. Additional recognitions include being one of six national finalists for the Patrick Madden Sustainable farming award, the 2006 Farmer of the Year award by the State of Hawai'i, and the 2008 Junior Achievement Business Hall of Fame award.

Ha is also an active supporter of the local community. He serves on the boards for Hawaii Island Economic Development, Hawaii Island Chamber of Commerce, The Kohala Center, Hawaii Community College Advisory committee, Keahola STEM program at UH Hilo, and the Hawaii County Energy Advisory Commission.

Ha holds a BBA degree from the College.



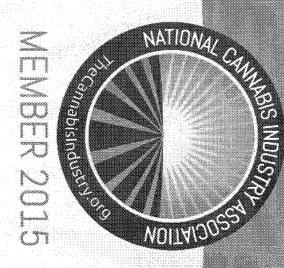
About the University of Hawai'i at Mānoa Shidler College of Business

Established in 1949 as the College of Business Administration, the College was named in 2006 after alumnus Jay H. Shidler, founder and managing partner of The Shidler Group. The Shidler College of Business is reknowned for its expertise in international management education and is consistantly ranked among the nation's top 25 graduate schools for international business by U.S.News & World Report. Long recognized for its Asia-Pacific focus, the College is a professional school, offering a wide variety of degree, certificate and executive programs. The College places a strong emphasis on the development of management skills, entrepreneurship and the management of business information technology. The UH Shidler College of Business is the only graduate program in the State of Hawai'i accredited by AACSB International.

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For photos and video www.shidler.hawaii.edu/hallofhonor



consistent with the highest of community standards. the association, Lau Ola has agreed to ensure that all business practices are ethical, responsible, and Lau Ola has joined businesses across the country in supporting the lobbying, public advocacy and industry-building activities of the National Cannabis Industry Association. Through its membership with

F. Aaron Smith

NCIA Executive Director

December 2015

Date

The mission of the National Cannabis Industry Association is to promote the growth of a responsible and legitimate cannabis industry and work for a favorable social, economic and legal environment for that industry in the United States

This voluntary industry code of conduct sets out specific standards of conduct for members of the national cannabis industry with respect to the manner in which they deal with other members and their customers. All NCIA members agree to adhere to this code as a condition of membership.

The National Cannabis Industry Association (NCIA) recognizes that the manner in which members conduct business reflects upon the professionalism of the entire cannabis industry. Therefore, upon acceptance into membership, NCIA requests that members abide by the NCIA Pledge and Code of Conduct in word, action, and with the spirit of integrity that is at the core of these principles.

Members of the National Cannabis Industry Association demonstrate their commitment to the profession, to society and to their peers by pledging to uphold and abide by the following standards:

- We shall conduct our businesses and ourselves in an honest and dignified manner, reflecting our adherence to the laws that govern our operations.
- Given the high profile of the cannabis industry and the scrutiny under which we operate, we commit to appearing and acting professionally in order to reflect a positive image for the industry and promote our profession.
- We will strive to educate ourselves, our constituents, and our clients about the most current research and practices available to the industry.
- We agree that safety, training, and education are of the utmost importance in maintaining a professional workforce. We pledge to provide for the safety and training of employees to ensure a healthy work environment. We will endeavor to grow our work force through training and employee development.
- We shall respect the views, ideas and contributions of our peers. Open and honest communications and the sharing of ideas and experiences are critical components in the early development of the cannabis industry.
- To the greatest extent possible, we shall obtain and maintain all state and local licenses required by applicable state and local law to engage in any aspect of the cannabis industry.



Appendix 1.5

CURRICULUM VITAE



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Dr. P.H. U.C. Berkeley, Emphasis in Health Policy, Planning and Administration, 1978

M.P.H. U.C. Berkeley, Major field of study: Health Planning and Administration, 1975

B.S. San Diego State University, Major field of study: Business Administration, 1969

EMPLOYMENT HISTORY

2015 – Present President, Global Advisors on Drug Policy, Treatment and Prevention Strategies – I provide consultation to programs across the United States and Internationally

2015 - Present Consultant to the San Francisco 49ers - Supported work on "Team Development."

2015 – 2016 Head of School at Mount Tamalpais School – Serving as Interim Head of K-8 school I co-founded in 1976 – while the school conducted a national search for a permanent

head. Oversaw \$7 million dollar budget, 50 faculty and staff and 240 students.

1998 – Present President, California Mentor Foundation -- Founded CMF, built first ever statewide website to support over 500 mentoring programs. Convened annual summit, conducted two largest surveys ever done on benefits of mentoring, wrote three books profiling the "mentoring movement", raised over one million dollars for grants CMF made to local programs. Assisted the White House in designing the President's two

hundred million dollar mentor initiative.

1991 – 1998 Director, State Department of Alcohol and Drug Programs; Chairman, Governor's Policy Council and Drug and Alcohol Abuse—Directed a department of over 400

employees, with a budget over \$600 million, Chaired the Governor's Drug Policy Council. Served as President of the National Association of State Drug Czars and served as Chairman of the California Commission on Service. Was the architect for the California Mentor Initiative. Assisted twenty other Governors in replicating this

model.

1978 – 1991 Executive Director, California Health Research Foundation—Founded CHRF for the

primary purpose to further state and national efforts in effective prevention and health promotion efforts for young people. Published eight books on effective strategies for youth development. Became a lead consultant for the United States Information Agency, sharing this research with a dozen countries, including China,

India, Spain, England, Malta, etc.

1975 – 1986 Chief, Alcohol and Drug Services, Marin County—Upon returning from administering the Drug Program in Vietnam and setting up one of the first treatment

administering the Drug Program in Vietnam and setting up one of the first treatment programs in California, I was invited by County officials to design and implement a

comprehensive treatment as	d prevention	system for	Marin	County.	I administered
this system for eleven years					

- 1978 1985 Adjunct Faculty: Antioch University West, San Francisco State University—I taught a series of graduate courses on strategic planning, research methods, and fiscal management for nonprofits.
- 1973 1975 Director, Marin County TASC Program—With a one million dollar White House grant, I developed the first Treatment Alternative to Street Crime program in California. This program diverted young people from the criminal justice system into treatment. This program became a model that the Justice Dept then invested one hundred million dollars in to replicate nationwide. This program also provided the architecture for what has become the "Drug Courts".
- 1972 1973 Captain, Army Medical Service Corps: Administrative Director, Drug Treatment Services, Vietnam Military Decorations: Bronze Star Medal; Army Commendation Medal; National Defense Service Medal; Vietnam Service Medal—Administered the Drug Operation Center that supported two hospitals and, fourteen in-country rehab centers.
- 1969 Present Consultant to substance abuse programs in China, Taiwan, Australia, Thailand, Pacific Rim, Europe, India, Jordan, Israel, Spain, Holland, Malta, and the United States
- 1975 Present Guest Speaker at University of Alaska Spring Institute, U.C. San Diego, UCLA, U.C. Berkeley, University of Washington and Harvard University Programs in Alcoholism and Drug Abuse

REQUESTED PRESENTATIONS

- Between 1991 and present, presented frequent keynotes throughout California and the U.S. on Drug Policy prevention strategies and mentoring
- Twenty-day lecture series for United States Information Agency to China and Taiwan, August 1992
- Keynote Rotary International Conference, San Francisco, July 1992
- * Keynote, Operation PAR, 5th National Conference on Substance Abuse, Clearwater, Florida, 1992
- Presentation, World Conference of Therapeutic Communities, Montreal, Canada, 1991
- ★ Keynote, 93rd Annual League of Cities Conference, 1991
- Keynote, 7th Annual State Conference, Californians for Drug-Free Youth, September 1990
- Keynote, Jordan's Symposiums on Drug Abuse Prevention, 1990
- * Keynote, Malta's Symposiums on Drug Abuse Prevention, 1990
- Keynote, Holland's Symposiums on Drug Abuse Prevention, 1990

- Keynote, Israel's National Conference on Drug Abuse Prevention, 1990
- * Keynote, Spain's National Symposium on Drug Abuse, 1990
- * Keynote, India's National Symposium on Drug Abuse Prevention, November 1988
- Keynote, Bahamian Conference on Drug Abuse Prevention, October 1988
- Keynote, South Pacific Conference (Samoa) on Drug Abuse Prevention, August 1988
- Presentation, White House Conference on Drug Abuse, Washington, D.C., February 1988
- * Keynote, for Governor's Conference on Prevention in the Workplace, Northern and Southern California Conferences, 1988
- Keynote, Oregon Conference on Drug Prevention in the Workplace, 1988
- Keynote, National Conference on Self-Esteem, St. Louis, Missouri, 1988
- Keynote, for schools, parent and service organizations regarding drug abuse and self-esteem (1970 present)
- Guest on local and national television and radio programs, discussing prevention and mentoring (1970 - present)

PUBLICATIONS (BOOKS) . A Plan for Life, CMF, 2011 Twelve Steps to Eighteen Holes, CMF, 2009 Lifeplan, CMF, 2009 Mentoring Works, CMF, 2006 The Mentoring Revolution, CMF, 2003 101 Reasons To Be A Mentor, CMF, 2000 Prevention in the Workplace, (TBP) 2000 The Social Importance of Self Esteem, U.C. Press, 1989 Prevention 2000, CHRF Pub., CA 1988 Prevention Action Plan for Alcohol Related Problems, CHRF Pub., CA 1984 Comprehensive Alcohol and Drug Abuse Prevention Strategies, CHRF Pub., CA 1983 The Future of Alcoholism Services: Proceedings of Think Tank II, CHRF Pub., CA 1983

The Future of Alcoholism Services: Proceedings of Think Tank II, CHRF Pub., CA 1982

Promoting Health: A Challenge to America, CHRF Pub., 1982

Alcoholism in America: A Modern Perspective, CHRF Pub., CA 1979

PUBLICATIONS (Articles)

Community Coordination: A Prerequisite to Developing a Treatment Alternative Program for Drug Abusers. Published Proceedings of 1974 National Drug Abuse Conference, Chicago, Illinois, 1974

Metamorphosis of a Client. A film documentary presented at the first Annual Health Multi-media Fair and Film Festival, U.C. Berkeley, 1974 Community Coordination: A Prerequisite to Program Design. Contemporary Drug Problems Law Journal, Fall, 1974

<u>Primary Prevention – An Ode to the Future</u>. Contemporary Drug Problems Law Journal, Spring, 1976

<u>Prevention vs. Treatment</u> Journal of Community Health, Vol. 2, No. 1, Fall, 1976

<u>Does TASC Work?</u> "An Evaluation of the Marin TASC, Program Documents Its Effectiveness," Offender Rehabilitation Journal, Vol. 1, No. 1, Spring, 1977

Relation of Stressful Life Events in Childhood to Adult Drug Addiction:
Some Initial Findings from a Small Sample of Adult Clinical Subjects.
America Journal of Orthopsychiatry, 1977

<u>Criminal Justice – Health Care Interface: Historical Perspective and Future Implications.</u> Offender Rehabilitation Journal, Vol. 2 (3), Spring, 1978

COMMISSIONED STUDIES

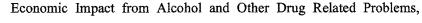
Mentoring Works, California Mentor Foundation Pub. CA, 1999

Alcohol and Drug Abuse Prevention in the Workplace, CHRF Pub., CA, 1987

Economic Impact from Alcohol and Other Drug Related Problems, Marin County, California, 1982

Economic Impact from Alcohol and Other Drug Related Problems, Alaska, 1983-84

Economic Impact from Alcohol and Other Drug Related Problems, Alameda County, California, 1983-84



State of Michigan, 1983-84

Cost Containment Strategies and Implications for Business, 1984

Alcohol Services Effectiveness Study, San Luis Obispo County,

California, January 1985

COMMUNITY ACTIVITIES

2006 - Present	Trustee, The Ohana Foundation, Kona, Hawaii
2006 - Present	Trustee, National Endowment for Financial Education
2005 -	Board of Trustees, Fort Mason Foundation
2000 – 2002	Board Member, United States Anti Doping Agency (founded by USOC)
1999 - Present	Board Member Olympic Club Foundation
1998 - Present	President, California Mentor Foundation
1997 – 1998	Chair, Drug Audit Committee, USOC
1994 – 1998	Chair, Calif. Commission on Improving Life Through Service
1994 – 1995	President. National Ass. of State Drug Czars
1989 – 1990	Board Member, Marin Conservation Corps
1988 - 1990	Board Member, Oceanic Society, SF, CA
1987 – 1990	Chair, Calif. Task Force on Self Esteem
1986 – 1990	Board Member, Calif. Prevention Network
1985 - 1990	VP and Co founder National Prevention Network
1983 – 1985	President, Marin Maternal, Child and Adolescent Health Board
1978 - 2014	President, Board of Directors, Calif. Health Research Foundation
1976 – 2015	Member, Board of Directors, Mount Tamalpais School
AWARDS	
2015	"Educator of the Year" Marin County, California
1996 - 2015	Awards for work in mentoring and youth development
1996	Governor's Award- National Association of Prevention Professionals
	and Advocates
1995	Humanitarian of the Year," Haight Ashbury Free Clinic, San Francisco,
	CA
1995	"Leadership of the Year," NASADAD, Chicago, IL
1994	Runner's World Golden Shoe Award

	
1994	"Career Achievement" Award by NASADAD at 25 Year Anniversary
	Conference
1993	"AL-Impain" Man of the Year for California
1982 – 1995	Resolutions of Commendation from California State Senate, California
	Assembly by Marin County Board of Supervisors and Los Angeles County Board of
	Supervisors
1972 -1995	Selected Awards from Treatment and Prevention program and service organizations
1972	Bronze Star for service in Vietnam
1964-1969	Who's Who in Colleges and Universities
ATHLETIC ACHIE 1995	VEMENTS Olympic Club Tennis "Grand Prix" award winner 1994, 1995, 1997, 1999, 2002, 2003, 2006
1989	Participated in "TRANSCON '89", a nonstop relay from San Francisco to Washington, D.C. (3,017 miles)
1986	Participated in "TRANSCON '86", a nonstop relay from San Francisco to Washington, D.C. (3,017 miles)
1982	Finished in top 40 percent of Ironman Triathlon in Hawaii (13 hr., 30 min.)
1981	American River "50" (50-mile run Sacramento to Auburn, California)
1971 - 2004	50 marathons (including Boston 100 th)

EDUCATION

Ph.D., Horticulture and Crop Science, The Ohio State University, 2004.

M.Sc., Horticulture, University of Hawaii, Manoa, 2000.

B.Sc., Horticulture, University of Hawaii, Manoa, 1994

PROFESSIONAL POSITIONS

Associate Specialist, Department of Tropical Plant and Soil Sciences, University of Hawaii at Manoa.8/12-Present.

Assistant Specialist. Department of Tropical Plant and Soil Sciences, University of Hawaii at Manoa 3/09-7/12

Assistant Researcher, Department of Tropical Plant and Soil Sciences, University of Hawaii at Manoa. 8/06-3/09.

Assistant Researcher, Department of Natural Resources and Environmental Management, University of Hawaii at Manoa. 8/05-7/06.

Project Coordinator USAID Hawaii-Iraq Education Partnership for Agricultural Higher Education and Development, College of Tropical Agriculture and Human Resources, University of Hawaii. 11/04-8/05. **Graduate Research Assistant**, Department of Horticulture and Crop Science, The Ohio State University. 9/00-8/04.

Graduate Research and Teaching Assistant, Department of Tropical Plant and Soil Science, University of Hawaii, 1/98-8/00.

Nursery Production Assistant, Hawaiian Sunshine Nursery, Waimanalo, Hawaii. 1/97-9/97. Agroforestry Extension Agent, The Gambia, West Africa, U.S. Peace Corps. 7/94-9/96.

RESEARCH

Area of Specialty:

Ecology, yield and quality of food crops.

SELECTED PUBLICATIONS (last 5 years):

Invited Book Chapters:

- 1. **Radovich, T**, A. Pant, A. Ahmad, C. Elevitch and N. Hue. 2014. Enhancing soil Function and Plant Health with Locally Available Resources. In: C. Elevitch (ed.) Food-Producing Agroforestry Landscapes For Hawaii. Permanent Agriculture Resources (PAR), Hōlualoa, Hawaii.
- 2. **Radovich, T.J.K.** 2011. Biology and Classification of Vegetables. Chapter 1 in: Handbook of Vegetables and Vegetable Processing. Wiley-Blackwell, Iowa.
- 3. **Radovich, T**. 2011. Pumpkin and Squash (*Cucurbita* spp). Pp. 341-354 in: C.R. Elevitch (ed.). Farm and Forestry Production and Marketing Profiles for Pacific Islands. Permanent Agriculture Resources (PAR), Hōlualoa, Hawai'i.
- 4. **Radovich,** T. 2011. Moringa (*Moringa oleifera*). Pp. 329-340 in: C.R. Elevitch (ed.). Farm and Forestry Production and Marketing Profiles for Pacific Islands. Permanent Agriculture Resources (PAR), Hōlualoa, Hawai'i.
- 5. **Radovich, T.J.K.** 2010. Cabbage Flavor. Chapter 38 in: Handbook of Vegetable Flavors: Commodities, Products, Spices and Edible Oils. John Wiley and Sons, New York.

Refereed Journal Articles:

- 6. Halbrendt, J, A.H. Kimura, S.A. Gray, **T. Radovich**, B. Reed and Bir Bahadur Tamang. 2014. Implications of Conservation Tillage for Men's and Women's Workloads Among Marginalized Farmers in the Central Middle Hills of Nepal. Mountain Research and Development 34:214-222.
- 7. Halbrendt, J., S.A. Gray, S. Crow, **T. Radovich**, A.H. Kimura and B.B. Tamanag. 2014. Differences in Farmer and Expert Beliefs and the perceived impacts of conservation agriculture. Global Environmental Change 28:50-62.
- 8. Wang, K-H, T. Radovich, A. Pant and Z. Cheng. 2014. Integration of covercrops and vermicompost tea for soil and plant health management in a short term vegetable cropping system. Applied Soil Ecology 82: 26-37.
- 9. Ahmad, A., A. Fares, N.V. Hue, M. Safeeq, **T. Radovich**, F. Abbas and M. Ibrahim. 2014. Root distribution of sweet corn (*Zea mays*) as affected by manure types, rates and frequency of applications. The Journal of Animal and Plant Sciences 24: 592-599.
- 10. Farhad, W., M.A. Cheema, M.F. Saleem, **T. Radovich**, F. Abbas, H.M. Hammad and M.A. Wahid. 2013. Yield and quality response of maize hybrids to composted poultry manure at three irrigation levels. International Journal of Agriculture and Biology 15:181-190.
- 11. **Radovich, T. J.K.**, A. Pant, I. Gurr, N.V. Hue, J. Sugano, B. Sipes, N. Arancon, C. Tamaru, B.K. Fox, K. D. Kobayashi, and R. Paull. 2012. Innovative use of locally produced inputs to improve plant growth, crop quality, and grower profitability in Hawaii. Horttechnology, 22(6): 738-742.
- Pant, A., T.J.K. Radovich, N.V. Hue, R. Paull. 2012. Biochemical Properties of Compost Tea Associated with Compost Quality and Effects on Pak Choi Growth. Horticulturae Scientia 148:138-146.
- 13. Arancon, N, A. Pant, **T.J.K Radovich**, N. V. Hue, J. K. Potter, C. E. Converse. 2012. Seed germination and seedling growth of tomato and lettuce as affected by vermicompost water extracts. HortScience 47:1722-1728.
- 14. Pant A., **T.J.K. Radovich**, N.V. Hue, and N. Q. Arancon. 2012. Pak choi (Brassica rapa, Chinensis Group) yield, phytonutrient content, and soil biological properties as affected by vermicompost to water ratio used for extraction. HortScience 47:395-402
- 15. Mitschele, R.S., **T.J.K. Radovich**, A. Fares, and A. Ahmad. 2012. Application and Evaluation of a Rapid Nitrate-N Test for Soil Solution under a Perennial Peanut Living Mulch. Communications in Soil Science and Plant Analysis (43:1237-1246).
- 16. Pant, A., **T.J.K. Radovich**, N.V. Hue, N. Arancon. 2011. Effects of Vermicompost Tea (Aqueous Extract) on Pak-choi Yield, Quality, and Soil Biological Properties. Compost Science and Utilization 19: 279-292.
- 17. Pant, A., **T.J.K. Radovich**, N.V. Hue, S. T. Talcott, and K.A. Krenek. 2009. Compost extracts influence growth, total carotenoids, phenolics and antioxidant activity in Pak choi (Brassica rapa Chinensis group) grown under two fertilizer regimes. Journal of the Science of Food and Agriculture 89:2383-2392.

Extension Publications

- 18. Hollyer, J; Fred Brooks; Lindsay Fernandez-Salvador; Luisa Castro; Donna Meyer; **Ted Radovich**; Steve Russo. 2013. The Allowed Use of Commercial Fertilizers, Pesticides, and Synthetic Substances on U.S. Farms Under the USDA National Organic Program. College of Tropical Agriculture and Human Resources. FST-56.
- 19. Arakaki, A, Jennifer Hawkins, **Theodore Radovich**. 2013. Farming With Bees: The Synchronization of Pollinator Plantings to Increase Production of Cucurbit Crops. College of Tropical Agriculture and Human Resources, University of Hawaii. SA-6.
- 20. Sugano, J, Michael Melzer, Archana Pant, Ted Radovich, Steve Fukuda, 2 Susan Migita, 3 and Jensen Uyeda 2 2011. Field Evaluations of Tomato Yellow Leaf Curl Virus-Resistant Varieties for

- Commercial Production. College of Tropical Agriculture and Human Resources, University of Hawaii. PD-78
- 21. **Radovich, T.J.K.** and N. Arancon (Eds.). 2012. Tea Time in the Tropics: A Handbook for Compost Tea Production and Use. College of Tropical Agriculture and Human Resources. Honolulu, Hawaii. 80pp.
- 22. Cox, L, T. Radovich and J. Sugano. 2011. The Costs of "Organic" Insecticides. College of Tropical Agriculture and Human Resources, University of Hawaii. SA-4.
- 23. Uyeda, J., L. Cox and **T. Radovich**. 2011. An Economic Comparison of Commercially Available Organic and Inorganic Fertilizers for Hydroponic Lettuce Production. College of Tropical Agriculture and Human Resources, University of Hawaii. SA-5.
- 24. Hollyer, J., F. Brooks, L. Nakamura-Tengan, L. Castro, J. Grzebik, M. Sacarob, V. Troegner, D. Meyer, T. Radovich, L. Morgan Bernal, D. Kishida. 2011. Student and Food Safety: Best Practices for Hawai'i School Gardens. College of Tropical Agriculture and Human Resources, University of Hawaii. FST-45.

TEACHING

Courses Taught:

TPSS 401: Vegetable Crop Production (Taught Spring 2010, 2012, 2014; average class size 17 students)

TPSS 220: Organic Food Crop Production (Taught every Fall 2009-2014; average class size 25 students)

TPSS 120c: Herbs Spices and Flavorings (Taught Spring 2010, 2012, 2014; average class size 20 students)

Recurring Guest Lectures since 2009

TPSS 200 Introduction to organic agriculture.

TPSS 300 Organic 101

TPSS 311 Sustainability in agriculture

TPSS 364 Overview of vegetable crop production.

TPSS 364 Overview of organic production

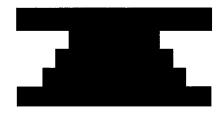
TPSS 364 Compost quality and production.

TPSS 491 Agricultural systems

FSHN 451 Sustainable Food Production systems

BOT 130 Sustainable Agriculture (WCC)

AG 112 Sustainable Agriculture (LCC)



RESEARCH INTERESTS

Throughout my years as a research scientist, I have developed a strong background in the related but diverse fields of chemistry, biochemistry, analytical chemistry, and structural biology. I have performed organic synthesis both in a research lab setting and for a pharmaceutical company, from anti-cancer platinum drug compounds to vaccine adjuvants. I then went on to earn my PhD where I studied the laminin binding protein, one of the chief proteins that governs cancer cell metastasis. I then proceeded to solve the three dimensional structure of NosL, a metallochaperone involved in the denitrification cycle, using three dimensional nuclear magnetic resonance or NMR.

After obtaining my PhD I became post doctoral fellow at the National Institute of Health where I studied the amyloidogenic protein that causes prion disease. I solved the structure of the prion protein in complex with a disease inhibitor, developed an assay for rapid and early detection of amyloid disease, and elucidated the structural architecture of the infectious form of the prion protein. Our team won the honor of the NIH Director's Award in 2011 for this work.

During my post at the NIH I became fascinated by the medical uses of cannabinoids, the constituents of marijuana that recruit the bodies' endocannabinoid system to produce a wide variety of therapeutically useful effects. I co-founded an analytical laboratory in Washington State, where marijuana is legal, to analyze the bioactive molecules and contaminants in marijuana, to help patients achieve accurate and reproducible dosing and to limit harmful contaminants.

My interests are in neurodegenerative diseases and amyloidogenic diseases such as Alzheimer's, Huntington's, and Parkinson's disease. I am also interested in cannabis science, the endocannabinoid system, food safety, and cancer.

EDUCATION

1998-2005 Ph.D. in Biochemistry, Department of Chemistry and Biochemistry, Montana

State University, Bozeman, MT

Advisor: Associate Professor Valérie Copié

1988-1994 B.S. in Chemistry, Department of Chemistry and Biochemistry, University of

Montana, Missoula, MT

PROFESSIONAL EXPERIENCE

Lab Director, Analytical 360 LLC, Seattle, WA/Yakima, WA

2013-2015

- First state-certified lab for recreational marijuana testing
- Set up novel analytical methods for testing marijuana flowers, concentrates, and edibles including potency, residual solvent and terpene assays
- Supervised the testing of > 9,000 marijuana samples
- Advised Washington State Liquor Cannabis Board on quality assurance tests required for recreational marijuana
- Voted number one testing lab in 2013 and 2014 by Dope Magazine

Postdoctoral Fellow, Division of Biological Sciences, University of Montana, Missoula, MT

2011-2013

- Co-authored and received grant funding for pilot project grant
- Cloned, expressed and purified membrane-anchored form of the human prion protein, including a lethal mutant thereof, from *Pichia pastoris* for structural characterization using light scattering, circular dichroism and nuclear magnetic resonance (NMR) spectroscopy
- Developed techniques to convert normal human recombinant prion protein into amyloid fibrils for structural studies using electron paramagnetic resonance (EPR) spectroscopy, FT-IR, and electron microscopy
- Developed reaction conditions for site-specifically labeling residues within the prion protein with an EPR-visible nitroxide tag, verified using matrix assisted laser desorption/ionization mass spectrometry (MALDI-MS)
- Trained undergraduate and graduate students in laboratory procedures

Postdoctoral Fellow, Laboratory of Persistent Viral Disease, Rocky Mountain Laboratory, NIH-NIAID, Hamilton, MT 2006-2011

- Expressed and purified recombinant prion protein in E. coli and characterized using fluorescence and circular dichroism
- Adapted an assay used to detect pathological forms of the prion protein in biological samples to generate large scale preparations of misfolded prion protein for structural analysis
- Characterized the structure of the misfolded form of the prion protein using FT-IR and solid-state nuclear magnetic resonance (SS-NMR)

 Determined the high resolution structure of the N-terminus of the prion protein bound to the prion disease inhibitor pentosan polysulfate using solution NMR spectroscopy

Doctoral Researcher, Chemistry and Biochemistry Department, Montana State University,
Bozeman, MT 1998-2005

- Solved the novel three dimensional structure of NosL, a copper chaperone involved in the biosynthesis of nitrous oxide reductase using multidimensional NMR
- Proficient in use of molecular dynamics calculations
- Pioneered use of automated NMR structure calculation at Montana State University using ARIA
- Skilled at use of structural visualization and manipulation software including Pymol,
 Molmol, and Talos
- Performed limited proteolysis, CD, and NMR characterization of recombinantly expressed laminin binding protein, a metastasis-associated protein
- Trained undergraduate and graduate students in cloning, protein expression, protein purification and NMR spectroscopy

Head technician at peptide facility, Montana State University, Bozeman, MT 1995-1997

- Synthesized peptides
- Purified peptides by reverse phase high pressure liquid chromatography (RP HPLC) and identified by electrospray ionization mass spectrometry (ESI-MS)
- Managed peptide facility including equipment maintenance, repair and bookkeeping

Research Associate I, Ribi Immunochem Inc., Hamilton, MT

1994-1995

- Carried out organic reactions from starting materials to final product
- Analyzed products and contaminants using thin layer chromatography (TLC) and NMR
- Synthesized monophosphoryl lipid A derivatives for potential use as adjuvants in vaccines

Research Assistant, University of Montana, Missoula, MT

1993-1994

Synthesized unique heterocyclic aromatic compounds and analyzed by NMR

Research assistant, Montana State University, Bozeman, MT

1992

Synthesized platinum compounds for potential use as anti-cancer therapeutics

TEACHING EXPERIENCE

1998-2005 Trained graduate and undergraduate students in laboratory skills

1997 Teaching Assistant for Advanced Biochemistry Laboratory, Professor Brenda Spangler, Department of Chemistry and Biochemistry, Montana State University, Bozeman, MT

PROFESSIONAL DEVELOPMENT

Oct 2015	Pest Management Workshop
April 2014	Advisory Council, CAUSE M (Committee for Adult Use Standards and Ethics of Marijuana)
Sep 2012	CBSD Annual CoBRE Research Retreat
Aug 2012	Principles of EPR Training Workshop
June 2011	FASEB conference: The basic origins and medical consequences of protein aggregation
Oct 2010	Academic Job Search and Grant writing, Rocky Mountain Laboratory, Sharon Milgram
June 2010	Planning for Career Satisfaction and Success workshop, Rocky Mountain Laboratory, Sharon Milgram
June 2009	FASEB conference: Amyloid fibril formation and protein misfolding: molecular mechanisms and cellular effects
April 2008	Scientific life after a post-doc workshop, Rocky Mountain laboratory, Rocky Mountain Laboratory, Hamilton, MT, Dr. Rob Viola
Aug 2005	Nuclear Magnetic Resonance Workshop II, Montana State University, Bozeman, MT
Feb 2008	Biophysical Society 52nd annual meeting: 15th IUPAB international Biophysics conference, Long Beach, California
Oct 2004	15th Triennial conference for the International Society for Magnetic Resonance, Ponte Vedra, Florida
July 2000	Nuclear Magnetic Resonance Workshop I, Montana State University, Bozeman, MT

AWARDS AND HONORS

2011	Co-author CBSD/CoBRE pilot project grant "Structural and physiologic consequences of native post-translational modifications of the prion protein: a mechanism for toxicity"
2011	National Institute of Health Director's Award

2004	Co-author , EMSL Pacific Northwest National Laboratory grant "Determination of the three-dimensional solution structure of NosL, a potentially novel copper(I) metal transporter"
2003	P.E.O. Scholarship
1997	Presidential Graduate Scholarship
1993-1994	Scholar of the College of Arts and Sciences
1994	Alumni faculty award
1994	American Institute of Chemists' award
1993	E.E. Frahm Scholarship

PUBLICATIONS

Groveman, B.R., Dolan, M.A., **Taubner, L.M.**, Kraus, A., Wickner, R.B., Caughey, B., Parallel inregister intermolecular sheet architectures for prion-seeded Prion Protein (PrP) amyloids, J Biol Chem, **289(35)**:24129-42,2014.

Wilham, J.M., Orru, C.D., **Taubner, L.M.**, Caughey, B., Rapid End-point Quantitation of Prion Seeding Activity with Sensitivity Comparable to Bioassays, *PLoS Pathogens*, **6(12)**:e1001217, 2010.

Caughey, B., Sim, V.L., **Taubner, L.M.**, Wilham, J.M., Orru, C.D., Christensen, L.B., Barton, K.L., Raymond, G.J., Raymond, L.D., Hughson, A.G., Prion Biochemistry and Therapeutics, Infectious Disease, 2010, Part 10, 299-303.

Taubner, L.M., Bienkiewicz, E.A., Copié, V., Caughey, B., Structure of the flexible amino-terminal domain of prion protein bound to a sulfated glycan, *Journal of Molecular Biology*, **395(3):**475-90, 2010.

Moore, R.A., **Taubner, L.M.**, Priola, S.A., Prion protein misfolding and disease, *Current Opinion in Structural Biology*, **19(1)**:14-22, 2009.

Meade-White, K.D., Barbian, K.D., Race, B., Favara, C., Gardner, D., **Taubner, L.M.**, Porcella, S., Race, R., Characteristics of 263K scrapie agent in multiple hamster species, *Emerging Infectious Diseases*, **15(2)**:207-15, 2009.

Lee, K.S., Raymond, L.D., Schoen, B., Raymond, G.J., Kett, L., Moore, R.A., Johnson, L.M., **Taubner, L.M.,** Speare, J.O., Onwibuko, H.A., Baron, G.S., Caughey, W.S., Caughey, B., Hemin

interactions and alterations of the subcellular localization of prion protein, *Journal of Biological Chemistry*, **282(50)**:36525-33, 2007.

Taubner, L.M., McGuirl, M.A., Dooley, D.A., Copié, V., (2006) Structural Studies of NosL, an Accessory Protein of the Nitrous Oxide Reductase System: Insights from Structural Homology with MerB, a Mercury Resistance Protein, *Biochemistry*, **45(40)**:12240-52.

Moss, B.L., **Taubner, L.M.**, Kazmin, D.A., Copié, V., Starkey, J.R., Tumor shedding of Laminin Binding Protein modulates angiostatin production in vitro and interferes with plasmin-derived inhibition of angiogenesis in aoritic ring cultures, *International Journal of Cancer*, **118(10)**:2421-32, 2006.

Taubner, L.M., McGuirl, M.A., Dooley, D.A., Copié, V., Letter to the Editor: ¹H, ¹³C, ¹⁵N Backbone and Sidechain Resonance Assignments of Apo-NosL, a Novel Copper(I) Binding Protein from the Nitrous Oxide Reductase Gene Cluster of *Achromobacter cycloclastes*, *Journal of Biomolecular NMR*, **29**:211-212, 2004.

Kazmin, D.A., Hoyt, T.R., **Taubner, L.M.**, Teintze, M., Starkey, J.R., Phage Display Mapping for Peptide 11 Sensitive Sequences Binding to Laminin-1, *Journal of Molecular Biology*, **298:**431-445, 2000.

Johnson, D.A., Keegan, D.S., Sowell, C.G., Livesay, M.T., Johnson, C.L., **Taubner, L.M.**, Harris, A., Myers, K.R., Thompson, J.D., Gustafson, G.L., Rhodes, M.J., Ulrich, J.T., Ward, J.R., Yorgensen, Y.M., Cantrell, J.L., Brookshire, V.G., 3-O-Desacyl Monophosphoryl Lipid A Derivatives: Synthesis and Immunostimulant Activities, *Journal of Medicinal Chemistry*, **42(22)**:4640-4649, 1999.

Johnson, D.A., and **Taubner, L.M.**, Efficient Method for the *t*-Butyldimethylsilylation of Alcohols with N,O-Bis(*t*-butyldimethylsilyl)acetamide, *Tetrahedron Letters*, **37(5)**:605-608, 1996.

PRESENTATIONS

CAUSE-M, Microbiological contaminants in Marijuana, Yakima, WA, 2014

Prion 2013, Prion and Prion-like diseases in Humans, Structural consequences of native post-translational modifications of the prion protein: A mechanism for toxicity, Banff, Alberta, CA, 2013

CBSD Annual CoBRE Research Retreat, Structural and physiologic consequences of native post-translational modifications of the prion protein: a mechanism for toxicity, Seeley Lake, MT, September 2012

Invited speaker at Nuclear Magnetic Resonance Workshop, NMR Research Presentation: Structural investigation of NosL, a copper(I) binding protein suspected of functioning as a

metallochaperone—what is the NMR revealing? Montana State University, Bozeman, MT, August 2005

Taubner, L.M., Moore, RA, Copie, V., Bienkiewicz EA, Caughey, B, Structure of the octapeptide repeats induced by binding of a sulfated glycan to the flexible amino terminal domain of prion protein, presented at the Amyloid fibril formation and protein misfolding FASEB Conference, Snowmass Village, CO, June 2009

52nd Annual meeting of the IUPAB International Biophysics Congress, Long Beach, CA, February 2008

Taubner, L.M., McGuirl, M.A., Dooley, D.A., Copié, V., Structural Analysis of NosL, a Copper(I) Binding Protein Involved in the Metal Cluster Assembly of Nitrous Oxide Reductase, the Terminal Enzyme of the Denitrification Pathway, presented at the 15th Triennial Conference for the International Society for Magnetic Resonance, Ponte Vedra Beach, FL, October 2004

Taubner, L.M., McGuirl, M.A., Dooley, D.A., Copié, V., Chemical Shift Analysis of the Putative Copper Chaperone apo-NosL and Spectral Changes upon Copper(I) Binding, presented at Keystone Symposia, Structural Genomics, Snowbird, UT, April 2004

Taubner, L.M., McGuirl, M.A., Dooley, D.A., Copié, V., Structural Studies of a Potentially Novel Copper Chaperone, presented at XXth International Conference on Magnetic Resonance in Biological Systems, Toronto, Canada, August 2002

Taubner, L.M., Kazmin, D., Jaseja, M., Starkey, J.R., Copié, V., Characterization of Subdomains of the Laminin Binding Protein, presented at the Keystone Symposia, Frontiers of NMR in Molecular Biology VII, Big Sky, MT, January 2001



EMPLOYMENT

Head Scientist and Owner, Nov 2010- current. Analytical 360 L.L.C., Medical testing facility, Seattle, Washington and GLP Washington State approved Marijuana testing Facility, Yakima, Washington. Analytical 360.com

Process Development Scientist, July 2004- July 2013, GlaxoSmithKline, Hamilton MT. GMP Process development and manufacture, assay development. Extraction and purification of adjuvants from natural sources for new age Vaccines.

Post-Doctoral Candidate, Nov 2003- Jan 2004, University of Montana, Bozeman. Bioinspired nanotechnology, Research and development of photocatalytic reactor to generate Hydrogen.

Research Associate III, Sept 2000 to Oct 2003, Zymogenetics. Seattle Washington Process Development/Manufacturing. Duties include large scale purification of protein, characterization of protein, preparation of SOPs, preparing installation and operational qualification reports, preparing risk analysis reports and writing production protocols. Production of drug substance according to GMP.

Research Assistant, April 1995 to June 2000, University of Missouri, School of Biological Sciences, Kansas City, Missouri. Duties include vector construction, strain selection, recombinant analysis, expression optimization, protein characterization, protein purification, protein crystallization, X-ray diffractometer operation, diffraction data collection and processing.

Research Assistant, August 1993 to April 1995, Kansas State University, School of Veterinary Medicine, Manhattan, Kansas. Duties include protein purification, protein characterization, antibody production and characterization.

Laboratory Assistant, August 1992 to August 1993, Kansas State University, School of Veterinary Medicine, Manhattan, Kansas. Duties include protein purification, protein characterization, antibody production and characterization.

EDUCATION

Bachelor of Science, Biology, 1991, Kansas State University, Manhattan, Kansas.

Associates in Business Administration, 1991, Northern Virginia Community

College, Manassas, Virginia.

EXPERIENCE

Natural Product isolation in GMP and GLP analytical, Quality Control, Manufacturing.

Macromolecular crystallography techniques: Sitting drop, hanging drop, crystal manipulation, heavy atom and ligand soaking, crystal mounting, flash cooling crystals, Rigaku R-200 operation and maintenance, operation of Denzo and scale for preliminary characterization, operation of Solve and O for data processing.

Protein purification and characterization techniques:
Solvent Extraction, Filtration, LC MS MS, GC- FID
Ion exchange, size exclusion, hydrophobic interaction, affinity, low pressure liquid chromatography. Ion exchange, size exclusion, reverse phase, high performance liquid chromatography. Sodium dodecylsulfate polyacrylamide gel, polyacrylamide gel, 2-dimensional, preparative gel, 2-dimensional preparative gel, cellulose acetate, electrophoresis. Fluorophotometric, spectrophotometric, dynamic light scattering analysis.

Molecular biology techniques: vector construction, strain selection, recombinant analysis, expression optimization.

Immunoassay development technique: Antibody production, western blotting, immunoprecipitation.

General skills: Solution preparation, equipment maintenance, filtration, data entry, data analysis, literature research skills, IBM, MAC, and UNIX operating systems, and general laboratory skill.

AWARDS

GSK SILVER AWARD 2013 for contribution above and beyond.

PUBLICATION

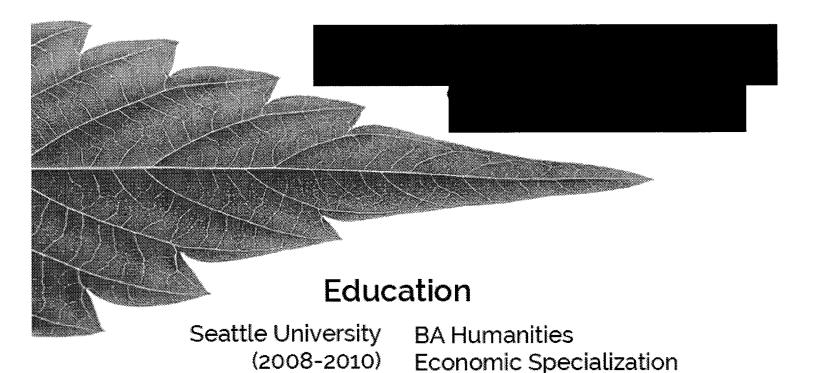
Oliver, R.L., Tremley, J.M., Helmkamp, G.M. Jr., Yarbrough, L.R., Breakfield, N.W., Yoder, M.D. X-ray analysis of crystals of rat phosphatidylinositol-transfer protein with bound phosphatidylcholine. Acat. Cryst. (1999). D55, 522-524.

Doan, C., Caughron, M.K., Myers, J.C., Breakfield, N.W., Oliver, R.L., Yoder, M.D. Purification, crystallization and X-ray analysis of crystals of pectate lyase from Erwinia chrysanthemi. Acta Cryst. (2000). D56, 351-353.

Yoder MD, Thomas LM, Tremblay JM, Oliver RL, Yarbrough LR, Helmkamp GM Jr. Structure of a multifunctional protein. Mammalian phosphatidylinositol transfer protein complexed with phosphatidylcholine.

J Biol Chem. 2001 Mar 23;276(12):9246-52.

Thomas LM, Doan CN, Oliver RL, Yoder MD. Structure of pectate lyase A: comparison to other isoforms. Acta Crystallogr D Biol Crystallogr 2002 Jun: 58(Pt 6Pt 2): 1008-15.



Experience

Top Choice Consulting

Specializes in cannabis production and processing. Mananges efficient commercial operations.

TKO Reserve. WA

President & Founder Operating 10,000 sq ft and 102 flowering lights for the WA Medical Market.

The Bakeree, OR

Founder & Director of Operations Operating a 40,000 sq ft canopy of sungrown cannabis

Sasquatch Glass

Founding Partner High-End Functional Glass Art

- Facility Build-out
- Employee training
- Quality Control Protocols
- Organic Soil Production
- Hydroponic Production
- Coconut Coir Production
- Product Development

- Exclusive Genetic Library
- Clone Propagation
- Vegetative Systems
- Irrigation
- Trellis Support
- High-Yielding Flower Strategies
- Indoor & Sungrown Production Effcient in LED / HPS / MH / Plasma / LEC / Induction lighting
- Cannabis Breeding

2010-Current

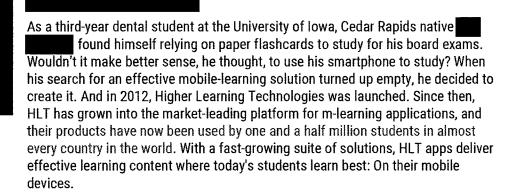
2012-Current

2015-Current

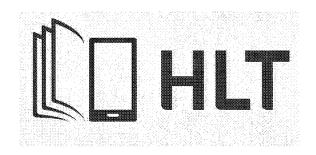
2012-Current

- Seed-To-Sale tracking
- Curing Procedures
- Plant Nutrient Expertise
- Organic Soil-Building
- Integrated Pest Management
- Environmental Control

Skills



When not exercising his passion to transform the way students learn, also enjoys traveling the globe and immersing himself in local cultures, competitive and adventure sports (the more adrenaline-infused, the better), and mentoring young entrepreneurs.



In an emerging industry, Lau Ola LLC is poised to commit its services to the qualified patients and regulators of the State of Hawai'i, specifically Hawai'i County, and provide the highest quality, contaminant-free medical marijuana products, formulations, and educational services. This company was formed and will continue its focus on the idea that our services are meeting the needs of specific patients who have followed the direction of their physicians to treat unique medical concerns, and that it is our responsibility to safely provide choices and variety in products and types of services, in an effort to make medical marijuana more accessible to qualified patients. Now under the direction of CEO Richard Ha, a respected agriculturalist, business owner, and community voice, Lau Ola will thrive as a model for medical marijuana care in Hawai'i and throughout the Pacific.

Plant and Manufactured Products Production Centers

Lau Ola's medical marijuana production, security, manufacturing, and central operations facilities will be located

This land meets all regulatory requirements for medical marijuana production (11-850-32, HAR). Because of our commitment to the venture and in the belief that we are truly the best applicant, Lau Ola LLC has already leased (see 2.2) and invested substantial funds in required capital expenditures at including engineering, permitting, and sourcing of agricultural equipment to expedite the production timeline, should the application be awarded. (see 2.3).

All initial facility design assumptions will be to build enough square footage to easily allow the cultivation of the maximum number of plants as allowed by law (329D-2). Beginning in Production Phase 1, the emphasis will be on the highest security standards, and on the ability to

build out a scalable facility that can easily adjust to meet patient demand. As mentioned in a previous section, our initial demand assumptions are based on industry consultant extrapolations from the experience of other states at start up (see 2.3). As the reality of the market dictates, Lau Ola will quickly adjust plant production, which will be on a rotating crop schedule at one week harvest intervals, by simply adding more lights to already built out, but as yet unplanted, cultivation square footage. Production will utilize 100,000 watts of green energy

, the Chief Production Officer (CPO) will be responsible for overseeing plant production. The CCO oversees the management of all operations at the production facility, including plant production, technologies management, facilities management, security, and regulatory. The day to day plant production operations including plant breeding, plant propagation, planting management, integrated pest management, plant production management, fertility management and harvesting will be the responsibility of the Cultivation Director. will be responsible for the management of all production personnel and production scheduling. The day to day plant processing operations will be conducted by our Processing Manager. Responsibilities include the deboning, defanning, trimming, drying, curing, packaging, labeling, storing of processed flower material, regulatory compliance, management of all processing personnel, and scheduling. Manufacturing of high quality medical marijuana products will be a high priority at Lau Ola LLC. Manufactured medication that can be taken orally or through methods other than smoking may be perceived by the public as a healthier alternative to smoking, and as such will be a priority. That said, Lau Ola , are actively recruiting a degreed chemist that LLC, through and

specializes in pharmaceutical compounding. Lau Ola LLC will not consider a person who claims to have "black market" or other such grey area experience in this very new field, and so is in the process of conducting a very thorough search. Lau Ola LLC will build a modern, state of the art lab facility to assist the chemist in manufacturing the best of products.

Retail Dispensaries

Lau Ola LLC retail dispensaries will employ Certified Dispensary Technicians and Hawai'i Licensed Pharmacists to operate our retail locations. In accordance with the law, the model of care we are creating incorporates a company culture of responsibility, exceeds the requirements of patient safety and care, and maintains standards of practice that aim to minimize the risk of diversion (329D-18). Our clinical goal is to improve patient outcomes with the safe and appropriate delivery and use of quality medical marijuana through education, counseling, and attentiveness to patient feedback. The wellness center setting includes an educational space and private counseling rooms which are designed with our patients needs in mind. Our design enables a qualifying patient or caregiver to be fully engaged with our licensed professionals in a comfortable setting and also accommodates those qualifying patients who are well versed with their ailment, have been using medical marijuana, and simply want to come in and safely purchase product. These patients may choose to review our laminated menu, which will be updated daily based on product availability, and will disclose corresponding percentages of tetrahydrocannabinol (THC) and cannabidiol (CBD), their respective properties, and pricing. This will enable these patients or caregiver's to self-educate and make an informed decision in selecting a medication. Lau Ola will employ best practices that demonstrate control and security over our controlled substance inventory from seed to sale. Integration with the state BioTrack system (11-850-61), will enable Lau Ola LLC to assess "early fills" or maximum

quantity dispense limits similar to what pharmacies can do now when dispensing other controlled medications. We will incorporate similar mechanisms at are applied in pharmacies when dispensing schedule CII medications into our policies and procedures mirroring requirements existing in pharmacy statutes and rules as it stands currently in this state.

Lau Ola will employ a Medical Director and a Dispensary Operations Officer (see 2.?). Our Medical Director, is an MD specializing in functional medicine, and will facilitate the development of guidelines for a Lau Ola LLC product formulary that will help guide product selection. Our Dispensary Operations Officer, , has a background in regulatory affairs and extensive experience with inventory control management systems. He will oversee all retail dispensary operations. A pharmacist will manage each location, and be in charge of ensuring day to day operations run efficiently and in accordance with state requirements. Other duties include overseeing inventory management (11-850-61), adherence to diligent record keeping laws (11-850-41), ensuring HIPAA compliance (11-850-40), and supervising a staff that will be ready for unannounced inspections at any time pursuant to 11-850-37. Lau Ola LLC will maintain the pharmacist as its medication expert, and offer patients and caregivers comprehensive counseling which may include a description of the strain and known indications; dosage form, potency, route of administration and duration of product effects; direction for use; common side effects or adverse effects; drug interactions; proper and secure product storage. All patients will be counseled utilizing Lau Ola's minimum counseling standards at each point of sale. These concise counseling points will help to ensure the safe, responsible and appropriate use of our products as well as address proper and secure product storage. All medications dispensed will be accompanied by a package insert. Under no circumstances will any of our staff counsel with regard to medical claims, but will solely focus

on the effects of the active ingredient based on medical literature. Patients will be encouraged to use product tracking sheets for self-monitoring experience. Development of a patient feedback section on Lau Ola's website will be used for reporting adverse drug reactions, patient satisfaction and customer complaints. Our licensed professionals will periodically survey and assess patient care by evaluating product selection(s), ailment(s) and symptom severity. Lau Ola LLC is committed to continually refining of our practices to enhance patient safety, accessibility, adherence, and outcomes.

Our Hilo and Kona locations have been carefully chosen based on requirements dictated by the DOH in 329D-22 including distance from any sensitive locales, easy accessibility for patients (ADA compliant), and potentiates our ability to handle product safely and securely. Lau Ola's retail locations will be open the full allotted time as dictated by the DOH (329D-6, 11-850-33), and will adjust based on sales volume, patient feedback, and considerations for the local zoning and surrounding communities. Lau Ola's plan for the operation of the medical marijuana license is based on our expertise opening and operating pharmacies in the state of Hawai'i. Our timeline is based on what Lau Ola is expecting as far as the requirements set forth by the DOH, NED, state and county. The final build out process will begin after the license is granted. We are projecting that NED will inspect the premises for security before issuing the certificate. Working hand in hand with both agencies, we will ensure 100% adherence with all rules and expectations of DOH and NED (11-850-21; 22) before cultivation, manufacturing, or dispensing of medical marijuana begins. Lau Ola will obtain any further permits or licenses mandated by the state or county based on our manufacturing practices (11-850-73). By 12/31/2016 Lau Ola expects to be 100% operational throughout the vertical process from cultivation through the dispensing of medical marijuana.



(2) - List of Appendices

Appendix 2.1	Production Location
Appendix 2.2	Production Center Lease
Appendix 2.3	Engineering
Appendix 2.4	Production Plan
Appendix 2.5	Production Timeline
Appendix 2.6	Engineering Plans
Appendix 2.7	Shipman Lease
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Appendix 2.9	Manufacturing Equipment
Appendix 2.10	Product List
Appendix 2.11	SOP's





The Standard For Quality Medical Marijuana In The Pacific

Business Description

In an emerging industry, Lau Ola LLC is poised to commit to its services to the qualified patients and regulators of the State of Hawaii, specifically Hawaii County, and provide the highest quality, contaminant-free medical marijuana products, formulations, and education services. The company was formed and will continue it focus on the idea that our services are meeting the needs of specific patients who have followed the direction of their physicians to treat their medical concerns, and that it is our responsibility to safely provide choices and variety in products and types of services in an effort to make medical marijuana easier and more accessible to qualified patients.

Our production facility in the production, has been surveyed for improvement planning to and and will be fitted for production by May 2016. One more phase of development allows Lau Ola to expand to a 6000 plant production facility, which is exclusively and

photovoltaic energy by 2017. Our two retail facilities are located in Keaau and Kona, where qualifying patients can begin to learn about the available products, discuss needs with Lau Ola LLC management, and purchase their medication in a safe, welcoming atmosphere. Lau Ola LLC believes that they are able to meet the needs of the current patients on the Island of Hawaii by providing retail services in Keaau and Kona. These two retail locations will be operational by December 31, 2016.

With our competent team of officers, managers, directors, and advisors, Lau Ola LLC is prepared to aid in the development of the medical marijuana industry in Hawaii and throughout the Pacific by working closely with regulatory institutions, government, and community groups to insure the success of the state's new medical marijuana dispensary pilot program and our business. We hope to also succeed in becoming the standard for sustainable medical marijuana production, by becoming the only company with a licensed medical marijuana production facility that is 100% sustainably powered by and solar technology. Existing hardware and drafted designs allow Lau Ola to become an example of sustainable production in Hawaii.

Foundation

During its first year of operations, Lau Ola LLC will establish a 501(c) 3 with the mission to fund and conduct educational activities on the Island, as well as programs that will facilitate access to medical marijuana by patients with limited financial resources or in need of transportation assistance.

Additionally, Lau Ola's Foundation's goals include being an accessible philanthropic organization that provides funding to organizations providing health and wellness activities on the Island. Lau Ola's management understands from our

discussions with numerous non-profits that many of them are unable to accept funding from a medical marijuana company because they also receive federal funding. Lau Ola's target funding of the Foundation is three to four percent of net revenues annually.

Specifically, the Foundation will fund a Compassionate Care program to assist palliative care/hospice patients, veterans, and nursing home patients with transportation to a dispensary and access to our medicine on a sliding scale. Given the Island's geography and the frailty of these patients, we believe transportation programs are critical to ensure equitable and safe access to medical marijuana.

Lau Ola's Foundation will fund a variety of educational programs that take into account the cultural diversity of the Island and emphasize the nature of medical marijuana. Our Native Hawaiian focus, for example will employ the protocols used in ho'oponopono, a Hawaiian system of restoring understanding amongst extended family members. This system sets the tone of respect and sincerity within the circle of participants, which aids in raising awareness and deepening their understanding of the topics being discussed.

Production Summary

Timeline for Production

Lau Ola's timeline for production would begin within

Beginning in Phase 1, the indoor production facilities would be ready for inspection of compliance for medical marijuana production as soon as possible and afterwards Lau Ola will begin the production of 3000 medical marijuana plants.

This phase of production will utilize 65% of its power from HELCO and sustain 35% of its

Phase 2 of production would begin January, 2017 after the authorization and inspection of 3200 sqft indoor production facility specially designed by Lau Ola engineers. In this Phase 2 facility, 6000 plants will be grown and a 400 Kw photovoltaic energy system will be installed, to bring the energy use of the production facilities to 70% sustainable energy. When all phases are completed, Lau Ola in full production of 6000 medical marijuana plants in two separate production facilities on the same property, with a central processing and manufacturing facility, from 70% sustainable energy sources, before April of 2017.

Production Locations

Lau Ola's medical marijuana production, security, manufacturing, and central operations facilities will be located on land owned and operated by along the the Island of Hawaii, . This secure land meets all regulatory requirements for medical marijuana production, and at the time of award notification, Lau Ola LLC will be ready to begin operations to promptly meet all required inspections.

Plant Growth Operations Facilities

The hydroponic production of raw marijuana flower product will be conducted in 100% hermetically sealed structures that have been specially designed for medical marijuana production by Lau Ola engineers. A modification to will allow Lau Ola to meet the imposed requirements of producing 6000 medicinal marijuana plants, safely and securely. and Lau Ola have arranged a lease agreement for the use of his land, equipment, and facilities.

To insure the highest product quality, Lau Ola production engineers have designed a unique medical marijuana airflow sanitation system which utilizes a HEPA filtration unit, yet consumes little energy. Lau Ola's facilities meet the highest air-quality standards of biotechnology and microbiological research grow centers. Decontamination vestibules and sanitation equipment are also found in each facility to ensure product quality. The utilization of such a system will insure the reduction or elimination of all potential microbiological contaminants and plant pathogens.

A custom designed HVAC system provides a climate controlled environment conducive to proper plant health, production, and yield. This system prevents dramatic changes in temperature and humidity in the production facility and is closely monitored by a computerized central climate control center. This system automatically changes environmental conditions, using sensors that are placed in each production area.

High efficiency LEDs, metal-halide, T5 fluorescent, and high pressure sodium lamps provide the necessary light for proper indoor growth and environmental control. An already existing, is utilized to power 35% of the production center operations beginning on the first day of phase 1.

Post Production and Operations Facilities

Through all phases of production, the post production, manufacturing, and operations will be located with the refitted,

The post production facilities include air-filtered, climate controlled areas for cut-and-hang, defanning, deboning, trimming, weighing, drying, curing, packing, labeling, secure storage, and the business operations, production, and administration offices.

Security Facilities

A separate security building for housing security personnel and all security operations is located 50 yards away from the production facilities in an existing, elevated structure. Here, links to all security operations can be monitored 24/7.

Plant Production Operations

The Propagation Department oversees all unrooted plants in 3 inch pots until they are ready to be placed into the vegetation grow facility. The biggest duty for this department is sanitation and pathogen reduction measures. Here, conditions are conducive for proper clone rooting with low intensity light emitting 6500K blue light and a constant aerated ebb and flow system for proper root development. Once the plants have established a quality root ball and have shown characteristics of hardening-off (~2-3 weeks) the plants are taken to vegetative growth.

The Vegetative Growth area houses 1/3 of Lau Ola's total plant count, as a standard.

After the first week of growth the rooted clones are given a more concentrated fertilizer regime and reported into 12 inch pots. After three weeks of vegetative growth, the plants are inspected, selected, reported into 4 gallon pots and transferred to the Flowering Department.

With 2/3 of plants in production, and the larger size of the matured plants, the Flower Production area is significantly larger than the other areas of production. The first weeks of Flower Production consists if fertilizer adjustments including the reduction of nitrogen compounds in the solution and the increase of inorganic, plant available phosphorous, calcium, sulfur, and silica compounds. Under an initial 14/10 light regime, the newly flowering plants area allowed to adjust to the change in day/night ratios. After two weeks into Flower Production the plants again have an increased nutrient regime and further reduction of light to a 12/12 cycle,

bringing the plant into full maturity and bud set. After 8-12 weeks, depending on the strain, the plants fully mature and are ready for harvest.

When the plants are tagged for harvest the post production team start their processing of the plant material. While plants are inspected, selected, and hung for processing. The defanning of the medical marijuana plants begins the process by removing the large, fan shaped leaves from the stems and cutting the plant into manageable stems. These fan leaves are sent manufacturing and the de-fanned steams are sent to the Trimming Department. Here hand trimmers first remove the buds form the stems so that they are organized by grade. The higher grade buds (based on overall quality, visual characteristics, olfactory characteristics, and consistency) are separated from the others. The high grade material goes into large, commercial trimming machines that cut the "sugar leaves" off of the buds, collect pollen lost during trimming, and collect the finished, trimmed buds. The lower grade buds go off to manufacturing for the production of oil and plant based products.

The trimmed, high grade buds are then transferred to the specially, designed and climate controlled drying facility, where they are placed in having drying racks allowed to slowly dry and begin to cure. Several manipulations of condition allow the processing technicians to properly dry the flower product to the highest standards of moisture content, consistency, uniformity, smell and visual inspection (~1-2 weeks). After the buds are deemed properly dried by the Processing Manager, they are placed in vacuum sealed containers or bags, and allowed to cure in the proper environmental conditions for high quality medical marijuana curing. Protocol for production dictates Lau Ola will not release curing buds to the Packaging and Labeling Department for a minimum of 3 weeks. Only then can we insure the flower products are at their highest quality, peek flavor, best consistency, and marketable smell. By the development of

Production Phase 2, Lau Ola anticipates created a policy and standard operating procedure requiring a minimum of 2 month in cure, before flower is released. Once released from curing, the flower product in bulk packaged and internally labeled. The bulk batches are brought to Production Receivables who accounts for the product inventory, and then brings it to Product Storage.

Product Storage is the internal, vertically modeled, product distribution hub of Lau Ola operations. This is where all packaged and labeled flower and manufactured products are stored and held for transportation to the dispensaries or from the dispensaries. Throughout the entire plant production flow chart, most departments have access to protocols in place for plant matter, hazardous matter, expired material, and media disposal.

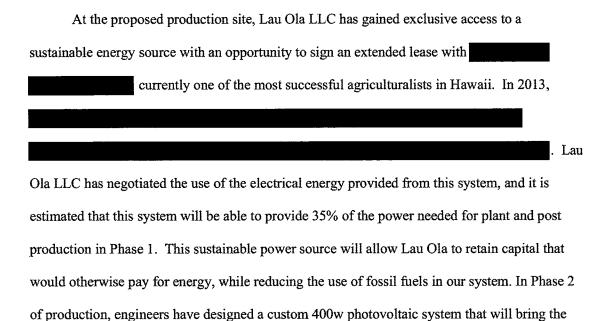
Justification of Production Measures

HVAC Climate Control

An air-conditioning system is recommended by Lau Ola' Facilities Director as the solution to humidity control of the production and post production facility. As certain environmental and production conditions change, (temperature, air flow, solarization, plant density, numbers of plants, watering regimes) the relative humidity of the production area will fluctuate to levels that far exceed recommended amounts, which is compounded by the production area conditions. Once humidity levels exceed recommended amounts, production declines and pathogen susceptibility increases. Natural conditions in Hawaii already exceed these maximum levels under sustained rainy conditions. It is imperative that the production facility is cooled, slightly, to be able to control the changing humidity levels within the facility. In the case of post production, reducing humidity is crucial to proper drying and curing of the flower product. But besides this, the most important factor related to the need for HVAC is the

elimination or suppression of microbial pathogens which thrive in moist conditions. This is unusual for most production systems, but the Hawaiian tropical conditions and the presence of a formidable microorganisms merits this top to bottom hermetically sealed production approach from breeding to curing.

Sustainable Energy Sources



total sustainable power usage of the production facility to 70% renewable energy and 30%

Hydroponic Production System

HELCO.

After over 5 months of analyzing the cost of soil production, it was determined that only select few production sites would be conducive to medical marijuana production with soil, from an economic and sustainability standpoint. It was determined that hydroponic production reduces the cost, as compared to soil, at the rented hydroelectric area by over \$2 million dollars in the first year. The infrastructure of the existing system provides

facility, which would then be pumped, filtered, and treated for use in the hydroponic medical marijuana production system. Effluent water would be properly treated and utilized by the landlord for crop production.

The hydroponic production system proposed is a cost effective way to increase production (yield and harvest intervals) while reducing the potential for soil-borne tropical plant pathogens. Without soil, plant pathogen inoculation potential decreases, which directly effects the cost of labor. By taking all possible steps to reduce the potential for plant pathogen inoculation, the number staff required for proper plant production is reduced.

HEPA Airflow Filtration System

The proposed HVAC system includes a complete HEPA air flow filtration system specially designed by Lau Ola's Facilities Director and Engineering Partners, Inc. and modeled after a crop research facility at the University of Maryland. The decontamination vestibules and consistent air exchange eliminates the concern for plant pathogen inoculation. Lau Ola believes that the proposed plant production system should not be considered crop production, but instead as the effective production of high quality medication that is guaranteed to be 100% contaminant free. We want to establish a level of quality that is unmatched in Hawaii and around the world. Besides the quality concerns, was found to be more cost effective to invest in reliable hardware that can provide superb air quality, than deal with pathogens when they appear. In the long run, Lau Ola assures a higher production yield due to the lack of pathogen occurrence while reducing labor costs. This is unusual for most production systems, but the Hawaiian tropical conditions and the presence of a formidable microorganism presence merits this top to bottom hermetically sealed production approach from breeding to curing.

The facility would be appropriately divided into processing areas (inspection, weighting, hanging, defanning, deboning, trimming, drying, curing, packaging, storage, a safe, office, and propagation). The insulated facility would be connected to the HEPA airflow filtration system and HVAC. Air ducting would be connected to the trimming machines for proper materials management. The entire airflow system is designed to reduce costs through microbial pathogen management and proper post product methods (curing and drying conditions). Cleaner air means less issues with the detrimental microorganisms and insects just outside the door of the facility.

Manufacturing Summary

Manufacturing Facilities

The manufacturing operations of Lau Ola LLC are located

where the medical marijuana plant product center is located. The same utility,

HVAC, and HEPA air filtration systems are also utilized in the manufacturing area to insure high
quality, contaminant-free production of medical marijuana products. Although in the facility, the
manufacturing production area has its own sanitation vestibules for proper plant litter

management and a preventative fire insulation for increased employee safety. The manufacturing
area has an independent exhaust ducting system for proper ventilation. Employee safety
equipment including showers, eye washing stations, sinks, and a laboratory grade medical care
kit are provided. The manufacturing area has two sections, one with production equipment, and
one with electronics, controls, and computer systems. Furnished with a certified laboratory argon
evaporation fire prevention system, Lau Ola's manufacturing area far exceeds state safety and
quality standards and might be considered one of the safest medical marijuana manufacturing
facilities in the US.

Manufacturing Operations

Medical marijuana materials that are used for the manufacturing of added value products such as:

- · Pills/Capsules
- Lozenges
- · Oils or Oil Extracts
- Tinctures
- · Ointments and skin lotions
- · and other products specified by the DOH

But first the medical marijuana plant matter is received by the Manufacturing

Receivables who properly logs the weights, strains, conditions, plant matter origins, date

received and assigned usage. Once it is determined which product the plant matter will be used

for, they batch is taken to Manufacturing Pre-treatment Processing, where, if needed, the

material is treated. Pre-Processing treatments include freezing or refrigeration, solution soaking,

decarboxylating, and gas treatments. After pre-treatment processes are complete. The assigned

plant matter batches are either brought to Extracted Product Receivables or to Plant Product

Receivables. Extracted Products are those that utilize chemical or physical extraction methods to

remove and isolate specific compounds found in the plant tissue and subsequent resins. These

consist of most of the oils, resins, and waxes produced by Lau Ola. The plant production

extraction materials are also produced through chemical and/or physical extraction processes, but
these product consist of flower based items like "moonrocks", Kief, and heat extracted oils. Once

each extraction field is finished with the full extraction and quality control tests, the materials are
brought to Manufactured Product Production where the items go through their added value stage.

This is where the extracted materials are converted into bulk batches of Lau Ola products. After quality control has been evaluated, the bulk items (ie 5 liters of Pele's Gift medical marijuana product) is brought to Bulk Manufactured Product Receivables, where it is broken into smaller portions, ready for product packaging and labeling, which is the next point of manufacturing. Here in Labeling and Packaging, the portioned amounts of bulk product are used to fill the individual containers, properly labeled based on state regulations, and box them into cases, which are then labeled. Once the cases are sealed and secured, they are brought to the Retail Manufacturing Product Receivables, who awaits pick-up from security to bring it to product storage. Some of this material is diverted to disposal and Lau Ola's internal or certified independent testing laboratory, when necessary.

Retail Summary

Retail Timeline

Lau Ola's plan for the operation of the medical marijuana license is based on our expertise opening and operating pharmacies in the state of Hawaii. Our timeline is based on what Lau Ola is expecting as far as the requirements set forth by the DOH, NED, state and county. The final build out process will begin after the license is granted. Once the license is obtained, we will work with the NED. We are projecting that NED will inspect the premises for security before issuing the certificate. Working hand in hand with both agencies, Lau Ola will ensure complete adherence to the rules and expectations of DOH and NED before we begin the dispensing of medical cannabis. Furthermore, Lau Ola will obtain any further permits or licenses mandated by the state or county based on our manufacturing practices.

Facilities Locations

The retail operations of Lau Ola LLC are located in Keaau and Kona. These locations have been selected for their layout, accessibility, potential security measures, and availability. It is important that all of the retail facilities exceed all state required regulations both pertaining to the licensing for dispensing medical marijuana and to general building codes. The two locations that we have secured for these dispensaries are industrial but unique as they are both in areas that have heavy bypass traffic that would discourage diversion, theft or robbery. Each have been carefully chosen based on requirements dictated by the DOH that include distance from any sensitive locales, areas that are easily accessible for patients, and potentiates our ability to handle product safely and securely.

The Keaau location will be a new construction building in the W. H. Shipman Industrial area located approximately 9 miles south of Hilo. A great location close to the many patients found in the Puna area and just a 8 minutes from the Hilo International Airport. The new construction model allows Lau Ola to specifically design the facilities to meet the many required state imposed security and operations regulations while providing an accessible yet safe environment for medical marijuana patients. Lease agreements have been signed detailing the potential relationship between Lau Ola and

The Kona location will be within an industrial park. This location is just four miles from Kona International Airport and has been fully approved, via a formal zoning interpretation request, by the Hawaii County Department of Zoning and Planning to meet all current state and county codes. A formal lease agreement has been signed with

The same strict security requirement adherence will be in place at the Kona location as used in Keaau.

Retail Facilities

Both the Keaau and Kona locations are modeled the same, with similar floor plans and retail areas. Modern, inviting, branded decor and low intensity, warm lighting provides the patients with an attractive, comfortable, and intimate environment to learn about medical marijuana and discover new strains or methods through patient education services. Temperature and moisture control also allows the medical marijuana to be stored and displayed in optimal conditions for quality.

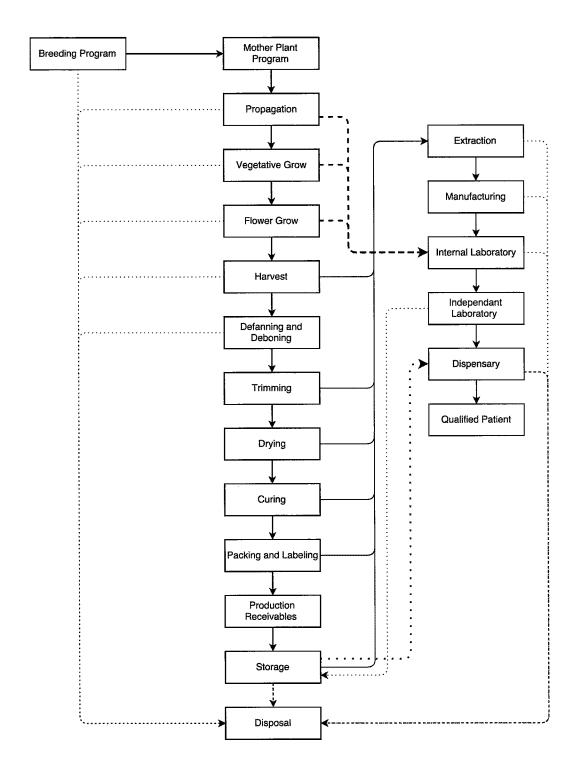
Retail Operations

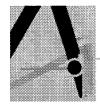
With retail security personnel monitoring the safety of patients as they enter the parking lot, park their cars and enter the dispensary, patients are cared for upon immediate entry to Lau Ola dispensary premises. The safety of the patients and employees inside are insured by an initial identification screening by Lau Ola security. Once inside, a receptionist desk first receives patients one at a time, properly checking identification and verifying enrollment as a qualified medical marijuana patient of the State of Hawaii. Once allowed in the patient waiting room, patients may choose to review our laminated menu, which will be updated daily based on product availability, and will disclose corresponding percentages of tetrahydrocannabinol (THC) and cannabidiol (CBD), their respective properties, and pricing. This will enable patients or caregiver's to self-educate and make an informed decision in selecting a medication if they choose not to engage with a pharmacist for counseling. Dispensary staff will be able available to assist the patient or caregiver in the product selection process at any time. All Lau Ola patients and caregivers will be offered comprehensive counseling which may include a description of the strain and known indications; dosage form, potency, route of administration and duration of product effects; direction for use; common side effects or adverse effects; drug interactions;

proper and secure product storage. At patient request, and in accordance with 11-850 HAR permitting 2:1 ratio of patients to dispensary staff, a patient will enter the sales room to execute the sale of the medication. All patients will be counseled utilizing Lau Ola's minimum counseling standards at each point of sale. These concise counseling points will help to ensure the safe, responsible and appropriate use of our products as well as address proper and secure product storage. Qualifying patients and caregivers will have a chance to review the package insert that accompanies each marijuana or manufactured marijuana product at the point of sale. Patients or caregivers will electronically attest to the product selected, quantity, time, and date of the transaction. Information is also given to the patient on how to reach Lau Ola's online medical surveys for improved patient care and provided with information on how to contact Lau Ola LLC. Once the patients are comfortable to leave the Lau Ola Dispensary, security personnel monitors their person and/or vehicle entry and safe passage onto the roadway or side walk.

Production Center Timeline Growhouse /Processing Center

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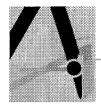
Engineering Partners, Inc.

Progressive Solutions

The mechanical system being proposed for the Lau Ola Agri Business is a central chilled water system consisting of water cooled centrifugal chillers, atmospheric heat rejection system (utilizing new cooling towers or pump system to reject heat to the existing pond), multiple fan coils serving the various grow and processing areas, and a hot water boiler system used for reheat and dehumidification. The overall cooling requirement for the grow facilities and processing areas is estimated at approximately 500-700 tons. The majority of this load is attributed to the heat produced from the grow lights located in the grow facility. The amount of lights is necessary for proper growth of the plants, but effort has been made by the owner to keep the quantity of lights at a minimum and supplement with natural sunlight as much as possible (through translucent panels at the grow facility roof). These chilled water systems are widely accepted as the most efficient systems for space conditioning but require a higher initial investment in equipment and installation. While the systems require a higher level of maintenance and treatment, a well performing system will offer significant energy savings over the life of the operation compared to systems using air-cooled chillers and direct expansion (refrigerant based) systems.

A concept diagram of the proposed system is attached to this document, based on the request of the owner to utilize equipment manufactured by Delta T Solutions who specializes in agricultural environmental control systems. The owner is currently in communication with Delta T Solutions to develop equipment specs and proposed layouts. Multiple small fan coils (approx 5 tons) will be located throughout the spaces and provide both cooling and dehumidification in each space. The system will be designed such that temperature and humidity can be adjusted separately in each zone. This will provide the flexibility to ensure proper environmental conditions are achieved and to make adjustments to the environmental systems in each space independently. Both dehumidification and temperature control will be provided through automatic control of the fan coil supply air temperature. To dehumidify, the chilled water coil will drop the air temperature near its dew point, resulting in the removal of moisture. To prevent overcooling, air will pass over a reheat coil to warm the air back up to maintain space temperature. Hot water will be provided to the reheat coils from a central boiler system, while the chilled water from the cooling coils will be circulated back to the central plant. At the central plant, water cooled chillers will transfer heat from the chilled water loop to the condenser water loop. Heat in the condenser water will be rejected to atmosphere using cooling towers or by rejecting heat into the nearby pond. Further analysis will be needed to verify if the pond capacity is sufficient to reject the required amount of heat. Water treatment systems will be provided in the chilled water and hot water loops. If cooling towers are utilized, a tower filtration system to prevent the accumulation of solids in the basin algae and bacteria growth will be provided.

Fresh air will be provided to each space through a dedicated outside air fan coil. Fresh air rates will be provided at 2 air changes per hour, or as required to meet Dept. of Health/ASHRAE 62.1-1989 ventilation requirements (whichever is larger).



Engineering Partners, Inc.

Progressive Solutions

Indoor environmental conditions to be used as a basis of design are as follows (as directed by owner):

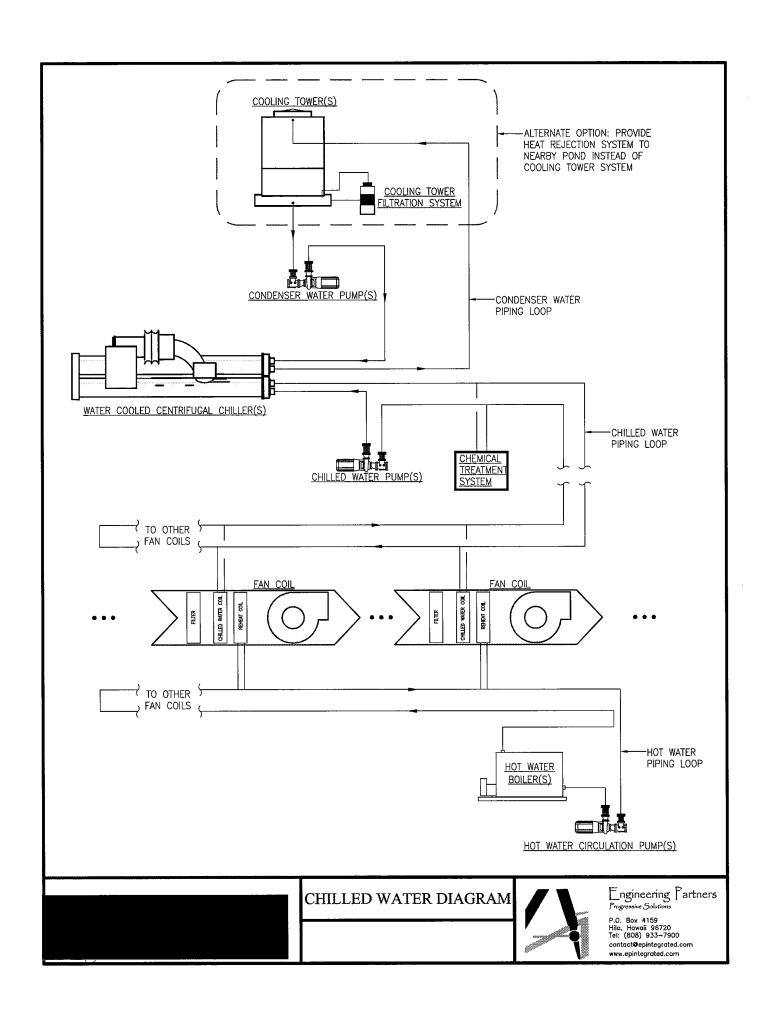
1. Relative Humidity (RH): 40-65%

2. Indoor Air Temperature: 72-75 deg F

3. Air Filtration Requirements: HEPA

Alternative options may be considered if required to reduce project cost or the construction timeframe. In each of the following options the fan coil operation would remain similar. Such options include:

- 1. Utilize air-cooled chillers instead of water cooled chillers This option would eliminate the need for a condenser water system and associated condenser pumps and tower filtration system. This system is still much more efficient than refrigerant based systems at both full load and part load conditions, but energy use would increase since the heat would be rejected directly to air instead of through the condenser water loop (less efficient means of transferring heat).
- 2. Utilize direct expansion (refrigerant based) system instead of the chilled water system. This would involve the use of refrigerant (instead of chilled water) to transport heat from the fan coils to air cooled condensing units (ACCUs) outside the building. The ACCUs would use the refrigeration process to transfer heat from the refrigerant to the ambient environment. These systems are typically more readily available in Hawaii and require less lead time to ship to the state. Installation time is quicker leading to lower initial cost, and they require less maintenance. However these systems use more energy and have less life compared to a well maintained chilled water systems.





Engineering Partners Progressive Solutions

P17153-15-01

January 21, 2016



Subject: HVAC Considerations, Lau Ola Agribusiness LLC,

Dear

Attached for your review is a narrative from our Mechanical Engineer with regards to your proposed project located in

Please review the attached document and contact us with additional information as they become available to you. Currenly we will be awaiting communcation and direction from Lau Ola Agribusiness once you've made the final selection of th HVAC system that will be incorporated into the design.

Płoject Manager



The existing Lau Ola facility consists of three (3) pole mounted transformers. The electrical service is 240v 3-phase, which is somewhat uncommon, because the system has a unusable and unstable208v high-leg. The service from HELCO is 150KVA, and is supplemented by a 100kw hydro generator owned by the customer. The hydro generator is rated at 100KW at full sustained load, but due to the lack of a generation log, the actual capacity is unknown.

The absolute best case scenario yields 250KVA of power to the warehouse. However, due to the lack data from the hydro generator, it is recommended to assume that the generation power is 20% less than the nameplate rating. Therefore, the assumed usable power available is 230KVA.

In order to upgrade the HELCO service for the first phase, HELCO requires a minimum of 6 months to design and construct the upgrade. For the 1MVA upgrade, HELCO will require a minimum of a year to finish the design and construction. Assuming that time is not an issue, HELCO charges approximately \$0.40 per KWH. Due to the on-site HELCO power restraints, the construction will be done in phases. Each phase will include the addition of a PV solar array and batteries for power.

The first phase includes the processing plant, and one hybrid unit. The processing plant has minimal loads, and can be powered by the existing utility service and the hydro generator. Any available power from the hydro generator not used by the processing plant will charge the battery systems as they come online. Conversely, each hybrid unit has an estimated load of 500KVA. The PV solar array is estimated to be around 1MW in order to power the hybrid unit and charge the batteries. The second phase will include the second hybrid unit and the offices. The second phase will require the PV solar array to be approximately 1MW as well.

Please see below for preliminary design concept:

- With minimal grow lights, early calculations indicate the 100KW hydro generator should be more than sufficient to power the new processing plant. The processing plant upgrades will require modification to the existing power distribution, but the electrical service will remain virtually unchanged. Since the processing plant can be powered from the hydro generator, HELCO will provide supplemental power in the event that hydro generator is not available or when the PV solar array is not sufficient. Also, the hydro generator can't respond quickly to fast changes in load, so HELCO will also provide or absorb power for short duration load changes.
- 2) The hybrid buildings have an estimated load of 500KVA, which will require expensive switchgear. It is recommended that the PV solar systems not be connected to each other in order to reduce the electrical switchboard size. Due to the short duration of this project, the final connection configuration will need to be further evaluated for equipment availability and changes in design.



Engineering Partners Progressive Solutions

P17153-15-01

January 21, 2016



Subject: Electrical Considerations, Lau Ola Agribusiness LLC, Dear

Attached for your review is a narrative from our Electrical Engineers with regards to your proposed project located in the Hawaii,

Please review the attached document and contact us with additional information as they become available to you. Currenly we will be awaiting communcation from the organization that will be providing and integrating the Photovoltaic system into the exsiting Helco and Hydro power components.

Sincerely

Return by: MAIL (X) PICKUP () TO: This document contains pages TITLE OF DOCUMENT: MEMORANDUM OF LEASE PARTIES TO DOCUMENT: Landlord: Tenant: LAU OLA, LLC, a Hawaii limited liability company,

PKK//1-26-16

TAX MAP KEY

MEMORANDUM OF LEASE

THIS MEMORANDUM OF LEASE is dated this 27 day of MUAY4, 2016, by and
between, whose mailing address is at the
"Landlord"), and LAU OLA, LLC, a Hawaii limited liability company, whose mailing address is at
(the "Tenant"). Landlord and Tenant have entered into that certain unrecorded Sublease dated
properties situate at S. Hilo, Island and County of Hawaii, State of Hawaii, and being designated on the Tax Maps
of the State of Hawaii as a square feet,
more or less square feet, more or less, for the term of five (5) years beginning on April 15, 2016 to and including
April 14, 2021, unless said Lease shall be sooner terminated according to the terms and conditions contained in
said unrecorded Sublease.
IN WITNESS WHEREOF, Landlord and Tenant have executed this Memorandum of Lease on the day and
year first above written.
Landlord
Tenant

STATE OF HAWAII)
COUNTY OF HAWAII) ss.)
On this 27th day of Ja	, 2016, before me personally appeared
	Manager of LAU OLA, LLC, a Hawaii limited liability company, o m
	factory evidence) to be the persons described in and who executed the
foregoing instrument, and acknowledged to t	me that they executed the same by authority of its members as the fre
act and deed of said company	

STATE OF HAWAII

Name: Ducille K. Mossman

Notary Public, State of Hawaii

My commission Expires: 7/17/2017

NOTARY CERTIFICATION

Document Date: 1/27/2016 No. of Pages: 20 Document Name or Description: Lease and Memorandum of Lease Date of Notarization: 1/27/246	Name: Judicial Circuit Third Judicial Circuit WonGARSIENI SIGN ex PITE 72017 NOTARY PUBLIC Comm. No. 05-445
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STATE OF HAWA);	SS.	
	nown (or proved to	nd acknowledged to	, 2016, before me personally stisfactory evidence) to be the personal me that she executed the same as he Lucile K. Mossr ry Public, State of Hawaii Commission Expires: 7/17/201 commission expires:	son described in and er free act and deed.

NOTARY CERTIFICATION

Document Date: 1/21/2016 No. of Pages: 20 Document Name or Description: Lauce and Memorandum 3 Leuce Date of Notarization: 1/27/2016	Lucille K. Mossman Name: Leci Overo Notary Public, State of Hawaii Third Judicial Circuit My commission expires: Commision Expires: 7/17/2017 PUBLIC Commision Control Control
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LAND COURT SYSTEM **REGULAR SYSTEM** Return by: MAIL (X) PICKUP() TO: ACCOM TITLE NO.: ESCROW NO.: ACCOM Total pages: TITLE OF DOCUMENT: LEASE WITH OPTION TO PURCHASE PARTIES TO DOCUMENT: LESSOR: LAU OLA, LLC, a Hawaii limited liability company, with its LESSEE:

/1-26-16

, Units 002 and 003

TAX MAP KEY

LEASE WITH OPTION TO PURCHASE

THIS LEASE WITH OPTION TO PURCHASE, made and entered into this day of
, 2016, by and between, a Hawaii limited liability company,
with its mailing address at
hereinafter called the "Lessor", and LAU OLA, LLC, a Hawaii limited liability company, with
its mailing address at the state of the "Lessee",
$\underline{\mathbf{W}} \underline{\mathbf{I}} \underline{\mathbf{T}} \underline{\mathbf{N}} \underline{\mathbf{E}} \underline{\mathbf{S}} \underline{\mathbf{E}} \underline{\mathbf{T}} \underline{\mathbf{H}} :$
Lessor, in consideration of the rents hereinafter reserved and of the terms, covenants and
$conditions\ herein\ contained\ and\ to\ be\ paid,\ observed\ and\ performed\ by\ the\ Lessee,\ does\ hereby\ lease$
to Lessee and Lessee does hereby lease from the Lessor, that certain real property including all
warehouse and other improvements situated thereon located at
, and designated on the Tax Maps of the Third Taxation District, State of
Hawaii as
TO HAVE AND TO HOLD the same, together with the rights, easements, privileges and
appurtenances thereunto belonging or appertaining, unto the said Lessee for a term commencing on
the date of award of a medical marijuana license to the Lessee, and terminating on the date which
is 27 months after the commencement date, unless said term shall be sooner terminated as hereinafter
provided.
THIS LEASE IS CONTINGENT UPON the successful application and award of a medical
marijuana license to operate a dispensary on Hawaii Island. In the event that the Lessee is not
awarded such a license, the Lessee may terminate this Lease on thirty (30) days written notice, and
shall thereafter be null and void.
AND this Lease shall be on the following terms and conditions:
1. Rent. The Lessee agrees to pay to the Lessor the initial rent of
monthly, paid in
advance, on or before the 1st day of every month of said term at Lessor's address hereinbefore set
forth, or such other place as shall be designated in writing by the Lessor to the Lessee without any
deduction and without notice or demand, together with Hawaii General Excise Taxes in the amount

Additional Rent. Additional Rent. The Lessee shall pay as additional rent, 2. reasonable Common Area Maintenance for the Premises, which shall include, without limitation, the (i) costs of roof repairs, any other non-structural repairs, line painting, landscaping and irrigation, water, electricity, maintenance of utility meters, bulb replacement, cleaning up, sweeping and janitorial service, cost of garbage and refuse removal, and any repairs, improvements or replacements required by law, (ii) costs of any repairs, alterations, modifications, amendments, additions and/or improvements to the Property and/or the Premises, not otherwise required to be paid for by the Landlord under this Lease, which is necessary, required or appropriate in order to bring the Property and/or the Premises into compliance with the requirements, policies and/or procedures of "The Americans with Disabilities Act of 1990," 42 U.S.C. 12101 et. seq., and/or any rules and/or regulations promulgated with respect thereto; (iii) liability, fire, business interruption, property damage and other insurance, including any deductibles payable by the Landlord thereunder, (iv) real property taxes and any and all other taxes, including any ground rent assessments or charges made under any betterment or improvement law, attributable to the Property or the land on which it is located, (v) any utility charges for the Property or the Premises not separately metered or paid by Tenant and (vi) any other costs which the Landlord shall conclude, in its sole discretion, are reasonable and necessary for maintaining and operating the Premises and/or the Property.

The initial Common Area Maintenance fee shall be . Unless notified otherwise, all payments to be made to the Lessor by the Lessee under this Agreement shall be made directly to Lessor.

2. <u>Utilities, Service, Taxes and Assessments</u>. Lessee shall pay for electricity, water, telephone, refuse disposal, fire and liability insurance, property maintenance, and other utilities and

other such services on a monthly basis directly to the provider of said services, unless otherwise agreed by Lessor and Lessee.

Lessor will pay directly, unless otherwise expressly provided, all real property taxes and all assessments of every kind and all sewer and water rates, which shall be legally payable upon or with respect to said premises, or the use thereof, whether charged against the Lessor or the Lessee.

- 3. <u>Covenant of Quiet Enjoyment</u>. The Lessor hereby covenants that upon the payment by Lessee of the rent as aforesaid and upon observance and performance by the Lessee of the covenants and conditions contained herein, the Lessee shall peaceably hold and enjoy said demised premises for the term hereby demised without hindrance or interruption by the Lessor or any other person or persons lawfully or equitably claiming by, through or under the Lessor, except as herein expressly provided. If the Lessor is unable to deliver possession of the property at the commencement of this Lease, the Lessor shall not be liable for damages to Lessee caused by such delay, and the Lessee shall not be liable for any rent until possession is delivered to the Lessee. If the Lessor is unable to deliver possession within 45 days of the commencement date, Lessee may terminate this Lease, without liability to either the Lessor or Lessee, and Lessee's option payment shall be returned to Lessee, without interest.
- 4. <u>Repair and Maintenance</u>. Lessee will, except as otherwise specifically provided, at Lessee's own expense at all times during the term of this Lease, maintain and keep the demised premises in good, attractive and sanitary condition and repair, provided, however, Lessor shall maintain and repair the plumbing and electrical systems to the exterior boundary of the Premises, except as to those defects or repairs caused by the negligence or wilful conduct of the Lessee.
- 5. <u>Alterations and Improvements</u>. Lessee has inspected the property and acknowledges that the property is in good condition and repair. Lessee shall not be allowed to make alterations, additions, and improvements or remove existing improvements without the prior consent of the Lessor, which consent shall not unreasonably be withheld, and only provided that all such alterations, additions and improvements shall comply with all statutes, codes, rules and regulations of all governmental agencies. All alterations, changes and improvements built, constructed, or placed on the demised premises by Lessee, with the exception of fixtures removable without damage to the premises and movable personal property shall, unless otherwise provided by written

agreement, be the property of the Lessor and remain on the premises at the expiration or sooner termination of this Lease.

- 6. Access by Lessor. Lessee shall permit Lessor and/or his agent to enter the demised premises at all reasonable times for the purpose of inspecting the same, maintaining the building or making repairs, alterations or additions to the same, without any rebate of rent, without any liability to Lessee for any loss of occupation or quiet enjoyment, provided that except in cases of emergencies, Lessor shall provide at least two days prior notice, and shall enter the demised premises to repair and maintain the building in such a manner as to cause as little interference as reasonably possible.
- 7. <u>Surrender Upon Termination</u>. At the expiration of this Lease, Lessee shall surrender the premises in the same condition of cleanliness and repair as the premises were in upon the commencement of this Lease, reasonable wear and tear and damage by the elements or unavoidable casualty excepted. Lessee shall surrender all keys for the demised premises to Lessor at the place then fixed for the payment of rent. Upon expiration of this Lease, Lessee shall remove from the leased premises, all marijuana plants and any products processed from marijuana plants.
- 8. <u>Lessee's Default</u>. The occurrence of any of the following shall constitute a default by Lessee:
- a. Failure to pay rent when due, and the Lessee fails to pay all amounts due and owing under the Lease within five (5) days after receipt of written notice of default.
- b. Failure to perform any other provision of this Lease if the failure to perform is not cured within ten (10) days after notice has been given to Lessee. If the default cannot reasonably be cured within ten (10) days, Lessee shall not be in default of this Lease if Lessee commences to cure the default within the ten (10) day period and diligently and in good faith continues to cure the default.
 - c. Lessee abandons the premises.

Notices given under this paragraph shall specify the alleged default and shall demand that Lessee perform the provisions of this Lease or pay the rent that is in arrears, as the case may be, within the applicable period of time, or quit the premises. No such notice shall be deemed a forfeiture or a termination of this Lease unless Lessor so elects in the notice.

- 9. <u>Lessor's Remedies</u>. Lessor shall have the following remedies if Lessee commits a default. These remedies are not exclusive; they are cumulative in addition to any remedies now or later allowed by law.
- a. <u>Right to Reenter</u>. During the period Lessee is in default, Lessor shall have the immediate right, with or without termination, of reentry and may remove all persons and property from the premises and such property may be removed and stored in a public warehouse or elsewhere at the cost of and for the account of the Lessee, without service of notice or resort to legal process and without being deemed guilty of trespass, or becoming liable for any loss or damage which may be occasioned thereby.
- b. Right to Relet. Should the Lessor elect to re-enter as provided in Paragraph 1 hereinabove, the Lessor may terminate this Lease and relet the premises or any part of them, to third parties for Lessee's account. Reletting can be for a period shorter or longer than the remaining term of this Lease and upon such terms and conditions as the Lessor in its sole discretion deems advisable. Upon each such reletting all rentals received by the Lessor from such reletting shall be applied, first, to the payment of any indebtedness other than rent due hereunder from Lessee to Lessor; second, to the payment of any costs and expenses of such reletting; and third, to the payment of rent due and unpaid hereunder.
- c. <u>Termination</u>. Termination shall be made as provided by law. Lessor may at any time thereafter elect to terminate this Lease for Lessee's default, in addition to any other remedies it may have, it may recover from Lessee:
- (i) All damages it may incur by reason of such default, including the cost of recovering the premises and reasonable attorney's fees;
- (ii) Any other amount necessary to compensate Lessor for all detriment proximately caused by Lessee's default.
- d. <u>Non-waiver</u>. The waiver by Lessor of any breach of any term, covenant or condition herein contained shall not be deemed to be a waiver of such term, covenant or condition or any subsequent breach of the same or any other term, covenant or condition herein contained. The subsequent acceptance of rent hereunder by Lessor shall not be deemed to be a waiver of any preceding breach by Lessee of any term, covenant or condition of this Lease, other than the failure of Lessee

to pay the particular rental so accepted, regardless of Lessor's knowledge of such preceding breach at the time of acceptance of such rent.

- e. <u>No Accord and Satisfaction</u>. No payment by Lessee or receipt by Lessor of a lesser amount than the monthly rent herein stipulated shall be deemed to be other than on account of the earliest stipulated rent nor shall any endorsement or statement on any check or any letter accompanying any check or payment as rent be deemed an accord and satisfaction, and Lessor may accept such check or payment without prejudice to Lessor's right to recover the balance of such rent or pursue any other remedy in this Lease provided.
- f. <u>Late Charges and Fees.</u> In the event that rent is not paid within five (5) days after the date it is due, the Lessee shall pay a one-time late charge of for each installment that is past due, plus interest at the rate of 12% per year on the delinquent amount.
- 10. <u>Defaults by Lessor</u>. In the event of any act or omission by the Lessor which would give the Lessee the right to terminate this Lease or to claim a partial or total eviction, the Lessee may give written notice of such act or omission to the Lessor, at the last known address furnished to the Lessee in writing. The Lessor shall, with reasonable diligence, commence and continue to remedy such act or omission or to cause the same to be remedied within twenty (20) days after notice has been given to Lessor.
- 11. <u>Lessee's Remedies</u>. If Lessor fails promptly and fully to perform any of Lessor's obligations hereunder under written request by Lessee, Lessee shall have the right but not the obligation to perform the same and to recover Lessee's expense, including reasonable attorney's fees, together with interest at the legal rate from Lessor. If such expense and interest are not paid upon demand, Lessee shall have the right to deduct same from any installment of rent thereafter payable hereunder. No such failure shall be grounds for cancellation of this Lease.
- 12. <u>Notices</u> All notices to be given under this Lease may be given personally in writing, or by depositing the same in the United States mail, postage prepaid, and addressed to the Lessor or Lessee at their addresses indicated above, or at such other address as is given in writing from time to time.
- 13. <u>Time of Service</u>. Any written notice sent by mail shall be deemed to have been served two days after the postmarked date.

- 14. <u>Broker's Commission</u>. Lessor and Lessee represent that they represent themselves without involvement of real estate brokers. Manager of the Lessee discloses that he is a licensed real estate salesperson, but is not being paid brokerage commissions or finder's fees in connection with the execution of this Lease. Lessor and Lessee agrees to indemnify each other against, and hold each other harmless from, all liabilities arising from any such claim for broker's commissions (including, without limitation, the cost of counsel fees in connection therewith).
- 15. <u>Use</u>. The premises shall be used as a marijuana retail facility and for no other purpose.
- 16. <u>Holding Over.</u> Any holding over after the expiration of the Lease shall be construed as a month to month tenancy in accordance with the terms contained in this instrument.
- 17. <u>Definitions and Miscellaneous Provisions</u>. This Lease shall be construed in accordance with the following definitions and rules of construction:
- a. <u>Time of the Essence</u>. Time is specifically declared to be of the essence of this Lease, and of all acts required to be done and performed by Lessee including, but not limited to, the payment by Lessee or each, every and all of the sums and items required by the terms hereof to be paid.
- b. <u>Gender and Number</u>. The use of any gender shall include all genders, and the use of any number shall be construed as singular or plural, as the case may require. The terms "Lessor" and "Lessee" refer to either the singular or the plural, as the case may be.
- c. <u>Successors</u>. "Lessor" and "Lessee" shall inure to the benefit of and be binding upon their respective estates, heirs, executors, administrators, successors and permitted assigns.
- d. <u>Obligations Joint and Several</u>. All covenants and agreements to be observed and performed by Lessee or Lessor shall be joint and several if entered into by more than one.
- e. <u>Paragraph Headings</u>. The underscored word or words appearing at the commencement of paragraphs and subparagraphs of this Lease are included only as a guide to the contents thereof and are not to be considered as controlling, enlarging or restricting the language or meaning of those paragraphs or subparagraphs.
- f. <u>Consent</u>. Lessor agrees that whenever their consent or approval is required under the terms and conditions of this Lease, they will not withhold such consent or approval arbitrarily

or unreasonably, and will not charge any money for the granting thereof other than a reasonable fee for the preparation and execution of the consent document.

- g. <u>Severability</u>. If any term, covenant or condition of this Lease or the application thereof to any person or circumstance shall, to any extent, be invalid or unenforceable, the remainder of this Lease, or the application of such term, covenant or condition to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby and shall be valid and enforced to the fullest extent permitted by law.
- h. <u>Entire Agreement</u>. This Lease contains the entire agreement between the parties and any executory agreement hereafter made shall be ineffective to change, modify, discharge or effect an abandonment of this Lease in whole or in part unless such agreement is in writing and signed by the party against whom enforcement of the change, modification, discharge or abandonment is sought.
- i. <u>Governing Laws</u>. The laws of the State of Hawaii shall govern the validity, performance and enforcement of this Lease.
- j. Attorneys fees. If any party hereto shall ever be in default with respect to this Agreement, and the other party shall incur costs or employ an attorney to make any demand or to otherwise protect or enforce its rights herein, the party in default shall pay all costs and expenses incurred by the other party, including the costs of court and a reasonable attorney's fee.
- k. <u>Further Instruments</u>. Upon notice from either party to the other, Lessor and Lessee shall execute and acknowledge, in recordable form, and deliver to the party requesting the same an appropriate instrument, which, when recorded, will impart constructive notice to third parties of all of the rights of Lessee under this Agreement. Each party hereto shall further execute and deliver all such other appropriate supplemental agreements and other instruments and take such other action as may be necessary to make this Agreement fully and legally effective, binding and enforceable as between the parties hereto and as against third parties.
- 1. No Party Deemed Drafter. Lessor and Lessee agree that no party shall be deemed to be the drafter of this Agreement and further that in the event that this Agreement is ever construed by a court of law, such court shall not deem either party to be the drafter of this Agreement.

18. Option to Purchase.

- a. <u>Grant of Option</u>. So long as Lessee is not in default of the payment of rent Lessor hereby grants to Lessee an exclusive Option to purchase all of the property at
- b. Purchase Price of Option. The consideration for the Option is the timely payment of monthly rent, the receipt of which Lessor hereby acknowledges. Lease payments are fully nonrefundable if Lessee shall fail to exercise the Option in the method set forth herein. If Lessee elects to exercise the Option, the base rent payments made to the Lessor shall be credited against the payment due under paragraph 18 e. (i) herein. A failure in any respect of the Lessee to exercise the Option granted herein shall be deemed to be a rejection of the Option for all purposes. If the Lessee shall fail to exercise the Option then all sums paid for this Option shall be retained by Lessor, free of all claims of the Lessee, and neither party shall have further rights against the other. Thereafter, Lessee agrees that Lessee will promptly execute, acknowledge and deliver to the Lessor, within ten (10) days after request by Lessor, a release and/or waiver in a form required by Lessor or any Title Insurance Company doing business in the State of Hawaii to verify that the Option has terminated and that the Lessee has no claim under such Option or under the Lease Agreement. Lessee further agrees to bear any and all costs associated with, concerning relating to or pertaining to said release and/or waiver.
- c. <u>Term of Option</u>. The term of this Option shall be 1 year from the effective date of a medical marijuana license issued to the Lessee. This Option shall automatically terminate on said date unless Lessee has complied with the requirements set forth in Paragraph d. below as of 12:00 midnight, on said termination date.
- d. <u>Exercise of Option</u>. Lessee may exercise, at any time within the term of this Agreement, the Option herein granted by taking the following steps:
- (i) Express written notice to Lessor at such address as Lessor may designate in writing from time to time. Said notice shall be sent to Lessor either by certified mail, postmarked no later than 4:30 p.m., or by hand delivery, to be delivered to Lessor, no later than 12:00 midnight; and

- e. Upon the exercise of the Option in accordance with the terms herein, the following provisions shall take effect.
- (i) <u>Purchase Price</u>. The total purchase price of the subject property will be shall be paid as set forth in standard terms and conditions of a Realtor's Purchase Contract.. There shall be no penalty for prepayment and the Lessee may exercise the Option at any time during the term set forth in this Agreement. The consideration for the Option (all base rent payments made until Closing, but excluding CAM fees) shall be applied to the purchase price in the event the Lessee exercises the Option.
- (ii) <u>Closing</u>. Closing of the transaction herein will take place on or before the thirtieth (30th) day after the date of the exercise of the Option.
- (iii) Expenses of Sale. Lessor shall pay for the preparation and recordation of the conveyance documents, conveyance taxes, and any releases of any existing real property liens or encumbrances. Each party shall pay its own notary fees. The escrow fees, and all other costs shall be paid in accordance with the Purchase Contract.

(iv) Prorations.

- (a) Property taxes, insurance and other assessments against the property shall be prorated as of closing.
- (b) Lessor will transfer to Lessee at closing any security and other tenant deposits, if any.
- Lessee, marketable title to the subject property, free and clear of all encumbrances. Neither party shall cause or allow new or additional mortgages or liens to be placed against the subject property prior to closing. The Lessee shall have 15 days after the exercise of the Option to examine the title to the property and to report in writing any objections thereto. The Lessor shall use due diligence in removing any exceptions reported by the Lessee at Lessor's own expense within 60 days. If the Lessor is unable to remove said exceptions within 60 days, all rights and obligations hereunder may, at the election of the Lessee, be terminated, without further liability to each party, or the Lessee may elect to purchase the property subject to said exceptions.

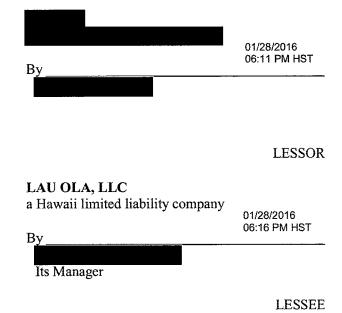
- (vi) <u>Fire or Casualty</u>. If there should be substantial damage or destruction to the subject property between the time of the exercise of the Option and the time of closing, Lessee may elect to cancel this Agreement or to proceed, in which case Lessor shall assign to Lessee all insurance proceeds. In such event, the closing will be delayed up to thirty (30) days at Lessee's election, to permit Lessee to determine whether to terminate or proceed.
- Lessee without the prior written consent of the Lessor, which consent shall not be unreasonably withheld. Consent may be withheld only if the proposed assignee is unable to provide Lessor with a substantial and adequate financial statement and a TRW (or similar) credit report showing an established history and no credit problems. If assigned by the Lessee, all acts performable by the Lessee or Optionee hereunder may be performed by any permitted assignee, whether such assignment is made prior to or after the exercise of the Option. Assignee must agree in writing to comply with all of the requirements and conditions applicable to purchase of electrical power from Lessors. Lessee agrees that an assignment of the Option or Lease shall not constitute a discharge or release of the Lessee's duties or responsibilities contained in this Agreement.
- (viii) <u>Subletting</u>. Lessee may, with the prior written consent of the Lessor, sublet the premises, in whole or in part, provided, however, that any subleases made hereunder shall be made expressly subject to the terms, provisions and conditions of this Lease.
- (ix) <u>Escrow Agent</u>. By the execution of this Agreement the parties nominate and appoint TITLE GUARANTY ESCROW SERVICES, INC., a Hawaii corporation, as "Escrow Agent." Lessor shall advise Escrow Agent by separate document as to the manner or method of distribution of payments received hereunder.
- (xi) <u>Lessor's Remedies</u>. In the event that Lessee fails to make payments due or otherwise breaches or defaults in the performance of any covenant or obligation of the Lessee hereunder, Lessor, if then not in breach, may rescind this Option Agreement and recover possession of the subject property.
- (xii) <u>Lessee's Remedies</u>. In the event the Lessor shall breach or default in the performance of any covenant or obligation of the Lessor hereunder, the Lessee, if not then in default, may bring an action against the Lessor for specific performance of this Option Agreement and/or

pursue such other legal remedy as shall be allowed at law or in equity, all toward the end of making the Lessee hereunder whole.

- (xiii) <u>Time; Governing Law.</u> TIME AND MANNER OF PERFORMANCE ARE OF THE ESSENCE IN THIS AGREEMENT. This Agreement shall be construed under the laws of the State of Hawaii. The parties shall have all of the rights and privileges provided by the laws of the State of Hawaii upon default and/or enforcement of this Agreement.
- (xiv) <u>Purchase Contract</u>. The Purchase Contract shall be prepared on a standard Hawaii Island Board of Realtor's form. In the event of any inconsistency in the terms of the two documents this Lease shall prevail.
 - 19. Special Provisions.
- a. Commencement of Lease. If Lessee has not been awarded a medical marijuana license by June 1, 2016 for the Island of Hawaii, Lessor may terminate this Lease and the option to purchase by providing written notice of termination to Lessee.
- b. Compliance with State of Hawaii Requirements for Medical Marijuana License. Lessee shall comply at all times with applicable Hawaii law (including any regulations by the Hawaii Department of Health) so as to lawfully process and sell marijuana. Said compliance shall be done without the need for any inspection or notice from Lessor. Failure to comply with such law shall be a material breach of this Lease. If any marijuana or marijuana products are left on the leased premises on expiration of this Lease (whether expiration is by Lessee's actions or otherwise), Lessor may notify the appropriate governmental officials for appropriate disposal of the marijuana at the Lessee's expense.

Lease Accepted Subject to attached Addendum.

IN WITNESS WHEREOF, Lessor and Lessee have executed these presents the day and year first above written.



APPROVED AS TO FORM PETER K. KUBOTA ATTORNEY AT LAW

BY_____

STATE OF HAWAII)	
COUNTY OF HAWAII) SS.)	
On this	lay of	, 2016, before me personally
appeared to r	ne known (or pr	roved to me on the basis of satisfactory evidence)
to be the person described in and wh	ho executed the	foregoing instrument, and acknowledged to me
that he executed the same as his fre	æ act and deed.	
		Name: Notary Public, State of Hawaii
		Notary rubiic, State of Hawaii
		My commission expires:
Ŋ	NOTARY CER	TIFICATION
Document Date:		
No. of Pages:	Nam	
Document Name or Description:	Nota	ary Public, State of Hawaii Judicial Circuit
		commission expires:
Date of Notarization:		

STATE OF HAWAII)	
COUNTY OF HAWAII) SS.)	
On this	day of	, 2016, before me personally
appeared	, to me know	n (or proved to me on the basis of satisfactory
evidence) to be the person desc	ribed in and who exc	ecuted the foregoing instrument, who did say that
he is the Manager of LAU OLA	A, LLC, a Hawaii lim	nited liability company, and acknowledged to me
that he executed the same as h	is free act and deed	and as the free act and deed of said company.
		Name:
		My commission expires:
	NOTARY CER	TIFICATION
Document Date:		
No. of Pages:	Nam	
Document Name or Descripti	on: Nota	ary Public, State of Hawaii Judicial Circuit
		commission expires:
Date of Notarization:		
		•

ADDENDUM TO LEASE WITH OPTION TO PURCHASE

For property		
This Addendum modifies the <i>Lease With Optic</i> a Hawaii limited liability company, with its mail hereinafter called the "Lessee".	ing addr	ess at "Lessor", and LAU OLA, LLC, a
The following terms and conditions are amend	led as fo	llows:
Paragraph 2. Common Area Maintenance cha	ırges. A	mended to \$
Paragraph 18. c. The right to exercise the O 30, 2016. If not exercised by Lessee by then the parties shall not be under any further obligation in continuing this Lease. Once the Option is exercised, the sale must be the notice to exercise the Option.	the Op	tion to purchase shall expire, and both the purchase of the property
Paragraph 19. a. The rents stipulated in the 2016, and continue until termination of the obligated to provide the demised premises of Option to purchase is exercised.	Lease.	However, Lessor shall not be
Agreed:		
By LESSOR/Operating Mgr.	Date	01/28/2016 06:12 PM HST
LAU OLA, LLC a Hawaii limited liability company		01/28/2016 06:16 PM HST
	Date	

By Its LESSEE/Manager

Manufacturing Equipment

Packaging Equipment/ Supplies, Employee Safety, Sanitation, and Security. We will add or replace items as necessary to comply with State of Hawaii standards and to ensure that patients receive the highest quality products available. The following section describes the equipment and materials to be utilized throughout the manufacturing activities at Lauola LLC for our 'seed to sale' business model. The list is divided into these categories: Grow House, Grow Equipment, Processing Center Equipment, Disposal Equipment,

Grow-house

Reference		
Links	<u>Conely's</u> 7500	Conleys 7700
Image		
Descripsion/Use	Connely industrial buildings 110mph wind, 15lb live load. 4 bays 50' wide x 160' long, 12' wall height, 32000sqft. The grow house will be an all steel structure, non-combustible, with steel walls and steel roof if necessary, but we propose an opaque roof consisting of 8mm twin-wall polycarbonate to provide security, insulation, and non-visual.	Automated light deprivation system mounted in one 50x160ft bay, allows exposure to natural light when needed, and blocks unwanted light from escaping when needed.
# lopom	Connely 7500 LD	Connely 7500 LD
Product	Structure	Light Deprivation System

Oelta-T Solution S	Group	NATIONAL PROPERTY AND ADDRESS OF THE PROPERTY ADDRESS OF THE PROPERTY AND ADDRESS OF THE PROPERTY ADDRESS OF THE PROPERTY AND ADDRESS OF THE PROPERTY ADDRESS	Parsour CG		Conleys bench- systems
Hydronic climate control system uses temperature controlled water for a super efficient, high percision temperature and humidity for large buildings.	Design for commercial buildings, food processing, and pharmaceuticals, this bolted housing allows for easy inspection and replacement of filter cartriges.		Phantom Commercial DE Ballast, reflector, and an Agrosun 1000W high PAR Double-Ended Bulb. Ballast is uniquely operable either attached or remotely, allowing for maximum flexibility. This commercial-grade ballast is designed with a high precision smart microprocessor, highly efficient operation and extremely reliable performance. It has fourway dimming capabilities: 60%, 75%, 100% and Super Boost (up to 1150W lamp output).		Conley's Rolling Benches for space and crop optimization. Rolling bench systems offer 25-30% more room for plants.
Delta-T Solutions	Filtration Group/ HEPA. Bolt-Seal Housing	Grow Equipment	PARsource 1000w DE		Connely various models
HVAC	HEPA Air Filtration	Gro	Lights	Controls	Benches

to house ng stage. to form along with		idity for new	seed starts.	Hummer Controll	bes in for
These cubes act as starter media to house clones and seeds during the rooting stage. During this stage the plant begins to form roots. After two weeks, the plants along with the cubes, are moved into 3" pots.		Used to stabilize and control humidity for new cuttings during propagation.	Used to stabilize and control temperature during propagation of cutting and seed starts.		Pots to place rock wool starter cubes in for the first phase of growing seedlings or cuttings.
Grodan various models	3	Hydrofarm 7.5" humidity dome			3" Pots
Starter Media- Rock Wool	Rooting Hormone	Humidity Dome	Heat Mat	Heat Mat Controller	Starter Pots

Vegetation Stage Pots	Grow Media-1	Grow Media-2	Pots 5gal Square white 9.15ea	NFT Irrigation System
12" Pots	Vermiculite	Gold Label Hydrocorn simple hydroponic substrate	P105P 5.3 Gallon	Available pipe and connectors.
Pots to grow from seedlings and rooted cuttings, until ready for flowering.	Industrial grade for horticulture will be used to provide nutrient wicking action to the roots.	Clay Bead Pellets as a reusable soil-free structural base for plant roots. Gold Label Hydrocorn is manufactured using a mix of the best quality pure clay and are baked in an open furnace using high grade clean fuels, guaranteeing absence of heavy metals or other contaminates. Proudly carries the RHP for horticulture quality certificate. The porous structure has a high water capacity and is suitable for both ebb/flood and top irrigation systems.	Durable HDPE food grade container used for flowering stage. Containers will be fitted with nutrient piping, media screen attached, filled with media, placed on rolling benches, and attached to the nutrient return piping. 12 inch vegetative plants will be placed on media, media filled around, and lids will be placed on top to hold media screen and keep light away from media.	We will manufacture and install our own system, as available systems do not meet our specifications.
	\$19597			
Anderso n Pots	<u>ULINe</u>	Hydro	Contain er and Packagi ng:	

Poly Drip Transport 1/2" drip tubing we sell measures .700"od (.600"id) Professional contractor grade, low density, linear, flexible polyethylene tubing, specifically designed to help eliminate pipe failures due to ultraviolet rays and environmental stress cracking.	Poly Drip 1/4" feed tubes 1/4" outside diameter (.170"id)	PVC Sch 40 pipe Approved by NSF International for use with potable water (NSF Std 61). Corrosion resistant pressure pipe exhibits excellent physical properties and flammability characteristics.	Takiron Green Steel Ring spacing is closer together near the bottom and increases as it goes up, to coincide with a plant's growth. Double rings every 50 cm help you insert to an even height. Waterproof, heat-sealed caps stay in place. Mold resistant. Durable heavy gauge steel in all-weather, polyolefin resin coating won't warp, rot or rust. Resists chemicals and lasts for years.	Lever Loops 1 inch 1000 Pk. E204 and 3/4 1000 Pk. E202 1000 Pk. E204 1000 Pk. E205 1000 Pk. E204 1000 Pk. E204 1000 Pk. E204 1000 Pk. E205 1000 Pk. E205 1000 Pk. E204 1000 Pk. E204 1000 Pk. E204 1000 Pk. E205 1000 Pk. E205 1000 Pk. E206 100	Green Garden Wire Plastic coated garden wire that can be cut to any required length with using the furnished cutter on the packing pack. Ideal for attaching climbing plants. The Green Garden Wire comes with 175 feet of garden wire Weight 1 nound
Nutrient Tubing small			Gardene lightsupply.com- stakes rs Edge	<u>Clips</u>	

2 pH 2 is a handheld, waterproof, and dustproof 2 pocket meter that measures pH and floats, if 3 dropped in liquid. A portable pocket meter is commonly used to measure the pH of substance in hydroponics.	automatically maintain ideal CO2 levels for optimum growth. Or Or	This type of tank can be filled at Airgas in Hilo, but another option could be to have them deliver to a larger tank.	Checks for CO2 Concentrations in Range of 0 to 5,000ppm Calculates TWA and STEL Statistical Weighted Averages Maintenance Free Non-Dispersive Infrared (NDIR) CO ₂ Sensor User Programmable Audible Alarm, Backlit Triple LCD Display Built-in RS-232 Interface for Logging Data tp PC	Center Equipment
Oakton EcoTestr pH 2 p	Active Air Hydrofarm a CO2 .2-2 cu ft per hour o with Timer	Various options H	CO250	Processing Cente
PH Tester	Co2 Regulator	Co2 Tanks	Co2 meter	P 70

Drying Sheet Pan 18 Gauge, Commercial Quality, Ga. Heavy Duty Trays Trays Trays Trays Trays Trays Trays This Advance mobile side load pan rack for racks. This Advance mobile side load pan rack for state This Advance mobile side load pan rack for racks This Advance mobile side load pan rack for racks This Advance mobile side load pan rack for state This Advance mobile side load pan rack for state This Advance mobile side load pan rack for state This Advance mobile side load pan rack for state This Advance mobile side load pan rack for state This Advance mobile side load pan rack for state This Advance mobile side load pan rack for state This Advance mobile side load This Advance mobile side This Advance mobile side load This Advance mobile This Advance mobile side This Advance mobile side load This Advance mobile side This Advance mobile This Advance mobile side Th	Processing tubs	Table-Top Trimming Station	Trimming Station offers ergonomic user interface, with safe, effective cleanup, also has a built-in shelf for your tools and pots plus be easy grip handles	<u>XTrim</u> Bins
Tabco PR15-4WS This Advance mobile side load pan rack for storing and transporting pans throughout your commercial kitchen or facility. It features heavy duty welded aluminum construction with 6 cross supports, a fully welded 1" square tubing ladder assurity, and fish gade assure to exceptional durability and maneuverability. 1" x 1 1/2" inboed aluminum angles. It can hold up to 15 full size pans with 4" spacing between shelves and has a total capacity of 500 lbs. EZ Trim Satellite (SL) The EZTRIM Satellite and Satellite (SL) now trim WET and DRY at no additional cost! The Satellite (SL) is for the large-scale grower who needs more than 1 machine at the most economical cost. Fiskars® Softlouch® Easy-open spring action reduces hand stress Micro-Tip® Pruning give vou precision and control. Holds sharp edge longer. Handles reduce stress, non-slip for safety. Right or left-handes reduce stress, non-slip	Drying Trays	Sheet Pan 18 Gauge, 18" x 26"	Commercial Quality, Ga. Heavy Duty Aluminum Will Not Warp Or Buckle In Hot Oven	<u>Trays</u> Allum
EZ Trim Satellite (SL) trim WET and DRY at no additional cost! The Satellite (SL) is for the large-scale grower who needs more than 1 machine at the most economical cost. Fiskars® Softtouch® Easy-open spring action reduces hand stress Micro-Tip® Pruning Ship edge longer. Handles reduce stress, non-slip for safety. Right or left-handed use.	rolling racks- single 10	Tabco PR15-4WS	This Advance mobile side load pan rack for storing and transporting pans throughout your commercial kitchen or facility. It features heavy duty welded aluminum construction with 6 cross supports, a fully welded 1" square tubing ladder assembly, and 5" stem bolted casters for exceptional durability and maneuverability. 1" x 1 1/2" ribbed aluminum angles. It can hold up to 15 full size pans with 4" spacing between shelves and has a total capacity of 500 lbs.	Rack 1
Fiskars® Softtouch® Easy-open spring action reduces hand stress Micro-Tip® Pruning while cutting. Super sharp, Micro-Tip® blades Snip give you precision and control. Holds sharp edge longer. Handles reduce stress, non-slip for safety. Right or left-handed use.	Flower	EZ Trim Satellite (SL)	The EZTRIM Satellite and Satellite (SL) now trim WET and DRY at no additional cost! The Satellite (SL) is for the large-scale grower who needs more than 1 machine at the most economical cost.	EZ Trim
	Trimming Scissors	Fiskars® Softtouch® Micro-Tip® Pruning Snip	Easy-open spring action reduces hand stress while cutting. Super sharp, Micro-Tip® blades give you precision and control. Holds sharp edge longer. Handles reduce stress, non-slip for safety. Right or left-handed use.	Scissors

	Mixer/ To be c	Lab ML8125 Heating ele positions in Quick - infra seconds at Safe and ec open flames Ergonomic access from Silide dryer in Sil
To be determined	To be determined	ML8125 3-Place Slide Dryer
Since DOH has not developed Equipment guidelines as of yet, we will work with the agency and vendors to develop equipment that renders any cannabis material that we need to dispose of, into un-usable, unrecognizable form.	After grinding, the disposed product falls into the hopper/mixer, and is mixed with other products, and delivered to a holding facility outside the processing center, within the highsecurity fence.	Heating element angle adjusts to five positions in eight-degree increments Quick - infrared heat sterilizes loop in seconds at 815°C (1500°F) Safe and economical - no hazardous gas or open flames Ergonomic design reduces hand fatigue by access from multiple positions Slide dryer ideal for drying sputums, exudates, and other thick mucous substances without morphological distortions
Washing I ton State Disposal Guidelin es	Hopper	Lab Incinerat or
Hammer Mill		

Packagi ng Contain ers	
MIMC Depot is a medical marijuana packaging company that specializes in wholesale marijuana containers for both medical and recreational uses. The company has a 100-year history in the packaging industry as a 4th generation, family owned division of Central Bag & Burlap Company (CBBC) — established	In Deriver in 1914 and locused solely on packaging supplies for a variety of industries and markets.
Suc	
Cannabis Many Optii containers	

			Ĥ		
			Uline Straight-Sided- Glass-Jars		
Bag Sealer	Uline Bags on roll	strappin g machine	Glass Contain ers		
					0
Seal and trim poly tubing in one step	Many sizes- Clear, Black, Anti-Static	Automatic strapping machine. This machine is the most general-purpose type, featuring a high strapping speed and a low failure rate	No packaging preserves the fragrance and essential oils as well as glass. Some of our products will be stored and even sold in glass containers.	Weighing product during many stages during processing and packaging is important for tracking and accuracy at all levels.	fety Compliance
H 1252	6 MIL HEAVY DUTY or other option	Model No PKM-800	Many Options	Many Options	Employee Safety
Bagging	Bagging	Strapping	Olass Olass	Scales	E E

Dupont Tyvek Suits	Respirat	First- Aid-Kits		Booties	http://ww w.gempl ers.com/ product/ 139468/ Footbath -Mat- 32x39
		Ju of Sill			
Protection for non-hazardous situations: particles and light liquid splash.	Reusable, Comfortable, Lightweight Adjustable, NIOSH Approved For use in operations where air quality is questionable, as in plant media mixing, etc.	Deluxe First Aid Kits contain a full assortment of products for treating common workplace injuries. OSHA compliant.		Water resistant. Keeps feet dry and areas clean. Polyethylene. Latex-free.	Black footbath mat holds up to 5-1/2 gallons of solution to keep shoes and boots contaminant free. Place at entryways to areas that must be kept clean. The recessed footbath mat surface is covered with thousands of pliable rubber scrapers that will dislodge soil. Rubber tips bend under your weight to submerge soles in the solution. Debris is channeled below for future disposal. 32"x39"
Dupont Tyvek Coveralls TY120 several options available.	3M 6000 Series Half Mask Respirator 3M 2091 Particulate Replacement Filter - 2 Filters	H-1294	Sanitation	S-10482	Footbath Mat - 32x39
Tyvek Suits	Respirators	First Aid Kits- 10	Sani	Booties	Sani-Mats 10

Footbath Disinfect ant	Soap Dispense	<u>Wash</u>	Campbell Hausfeld: CP5211: Pressure: Washer	
Specifically designed for farm use, this Virkon (a) S disinfectant solution is perfect for all prevention and decontamination procedures including use in footbaths, Is the fastest acting disinfectant available	One hand operation. Compact dispenser fits into small spaces. Single setting portion control. Works with 800ml (27 oz.) refill boxes	Eyewash with bowl and spray heads in ABS plastic, other details of chrome-plated brass and wall bracket in painted aluminum. Each individual spray head has built-in flow control and filter. Designed for minimum flow of 14 L / min between 2,4-6 bar pressure.	Heavy Duty 2-HP, 120V Induction Motor Outperforms other electric motors Gas-like performance without fuel emissions or noise. For cleaning Trimmers, trays, and other processing equipment.	
Item No: 151210	GOJO® Wall-Mount Dispenser - 800 mL, White	RSK 8213884	Campbell Hausfeld Professional 2000 PSI (Electric-Cold Water) Pressure Washer w/ Cat Pump	Ę
Sani- solution	Soap Dispensers 8	Eye Wash Station	Pressure Washer	Security

Lau Ola Product List

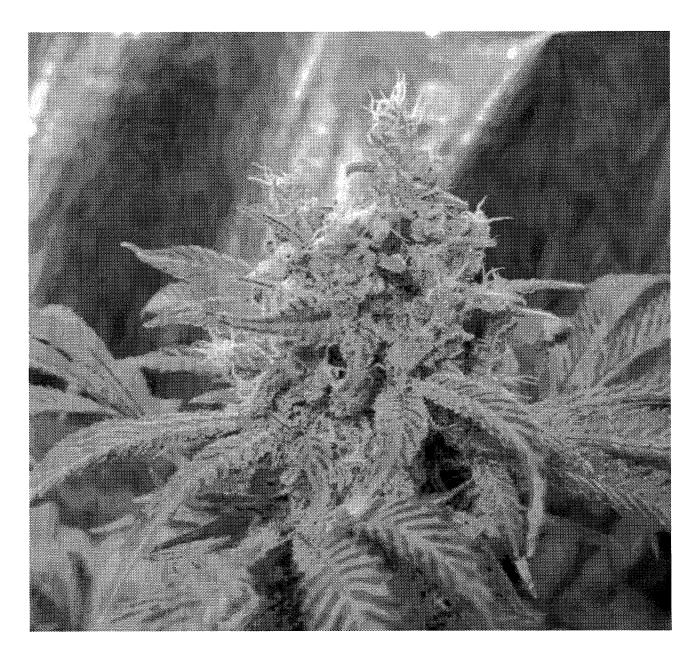
Flower Products

<u>Sativa</u>	
Super Silver Haze	1
CBD Mango Haze	2
Biddy Early	3
Ghost Train Haze #1	4
<u>Indica</u>	
Blackwater	5
Kalapana Kush	6
Zkittlez	7
Hybri <u>d</u>	
Game Changer	8
Blue Dream	9
Sweet Tai	10
NYC Diesel	11
Strawberry Cough	12
Cookie Kush	13
Maui Ha`ole	14
CBD OG	15
Guava Chem #1	16
Other Flower Products	
Lava Rocks	17
Kief	18
Pure Oil Products	
Tropical Tangie	19
CBD OG Resin	20
Pahoe`hoe	21
A`a	22
KŌ ₂	23
Nopu	24
<u>Pure THCa Products</u>	
La`au	25

Lau Ola Product List

Infused Oil Products

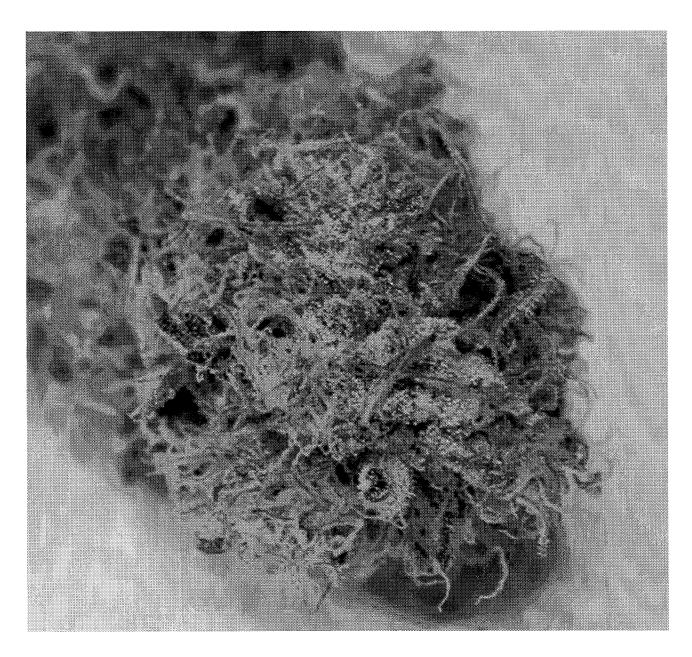
::: 1	
Waha	26
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Wai Kai	28
Pele's Gift	29
<u>Capsules and Pills</u>	
Huaale	30
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<u>Lozenges</u>	
Lau Ola Drops	32
Skin Care Products	
Lomi	33
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SUPER SILVER HAZE

Sativa

Super Silver Haze was the first prize winner at the High Times Cannabis Cup in 1997, 1998, and 1999. It also won awards at the High Times Harvest Festival. By crossing the genetics of Skunk, Northern Lights, and Haze, we are left with a beautiful, sticky sativa blend, with strong lemon aroma, that boasts an energetic, long-lasting body high. The uplifting effects are a great remedy for high stress levels or when suffering from a lack of appetite or nausea.



CBD MANGO HAZE

Sativa

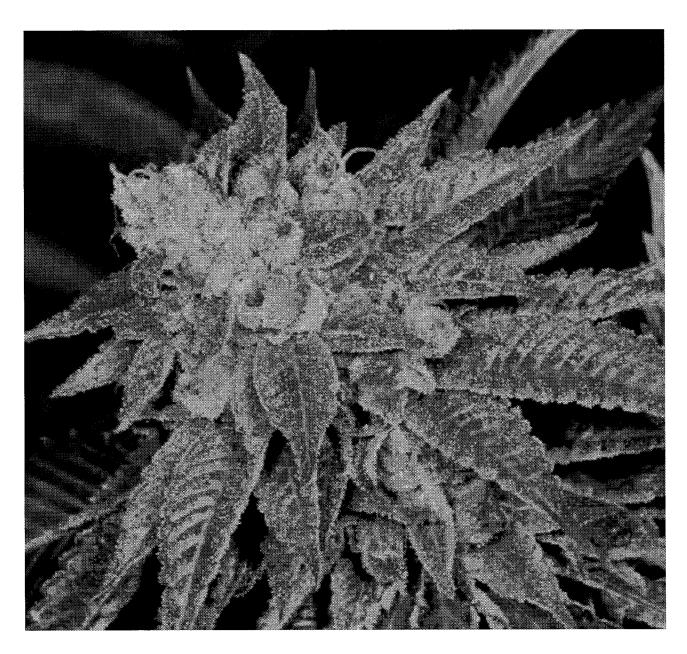
CBD Mango Haze is a high-CBD strain released by 013. This pleasant and aromatic blend combines the tropical flavors of Mango Haze with the added benefits from high levels of cannabidiol. The buds of CBD Mango Haze express themselves with spicy and sweet notes reminiscent of mango, pineapple, and black pepper. Its CBD:THC ratio can range anywhere from 1:1 – 2:1 and the uplifting sativa-dominant effects draw many medical cannabis consumers to CBD Mango Haze.



BIDDY EARLY

Sativa

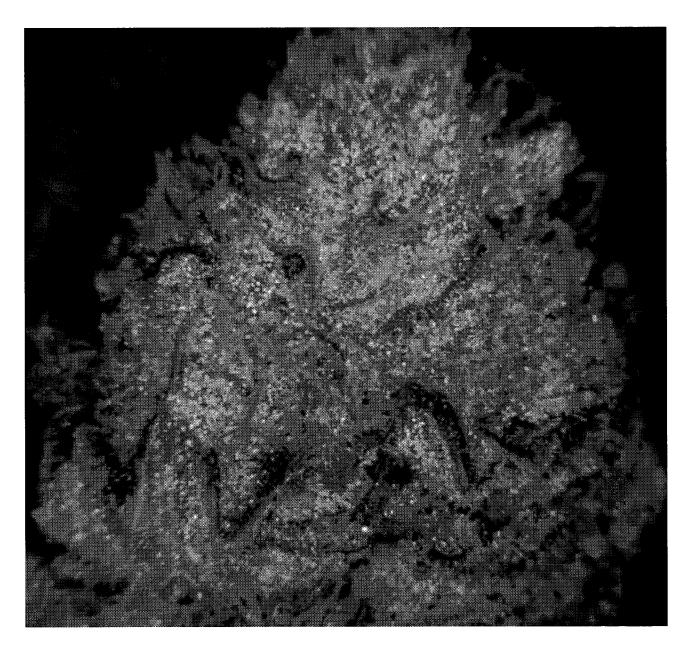
Serious Seeds have incorporated 5 strains which were originally developed and sold by Magus Genetics and one of them is Biddy Early. 'Biddy Early' is their first outdoor variety, and for western European countries already one of the best ever. Genetically composed by Early Skunk crossed with Warlock. It develops classical Sativa Xmas tree shape and can grow approximately 2 meters high. Its relatively early finishing time combined with a good resistance against mould make it very suitable for outdoor growths in Dutch and similar climates. Most of the plants will form red and purple colors if exposed to low temperatures, yet with some variation in the location and intensity of the discoloration. Biddy Early has an earthy scent and sweet candy smell and a powerful high



GHOSTTRAIN HAZE #1

Sativa

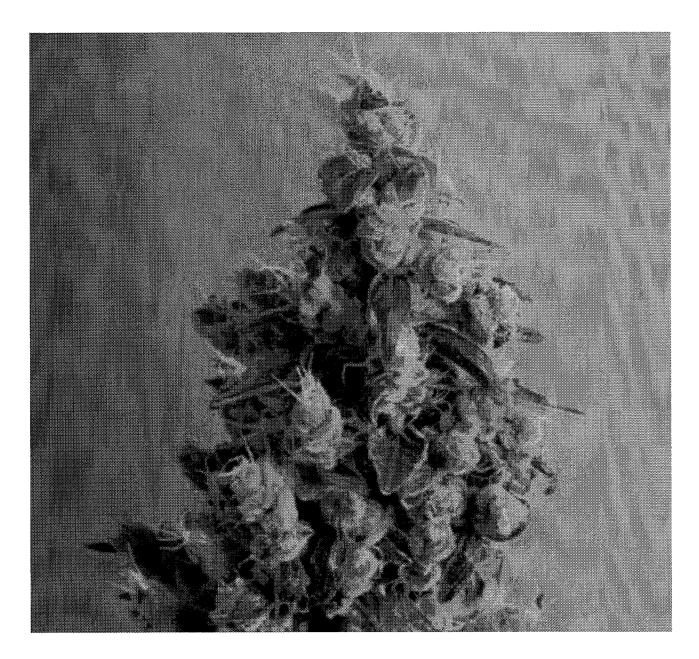
First bred by Rare Dankness, Ghost Train Haze is a sativa cross between Ghost OG and Neville's Wreck. Unlike typical sativas, Ghost Train Haze grows dense buds blanketed in white, crystal-capped trichomes. With a sour citrus and floral aroma, Ghost Train Haze delivers a potent dose of THC to knock out pain, depression, and appetite loss, but patients prone to anxiety should steer clear of this heavy-hitter. Low doses are conducive to concentration and creativity, but you may notice some cerebral haziness as you administer more.



BLACKWATER

Indica

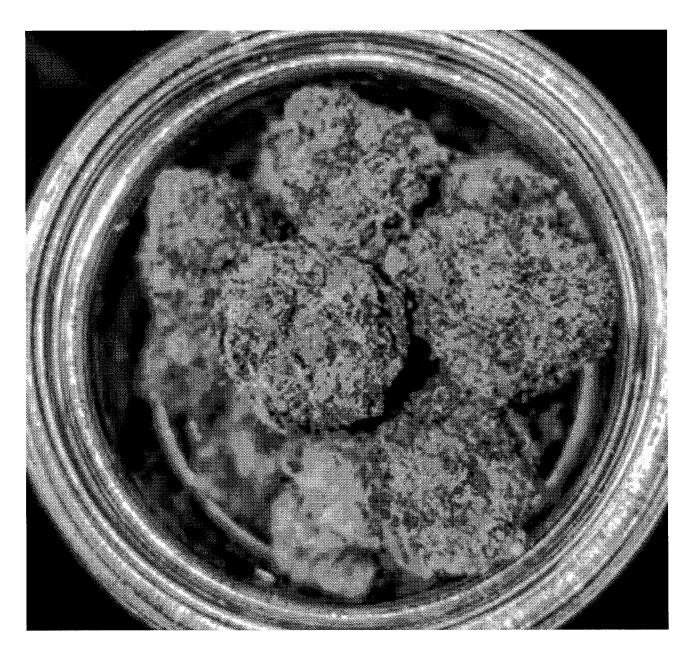
Blackwater is an indica strain typically bred from Mendo Purps and San Fernando Valley OG Kush. Its round, compact buds take on a deep purple color and a sweet grape aroma that blends with subtle undertones of lemon and pine. What begins as a mellow and euphoric cerebral experience melts down to the rest of the body in a head-to-toe euphoric calm that relieves stress and anxiety. Patients have also reported its success in treating pain, appetite loss, and multiple sclerosis. This strain is recommended for late-night consumption as it can cause mental cloudiness and detract from productivity. Blackwater has a flowering time of 8 to 10 weeks and produces moderate yields in indoor, outdoor, and greenhouse gardens. The 2014 Los Angeles Cannabis Cup awarded Blackwater 3rd place in the indica category.



KALAPANA KUSH

Indica

A 100% indica strain created by Lau Ola's Chief Horticulture Officer, James Rushing. This Hawaiian bred strain combines the best features of its parent O.G. Kush and an unknown indica from Kalapana with a balanced sweet flavor. This strain is ideal for pain management and insomnia with over 20% THC. Winner of 2015 Best Indica at the Hawaii Kou Calabash Challenge in Honolulu.



ZKITTLEZ

Indica

Zkittlez is an indica mix of Grape Ape and Grapefruit that is crossed with another undisclosed strain to produce this candy-flavored cannabis bred by 3rd Gen Family and Terp Hogz. This award-winning combination took 1st Place Indica at the 2015 Cannabis Cups in San Francisco and in Michigan. The chunky colas explode in a spectrum of light green hues and emit a sweet, tropical blend of fruit flavors. The effects of Zkittlez are surprisingly uplifting for an indica, leaving consumers focused, alert, and happy while relaxing the body to help unwind any time of day.



GAME CHANGER

Hybrid

The 60/40 indica-dominant hybrid, Game Changer descends from California's Purple Dragon and Thailand's landrace sativa known as Green Thai, and this genetic fusion is evident in Game Changer's twisting hues of vibrant green and deep purple. Floral notes sit quietly under a loud aroma of tropical fruit and grape in a show of this hybrid's complex terpene profile. Whether it's day or night, Game Changer offers unencumbered euphoria perfect for those looking to ease into the cannabis waters.



BLUE DREAM

Hybrid

Blue Dream, a sativa-dominant hybrid originating in California, has achieved legendary status among West Coast strains. Crossing a Blueberry indica with the sativa Haze, Blue Dream balances full-body relaxation with gentle cerebral invigoration. Novice and veteran consumers alike enjoy the level effects of Blue Dream, which ease you gently into a calm euphoria. Some Blue Dream phenotypes express a more indica-like look and feel, but the sativa-leaning variety remains most prevalent. With a sweet berry aroma redolent of its Blueberry parent, Blue Dream delivers swift symptom relief without heavy sedative effects. This makes Blue Dream a popular daytime medicine for patients treating pain, depression, nausea, and other allments requiring a high THC strain.



SWEETTAI

Hybrid

Sweet Tai from Sweet Seeds sees the flowering time greatly reduced compared with a pure Thai cannabis strain. The addition of Early Skunk also contributes to greater bud density and an overall more compact structure such that it becomes easier to cultivate in an indoor environment, something that is difficult, if not impossible, indoors unless there is a lot of headroom. Early Skunk grows well in Hawaii. The effect is quite cerebral and stimulating with a good THC potential.



NYC DIESEL

Hybrid

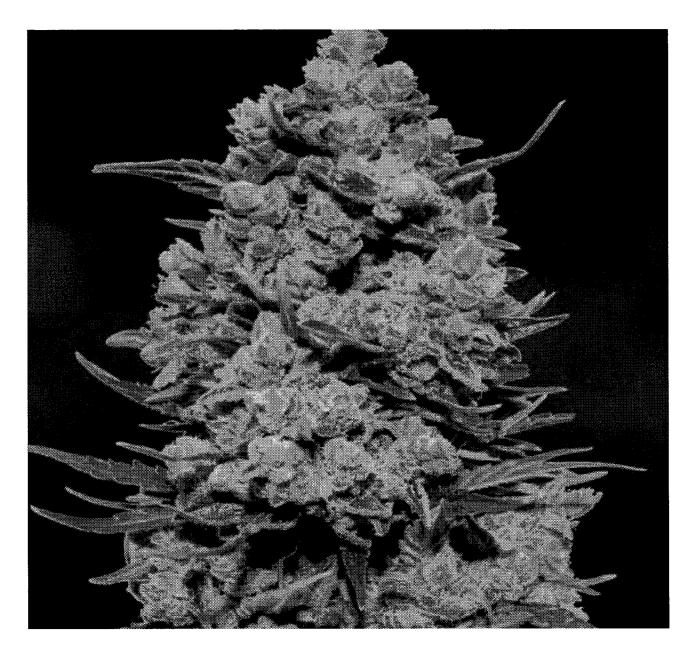
Bred by Soma Sacred Seeds, NYC Diesel (or Soma Sour Diesel) is a 60% sativa-dominant cross between a Sour Diesel clone and an Afghani/Hawaiian male. This sativa-leaning strain provides strong cerebral effects that ease into a deep, full-body relaxation over time. A pungent lime and grapefruit aroma is the mark of a high quality batch, like those that won this strain five Cannabis Cup trophies in the early 2000s. NYC Diesel's happy, talkative qualities make this hybrid a good choice for social activities and many anxiety-prone consumers praise it for its paranoia-free effects.



STRAWBERRY COUGH

Hybrid

Known for its sweet smell of fresh strawberries and an expanding sensation that can make even the most seasoned consumer cough, Strawberry Cough is a potent sativa blend with mysterious genetic origins. The skunky, berry flavors will capture your senses while the cerebral, uplifting effects provide an aura of euphoria that is sure to leave a smile on your face. Strawberry Cough is a great solution for managing social anxieties and to balance yourself in times of elevated stress.



COOKIES KUSH

Hybrid

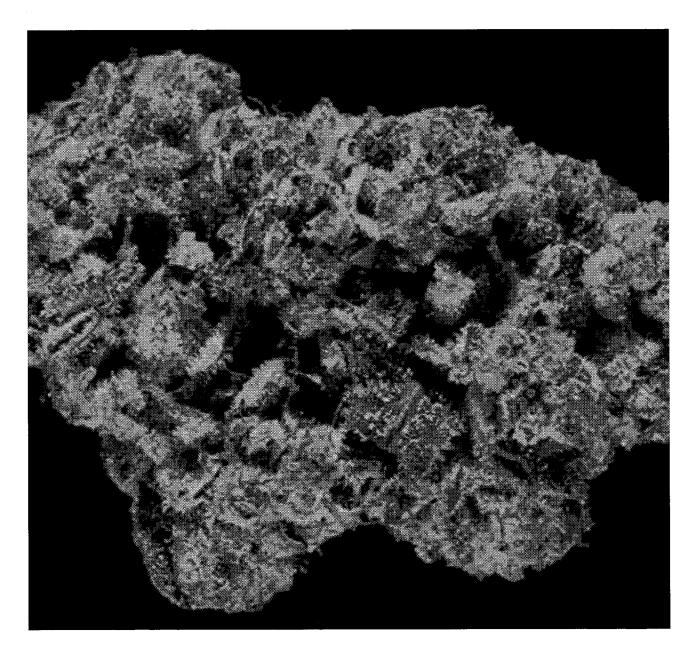
The hottest new strain on the marijuana market. Cookies Kush has become a phenomenon. The creation started using a specially selected Girl Scout Cookies phenotype crossed with the very potent OG Kush. From the outset the results were incredible. Back crossing continued to find the perfect balance of Kush with the best attributes of GSC. Powerful THC content, and with a flowering time of just under 60 days. Smells and tastes like a fresh baked cinnamon roll with a nutty earthy after taste.



MAUIHAOLE

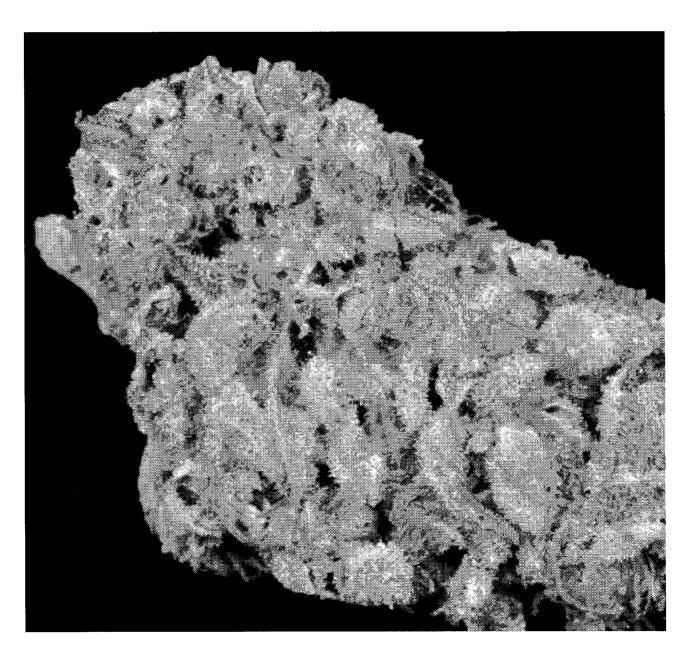
Hybrid

Maui Haole is a balanced hybrid that combines the sweet, tropical flavors of Maui Waui with Romulan's full-bodied relaxation. Bred by Pua Mana 1st Hawaiian Pakalōlō Seed Bank, Maui Haole takes powerful influence from the original Romulan Joe cut of Romulan. Its uplifting sativa influence stems from Maui Waui genetics sourced from the Lower Nāhiku region of Hawaii.



CBD OG Hybrid

CBD OG is a CBD rich variety with an approximate 2:1 ratio of THC:CBD. Tests have shown that CBD levels of up to 19.5% have been measured with a quantity of THC at 9%. This variety was produced by crossing a THC rich Kandy Kush selection with a CBD dominant strain. The variety has a mix of indica and sativa genetics but the growth pattern generally shows an indica dominant appearance with good yields and a satisfying flavor.



GUAVA CHEM #1

Hybrid

An indica dominant hybrid of Chem $4 \times Tres$ Chemdawg. This strain is a balanced combination of indica strength and sativa clarity. At over 23.3% THC, medical patients who require rest and relaxation to ease anxiety, sore muscles, and migraines. A unique photo-chemical flavor mixed with a subtle hint of guava provide alluring aromas.



LAVA ROCKS

Hybrid/Indica/Sativa

A local play on the widely popular "Moonrocks" from Los Angeles. These items come a variety of formulas where popular strains are first coated with atomized cannabis oil and rolled in THC crystals or "kief" from other popular strains. Many patients who prefer oils but desire the terpenes found in flower, find a balance with Lava Rocks. THC 40-60%



KIEF

Hybrid/Indica/Sativa

Kief refers to the resin glands or trichomes of cannabis that may accumulate in containers or be sifted from loose dry cannabis flower with a mesh screen or sieve. Lua Ola's Kief varieties reflect the flower choices of the season. A great addition to any formula, Kief is highly diverse in its medicative applications.



TROPICALTANGIE

Hybrid/Indica/Sativa

An oil wax produced from a blend of fruity strains. This concentrated form of cannabis is for heavy medication of systems associated with multiple sclerosis, muscle spasms, joint pain, and the side effects of certain cancer treatments. A THC concentration of 60% makes the Tangle a potent, yet flavorful treatment for the patients with high pain issues.



CBD OG RESIN

Sativa

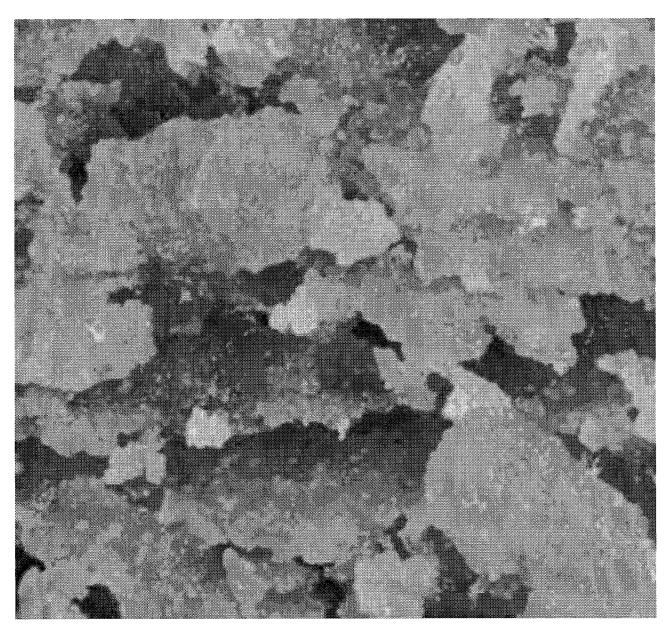
Our exclusive CBD dominant carbon dioxide extracted medical cannabis wax is for those patients looking to treat rheumatoid arthritis, autoimmune diseases, diabetes, epilepsy, nausea, bowel disorders, schizophrenia, and many more. 56.5% CBD. 4.33% THC



PAHOE'HOE

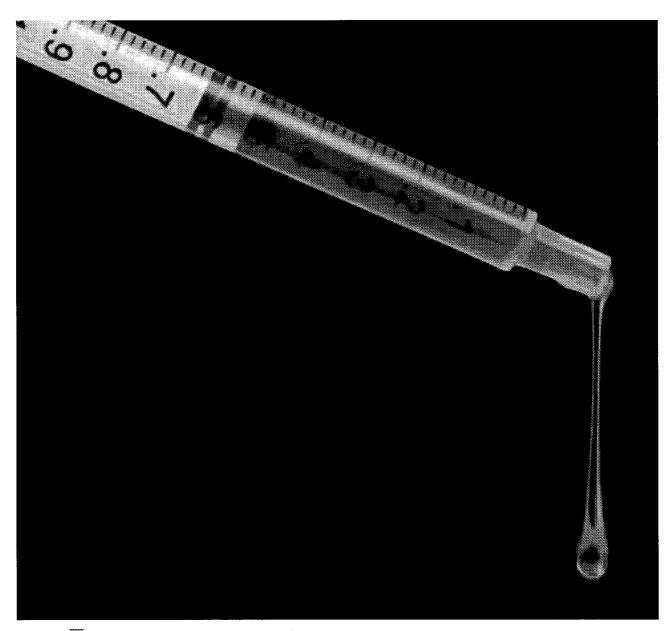
Hybrid/Indica/Sativa

An alcohol solvent extraction hash oil capturing unique terpenes not found in other solvent extractions, meeting the needs of patients who need soft oils for processing of creams, ingestibles, or use in continued solvent product production. With THC 30-40% this is an affordable medication for some patients.



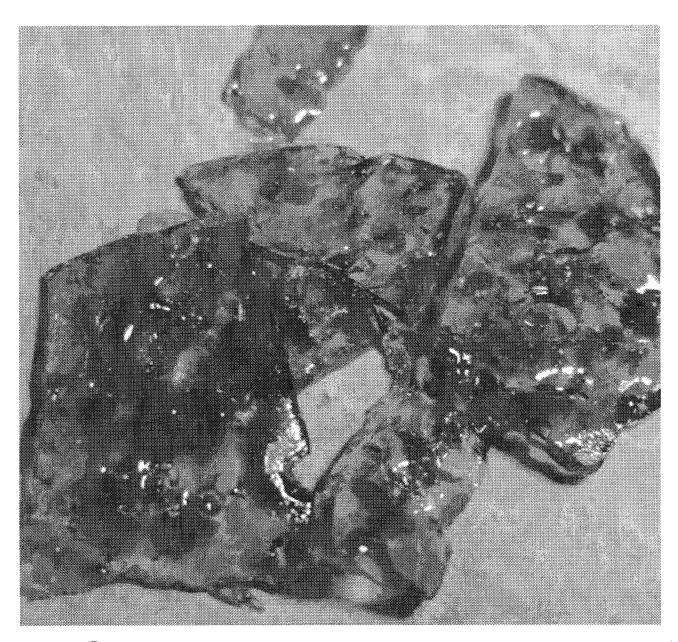
A\A Hybrid/Indica/Sativa

Oil crystals concentrated for the patients who prefer a harder consistency of their medication. The light amber, thick CO_2 extracted oil provides a concentrate with 40-60% THC. This product is produced from our favorite strains and varieties change weekly.



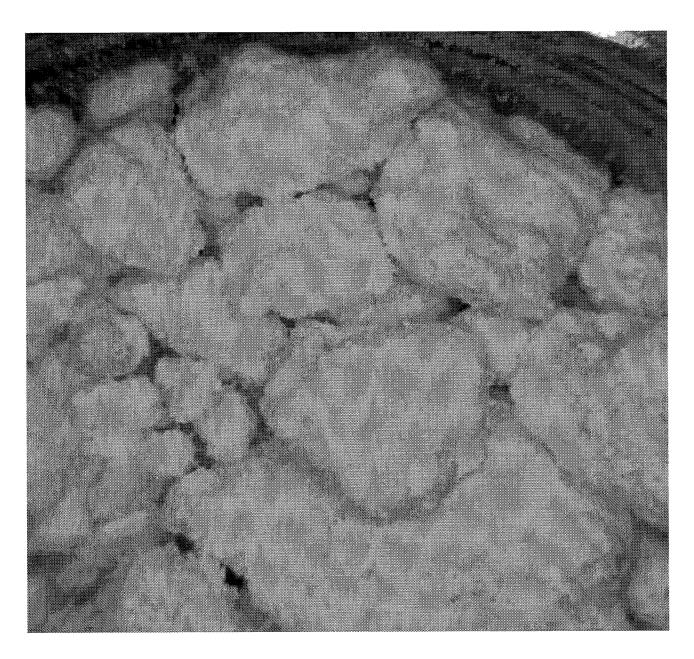
KO₂
Hybrid/Indica/Sativa

 $K\ddot{O}_2$ is pure liquid carbon dioxide extracted medical cannabis oil. The varieties vary with seasonal plant availability. This highly popular oil is used in many medical cannabis treatments including the production of ingestibles, skin creams, and most after market or patient produced products where high concentrations of THC and cannabinoids are necessary.



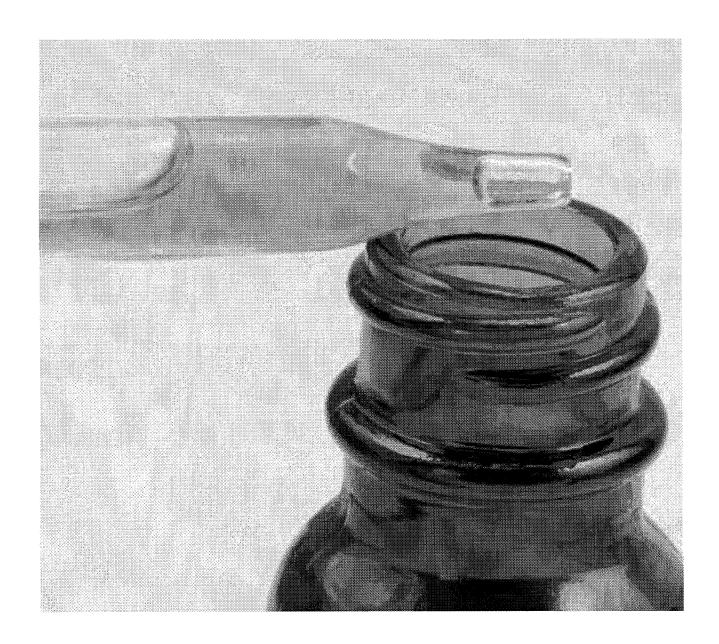
NOPU Hybrid/Indica/Sativa

Nopu is pure cannabis oil produced without solvents at all. The precise use of heat and pressure allow the Lau Ola team to extract pure cannabis oil from high quality flower to produce the cleanest cannabis oil available in the market, guaranteed.



LA`AU Hybrid/Indica/Sativa

A pure resin providing patients with a medication produced through chromatography fractional distillation methods, that is one of the purest forms of THC available. Potencies of this medication reach 90%+ THC and is strictly for patient processing.



WAHA

Hybrid/Indica/Sativa

Waha is a non-alcohol based tincture, made from kosher, food grade (USP/EP) 100% local organic vegetable glycerin. This liquid is administered orally to patients who prefer more frequent, lower doses of medication. Used as a cancer preventative supplement, this product comes in a 10 ml child resistant glass dropper or as a convenient glass child resistant mouth spray. Ideal for patients with qualified childhood diseases, the elderly, and those patients who are looking for an alternative for administration of their medication. Two formulas of Waha exist.

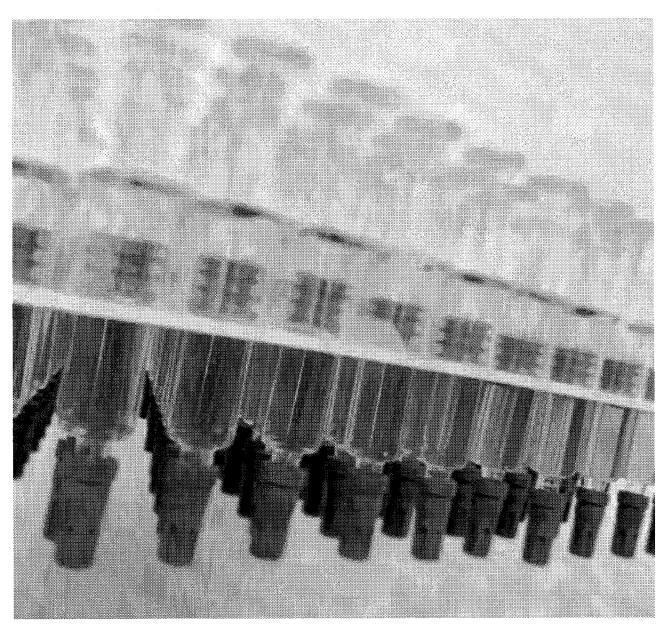
- A 10 mg THC 33 mg CBD/dose Formula
- A 1.9 mg THC 56 mg CBD/dose Formula



Hybrid/Indica/Sativa

Ihu is liquid medical cannabis nasal spray. An alternative to inhalation, ingesting, or topical methods, Ihu adopted the same principles for administering pharmaceuticals for hay fever or allergies. Ideal for patients with qualified childhood diseases, the elderly, and those patients who are looking for an alternative for administration of their medication. A 5 ml nasal applicator bottle filled with 1 ml Ihu provides ten 0.1 ml doses. Two formulas of Wai Kai exist.

- ▶ A 10 mg THC 33 mg CBD/dose Formula
- ▶ A 1.9 mg THC 56 mg CBD/dose Formula

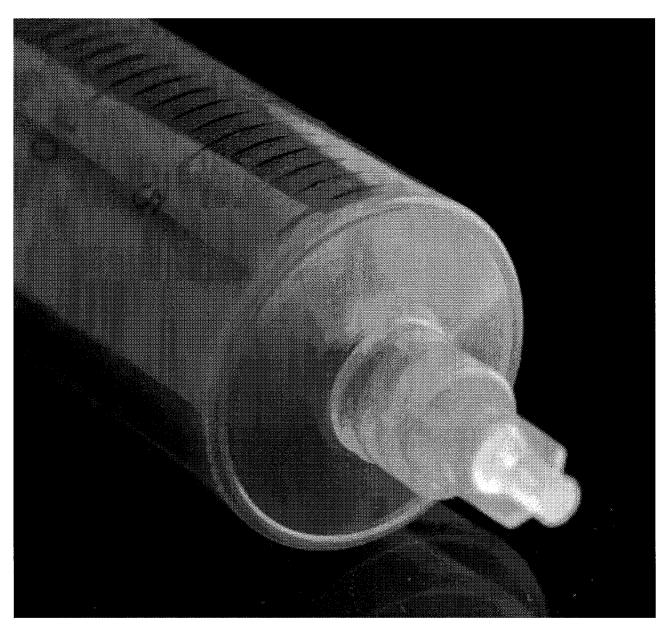


WALKAL

Hybrid/Indica/Sativa

Wai Kai is liquid carbon dioxide extracted medical cannabis oil mixed with food grade (USP/EP) kosher propylene glycol. This product is for those patients who prefer a medical cannabis oil that consistently remains a liquid at room temperature. Easier to measure and handle for patient product production in creams, ingestibles, and infusions. Ten doses are conveniently packaged in a 10 ml oral syringe. Two formulas of Wai Kai exist.

- ▶ A 10 mg THC 33 mg CBD/dose Formula
- A 1.9 mg THC 56 mg CBD/dose Formula

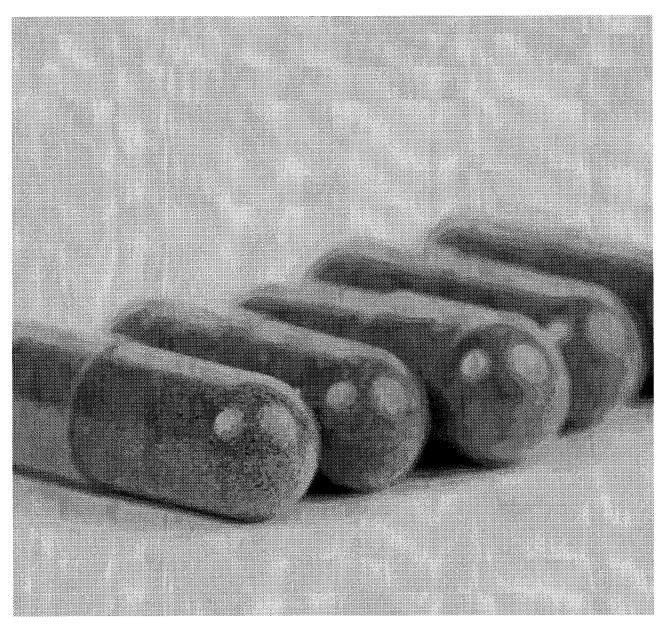


PELE'S GIFT

Hybrid/Indica/Sativa

Pele's Gift, a product line of flavored CO_2 extracted medical cannabis serums, were designed for cancer patients and parents of children with qualifying childhood diseases to incorporate doses of medication into their existing regimes. The convenient serum comes in ten 10 mg THC 1.0 ml doses within a 10 ml measurable oral syringe. The CO_2 extracted oil is expertly mixed with local, organic, cold-pressed coconut oil. Two formulas of Pele's Gift exist.

- A 10 mg THC 110 mg CBD/dose Formula
- A 0.4 mg THC 110 mg CBD/dose Formula



HUAALE Hybrid/Indica/Sativa

Huaale is a daily use product line of capsules that not only provides patients with their needed medication in precise doses, but also improves digestive and intestinal microbial health, increasing nutrient absorption and improving the patients immune system. These 100 mg capsules contain organic turmeric, natural soy lecithin, and 3×10^9 active live probiotic cultures. These capsules are made without solvents. Two formulas of Huaale exist.

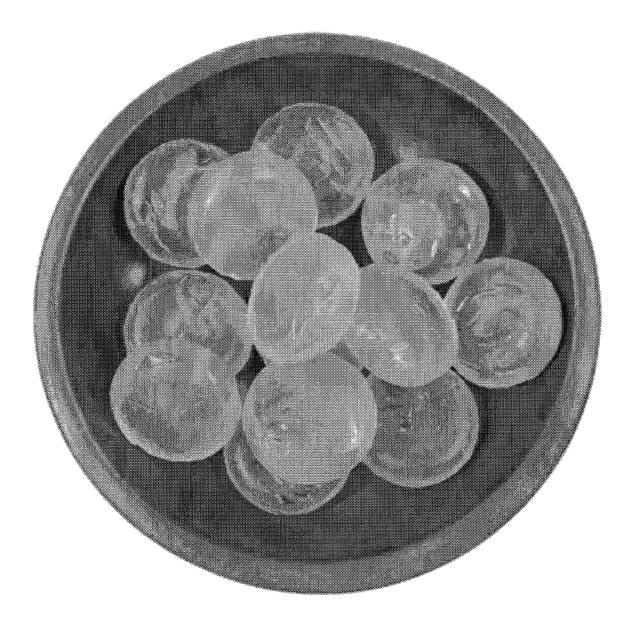
- A 10 mg THC 33 mg CBD/dose Formula
- A 1.9 mg THC 56 mg CBD/dose Formula



`A|LA Hybrid/Indica/Sativa

'Aila, a product line of CO_2 extracted medical cannabis oil soft gels, are for patient control of pain, the reduction of symptoms associated with kidney diseases, cancer treatments, diabetes, Crohn's disease, glaucoma, and insomnia. These 100 mg capsules contain 100% organic hemp seed oil. Two formulas of 'Aila exist.

- A 10 mg THC 10 mg CBD/dose Formula
- A 1.7 mg THC 44 mg CBD/dose Formula

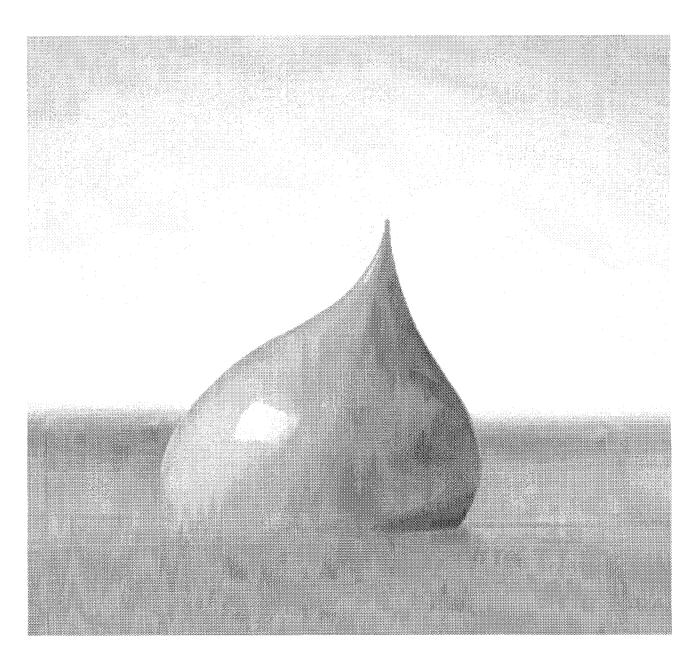


LAU OLA DROPS

Hybrid/Indica/Sativa

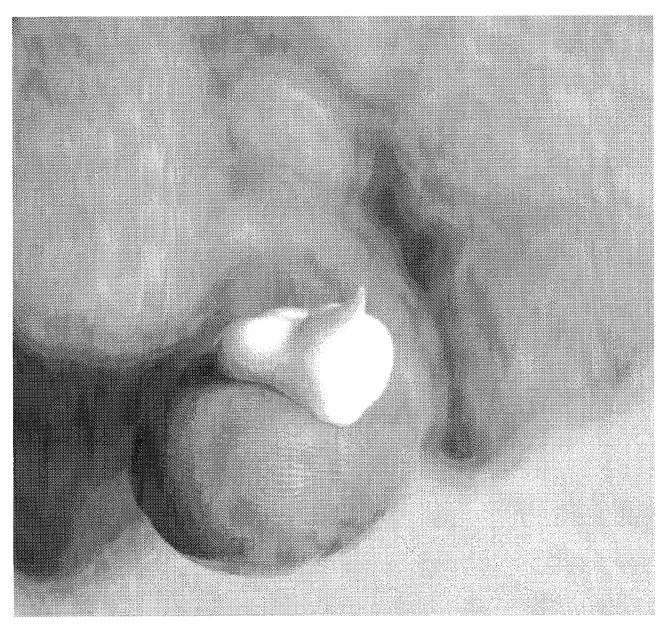
Lau Ola Drops, a product line of CO_2 extracted medical cannabis hard lozenges, were designed for the patients who prefer ingestibles. The convenient Lau Ola Drops were designed for patients who medicate for seizures, epilepsy, Parkinsons disease, Crohn's disease, kidney and liver diseases, and childhood medical marijuana treatments. Two formulas of Lau Ola Drops exist.

- ▶ A 10 mg THC 10 mg CBD/dose Formula
- ▶ A 2.7 mg THC 52 mg CBD/dose Formula



LOM Hybrid/Indica/Sativa

Lomi is a uniquely formulated non-psychoactive CBD and CBG skin lotion that is used for inflation, joint pain, skin irritations, improve skin elasticity, and slow aging, made from Lau Ola's local medicinal cannabis. The cannabinoids active in this skin cream bring new life to over worked skin cells. Lomi comes in three easy squeeze bottles 10 ml, 50 ml, and 100 ml.



LUA PELE

Hybrid/Indica/Sativa

Lua Pele, a product line of CBD and CBG rich acne treatments made from liquid carbon dioxide extracted medical cannabis oil. With a regular and extra strength formula, Lua Pele is the most effective, holistic acne medication available. With proven research showing the anti-inflammatory, cell regeneration potential of skin treated with CBD formulated creams. The cannabis oil is effective maintaining a clean area by providing antimicrobial phytochemicals to the skin, all day long. Lua Pele regular and extra strength formulas coming a small, child resistant 1 oz squeeze tube.

TITLE: Cultivation Practices	
SOP # 1.1	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the best Cultivation Practices.

RESPONSIBILITIES:

It is the responsibility of the Chief Cultivation Officer to adopt and implement the best Cultivation Practices.

- (a) Propagation Materials
 - (1) Propagation materials used in cultivation operations must be appropriate for use in food production.
 - (2) Cultivation operations must follow the manufacturer's usage, storage, and disposal recommendations for the propagation material.
- (b) Pesticides
 - (1) Pesticides used in cultivation operations must be one of the following:
 - (i) Subject to a tolerance established for application to marijuana by the US Environmental Protection Agency (EPA);
 - (ii) Identified by EPA regulation as exempted from tolerance;
 - (iii) Subject to a Section 18 emergency exemption under FIFRA¹; or
 - (iv) Permitted for application to marijuana in other countries as long as the pesticide is also permitted for application to one or more food crops in the United States.
 - (2) Cultivation operations must follow the manufacturer's application and storage recommendations, and disposal recommendations for the pesticide product.
 - (3) Cultivation operations must follow the EPA Worker Protection Standard² when preparing and applying pesticides.
 - (4) Indoor cultivation operations must comply with the pesticide manufacturer's published re-entry interval time periods when applying pesticides.

¹ Section 18 of the <u>Federal Insecticide</u>, <u>Fungicide</u>, <u>and Rodenticide Act (FIFRA)</u> authorizes EPA to allow an unregistered use of a pesticide for a limited time if EPA determines that an emergency condition exists.

² The EPA Worker Protection Standard can be accessed at the following website - http://www.epa.gov/agriculture/twor.html (accessed September 9, 2013).

(c) Nutrients

- (1) Nutrients used in cultivation operations must be appropriate for use in food production.
- (2) Cultivation operations must follow the manufacturer's application, storage, and disposal recommendations for the nutrient product.
- (3) Cultivation operations must not return unused rooting hormone to the source container.
- (4) Nitrate-based and other oxidizing fertilizers must be stored away from solvents, fuels and pesticides.

(d) Carbon Dioxide

- Indoor cultivation facilities utilizing carbon dioxide must maintain levels under 2000 ppm in cultivation areas when facility personnel may be present.
- (2) Indoor cultivation facilities utilizing carbon dioxide at levels above 2000 ppm in a sealed room must prohibit personnel from entering the cultivation area unless personal protective equipment is provided.
- (3) All regulators and environmental control systems that regulate carbon dioxide emissions must be maintained in good working order and be serviced in accordance with the manufacturer's recommendations.

(e) Equipment and Tools

- (1) Equipment used for measuring, regulating, or recording temperatures, pH, humidity, or other conditions related to the cultivation and processing of marijuana must be accurate and adequately maintained.
- (2) Cultivation and processing tools that come in direct contact with marijuana plants should be disinfected as needed to protect plant health.
- (3) Scales used for the weighing of marijuana must be calibrated at regular intervals.

TITLE: Personnel Training	
SOP # 2.1	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Personnel Training policies.

RESPONSIBILITIES:

It is the responsibility of the Chief Cultivation Officer to adopt and implement the Personnel Training policies.

- (a) Cultivation Operations must:
 - (1) Ensure that each person engaged in the operation has the education, training, and experience, or any combination thereof, to enable that person to perform all assigned functions.
 - (2) Maintain records of any training provided to employees for the performance of all assigned functions.
- (b) Cultivation operations should provide all employees with training that includes:
 - (1) Instructions regarding regulatory inspection preparedness and lawenforcement interactions; and
 - (2) Information on Hawaii and U.S. federal laws, regulations, and policies relating to individuals employed in these operations, and the implications of these for such employees.
- (c) Cultivation operations must implement employee hygiene protocols and training, which at a minimum address:
 - (1) Policies which prohibit employees who are showing signs of illness, open wounds, sores or skin infections from handling marijuana.
 - (2) Hygiene training for employees who handle marijuana with specific attention to preventing microbial contamination.
 - (3) Hand washing requirements including washing hands with soap and hot water before beginning work, after using the bathroom and after meal breaks.
 - (4) Instructive hand washing signage must be in appropriate areas such as bathrooms, kitchens, and lunch areas, and in multiple languages as needed.

TITLE: Employee Safety	
SOP # 2.2	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Employee Safety policies.

RESPONSIBILITIES:

It is the responsibility of the Chief Cultivation Officer to adopt and implement the Employee Safety policies.

- (a) Cultivation operations must implement safety protocols and provide all employees with adequate safety training relevant to their specific job functions, which may include:
 - (1) Emergency action response planning as necessary;
 - (2) Employee accident reporting and investigation policies;
 - (3) Fire prevention;
 - (4) Hazard communication policies, including maintenance of material safety data sheets (MSDS);
 - (5) Materials handling, spill, and disposal policies;
 - (6) Job hazard analyses; and
 - (7) Personal protective equipment policies, including respiratory protection.
- (b) Cultivation operations must provide and maintain at least one emergency eye flushing station readily accessible to all employees and access to adequate eye flushing water for each employee working in field operations.
- (c) Cultivation operations must visibly post and maintain an emergency contact list which includes at a minimum:
 - (1) Operation manager contacts;
 - (2) Emergency responder contacts;
 - (3) Poison control contacts;
 - (4) Fire department contacts; and
 - (5) Spill response team contacts.

TITLE: Facilities: General Compliance	
SOP # 3.1	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Facilities: General Compliance policies.

RESPONSIBILITIES:

It is the responsibility of the Chief Cultivation Officer to adopt and implement the Facilities: General Compliance policies.

- (a) Cultivation operations must comply with all legal requirements pertaining to the following as applicable:
 - (1) Restrictions on the size of the cultivation area;
 - (2) Restrictions on the number of marijuana plants allowed or other quantitative limits; and
 - (3) Light pollution restrictions.
- (b) Location of cultivation operations:
 - (1) Indoor cultivation operations may be located on any property that is zoned for such use and must be located in a fully permitted, nonresidential structure that:
 - (i) Was constructed in compliance with local building code;
 - (ii) Has a complete roof enclosure supported by connecting walls extending from the ground to the roof;
 - (iii) Is secure against unauthorized entry; and
 - (iv) Minimizes unnecessary visual, auditory or olfactory evidence of indoor marijuana cultivation.
- (c) Cultivation operations that transport marijuana must do so in a secured enclosed container or secured trunk of the delivery vehicle.

TITLE: Facilities: Fire Prevention	
SOP # 3.2	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Facilities: Fire Prevention policies.

RESPONSIBILITIES:

It is the responsibility of the Chief Cultivation Officer to adopt and implement the Facilities: Fire Prevention policies.

- (a) Any room in an indoor cultivation operation in which operational supplemental lighting, ballasts, or electrical control panels are located must be constructed with a minimum of a one-hour firewall assembly.
- (b) Indoor cultivation operations must:
 - (1) Provide at least one operating fire extinguisher, and
 - (2) Provide additional fire extinguishers in a number proportional to the watts of supplemental lighting used in the facility (one fire extinguisher per every 10,000 watts of lighting), or in accordance with local fire code.
- (c) Fire extinguishers must be:
 - (1) Easily accessible to employees from every room and in each hallway of the facility;
 - (2) Maintained annually or as otherwise specified by the manufacturer; and
 - (3) Of the appropriate class rating for the type of fire associated with the functions being performed in the facility (i.e., electrical, chemical).
- (d) Flammable products must be stored in a properly marked fire containment cabinet or area.
- (a) Signage that complies with National Fire Protection Association (NFPA) standard 704 must be placed at entrances to exposure areas.

TITLE: Facilities: Sanitation	
SOP # 3.3	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Facilities: Sanitation policies.

RESPONSIBILITIES:

It is the responsibility of the Chief Cultivation Officer to adopt and implement the Facilities: Sanitation policies.

- (a) Cultivation operations must provide employees with adequate and readilyaccessible toilet facilities.
 - (1) Toilet facilities must be maintained in a sanitary condition;
 - (2) Toilet facilities must be adequately stocked with toilet paper, soap, and single use paper towels or other drying devices; and
 - (3) Toilet facilities must be kept in good repair at all times.
- (b) Cultivation operations must provide adequate and convenient hand-washing stations.
 - (1) Hand washing stations must be provided with running water of suitable temperature;
 - (2) Hand washing stations must be provided with effective hand cleaning or sanitizing preparations and single use paper towels or other drying devices; and
 - (3) Hand washing stations must be located at points in the facility where good sanitary practices require employees to wash or sanitize their hands.
- (c) Cultivation operations must implement sanitation practices, which at a minimum address:
 - (1) Removal of debris, and control of the growth of mold, mildew and algae in the cultivation area or processing area;
 - (2) Pest control practices, including maintenance and repair of caulk cracks and drain areas;
 - (3) Identification of hoses dedicated for use in cultivation; and
 - (4) Maintenance and cleaning of irrigation systems.

TITLE: Facilities: Electrical	
SOP # 3.4	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Facilities: Electrical policies.

RESPONSIBILITIES:

It is the responsibility of the Chief Cultivation Officer to adopt and implement the Facilities: Electrical policies.

- (a) The cultivation operation's electrical system must be of sufficient capacity to handle the actual electrical load and be installed in accordance with an approved electrical permit.
- (b) All electrical work and upgrades at cultivation operations must be performed with proper permitting.
- (c) All electrical equipment used by a marijuana cultivation operation should be connected to the electrical system in accordance with the equipment manufacturer's recommendations.

TITLE: Facilities: Ventilation System	
SOP # 3.5	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Facilities: Ventilation System policies.

RESPONSIBILITIES:

It is the responsibility of the Chief Cultivation Officer to adopt and implement the Facilities: Ventilation System policies.

- (a) Enclosed cultivation operations must be equipped with adequate ventilation to maintain proper humidity and temperature.
- (b) For indoor cultivation operations:
 - (1) If a mechanically propelled air intake system is used, a filter capable of removing 99.97% of particles with a diameter of 0.3 micrometers (μm) must also be utilized, as necessary to control potential contamination with pathogenic organisms.
 - (2) If a non-mechanically propelled or passive intake system is being utilized, a grate and filter sufficient to reduce the intrusion of rodents and insects must be installed.

TITLE: Facilities: Disposal and Waste	
SOP # 3.6	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Facilities: Disposal and Waste policies.

RESPONSIBILITIES:

It is the responsibility of the Chief Cultivation Officer to adopt and implement the Facilities: Disposal and Waste policies.

- (a) Marijuana waste must be disposed of in a manner which prevents unauthorized use and such disposal must be documented.
- (b) Bulbs and ballasts utilized during the cultivation of marijuana must be disposed of in accordance with manufacturer's recommendations.

TITLE: Cultivation Water Management	
SOP # 4.1	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Cultivation Water Management policies.

RESPONSIBILITIES:

It is the responsibility of the Chief Cultivation Officer to adopt and implement the Cultivation Water Management policies.

- (a) In the absence of local or state water district regulations for marijuana production, cultivation operations must create and implement a cultivation water management plan to address the following:
 - (1) Erosion prevention; and
 - (2) Effluent and agricultural discharges.
- (b) Chemical solutions must be disposed of in accordance with applicable laws and regulations.
- (c) Application of nutrients or pesticides through an irrigation system (chemigation), must be performed in accordance with state or local agricultural regulations.

TITLE: Cultivation Water Management: Potable Water for Employee Use	
SOP # 4.2 EFFECTIVE DATE:	
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Cultivation Water Management: Potable Water for Employee Use policies.

RESPONSIBILITIES:

It is the responsibility of the Chief Cultivation Officer to adopt and implement the Cultivation Water Management: Potable Water for Employee Use policies.

- (a) Cultivation operations not utilizing a municipal source of potable water must test the potable water supply at least two times per year to ensure compliance with state primary drinking water standards.
- (b) Chemicals, fertilizers, pesticides, media and other products must be stored away from the potable water supply.

TITLE: Record Keeping	
SOP # 5.1	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Record Keeping policies.

RESPONSIBILITIES:

It is the responsibility of the Chief Cultivation Officer to adopt and implement the Record Keeping policies.

- (a) Cultivation operations must record the identity and source of all marijuana propagation material with sufficient specificity to ensure that the material can be traced to its source. Such records must be created whether the propagation material is obtained off-site or produced on-site.
- (b) For each batch of marijuana, cultivation operations must maintain cultivation records that include at a minimum:
 - (1) Planting records:
 - (i) Form of marijuana planted (e.g., seed, clone, seedlings, etc.);
 - (ii) Date(s) that planting took place;
 - (iii) Variety(ies) planted;
 - (iv) Size of the cultivation area; and
 - (v) Location of the cultivation area.
 - (2) Propagation records:
 - (i) Media used, and whether the media was reused or new product;
 - (ii) Description of all actions taken to prevent or treat the marijuana for disease or pest issues;
 - (iii) Soil amendments added, and strength of the application;
 - (iv) Nutrients added, and strength of the application;
 - (v) All substances applied to the plant(s) surface or used as a fumigant in the cultivation and/or nursery area, and
 - (vi) Pruning or other physical technique(s).
 - (3) Pesticide use records:
 - (i) Pesticide chemical name;
 - (ii) Brand name and manufacturer name;

- (iii) Amount of pesticide applied;
- (iv) Date pesticide applied;
- (v) Identification or location of plants to which pesticide was applied; and
- (vi) Name of applicator if required.
- (4) Harvest records:
 - (i) Identity of each variety harvested;
 - (ii) Date of harvest;
 - (iii) Gross weight of the marijuana harvested for processing (generally recorded after drying);
 - (iv) Total weight of marijuana waste resulting from the harvest, and
 - (v) Net weight of harvested marijuana (gross weight less waste).
- (5) Inventory records:
 - (i) The total amount of marijuana in possession of all facilities from seed or immature plant state, including all plants that are derived from cuttings or cloning, until the marijuana, marijuana plants, or manufactured marijuana product is sold or destroyed.
 - (ii) The amount of waste produced by each plant in harvest; and
 - (iii) The transport of marijuana and manufactured marijuana products between production centers and retail dispensing locations, including tracking identification issued by the tracking system, the identity of the person transporting the marijuana or manufactured marijuana products, and the make, model and license number of the vehicle being used for the transport.
- (c) Cultivation operations must maintain records of the commercial sale of marijuana to manufacturing operations, and to dispensing operations that include at a minimum:
 - (1) Identity of the variety distributed;
 - (2) Total weight of each variety distributed;
 - (3) Date of distribution; and
 - (4) Identity of the receiving operation.
- (d) Cultivation operations are not required to retain records of marijuana distributed for the following purposes:
 - (1) Samples provided for testing;

TITLE: Informational Disclosure	
SOP # 6.1	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Informational Disclosure policies.

RESPONSIBILITIES:

It is the responsibility of the Chief Cultivation Officer to adopt and implement the Informational Disclosure policies.

- (a) Cultivation operations must provide the following records to production operations, and dispensing operations receiving marijuana from the cultivation operation, upon the receiving operation's request:
 - (1) Nutrients used during cultivation;
 - (2) All substances applied to the plant(s) surface or used as a fumigant in the cultivation area;
 - (3) Pesticides applied during cultivation; and
 - (4) Other substances used during cultivation that may result in a residue on marijuana.
- (b) Information provided by a cultivation operation, whether written or verbal, about the identity, quality, and cultivation conditions of marijuana it provides must be accurate.
- (c) Cultivation operations must disclose the extent and type of testing and analysis conducted on the marijuana it provides, including:
 - (1) The type of test, analysis or examination used, if any, to determine the particular strain or cultivar of each batch of marijuana provided;
 - (2) Any tests to determine the quantitative levels of contained constituents, and if so, the type of testing used;
 - (3) Any tests to determine the absence or presence of specific classes of potential contaminants, and if so, the type of testing used. The information required by this paragraph must be disclosed for each of the following:
 - (i) Pesticides;
 - (ii) Yeasts and molds; and

- (iii)) Other microbiological contaminants.
- (4) Whether the testing was conducted by the cultivation or production center, or by an external laboratory.

CULTIVATION STANDARD OPERATING PROCEDURES

TITLE: Recalls	
SOP # 7.1	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Recall policies.

RESPONSIBILITIES:

It is the responsibility of the Chief Cultivation Officer to adopt and implement the Recall policies.

- (a) Each cultivation operation must develop and implement a recall plan addressing at a minimum:
 - (1) Factors which necessitate a recall procedure;
 - (2) Personnel responsible for a recall; and
 - (3) Notification protocols.
- (b) Each cultivation operation must establish a policy for communicating a recall of marijuana that has been shown to present a reasonable or a remote probability that the use of or exposure to the product will cause serious adverse health consequences, or could cause temporary or medically reversible adverse health consequences. This policy should include:
 - A mechanism to contact all patients or caregivers who have, or could have, obtained the marijuana from the cultivation operation or production center;
 - (2) Information on the return or destruction of any recalled product;
 - (3) A mechanism to contact the cultivation operation; and
 - (4) Communication and outreach via media, as necessary and appropriate.
- (c) Any recalled marijuana that is returned to a cultivation operation must be disposed of in a manner that ensures that it cannot be salvaged and will not be used by a compliant individual or by any other person.

TITLE: PERSONNEL TRAINING

SOP # 2.1	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Personnel Training policies.

RESPONSIBILITIES:

It is the responsibility of the Human Resources Officer to adopt and implement the Personnel Training policies.

- (a) Manufacturing Operations must:
 - (1) Ensure that each person engaged in the operation has the education, training, and experience, or any combination thereof, to enable that person to perform all assigned functions.
 - (2) Maintain records of any training provided to employees for the performance of all assigned functions.
- (b) Manufacturing operations should provide all employees with training that includes:
 - (1) Instructions regarding regulatory inspection preparedness and lawenforcement interactions; and
 - (2) Information on Hawaii and U.S. federal laws, regulations, and policies relating to individuals employed in these operations, and the implications of these for such employees.
- (c) Manufacturing operations must implement employee hygiene protocols and training, which at a minimum address:
 - (1) Policies which prohibit employees who are showing signs of illness, open wounds, sores or skin infections from handling marijuana.
 - (2) Hygiene training for employees who handle marijuana with specific attention to preventing microbial contamination.
 - (3) Hand washing requirements including washing hands with soap and hot water before beginning work, after using the bathroom and after meal breaks.
 - (4) Instructive hand washing signage must be in appropriate areas such as bathrooms, kitchens, and lunch areas, and in multiple languages as needed.

TITLE: PERSONNEL RESPONSIBILITIES

SOP # 2.2	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Personnel Responsibilities policies.

RESPONSIBILITIES:

It is the responsibility of the Human Resources Officer to adopt and implement the Personnel Responsibilities policies.

- (a) Measures must be taken to exclude from any operation any person that might be a source of microbial contamination due to a health condition through contact with any material, including components, packaging components, in-process materials, marijuana, marijuana products, and contact surfaces used in manufacturing, packaging, labeling, and holding operations. Such measures include the following:
 - (1) Excluding from working in any operations that may result in contamination any person who, by medical examination, the person's acknowledgement, or supervisory observation, is shown to have, or appears to have, an illness, infection, open lesion, or any other abnormal source of microbial contamination, that could result in microbial contamination of components, packaging components, in-process materials, marijuana, marijuana products, or contact surfaces, until the health condition no longer exists; and
 - (2) Instructing personnel to notify their supervisor(s) if they have or if there is a reasonable possibility that they have a health condition described in paragraph (a)(1) of this section that could result in microbial contamination of any components, packaging components, in-process materials, marijuana, marijuana products, or any contact surface.
- (b) Personnel working in an operation during which adulteration of components, packaging components, marijuana, marijuana products, or contact surfaces could occur must use hygienic practices to the extent necessary to protect against such contamination of components, packaging components, in-process materials, marijuana, marijuana products, or contact surfaces. These hygienic practices include the following:
 - (1) Wearing outer garments in a manner that protects against the contamination of components, packaging components, in-process materials, marijuana, marijuana products, or any contact surface.

- (2) Maintaining adequate personal cleanliness.
- (3) Washing hands thoroughly with soap (and sanitizing if necessary to protect against contamination with microorganisms):
 - (i) Before starting work;
 - (ii) After using the restroom; and
 - (iii) At any other time when the hands may have become soiled or contaminated.
- (c) Removing all unsecured jewelry and other objects that might fall into components, packaging components, marijuana, marijuana products, equipment, or packaging, and removing hand jewelry that cannot be adequately cleaned during periods in which components, packaging components, in-process materials, marijuana, or marijuana products are manipulated by hand. If hand jewelry cannot be removed, it must be covered by material that is maintained in an intact, clean, and sanitary condition and that effectively protects against contamination of components, packaging components, in-process materials, marijuana, marijuana products, or contact surfaces.
- (d) Maintaining gloves used in handling components, packaging components, inprocess materials, marijuana, or marijuana products in an intact, clean, and sanitary condition. The gloves should be of an impermeable material;
- (e) Wearing, where appropriate, in an effective manner, hairnets, caps, beard covers, or other effective hair restraints.
- (f) Not storing clothing or other personal belongings in areas where components, packaging components, in-process materials, marijuana, marijuana products, or any contact surfaces are exposed or where contact surfaces are washed.
- (g) Not eating food, chewing gum, drinking beverages, or using tobacco products in areas where components, packaging components, in-process materials, marijuana, marijuana products, or any contact surfaces are exposed, or where contact surfaces are washed.
- (h) Taking any other precautions necessary to protect against the contamination of components, packaging components, in-process materials, marijuana, marijuana products, or contact surfaces with microorganisms, filth, or any other extraneous materials, including perspiration, hair, cosmetics, tobacco, chemicals, and medicines applied to the skin.
- (i) Taking all precautions necessary to maintain the security of the physical plant, to prevent unauthorized access to controlled access areas, and to maintain strict control of in-process materials, marijuana, marijuana products, and marijuana waste.
- (j) Entering controlled access areas only as authorized by supervisory personnel.

TITLE: EMPLOYEE SAFETY

SOP # 2.3	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Employee Safety policies.

RESPONSIBILITIES:

It is the responsibility of the Human Resources Manager to adopt and implement the Employee Safety policies.

- (a) Manufacturing operations must implement safety protocols and provide all employees with adequate safety training relevant to their specific job functions, which may include:
 - (1) Emergency action response planning as necessary;
 - (2) Employee accident reporting and investigation policies;
 - (3) Fire prevention;
 - (4) Hazard communication policies, including maintenance of material safety data sheets (MSDS);
 - (5) Materials handling, spill, and disposal policies;
 - (6) Job hazard analyses; and
 - (7) Personal protective equipment policies, including respiratory protection.
- (b) Manufacturing operations must provide and maintain at least one emergency eye flushing station readily accessible to all employees and access to adequate eye flushing water for each employee working in field operations.
- (c) Manufacturing operations must visibly post and maintain an emergency contact list which includes at a minimum:
 - (1) Operation manager contacts;
 - (2) Emergency responder contacts;
 - (3) Poison control contacts;
 - (4) Fire department contacts; and
 - (5) Spill response team contacts.

TITLE: FACILITIES: GENERAL COMPLIANCE

SOP # 3.1	EFFECTIVE DATE:
	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Facilities: General Compliance policies.

RESPONSIBILITIES:

It is the responsibility of the Facilities Manager to adopt and implement the Facilities: General Compliance policies.

- (a) Manufacturing operations must comply with all legal requirements pertaining to the following as applicable:
 - (1) Restrictions on the size of the manufacturing area;
 - (2) Restrictions on the number of products allowed or other quantitative limits; and
 - (3) Light pollution restrictions.
- (b) Location of manufacturing operations:
 - (1) Manufacturing locations must not be at the same location as the dispensary licensee's dispensaries.
 - (2) Must comply with all county zoning ordinances, rules, or regulations.
 - (3) Must not be within seven hundred fifty feet of the real property comprising a playground, public housing project or complex, or school.
 - (4) Indoor manufacturing operations may be located on any property that is zoned for such use and must be located in a fully permitted, nonresidential structure that:
 - (i) Was constructed in compliance with local building code;
 - (ii) Has a complete roof enclosure supported by connecting walls extending from the ground to the roof;
 - (iii) Is secure against unauthorized entry; and
 - (iv) Minimizes unnecessary visual, auditory or olfactory evidence of indoor marijuana cultivation.
- (c) Manufacturing operations that transport marijuana must do so in a secured enclosed container or secured trunk of the delivery vehicle.
- (d) Provide the department with the address, tax map key number, and a copy of the premises lease, if applicable, of the proposed location of each location allowed under a license not less than sixty days prior to opening for business.

TITLE: FACILITIES: FIRE PREVENTION

SOP # 3.2	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Facilities: Fire Prevention policies.

RESPONSIBILITIES:

It is the responsibility of the Facilities Manager to adopt and implement the Facilities: Fire Prevention policies.

- (a) Any room in an indoor manufacturing operation in which operational supplemental lighting, ballasts, or electrical control panels are located must be constructed with a minimum of a one-hour firewall assembly.
- (b) Indoor manufacturing operations must:
 - (1) Provide at least one operating fire extinguisher, and
 - (2) Provide additional fire extinguishers in a number proportional to the watts of supplemental lighting used in the facility (one fire extinguisher per every 10,000 watts of lighting), or in accordance with local fire code.
- (c) Fire extinguishers must be:
 - (1) Easily accessible to employees from every room and in each hallway of the facility;
 - (2) Maintained annually or as otherwise specified by the manufacturer; and
 - (3) Of the appropriate class rating for the type of fire associated with the functions being performed in the facility (i.e., electrical, chemical).
- (d) Flammable products must be stored in a properly marked fire containment cabinet or area.
- (e) Signage that complies with National Fire Protection Association (NFPA) standard 704 must be placed at entrances to exposure areas.

TITLE: FACILITIES: SANITATION

SOP # 3.3	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Facilities: Sanitation policies.

RESPONSIBILITIES:

It is the responsibility of the Facilities Manager to adopt and implement the Facilities: Sanitation policies.

- (a) Manufacturing operations must provide employees with adequate and readily-accessible toilet facilities.
 - (1) Toilet facilities must be maintained in a sanitary condition;
 - (2) Toilet facilities must be adequately stocked with toilet paper, soap, and single use paper towels or other drying devices; and
 - (3) Toilet facilities must be kept in good repair at all times.
- (b) Manufacturing operations must provide adequate and convenient hand-washing stations.
 - (1) Hand washing stations must be provided with running water of suitable temperature;
 - (2) Hand washing stations must be provided with effective hand cleaning or sanitizing preparations and single use paper towels or other drying devices; and
 - (3) Hand washing stations must be located at points in the facility where good sanitary practices require employees to wash or sanitize their hands.
- (c) Manufacturing operations must implement sanitation practices, which at a minimum address:
 - Removal of debris, and control of the growth of mold, mildew and algae in the processing area;
 - (2) Pest control practices, including maintenance and repair of caulk cracks and drain areas;
 - (3) Identification of hoses dedicated for use in manufacturing; and
 - (4) Maintenance and cleaning of irrigation systems.

TITLE: FACILITIES: ELECTRICAL

SOP # 3.4	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Facilities: Electrical policies.

RESPONSIBILITIES:

It is the responsibility of the Facilities Manager to adopt and implement the Facilities: Electrical policies.

- (a) The manufacturing operation's electrical system must be of sufficient capacity to handle the actual electrical load and be installed in accordance with an approved electrical permit.
- (b) All electrical work and upgrades at manufacturing operations must be performed with proper permitting.
- (c) All electrical equipment used by a marijuana manufacturing operation should be connected to the electrical system in accordance with the equipment manufacturer's recommendations.

TITLE: FACILITIES: VENTILATION SYSTEM

SOP # 3.5	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Facilities: Ventilation System policies.

RESPONSIBILITIES:

It is the responsibility of the Facilities Manager to adopt and implement the Facilities: Ventilation System policies.

- (a) Enclosed manufacturing operations must be equipped with adequate ventilation to maintain proper humidity and temperature.
- (b) For indoor manufacturing operations:
 - (1) If a mechanically propelled air intake system is used, a filter capable of removing 99.97% of particles with a diameter of 0.3 micrometers (μm) must also be utilized, as necessary to control potential contamination with pathogenic organisms.
 - (2) If a non-mechanically propelled or passive intake system is being utilized, a grate and filter sufficient to reduce the intrusion of rodents and insects must be installed.

TITLE: FACILITIES: DISPOSAL AND WASTE

SOP # 3.6	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Facilities: Disposal and Waste policies.

RESPONSIBILITIES:

It is the responsibility of the Facilities Manager to adopt and implement the Facilities: Disposal and Waste policies.

- (a) Marijuana waste must be disposed of in a manner which prevents unauthorized use and such disposal must be documented.
- (b) Bulbs and ballasts utilized during the manufacturing of marijuana must be disposed of in accordance with manufacturer's recommendations.

TITLE: WATER MANAGEMENT

SOP # 4.1	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Water Management policies.

RESPONSIBILITIES:

It is the responsibility of the Facilities Manager to adopt and implement the Water Management policies.

- (a) In the absence of local or state water district regulations for marijuana production, manufacturing operations must create and implement a cultivation water management plan to address the following:
 - (1) Erosion prevention; and
 - (2) Effluent and agricultural discharges.
- (b) Chemical solutions must be disposed of in accordance with applicable laws and regulations.
- (c) Application of nutrients or pesticides through an irrigation system (chemigation), must be performed in accordance with state or local agricultural regulations.

TITLE: WATER MANAGEMENT: POTABLE WATER FOR EMPLOYEE USE

SOP # 4.2	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Water Management: Potable Water for Employee Use policies.

RESPONSIBILITIES:

It is the responsibility of the Facilities Manager to adopt and implement the Water Management: Potable Water for Employee Use policies.

- (a) Manufacturing operations not utilizing a municipal source of potable water must test the potable water supply at least two times per year to ensure compliance with state primary drinking water standards.
- (b) Chemicals, fertilizers, pesticides, media and other products must be stored away from the potable water supply.

TITLE: RECORD KEEPING

SOP # 5.1	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Record Keeping policies.

RESPONSIBILITIES:

It is the responsibility of the Manufacturing Manager to adopt and implement the Record Keeping policies.

- (a) Manufacturing, packaging, labeling and holding operations must keep written and electronic records for each shipment of component, packaging component, marijuana, marijuana products received.
- (b) Purchase, operate, and maintain a computer software tracking system that must:
 - (1) Interface with the department's computer software tracking system; and
 - (2) Allow each center to submit to the department in real time, by automatic identification and data capture, all marijuana, marijuana plants, and manufactured marijuana product inventory in possession of that dispensary from either seed or immature plant state, including all plants that are derived from cuttings or cloning, until the marijuana or manufactured marijuana product is sold or destroyed.
- (c) Records must be kept of the following:
 - (1) Shipment Records:
 - Identity of the received item, as applicable to the item, and any component number or product number if such are in use by the supplier;
 - (ii) Supplier or vendor from which the shipment was received;
 - (iii) Original cultivation operation, where applicable;
 - (iv) The cultivation operation's batch, lot, and control number, where applicable;
 - (v) Date of receipt; and
 - (vi) Shipment delivery method, including where applicable the name of the carrier.
 - (2) Manufacturing Batch Records:
 - Batch, lot, or other control number assigned by the cultivation operation to the shipment;

- (ii) Inspection, sampling, testing, and examinations performed on the batch or lot, and the conclusions derived therefrom, as applicable;
- (iii) Any treatment, reprocessing, or other deviation performed by the operation on the batch or lot prior to use;
- (iv) Disposition of the batch or lot by the quality assurance officer, including the date and the signature of the person responsible for approving or rejecting the batch or lot and any treatment, reprocessing, or other deviation performed;
- (v) A record of any portion of the batch or lot returned from production to storage, including:
 - (A) Quantity returned, including unit of measure;
 - (B) Name, and batch lot or other control number of the batch or lot from which the portion is returned; and
 - (C) Initials of the persons responsible for verifying the quantity returned.
- (vi) A record of any portion of the batch or lot disposed of from storage, including the quantity, unit of measure, reason, and persons responsible for measuring the quantity.
- (vii) A record of each use of the batch or lot in production, including:
 - (A) Quantity used, including unit of measure;
 - (B) Name and batch, lot, or other control number of the product batch in which the batch or lot is used; and
 - (C)Initials of the person(s) responsible for removing from storage the necessary quantity for use in the designated batch.
- (d) Distribution records. Manufacturing, packaging, labeling and holding operations must keep written and electronic records for each batch or lot of marijuana products distributed to the retail dispensary. A record of each distribution of the batch or lot including:
 - (1) Quantity distributed, including unit of measure;
 - (2) Name and address of center to which the batch is distributed;
 - (3) Shipping method by which each shipment is distributed, including the name of the carrier:
 - (4) Initials of the persons responsible for removing from storage the necessary quantity for each shipment. Each distribution must be verified by a second person.
- (e) Reconciliation:
 - (1) Records of receipt, use or distribution, return, and disposal of each batch or lot of components, packaging components, marijuana, or marijuana products must be kept chronologically, and the quantities must be recorded with an appropriate level of precision.

- (2) After each batch or lot is used or distributed, manufacturing operations must perform a reconciliation of the quantity received into storage against the quantity used, distributed, returned, and/or disposed. Such calculations must be performed by one person and independently verified by a second person.
- (3) Narrow limits must be established based where possible on historical operating data, for the amount of allowed variation in the reconciliation.
- (4) When reconciliation falls outside the allowed limits, quality assurance officer must conduct an investigation to determine, to the extent possible, the source of the discrepancy. The deviation must be documented, explained, and approved by quality assurance officer.

(f) Record Retention:

- (1) All records required must be kept for a minimum of 3 years past the date of creation of the record.
- (2) Product compliant records must be retained for one year past the expiration date of the batch or lot affected.
- (3) Records for returned products must be retained for one year past the expiration date of the batch or lot affected.

TITLE: RECORD KEEPING: ANNUAL INSPECTIONS, AUDITS, AND REPORTS

SOP # 5.2	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Record Keeping: Annual Inspections, Audits, and Reports policies.

RESPONSIBILITIES:

It is the responsibility of the Chief Cultivation Officer to adopt and implement the Record Keeping: Annual Inspections, Audits, and Reports policies.

- (a) Each production center must:
 - (1) Have procedures set forth for the department's annual announced inspection and unlimited unannounced inspections of the operations;
 - (2) Submit reports on at least a quarterly basis, or as otherwise required, and in the format specified by the department; and
 - (3) Annually cause an independent financial audit and submit the audit's findings to the department.

TITLE: RECALLS

SOP # 7.1	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Recall policies.

RESPONSIBILITIES:

It is the responsibility of the Quality Assurance Officer to adopt and implement the Recall policies.

- (a) Each manufacturing operation must develop and implement a recall plan addressing at a minimum:
 - (1) Factors which necessitate a recall procedure;
 - (2) Personnel responsible for a recall; and
 - (3) Notification protocols.
- (b) Each manufacturing operation must establish a policy for communicating a recall of marijuana that has been shown to present a reasonable or a remote probability that the use of or exposure to the product will cause serious adverse health consequences, or could cause temporary or medically reversible adverse health consequences. This policy should include:
 - A mechanism to contact all patients or caregivers who have, or could have, obtained the marijuana from the cultivation operation or production center;
 - (2) Information on the return or destruction of any recalled product;
 - (3) A mechanism to contact the cultivation operation; and
 - (4) Communication and outreach via media, as necessary and appropriate.
- (c) Any recalled marijuana that is returned to a manufacturing operation must be disposed of in a manner that ensures that it cannot be salvaged and will not be used by a compliant individual or by any other person.

TITLE: COMPLAINTS

SOP # 7.2	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Complaint policies. Manufacturing operations must establish procedures describing the handling of product complaints received regarding a marijuana product.

RESPONSIBILITIES:

It is the responsibility of the Quality Assurance Officer to adopt and implement the Recall policies.

- (a) The Quality Assurance Officer must review product complaints to determine whether the product complaint involves a possible failure of a product to meet any of its specifications, or any other requirements, including but not limited to those specifications and other requirements that, if not met, may result in a risk of illness or injury.
- (b) The Quality Assurance Officer must investigate any product complaint that involves a possible failure of a product to meet any of its specifications, or any other requirements including but not limited to those specifications and other requirements that, if not met, may result in a risk of illness of injury.
- (c) The Quality Assurance Officer must review and approve decisions about whether to investigate a product complaint and review and approve the findings and follow-up action of any investigation performed.
- (d) The review and investigation of the product complaint, and the review by the Quality Assurance Officer about whether to investigate a product complaint, and the findings and follow-up action of any investigation performed, must extend to all related batches and relevant records. Related batches may include, but are not limited to, batches of the same product, other batches processed on the same equipment or during the same time period, or other batches produced using the same batches or lots of components or packaging components.
- (e) A written record of the complaint and where applicable its investigation must be kept including:
 - (1) Identity of the product;
 - (2) Batch, lot or other control number of the product;
 - (3) Date the complaint was received and the name, address or telephone number

of the complainant, if available;

- (4) Nature of the complaint including, if known, how the product was used;
- (5) Names of personnel who do the following:
 - (i) Review and approve the decision about whether to investigate a product complaint;
 - (ii) Investigate the complaint; and
 - (iii) Review and approve the findings and follow-up action of any investigation performed.
- (6) Findings of the investigation and follow-up action taken when an investigation is performed; and
- (7) Response to the complainant, if applicable.
- (f) Adverse event reporting. An adverse event is a health-related event associated with use of a product that is undesirable, and that is unexpected or unusual. An adverse event may initiate:
 - (1) Report to a public health authority;
 - (2) Report to the physician of record for the individual reported to have experienced the adverse event; and
 - (3) Product recall.

TITLE: RETURNED PRODUCTS

SOP # 7.3	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Returned Product policies.

RESPONSIBILITIES:

It is the responsibility of the Quality Assurance Officer to adopt and implement the Recall policies.

- (a) Returned products must be identified as such and be quarantined upon receipt.
- (b) Returned products must be reviewed and approved or rejected by the Quality Assurance Officer.
- (c) If the conditions under which returned product has been held, stored, or shipped before or during its return, or if the condition of the product, its containers, or labeling, as a result of storage or shipping, casts doubt on the identity, purity, strength, composition, or freedom from contamination or adulteration of the product, the returned product shall be rejected unless examination, testing, or other investigations prove the product meets appropriate standards of identity, purity, strength, and composition and its freedom from contamination or adulteration.
- (d) If the reason a product is returned implicates associated batches, an appropriate investigation must be conducted and must extend to all related batches and relevant records. Related batches may include, but are not limited to, batches of the same product, other batches processed on the same equipment or during the same time period, or other batches produced using the same components or packaging components.
- (e) Rejected returned product returned to the manufacturing, packaging, labeling, and holding operation must be destroyed as outlined in SOP#3.6.
- (f) A written record must be kept of the return, and where applicable its investigation including:
 - (1) Identity of the product;
 - (2) Batch, lot or other control number of the product;
 - (3) Date the returned product was received;
 - (4) Name and address from which it was returned, and the means by

which it was returned;

- (5) Reason for the return;
- (6) Results of any tests or examinations conducted on the returned product, or on related batches, if any;
- (7) Findings of the investigation and follow-up action taken when an investigation is performed;
- (8) Any reprocessing performed on the returned product;
- (9) The ultimate disposition of the returned product, and the date of disposition; and
- (10) Names of personnel who do the following:
 - (i) Review the reason for the product return;
 - (ii) Review and approve any reprocessing; and
 - (iii) Review and approve the findings and follow-up action of any investigation performed.

TITLE: EQUIPMENT AND UTENSILS

SOP # 8.1	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the proper use and maintenance of equipment and utensils.

RESPONSIBILITIES:

It is the responsibility of all staff to follow these policies and procedures.

- (a) All equipment and utensils used in the operation must be of appropriate design, construction and workmanship:
 - (1) Equipment and utensils must be suitable for their intended use;
 - (2) Equipment and utensils must be able to be adequately cleaned and properly maintained; and
 - (3) Use of equipment and utensils must not result in the contamination of components, packaging components, in-process materials, marijuana, marijuana products or contact surfaces.
- (b) All equipment and utensils used in the operation must be:
 - (1) Installed and maintained to facilitate cleaning of the equipment, utensils and adjacent spaces;
 - (2) Constructed so that contact surfaces are nontoxic and corrosion-resistant, and neither reactive nor absorptive;
 - (3) Designed and constructed to withstand the environment in which they are used, the action of components, in-process materials, marijuana, marijuana products, and cleaning compounds and sanitizing agents; and
 - (4) Maintained to protect components, in-process materials, marijuana, marijuana products from being contaminated by any source.
- (c) Equipment and utensils must be designed and maintained to minimize accumulation of dirt, filth, organic material, particles of components, in-process materials, marijuana, and marijuana products, or any other extraneous materials or contaminants.
- (d)) Compressed air or other gases introduced mechanically into or onto a component, packaging component, in-process material, marijuana or marijuana product, or contact surface or used to clean any contact surface must be filtered or otherwise treated such that the component, packaging component, in-process

material, marijuana or marijuana product, or contact surface is not contaminated.

- (e) Each freezer, refrigerator, and other cold storage compartment used to hold components, in-process materials, or marijuana or marijuana products:
 - (1) Must be fitted with an indicating thermometer, temperature-measuring device, or temperature-recording device that indicates and records, or allows for recording by hand, the temperature accurately within the compartment; and
 - (2) Must have an automated device for regulating temperature and/or an automated alarm system to indicate a significant temperature change.
- (f) Instruments or controls used in manufacturing, packaging, labeling, holding, or testing, and instruments or controls that are used to measure, regulate, or record conditions that control or prevent the growth of microorganisms or other contamination, must be suitably accurate and precise, and adequately maintained.
- (g) Where appropriate, instruments and controls used in manufacturing, packaging, holding, or testing components, packaging components, in-process materials, marijuana, and marijuana products must be calibrated, inspected, or otherwise verified before first use and at routine intervals or as otherwise necessary to ensure the accuracy and precision of the instrument or control, and the resulting data must be periodically reviewed by the quality assurance officer. Instruments or controls that are past their calibration, inspection, or verification due date, or which cannot be adjusted to provide suitable accuracy and precision, must be removed from use until they are repaired or replaced.
- (h) Production operations must establish and use appropriate controls for automated, mechanical, and electronic equipment (including software for a computer controlled process) to ensure that:
 - Any changes to the equipment are approved by quality assurance officer and instituted only by authorized personnel; and
 - (2) The equipment functions in accordance with its intended use.
- (i) Equipment and utensils, and any other contact surfaces used in production operations must be maintained, cleaned, and sanitized, as necessary.
 - (1) Equipment and utensils must be taken apart as necessary for thorough maintenance, cleaning, and sanitizing.
 - (2) All contact surfaces used for manufacturing, packaging, or holding low-moisture components, in-process materials, or marijuana or marijuana products, must be in a dry and sanitary condition when in use. When the surfaces are wet-cleaned, they must be sanitized, when necessary, and thoroughly dried before subsequent use.
 - (3) If wet processing is used during production, all contact surfaces must be cleaned and sanitized, as necessary, to protect against the introduction of

- microorganisms into components, packaging components, in-process materials, or marijuana or marijuana products.
- (4) When cleaning and sanitizing is necessary, all contact surfaces must be cleaned before use and after any interruption during which the contact surface may have become contaminated.
- (5) If contact surfaces are used in a continuous production operation or in consecutive operations involving different batches of the same product, the contact surfaces must be adequately cleaned and sanitized, as necessary.
- (6) Surfaces that do not come into direct contact with components, packaging components, in-process materials, or marijuana or marijuana products must be cleaned as frequently as necessary to protect against contaminating components or products.
- (7) Single-service articles (such as utensils intended for one-time use, paper cups, and paper towels) must be stored in appropriate containers, and handled, dispensed, used, and disposed of in a manner that protects against contamination of components, packaging components, in-process materials, marijuana or marijuana products, or any contact surface.
- (8) Cleaning compounds and sanitizing agents must be adequate for their intended use and safe under their conditions of use.
- (9) Cleaned and sanitized portable equipment and utensils that have contact surfaces must be stored in a location and manner that protects them from contamination.
- (j) Any cleaning, calibration, maintenance, and sanitation of equipment, instruments, and utensils must recorded and stored.

TITLE: MANUFACTURING PROTOCOL

SOP # 9.1	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Manufacturing Protocol policies.

RESPONSIBILITIES:

It is the responsibility of the Manufacturing Manager to adopt and implement the Manufacturing Protocol policies.

- (a) Manufacturing operations must follow a manufacturing protocol for each unique formulation of marijuana product to be product. The manufacturing protocol must include the following, as applicable:
 - (1) Identity of the product;
 - (2) For each formulation of product:
 - (i) Nominal batch size:
 - (ii) Identity of each component to be used in the batch;
 - (iii) Weight or measure of each component to be used in the batch, including the unit of measure and a statement of any range or variation in the weight or measure;
 - (iv) A statement of any intentional overage amount of a component;and
 - (v) Name and amount of each ingredient that will be declared on the product's labeling.
 - (3) A statement of theoretical yield for each significant process step and at the end of manufacture, including the acceptable maximum and minimum percentages of theoretical yield;
 - (4) Written instructions or cross references to standard procedures for the following:
 - (i) The execution of each process step;
 - (ii) Production process specifications;
 - (iii) Monitoring of production process specifications;
 - (iv) In-process material specifications;
 - (v) In-process material sampling, testing, and/or examination;
 - (vi) Marijuana product sampling, testing, and/or examination; and
 - (vii) Additional applicable procedures to be followed, if any.

- (b) Manufacturing protocols must be written with the intent to provide not less than 100% of the labeled or specified amount of marijuana and any other ingredient for which a quantitative label claim is made, throughout the shelf life of the product.
- (c) The production process described in the manufacturing protocol must ensure that marijuana product specifications are consistently met.

TITLE: MANUFACTURING COMPONENT CONTROL REQUIREMENTS

SOP # 9.2	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Manufacturing Component Control Requirements Policies.

RESPONSIBILITIES:

It is the responsibility of the Manufacturing Manager to adopt and implement the Manufacturing Component Control Requirements policies.

- (a) Manufacturing operations must have written procedures describing in sufficient detail the receipt, identification, storage, handling, sampling, review and approval or rejection of components.
- (b) Each container or grouping of containers for components must be identified with a distinctive code (i.e. lot or control number) for each lot in each shipment received, which allows the lot to be traced backward to the supplier, the date received, and the name of the component; and forward to the marijuana product batches manufactured or distributed using the lot. This code must be used in recording the disposition of each lot.
- (c) Specifications for each component must be established as follows, to the extent they are necessary to ensure that manufactured batches of marijuana product meet specifications.
 - (1) An identity specification for the component must be established;
 - (2) Specifications for the strength and composition of the component must be established as necessary to ensure the strength and composition of marijuana products manufactured with the component;
 - (3) Specifications for the purity of the component must be established as necessary to ensure the purity of marijuana products manufactured with the component, including limits on those types of contamination that may adulterate or may lead to adulteration of marijuana products manufactured with the component, such as filth, insect infestation, microbiological contamination, or other contaminants.
- (d) Components must be received and stored pending approval as follows:
 - (1) Upon receipt and before acceptance, each container or grouping of containers must be examined visually for appropriate labeling as to

- contents, container damage or broken seals, and contamination, to determine whether the container condition may have resulted in contamination or deterioration of the components.
- (2) The supplier's documentation for each shipment must be examined to ensure the components are consistent with what was ordered.
- (3) Components must be stored under quarantine until they have been sampled, reviewed, and approved or rejected by the quality assurance officer.
- (e) Components must be approved or rejected as follows:
 - (1) Each lot of components must be withheld from use until the lot has been sampled, reviewed, and released for use by the quality assurance officer.
 - (2) Compliance of the lot with established specifications must be ensured either through review of the supplier's certificate of analysis or other documentation, or through appropriate tests and/or examinations. Any tests and examinations performed must be conducted using appropriate scientifically valid methods.
 - (3) Any lot of a component that meets its specifications may be approved and released for use for use by the quality assurance officer.
 - (4) Any lot of a component that does not meet its specifications must be rejected by the quality assurance officer, unless the quality assurance officer approve a treatment, process adjustment, reprocessing, or other deviation that will render the component or packaging component suitable for use, and will ensure the finished marijuana product batches manufactured with the affected lot will meet all specifications for identity, purity, strength, and composition and will not be otherwise contaminated or adulterated. Any such treatment, process adjustment, reprocessing, or other deviation must be documented, justified, and approved by the quality assurance officer.

TITLE: MANUFACTURING BATCH RECORD

SOP # 9.3	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Manufacturing Batch Record policies.

RESPONSIBILITIES:

It is the responsibility of the Manufacturing Manager to adopt and implement the Manufacturing Batch Record policies.

- (a) Manufacturing operations must prepare a manufacturing batch record for each batch of marijuana product manufactured.
- (b) The manufacturing batch record must:
 - (1) Cross-reference or reproduce the appropriate manufacturing protocol; and
 - (2) Form a complete record of the manufacturing and control of the batch.
- (c) Each batch must be assigned a batch, lot, or control number which allows the complete history of the production and distribution of the batch to be determined. This code must be used in recording the disposition of each batch.
- (d) The manufacturing batch record must include, as applicable to the process:
 - Identity of the marijuana product;
 - (2) The batch, lot or control number of the marijuana product;
 - (3) Batch size;
 - (4) For each component used in production of the batch:
 - (i) Identity of each component used in the batch;
 - (ii) Batch, lot or control number of each component used in the batch;
 - (iii) Actual weight or measure of each batch or lot of component used in the batch, including the unit of measure.
 - (5) Date(s) on which, and where applicable the time(s) at which, each step of the manufacturing process was performed;
 - (6) Actual results obtained during monitoring of production process parameters;
 - (7) Identity of processing lines and major equipment used in producing the batch;
 - (8) Date and where applicable the time of the maintenance, cleaning, and/or sanitizing of the major equipment used in producing the batch, or a cross-

- reference to records, such as individual equipment logs, where this information is recorded:
- (9) If manufacture of the batch uses equipment or instruments requiring periodic calibration, inspection, or verification, the date and where applicable the time of the last calibration, inspection, or verification or the date on which such is next due; or a cross-reference to records, such as individual equipment logs, where this information is recorded;
- (10) A statement of the actual yield and a statement regarding whether the actual yield is within the acceptable range of the theoretical yield after each significant process step and at the end of manufacturing;
- (11) Records of any marijuana waste generated during production of the batch:
- (12) Records of any treatment, process adjustment, reprocessing, or other deviation that occurred during production of the batch;
- (13) Records of the date, time where applicable, quantity, and person responsible for any sample removed during or after production;
- (14) Actual results of any testing or examination of in-process material or marijuana product, or a cross-reference to such results;
- (15) Documentation that the marijuana product meets its specifications for identity, purity, strength, and composition, in accordance with the requirements of the manufacturing protocol;
- (16) Identity of each person performing each process step in production of the batch, including but not limited to:
 - (i) Weighing or measuring each component and verifying the weight or measure of each component used in the batch;
 - (ii) Adding each component to the batch and verifying the addition of each component to the batch;
 - (iii) Monitoring production process parameters;
 - (iv) Performing and verifying calculations of the actual yield and any other mathematical calculations;
 - (v) Directly overseeing each stage of production of the batch;
 - (vi) Performing any other checks or verifications in production of the batch, as needed; and
 - (vii) Releasing the batch from one stage of production to the next.
- (e) All date in the manufacturing batch record must be recorded at the time at which each action is performed.
- (f) The completed manufacturing batch record for each batch must be reviewed and signed by the quality assurance officer to determine compliance with all applicable specifications and other requirements of the manufacturing protocol before a batch is approved.

TITLE: ALLOCATION AND CHARGE-IN OF COMPONENTS

SOP # 9.4	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Allocation and charge-in of components policies.

RESPONSIBILITIES:

It is the responsibility of the Manufacturing Manager to adopt and implement the Manufacturing Allocation and charge-in of components policies.

- (a) Manufacturing operations must weigh, measure, or subdivide components to be used in a marijuana product batch as appropriate for the batch.
- (b) If a component is removed from the original container to another, the new container must be identified with the following information:
 - (1) Component identity;
 - (2) Batch, lot or control number;
 - (3) Weight or measure in the new container; and
 - (4) Batch for which component was dispensed, including its identity and batch, lot or control number.
- (c) Each container of component dispensed to manufacturing must be examined by a second person or verified by automated equipment to assure that:
 - (1) The component was released by quality control personnel;
 - (2) The weight or measure is correct as stated in the manufacturing protocol; and
 - (3) The containers are properly identified.
- (d) Each component must either be added to the batch by one person and verified by a second person or, if the components are added by automated equipment, verified by one person.

TITLE: PROCESS MONITORING AND CONTROLS DURING MANUFACTURING

SOP # 9.5	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Process Monitoring and Controls During Manufacturing policies.

RESPONSIBILITIES:

It is the responsibility of the Manufacturing Manager to adopt and implement the Process Monitoring and Controls During Manufacturing policies.

- (a) Process specifications must be established for production process parameters at or during any point, step, or stage where control is necessary to ensure the quality of the batch of marijuana product, and to detect any unanticipated occurrence that may result in contamination, adulteration, or a failure to meet specifications. The process parameters to be monitored may include, but are not limited to, the following as appropriate:
 - (1) Time
 - (2) Temperature;
 - (3) Pressure; and
 - (4) Speed.
- (b) Production process parameters must be monitored at or during any point, step, or stage where process specifications have been established.
- (c) Any deviation from the specified process parameters must be documented and justified, and the associated in-process material or product must be quarantined. The deviation must be reviewed and approved or rejected by the quality assurance officer. Such deviations must not be approved unless the quality assurance officer determine that the resulting marijuana product will meet all specifications for identity, purity, strength, and composition and is not otherwise contaminated or adulterated.
- (d) If a deviation is rejected, the resulting in-process or finished marijuana product must be rejected, unless the quality assurance officer approve a treatment, process adjustment, reprocessing, or other deviation that will ensure the marijuana product batches manufactured with the affected material will meet all specifications for identity, purity, strength, and composition and will not be otherwise contaminated or adulterated. Any such treatment, process adjustment, reprocessing, or other

- deviation must be documented, justified, and approved by the quality assurance officer.
- (e) Manufacturing operations must properly identify all compounding and storage containers, processing lines, and major equipment used during the production of a batch of marijuana product at all times to indicate their contents and, when necessary, the phase of processing of the batch.
- (f) Operations on one component, product, or batch must be physically, spatially, or temporally separated from operations on other components, products, or batches.
- (g) All necessary precautions must be taken during the manufacture of a marijuanaderived product to prevent contamination of components and products. These precautions include, but are not limited to:
 - (1) Washing or cleaning components that contain soil or other contaminants;
 - (2) Holding components, in-process materials, and marijuana or marijuana products appropriately;
 - (3) Preventing cross-contamination and mixups between contaminated components, in-process materials, and marijuana or marijuana products and uncontaminated items:
 - (4) Using effective measures to protect against the inclusion of metal or other foreign material in components or marijuana products, by, for example:
 - (i) Filters, strainers, or sieves;
 - (ii) Traps;
 - (iii) Magnets;
 - (iv) Electronic metal detectors.

TITLE: MANUFACTURING SAMPLING REQUIREMENTS

SOP # 9.6	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Manufacturing Sampling Requirements policies.

RESPONSIBILITIES:

It is the responsibility of the Manufacturing Manager to adopt and implement the Manufacturing Sampling Requirements policies.

- (a) A representative sample of each batch or lot of component, marijuana, or marijuanaderived product must be collected by removing and compositing portions of material or units from throughout the containers in the batch or lot.
- (b) In addition to representative samples, other samples may be taken as appropriate to:
 - (1) Monitor the quality of in-process materials during production;
 - (2) Examine the degree of variability of materials or products; and
 - (3) Investigate known or suspected non-conformances.
- (c) The number of containers and the amount of material or units to be removed from each container must be based on appropriate criteria such as:
 - (1) Quantity needed for testing, examination, and reserve;
 - (2) Past quality history of the item;
 - (3) Expected variability of the material or units being sampled; and
 - (4) Degree of confidence and precision required.
- (d) The containers selected for sampling must be based on rational criteria such as random sampling; directed sampling may be used where appropriate.
- (e) Samples must be collected in accordance with the following procedures:
 - (1) The containers selected for sampling must be cleaned when necessary in a manner to prevent introduction of contaminants into the component, inprocess material, marijuana or marijuana product.
 - (2) The containers must be opened, sampled, and resealed in a manner designed to prevent contamination of their contents and contamination of other components, in-process materials, marijuana or marijuana product.
 - (3) Sterile equipment and aseptic sampling techniques must be used when necessary.

- (4) Where appropriate for the purpose of the sample and the nature of the material being sampled, sample portions are removed from the top, middle, and bottom of containers. Such sample portions may be composited in forming the representative sample, or may be tested separately, as appropriate to the purpose.
- (5) Containers from which samples have been taken must be marked to indicate that samples have been removed from them.
- (f) Sample containers must be identified with the following information:
 - (1) Name of the item sampled;
 - (2) Batch, lot, or control number of the item sampled;
 - (3) Container from which the sample was taken, or for samples taken directly from the production line, the equipment line and time at which the sample was taken, unless such information is documented separately;
 - (4) Date on which the sample was taken;
 - (5) Name of the person who collected the sample; and
 - (6) Quantity and unit of measure of the sample.
- (g) Each sample removed from a batch or lot must be recorded in the inventory or manufacturing batch record for the batch or lot.
- (h) The quantity of sample used for each test or examination must be of sufficient size or number to ensure the results are representative of the batch or lot.
- (i) A reserve sample must be prepared from the representative sample of each batch or lot of shelf-stable component, marijuana or marijuana product.
- (j) Reserve samples should consist of at least twice the quantity necessary for tests and examinations to determine whether the shelf-stable component, marijuana or marijuana product meets established critical quality specifications. However, where state law limits the amount of marijuana and marijuana product permitted to be kept on hand, operations may keep smaller amounts in reserve if necessary.
- (k) Reserve samples of shelf-stable components should:
 - (1) Be stored using an appropriate container-closure to protect against contamination or deterioration during storage;
 - (2) Be stored under conditions consistent with the conditions under which the component is stored at the manufacturing operation; and
 - (3) Be retained for one year past the expiration date of the last batch of marijuana- derived product manufactured from the lot. However, where state law limits the amount of marijuana and marijuana product permitted to be kept on hand, operations may keep reserve samples for shorter periods of time if necessary.
- (I) Reserve samples of marijuana product should:
 - (1) Be stored using the same container-closure system in which the packaged and labeled marijuana product is distributed, or for bulk products, using a

- container-closure system that provides essentially the same characteristics to protect against contamination or deterioration as the one in which the bulk product is distributed;
- (2) Be stored under conditions consistent with the storage conditions recommended on the product label or, if no storage conditions are recommended on the label, under ordinary storage conditions.
- (3) Be retained for one year past the expiration date of the batch or lot.

TITLE: MARIJUANA PRODUCT SPECIFICATIONS

SOP # 9.7	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Marijuana Product Specifications policies.

RESPONSIBILITIES:

It is the responsibility of the Manufacturing Manager to adopt and implement the Marijuana Product Specifications policies.

- (a) Manufacturing operations must establish specifications for each marijuana product as follows:
 - (1) Manufacturing operations must establish specifications for the identity purity, strength, and composition of each marijuana product manufactured by the operation.
 - (2) Manufacturing operations which receive marijuana product for further processing must establish specifications to provide sufficient assurance that the product received is adequately identified and is consistent with the purchase order.
- (b) For each batch or lot of marijuana product manufactured by the operation, the conformance of the batch or lot to established specifications must be confirmed as follows:
 - (1) For every batch or lot, or for a subset of marijuana product batches or lots identified through sound statistical sampling plan, the operation must verify that the batch or lot meets product specifications for identity, purity, strength, and composition, to the extent that scientifically valid test methods exist for these specifications.
 - (2) In lieu of testing every established strength and composition specification for which scientifically valid test methods exist, one or more strength and/or composition specifications may be selected for testing, where it can be established that testing for this reduced panel of specifications is sufficient to ensure that the production and process control system is producing product that meets all specifications.
 - (3) Where no scientifically valid test method exists for a product specification, compliance with the specification must be established through component and/or in-process testing, examinations, or monitoring and/or review of

- manufacturing batch records.
- (4) The Quality assurance officer must document and approve the justification for reduced product testing under section 5.7(b)(2) or section 5.7(b)(3) of this part.
- (c) Marijuana product which fails to meet its specifications must be rejected, unless the quality assurance officer approve a treatment, process adjustment, reprocessing, or other deviation that will ensure the marijuana product batches manufactured with the affected material will meet all specifications for identity, purity, strength, and composition, and will not be otherwise contaminated or adulterated. Any such treatment, process adjustment, reprocessing, or other deviation must be documented in the manufacturing batch record, justified, and approved by the quality assurance officer.
- (d) Any unexplained occurrence or discrepancy, and any failure of the marijuana product to meet its specifications or requirements, must be documented and investigated. The investigation must extend to any related batches that may have been associated with the same specific failure, discrepancy, or problem; this may include, but is not limited to, batches of the same marijuana product, other batches processed on the same equipment or during the same time period, and other batches produced using the same lots of components.
- (e) Manufacturing operations must have written procedures describing in sufficient detail the storage, handling, sampling, testing, and approval or rejection of marijuana and marijuana products.
- (g) The types of medical marijuana products that may be manufactured and distributed pursuant to this chapter shall be limited to;
 - (1) Capsules;
 - (2) Lozenges;
 - (3) Pills;
 - (4) Oils and oil extracts;
 - (5) Tinctures;
 - (6) Ointments and skin lotions; and
 - (7) Other products as specified by the department.

TITLE: CALCULATION OF YIELD

SOP # 9.8	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Calculation of Yield policies.

RESPONSIBILITIES:

It is the responsibility of the Manufacturing Manager to adopt and implement the Calculation of Yield policies.

- (a) Actual yields must be determined at the conclusion of each appropriate phase of manufacturing of the marijuana product. Such calculations must either be performed by one person and independently verified by a second person, or, if the yield is calculated by automated equipment, be independently verified by one person.
- (b) If the percentage of theoretical yield at any process step or at the end of production falls outside the maximum or minimum percentage of theoretical yield allowed in the manufacturing protocol, the quality assurance officer conduct an investigation of the batch and determine, to the extent possible, the source of the discrepancy. The deviation must be documented, explained, and approved by the quality assurance officer.

TITLE: ADVERTISING AND PACKAGING

SOP # 10.1	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all staff members follow the Advertising and Packaging policies.

RESPONSIBILITIES:

It is the responsibility of the Manufacturing Manager to adopt and implement the Advertising and Packaging policies.

- (a) Procedures should be established to follow the department's standards regarding the advertising and packaging of marijuana and manufactured marijuana products; provided that the standards, at a minimum, shall require the use of packaging that:
 - (1) Is child-resistant and opaque so that the product cannot be seen from outside the packaging;
 - (2) Uses only black lettering on a white background with no pictures or graphics;
 - (3) Is clearly labeled with the phrase "For medical use Only";
 - (4) Is clearly labeled with the phrase "Not for resale or transfer to another person";
 - (5) Includes instructions for use and "use by date";
 - (6) Contains information about the contents and potency of the product;
 - (7) Includes the name of the production center where marijuana in the product was produced, including the batch number and date of packaging;
 - (8) Includes a barcode generated by tracking software; and
 - (9) In the case of a manufactured marijuana product, a listing of the equivalent physical weight of the marijuana used to manufacture the amount of the product that is within the packaging, pursuant to section-9 (c).
- (b) Any capsule, lozenge, or pill containing marijuana or its principal psychoactive constituent tetrahydrocannabinol shall be packaged so that one dose, serving, or single wrapped item contains no more than ten milligrams of tetrahydrocannabinol; provided that no manufactured marijuana product that is sold in a pack of multiple doses, servings, or single wrapped items, nor any containers of oils, shall contain more than a total of one hundred milligrams of tetrahydrocannabinol per pack or container.

TITLE: CULTIVATION BEST MANAGEMENT PRACTICES

SOP # 010 EFFECTIVE DATE: 4/15/16

WRITTEN BY: APPROVED BY:

PURPOSE/POLICY:

Lau Ola LLC is dedicated to the purity and safety of its products. It is corporate policy to ensure all cultivation operations follow best management practices including good agricultural practice (GAP), good handling practices (GHP), and good cultivation practices (GCP). Food safety protocols are adopted wherever applicable.

RESPONSIBILITIES:

1) It is the responsibility of the Cultivation Director with oversight by the Chief Executive Officer to adopt and implement best management practices (BMP) including GAP, GHP and GCP.

PROCEDURE:

Adopted best management practices

The company is dedicated to the purity and safety of its products. Best Management Practice, Good Agricultural, Good Handling Practice, and Good Cultivation Practice will be used throughout the cultivation operation. Food safety protocols are adopted wherever applicable. The company has adopted or adapted the use of following publications on BMP/GAP/GHP/GCP:

- a. An introduction to on-farm food safety practices, Canadian Federation of Agriculture (http://www.fao.org/prods/gap/database/gap/files/1360_GMP_CANADA.PDF)
- b. HACCP principles and application guidelines, National Advisory Committee on Microbiological Criteria for Foods

http://www.fda.gov/Food/GuidanceRegulation/HACCP/ucm2006801.htm).

c. Guide to minimize microbial food safety hazards for fresh fruits and vegetables, Center for Food Safety and Applied Nutrition

(http://www.fda.gov/downloads/Food/GuidanceComplianceRegulatoryInformation/Guidance Documents/ProduceandPlanProducts/UCM169112.pdf)

- d. Medical marijuana Cultivation Operations, American Herbal Products Association (http://www.ahpa.org/Portals/0/pdfs/13 1113 Medical marijuana Cultivation Recommendations.pdf)
- e. A workbook on Greenhouse Gas Mitigation for Agricultural Managers, Government of Alberta, Canada, Agriculture, Food and Rural Development (http://www.fao.org/prods/gap/database/gap/files/1397_GHG_MITIGATION_CANADA.PDF).

Summary of best management practices

1) Crop production

- a. The Director of Cultivation will select appropriate cultivars or varieties responsive to cultivation practices and patient needs.
- b. Crop sequences will be developed for the optimal use of labor and equipment
- c. Employees will apply fertilizers in a balanced fashion.
- d. Recycling of crop and other organic residues will be implemented whenever possible.

2) Crop protection

- a. The Director of Cultivation will use resistant cultivars and maximize biological prevention of pests and diseases.
- 3) Harvest and on-farm processing and storage
- a. Marijuana shall only be harvested following relevant pre-harvest intervals and withholding periods.
- b. The company will ensure clean and safe handling for processing of products through its quality assurance unit.
- c. All marijuana will be stored under hygienic and appropriate environmental conditions.
- d. Marijuana packaged for transport from cultivation facilities will be in appropriate and clean containers.
- e. Detailed records regarding harvest, storage, and processing will be maintained.
- 4) Energy and waste management
- a. The Director of Cultivation shall establish input-output plans for energy, nutrients, and agrochemicals to ensure efficient use and safe disposal.
- b. Energy saving practices, buildings, and machinery will be implemented throughout the operations.
- c. The company will recycle organic wastes and inorganic material as allowed by law.
- d. The operation shall minimize non-usable wastes.
- e. All fertilizers and agrochemicals will be securely stored.
- f. The company will maintain records of energy use, storage, and disposal.
- 5) Human welfare, health and safety
- a. The Director of Cultivation shall manage cultivation practices to achieve an optimum balance between economic, environmental, and social goals.
- b. All employees shall be provided with employment that provides adequate household income and food security.
- c. All employees will be fully trained in the safe and efficient use of chemicals, tools, and machinery.

TITLE: CULTIVATION CARBON DIOXIDE SYSTEMS

SOP # 010A EFFECTIVE DATE: 4/15/16

WRITTEN BY: APPROVED BY:

PURPOSE/POLICY:

Lau Ola LLC is committed to cultivating healthy plants that provide the highest quality products for patients. Carbon Dioxide (CO2) systems may be used in cultivation to improve crop health and increase crop yields.

RESPONSIBILITIES:

- 1) The Director of Cultivation must maintain any CO2 systems used in the operation.
- 2) Each employee is responsible for following all safety protocols established by the Director of

Cultivation.

PROCEDURE:

- 1) Implementing a supplementary CO2 system can increase yield by 20-40% and is very common in agriculture.
- 2) Generally CO2 levels should be about 900 ppm and no more than 1100 ppm.
- 3) The Director of Cultivation must ensure that all CO2 sensors are positioned near the center of the crop and not near a CO2 outlet.
- 4) The Director of Cultivation must also ensure that there is proper ventilation to provide an exchange of air when using CO2.
- 5) The Director of Cultivation must ensure that CO2 levels are being documented with nutrient levels as a component of the formula.
- 6) In addition to these responsibilities, the Director of Cultivation is responsible for ensuring that all employees and employees are thoroughly trained on how to identify CO2 poisoning, for both plants and humans, and how to respond appropriately to both of these situations.

TITLE: CROP AND SUPPLY MANAGEMENT SOP # 010B EFFECTIVE DATE: 4/15/16

WRITTEN BY: APPROVED BY:

PURPOSE/POLICY:

Lau Ola LLC is dedicated to the consistent supply of quality marijuana for further processing to marijuana products needed by patients.

RESPONSIBILITIES:

- 1) It is the responsibility of the Chief Operating Officer to oversee the Director of Cultivation.
- 2) The Director of Cultivation is responsible for crop and supply management.

PROCEDURE:

Supply estimation

- 1) The mission of the company is to provide consistent and effective marijuana products to our patients. The Director of Cultivation, in coordination with the Director of Manufacturing and Chief Medical Officer will receive demand estimates from the dispensary operations and determine the next quarter's production supply to meet or exceed the demand.
- 2) In addition to demand, the dispensary operation will report on strain selection to meet or exceed patient expectations and requests.
- 3) When implementing cultivation procedures, the Director of Cultivation must consider the impact on consistency, quality, and efficacy.
- 4) A regular harvest cycle shall be maintained to ensure consistent supply, maximize efficiency, and allow for effective plant management techniques.
- 5) The Director of Cultivation shall coordinate with the Chief Medical Officer regularly to determine the appropriate level of production anticipating patient needs.
- 6) The Director of Cultivation must maintain an integrated pest management plan to protect crops from pest related damage and yield reduction including beneficial insect applications.
- 7) The Director of Cultivation shall develop production schedules that maximize yield and variety in each harvest cycle.
- 8) The Director of Cultivation shall maintain sufficient records to track, monitor, and make reasonable judgments about the effectiveness of crop management methods implemented.

- 9) The Director of Cultivation must report the effectiveness of any change in cultivation procedures to the Chief Operating Officer with a detailed analysis of the change in relation to the following items:
- a. Yield;
- b. Efficiency;
- c. Employee safety;
- d. Required training;
- e. Potency;
- f. Cost;
- g. Other test results; and
- h. Feedback from users.

TITLE: CULTIVATION METHODS

SOP # 010C EFFECTIVE DATE: 4/15/16

WRITTEN BY: APPROVED BY:

PURPOSE/POLICY:

The company is committed to providing our patients with the consistent supply of quality medical marijuana

for further processing into the products needed by patients.

RESPONSIBILITIES:

- 1) It is the responsibility of the Chief Operating Officer to oversee the Director of Cultivation.
- 2) The Director of Cultivation is responsible for crop and supply management. The Director of Cultivation must oversee and appropriately train all Cultivation Specialists to successfully complete all protocols regarding cultivation pursuant to the Lau Ola LLC operational procedures.
- 3) Cultivation Specialists must superintend all work completed by Maintenance Technicians to ensure each step of the cultivation protocols is accurately and efficiency completed.
- 4) It is the responsibility of the Director of Security to implement and enforce security policies and procedures throughout the operation.
- 5) It is the responsibility of the Quality Assurance Unit to oversee the quality control procedures used in cultivation operations.

PROCEDURE:

Propagation of seed

- 1) A Cultivation Specialists or Maintenance Technician shall implant a female seed from a healthy, uncontaminated mother plant into an organic, fully biodegradable plant starter cube containing appropriate fungi and micronutrients to support the evolutionary health of the crop.
- a. The cube must be allowed to soak in water for an appropriate time before the seed is planted.
- b. Cubes must be stored at the proper specific temperature prior to use in order to provide an environment in which aerobic bacteria may excel.
- 2) During the propagation process, humidity must be control between 50-80% and temperatures must shall between 80-90 degrees.
- 3) Immediately place the seeds under direct, constant sunlight for 24 hours per day while the seeds germinate.
- 4) Allow seeds to germinate for approximately 16-21 days. The Director of Cultivation must determine the appropriate time for each transplant based on his or her experience and discretion.
- 5) Once the plant begins rooting, a Cultivation Specialists or Maintenance Technician shall begin applying a calcium-based, potassium sulfates organic micronutrient solution in the amount of 300 ppm 62 pH.
- a. The Director or Cultivation or experienced Cultivation Specialists must determine when the crops are ready for nutrients.
- b. The Director of Cultivation must oversee the independent moisture level demanded by each plant.

- c. During the first week of rooting, crops should be feed approximately 3-4 times, based on the Director of cultivations discretion.
- d. The Maintenance Technician on duty must oversee that all drip systems and cultivation equipment are properly and efficiently functioning at all times.

 Propagation of clones
- 1) A Cultivation Specialists or Maintenance Technician shall select a salubrious from the top of a healthy mother plant about 5 nodes down with trimming scissors.
- 2) Trim shoots and fan leaves along the lowest nodes with trimming scissors.
- 3) Cut below the lowest node with a clean razor blade at a 45 degree angle
- 4) Dip the main stem into a rooting hormone gel, then immediately insert the lowest node into an organic, fully biodegradable plant starter cube containing appropriate fungi and micronutrients to support the evolutionary health of the crop.
- a. The cube must be allowed to soak in water for an appropriate time before the seed is planted.
- b. Cubes must be stored at the proper specific temperature prior to use in order to provide an environment in which aerobic bacteria may excel.
- 5) During the propagation process, humidity must be control between 50-80% and temperatures must shall between 75-80 degrees.
- 6) Immediately place the clones under direct, constant supplemental lighting for 24 hours per day while the plants root.
- 7) Allow clones to root for approximately 14 days. The Director of Cultivation must determine the appropriate time for each transplant based on his or her experience and discretion.
- 8) Once the plant begins rooting, a Cultivation Specialists or Maintenance Technician shall begin applying a calcium-based, potassium sulfates organic micronutrient solution in the amount of 300 ppm 6.2 pH.
- a. The Director or Cultivation or experienced Cultivation Specialists must determine when the crops are ready for micronutrients.
- b. The Director of Cultivation must oversee the independent moisture level demanded by each plant.
- c. During the first week of rooting, crops should be feed approximately 3-4 times, based on the Director of Cultivation recommendations.
- d. The Maintenance Technician on duty must oversee that all drip systems and cultivation equipment are properly and efficiently functioning at all times.

 Vegetation
- 1) The Director of Cultivation must ensure that each marijuana plant has had the appropriate time allotted to properly root and is prepared for the transition into vegetation.
- 2) Environmental controls shall provide an environment that ranges between 70-80 degrees and 50-70% humidity.

- 3) Transplant each plant into one-gallon containers to constitute the early vegetation state.
- a. Allow each plant to undergo early vegetative states for 14-21 days. The Director of Cultivation must create a regulatory timeline for each harvest depending on the health and strain of each crop.
- b. The Director of Cultivation must oversee that the proper formulas manufactured for the early vegetation state are applied.
- c. The Cultivation Specialists or Maintenance Technician shall apply an organic, calciumbased, micronutrient rich formula to the soil approximately 5-6 times during this stage (as deemed necessary by the Director of Cultivation) to encourage thicker stalks, stronger stems, and tighter branches.
- d. Plants will be placed under supplemental lighting for 18 hours per day during this stage.
- 4) Once the plants are consuming approximately 800-1,000 milliliters of liquid each day the plants shall be transplanted into larger, ten-gallon containers for approximately 7-14 days.
- a. The Director of Cultivation must determine the transplant timeline based on strain specific and individual needs of the crop.
- b. Plants will be placed under supplemental lighting for 18 hours per day during this stage.
- c. The Director of Cultivation should develop a regulatory timeline to spray each plant with vitamin rich, organic micronutrient (should be approximately 5 times) during this stage.
- 5) The Director of Cultivation must ensure the proper climate and ventilation is applied during all vegetation states.

Flower

- 1) Each crop should be allowed to flower for approximately 50-70 days depending on the strain.
- 2) Each crop should be fed an organic micronutrient calcium-based formula each day (approximately 1,000-2,000 milliliters) during the first two weeks of the flowering stage.
- a. Plants should be fed an increasing amount of micronutrients from the two-week marker; increasing by approximately 100 milliliters each day, or as the Director of Cultivation sees appropriate.
- 3) The Director of Cultivation should develop a regulatory timeline to spray and feed each plant with amino acid rich, organic micronutrients and keep each crops moisture level at a desired level based on specific strain.
- 4) Plants should be sprayed approximately 10 times in 14 days to ward of pests and encourage healthy growth of mitochondria.
- 5) After 16 days, the Cultivation Specialists or Maintenance Technician must begin to feed each plant's root system
- 6) Plants will be placed under supplemental lighting for 12 hours per day during this stage.
- 7) The flowering departments environmental controls shall provide an environment that ranges between 70-80 degrees F and 45-55% humidity.

- 8) During the final 5 of 7 days prior to harvest, the Cultivation Specialists or Maintenance Technician should apply a flush to the soil.
- 9) For the final 48 hours prior to harvest, each plant should only be given filtered water.

Harvest/Cure

- 1) The Director of Cultivation must use his or her discretion to determine when plants should be harvested. General signs and protocols include:
- a. Each Cultivation Specialists and Harvest Technician must check for the development of swelled calyces on each plant.
- b. Each Cultivation Specialists and Harvest Technician must check for the changing in color or development of trichomes.
- c. Once plant has been growing for 42 days, high levels of micronutrients should cease.
- 2) Once the Director of Cultivation has determined each crop is ready for harvest, each Harvest Technician or Cultivation Specialists must begin the process by removing all leaf matter that are low in trichome value.
- 3) The Harvest Technician shall hang branches that contain only high value trim upside down, allowing sufficient room between each.
- 4) Once the Director of Cultivation determines the branches are dry enough for removal, the Harvest

Technician must remove all valuable plant matter from the branches to store in a sterilized container

until the moisture level is accurate to begin the extraction process.

a. Useable plant matter must be sealed in sterile, airtight containers and put into the proper environment climate for further processing.

TITLE: CULTIVATION DISEASE MANAGEMENT

SOP # 010D EFFECTIVE DATE: 4/15/16

WRITTEN BY: APPROVED BY:

PURPOSE/POLICY:

It is corporate policy to ensure the proper environment for optimal plant health and environmental safety.

RESPONSIBILITIES:

- 1) It is the responsibility of the Director of Cultivation to monitor plant health and prevent and treat disease.
- 2) It is the responsibility of all cultivation agents to report disease identification to the Director of Cultivation.

PROCEDURE:

- 1) Acceptable methods of disease management include, but are not limited to:
- a. Media and crop nutrient management practices contained herein.
- b. Sanitation measures to remove disease vectors and habitat for pest organisms.
- c. Cultural practices that enhance crop health, including selection of plant species and varieties with

regard to suitability to site-specific conditions and resistance to prevalent pests, weeds, and diseases.

- d. Pest problems may be controlled through mechanical or physical methods including but not limited to:
- i. Augmentation or introduction of predators or parasites of the pest species;
- ii. Development of habitat for natural enemies of pests; and
- iii. Controls such as lures, traps, and repellents.
- e. Disease problems may be controlled through:
- i. Practices which suppress the spread of disease organisms; or
- ii. Application of biological, botanical, or mineral inputs.

TITLE: CULTIVATION ENVIRONMENTAL CONTROLS

SOP # 010E EFFECTIVE DATE: 4/15/16

WRITTEN BY: APPROVED BY:

PURPOSE/POLICY:

It is corporate policy to ensure the proper environment for optimal plant health and environmental safety.

RESPONSIBILITIES:

- 1) It is the responsibility of the Director of Cultivation to monitor environmental controls to ensure plant and employee health and safety.
- 3) It is the responsibility of all cultivation agents to report environmental issues to the Director of Cultivation.

PROCEDURE:

1) Environmental control policy

The company cultivates marijuana in a controlled environment. Controlled environments:

- a. Mitigate seasonal limitations and provides sanitary operations.
- b. Constrain unintended female pollination.
- c. Allows optimal cultivation conditions and maximization of cannabinoid content.
- 2) Environmental monitoring

The Director of Cultivation is responsible for daily monitoring of environmental factors. The closed environment is slightly pressurized. All cultivation areas must be equipped with standalone environmental monitoring systems and any abnormal condition must be addressed immediately

including, but not limited to:

- a. Temperatures below 67..(F)
- b. Temperatures above 79..(F)
- c. Relative humidity below 40% in vegetation and 35% in flowering
- d. Relative humidity above 60% in vegetation and 49% in flowering
- e. Carbon dioxide levels below 900 ppm
- f. Carbon dioxide levels above 1200 ppm
- g. Bulb readings indicating necessary bulb replacement or bulb failure
- h. Water spills
- 3) Monitoring equipment requirements

Any environmental monitoring and control equipment installed in the cultivation facility must be approved by the Director, and at a minimum:

- a. Use a type 3 chemical detector capable of detecting carbon monoxide, low oxygen, and explosive environments;
- b. Provide twenty-four hour monitoring, text alerts and audible alarms;
- c. Contain a supplemental power source that provides twenty-four hours of operation; and
- d. Record and store at least thirty days of recordings including:

- i. Light readings;
- ii. Temperature;
- iii. Humidity; and
- iv. Carbon dioxide levels.
- 4) Cultivation lighting
- a. Use a light meter (PAR or quantum) to test lighting distribution in flowering rooms and make any necessary adjustments. Light readings must be taken weekly.
- b. Each light should read 500 to 1000 micro moles 15" to 18" from the reflector lens.
- c. An average of 700 to 800 across the room is sufficient.
- d. The Director of Cultivation must oversee a monthly rotation schedule of reflector cleaning and bulb replacements.
- e. Failed bulbs and ballasts must be replaced immediately. Employees must wear gloves when handling bulbs.
- f. Protect bulb degradation by following instructions from the manufacturers manual
- g. If bulb life experienced is far less than the manufacturer's indication, the Director of Cultivation must inspect airflow and heat buildup conditions surrounding that light.
- h. Keep lamps and reflectors clean. Significant reductions in lighting levels can result from dirty reflectors.
- 5) HVAC maintenance
- a. Replace or clean all filters monthly.
- b. Keep drainage pipe running on handlers and check for clogs.
- c. Use an air compressor to blow out the AC condenser monthly.
- d. Check daily if the AC unit is cold to the touch when running.
- e. Review schedules and settings on thermostat monthly.
- f. Monitor temperature control exhaust fans for abnormal running times indicating radical microclimate developments.
- 6) Ventilation and odor control
- a. Cultivation areas should have properly balanced ventilation systems;
- b. All intake fans must be equipped with UV and insect filters maintained in accordance with manufacturer recommendations; and
- c. Dehumidifier equipment must be installed and maintained as necessary.
- d. The Director of Cultivation must ensure the regular maintenance of odor control equipment including regular cleanings and filter replacements as often as required.
- e. Odor control equipment must employ activated carbon filtration and be serviced according to manufacturers recommendations
- 7) Recordkeeping all environmental control adjustments and maintenance records must be entered in the crop management system and maintain for a period of no less than five years.

TITLE: FERTILIZER AND SOIL/MEDIA MANAGEMENT

SOP # 010F EFFECTIVE DATE: 4/15/16

WRITTEN BY: APPROVED BY:

PURPOSE/POLICY:

Lau Ola LLC is committed to cultivating healthy plants that provide the highest quality products for patients. Fertilizer and media management practices ensure plant health through the prevention of contamination.

RESPONSIBILITIES:

- 1) The Director of Cultivation shall ensure a healthy cultivation environment.
- 2) All cultivation employees are responsible for management of fertilizers and media as directed by the Director of Cultivation.

PROCEDURE:

Media policies

1) The Director of Cultivation shall implement procedures to maintain or improve media organic matter content in a manner that does not contribute to contamination of crops, media, or water by plant nutrients, pathogenic organisms, heavy metals, or residues of prohibited substances.
2) Media temperatures should be maintained below 95°F at all times to prevent root rot.

Fertilizer/nutrient policies

- 3) The Director of Cultivation may implement fertilization methods appropriate for each crop including hand application, ebb and flow systems, and injection systems.
- 4) Generally, small fertilizer doses should be applied to crops over a determined period of time to avoid over-feeding and burning of the leaves.
- 5) The Director of Cultivation shall only utilize fertilizers that are rated food or pure quality. Nutrient solutions, compost teas, and other substance mixtures applied to plants must be prepared by the Director of Cultivation or a designated, highly trained employee.
- 6) Each compost collection must be recorded in the crop management system. Each mixture must be recorded in the system and assigned and labeled with an identification number for application records.

Media selection

7) The Director of Cultivation may utilize any type of media that is safe for cultivation. The Director of Cultivation should consider the following when selecting plant media:

- a. Cleanliness:
- b. Saturation rate;
- c. Uniformity;
- d. Availability; and
- e. Cost and cost of nutrient required.

Media checklist

- 8) The Director of Cultivation must assign responsibilities for media testing. The following steps must be taken when testing media:
- a. Test media prior to each use.
- i. pH = 5.8-6.8
- ii. Temperature = 65°-70°F
- iii. Visually inspect for pests.
- b. Store media tightly sealed and off the ground in a dry location away from cultivation areas.
- c. Utilize traps for monitoring in and around stored media.
- d. The Director of Cultivation must provide media recipes if mixed.
- e. Do not reuse media unless it has been sterilized.

Manure application including guano

- 9) Raw animal manure applied must be composted unless:
- a. It is incorporated into the medium not less than 120 days prior to the harvest of a plant whose flowers has direct contact with the soil/medium surface or soil particles; or
 b. It is incorporated into the soil/medium not less than 90 days prior to the harvest of a plant whose flowers do not have direct contact with the soil surface or soil particles.
- 10) Composted plant and animal materials may be applied to crops if produced through a process that established an initial C:N ratio of between 25:1 and 40:1; and maintained a temperature of between 131°F and 170°F for 3 days using an in-vessel or static aerated pile system; or maintained a temperature of between 131 °F and 170 °F for 15 days using a windrow composting system, during which period, the materials must be turned a minimum of five times.
- 11) The Director of Cultivation must ensure an accurate account is maintained for any compost produced by the company in the crop management system.

Fertilizer mixing

- 12) The Director of Cultivation is responsible for overseeing all fertilizer mixing. It is the policy of the company to follow this checklist when mixing water-soluble fertilizer:
- a. Purchase only greenhouse grade fertilizer for maximum purity and solubility.
- b. A dust mask and gloves must be worn to avoid contact with fertilizer concentrates and debris.
- c. All fertilizers must be dissolved individually in hot water before combining.
- d. Do not mix fertilizers containing calcium nitrate with fertilizers containing magnesium sulphate or monpotassium phospate in their concentrated form. This will minimize the occurrence of insoluble precipitates.

e. Fill reservoir with water before adding dissolved fertilizer concentration, and stir/mix constantly while mixing.

Fertilizer applications

- 13) The Director of Cultivation must ensure the proper application of chemical fertilizers:
- a. Apply in accordance with federal, state and local regulations that are applicable to the specific fertilizer, if any,
- b. Use in accordance with all label directions; for example, for application rates, for safe handling, etc. Generally, a 50% reduction in suggested feeding rates can be implemented in ebb and flow systems.
- c. Minimize leaching as much as possible. Avoid allowing water or solutions to overfill pots.
- d. Store chemical fertilizers carefully and according to labels.
- e. For manure-and/or compost-based fertilizers, monitor for undesirable microbial pathogens through periodic testing that follows approved procedures.
- f. For manure- and/or compost-based fertilizers that are produced or openly stored on-site, monitor runoff from composting and storage sites.

Fertilizer/nutrient solution checklist

- 14) Ensure that only properly trained personnel with appropriate PPE apply crop fertilizers under the direction of the Director of Cultivation.
- 15) Spray tanks must never be left unattended and must be emptied and stored after each shift.
- 16) The Director of Cultivation must prepare or oversee the preparation of fertilizer solutions.
- 17) Mixing areas should be thoroughly cleaned and decontaminated after each mixing operation.
- 18) Apply fertilizers at a sufficiently early phase in the crop's cycle to allow for a appropriate interval between application and harvest. This practice assures that the fertilizer has fully broken down before the crop is harvested.
- 19) The Director of Cultivation must document any sources of information on fertilizer half-life determinations in the crop management system.
- 20) Apply water-soluble foliar fertilizers within twenty-four hours of preparation. Such prompt use may optimize effectiveness of the application and prevent microbial contamination of the solution.
- 21) Ensure that water used for mixing any soluble fertilizer meets all established criteria for agricultural irrigation water.
- 22) Aerate and agitate mixtures in accordance with manufacturer instructions. Pumps must be maintained as necessary and replaced every six months.

- 23) Test all solutions prior to application for pH/TDS/EC prior to each application. Apply fertilizers in a manner that does not contribute to contamination of water.
- 24) All fans must be turned off for foliar applications and the ambient temperature in the cultivation area maintained between 59-70...F during fertilization operations.
- 25) Equipment and containers used to hold fertilizer solutions must be cleaned using a triple rinse protocol.

Compost teas and materials

- 26) Compost teas and compost materials can result in positive coliform results if improperly applied to crops.
- 27) Cultivation employees who apply compost must be properly trained in safe application to prevent contamination of the plant foliage.

Chemigation systems

- 28) Chemigation systems are installed in the facility must be professionally maintained in accordance manufacturers recommendations
- 29) Back flow prevention devices must be installed on all incoming water sources.
- 30) The Director of Cultivation is responsible for monitoring and inspecting all equipment to ensure it is in good working order on a regular basis.
- 31) The Director of Cultivation shall also ensure that any spills are cleaned up immediately, runoff is reduced, and irrigation is adjusted to reflect plant needs.

TITLE: GENERAL CULTIVATION OPERATIONS

SOP # 010G EFFECTIVE DATE: WRITTEN BY: APPROVED BY:

PURPOSE/POLICY:

The Lau Ola LLC cultivation policies and procedures provide guidelines on the continual operation of a secure marijuana cultivation facility in accordance with state regulations and industry best practices.

RESPONSIBILITIES:

- 1) It is the responsibility of the Director of Cultivation to oversee all cultivation activities.
- 2) It is the responsibility of the Director of Security to implement and enforce security policies and procedures throughout the operation.
- 3) It is the responsibility of the Quality Assurance Unit to oversee the quality control procedures used in cultivation operations.

PROCEDURE:

Guiding principles

- 1) The company values employee and patient safety above all other operating principles. As a producer of marijuana products, the company and all of our employees and employees are responsible for distributing uncontaminated and safe marijuana products to qualified patients.
- 2) Managers responsible for development and implementation of policies and procedures must ensure that the safety of our stakeholders is the first concern addressed in every policy and procedure.
- 3) In addition to our top level commitments to employee and product safety, the company is committed to:
- a. Utilizing commercial grade, non-organic pesticides only as a final measure.
- b. Basing cultivation decisions on experience and accepted science.
- c. Implementing sustainable cultivation practices whenever possible.
- 4)The company's policies and procedures must be developed to:
- a. Produce consistent and predictable yields.
- b. Facilitate necessary employee communication in the facility.
- c. Provide valuable operating information and data for management.
- d. Create fully compliant, yet efficient operations.
- e. Provide transparent information on methods and products used in cultivation for patients.
- f. Balance expenses with the necessity and benefits of policies and procedures and regulatory compliance.

Policies and procedures

- 5) The Director of Cultivation must update the cultivation SOPs when Department regulations are added or revised and when industry best practice dictates a revision.

 See SOP # Issuance and Operation of a Standard Operating Procedure System
- 6) Standard Operating Procedures must contain description of practices and procedures required including the frequency with which they will be performed. Written protocols in compliance with these approved SOPs must be developed, implemented, and maintained herein including:
- a. A list of each substance to be used as a production or handling input, indicating its composition, source, location(s) where it will be used, and documentation of commercial availability, as applicable. This list is to be maintained by the Director of Cultivation electronically in the crop management system;
- b. A description of the monitoring practices and procedures to be performed and maintained, including the frequency with which they will be performed, to verify that the plan is effectively implemented; and
- c. A description of the recordkeeping system implemented to comply with the requirements established.

TITLE: GENERAL PLANT CARE

SOP # 010H EFFECTIVE DATE: 4/15/16

WRITTEN BY: APPROVED BY:

PURPOSE/POLICY:

Lau Ola LLC is committed to cultivating healthy plants that provide the highest quality products for patients. Plant care procedures ensure the prevention of plant disorders that require the use of chemicals or pesticides to treat.

RESPONSIBILITIES:

- 1) The Director of Cultivation shall ensure a healthy cultivation environment.
- 2) All cultivation employees are responsible for management of plant health care factors as directed by the Director of Cultivation.

PROCEDURE:

Summary

- 1) The Director of Cultivation shall be responsible for the implementation and maintenance of all plant care activities including:
- a. Plant selection and genetic diversity.
- b. Environmental control and air quality.
- c. Pest management.
- d. Water application and quality.
- e. Sanitation and hygiene.
- f. Equipment maintenance.
- g. Chemical applications.
- h. Nutritional balance.
- i. Early identification of deficiencies and toxicities.

Plant health care checklist

- 2) The Plant Health Care Checklist is a guideline for environmental awareness and general operating procedures. The Director of Cultivation shall assign responsibility of tasks, determine frequency, and monitor performance. The items to be monitored include the following items.
- 3) Facility
- a. Seal cracks immediately to avoid free moisture and light seepage in cultivation areas.
- b. Maintain proper insulation of walls and pipes.

ize aspiration boxes to secure thermostats, environmental control switches, and other critical controls.

d. Maintain pipes and thermostats annually.

Sanitation and hygiene

- a. Every person entering cultivation areas must wear the proper attire including clean clothes or uniforms and closed toe shoes that have not been used in external cultivation facilities.
- b. Employees must wash hands frequently and after every break.
- c. No waste plant material should be left in the open.
- d. No trash should remain in the facility longer than twelve hours. Remove trash after every shift.

Environmental control

- a. Ensure doors are closed completely to keep areas sealed.
- b. Each cultivation employee must be trained to adjust temperature and relative humidity levels.
- c. Maintain proper distance between plant canopy and light fixtures.
- d. The Director of Cultivation must develop and maintain a power outage plan.

Cultivation areas

- a. Do not overcrowd plants in cultivation areas.
- b. Ensure reflector ducting is well sealed to prevent micro climates.
- c. Keep all cultivation areas free of plant litter, spilled dirt, equipment, etc.
- d. Remove plant materials from pruning operations throughout the day.
- e. Thoroughly disinfect areas weekly and after each harvest.

Equipment and tools

- a. Disinfect tools after every shift and every propagation operation and return to their proper place.
- b. Do not reuse rooting hormone, discard according to the label instructions.
- c. Sanitize pots prior to each use.
- d. Hoses must be stored off the floor. Place nozzles upright. Use a ball shutoff valve to prevent spills.
- e. Employees must be properly trained on the use of all tools and equipment.

Strain selection

- a. Cultivate disease resistant strains whenever possible.
- b. Dispose of infected plants, do not move them into any clean areas.
- c. Isolate cuttings, seeds, and mother plants away from propagation areas.
- d. Check cuttings daily for rot, discard any cuttings with lesions or low root mass.

Plant care

- a. Plant density is crucial to yield. Ensure plants have lateral room for branching.
- e. Ensure plant foliage is dry prior to dark periods.
- f. Irrigate plants as early in the light period as possible and adjust irrigation levels seasonally.
- g. Inspect each cultivation area daily for signs of abiotic and biotic disorders.

- h. Do not reuse media unless proper procedures including sterilization are implemented to prevent contamination.
- i. Ideally, pruning should occur during the second and third week of the vegetative cycle and never in the flowering cycle.
- 10) Integrated pest management
- a. Early identification of pest infection is crucial. Each cultivation employee must be trained on and responsible for plant inspection and identification.
- b. A variety of acceptable mechanical, physical, and biological controls must be implemented. Transplanting and media handling
- 11) The Director of Cultivation is responsible for overseeing all transplants and media handling during transplants.
- 12) The following items must be taken into considerations for each transplanting activity:
- a. Never transplant plants into dry media, and never transplant a dry rootball into media, no matter how wet the media is.
- b. Gently break up compacted bales of soilless media, or "fluff", prior to transplanting.
- c. Avoid compacting containers or media. Containers should be lightly filled with the excess media brushed off the top. Do not stack containers.
- d. Add water to any peat-based media mixes before filling plug trays or pots. This will help to create more aeration. Allow the media to sit overnight after wetting so the pH can begin to adjust itself into a desired range. Failure to do this can result in low pH environments which can impact yield.
- e. Test the media pH, electrical conductivity and wet ability before use.
- f. When transplanting, place a small amount of the moistened media in the bottom and shape around the sides of the container. Place the plant at a level it was formerly at.
- g. When the plant has been transplanted, gently fill in the sides and any air pockets with media.
- h. The following day, observe and correct any air pockets with moistened media after the second irrigation.

Disease management

- 13) The Director of Cultivation is required to develop, implement, and maintain management practices to prevent crop pests, weeds, and diseases.
- 14) Acceptable methods of disease management include, but are not limited to:
- a. Media and crop nutrient management practices contained herein.
- b. Sanitation measures to remove disease vectors and habitat for pest organisms.
- c. Cultural practices that enhance crop health, including selection of plant species and varieties with regard to suitability to site-specific conditions and resistance to prevalent pests, weeds, and diseases.
- 15) Pest problems may be controlled through mechanical or physical methods including but not limited to:
- a. Augmentation or introduction of predators or parasites of the pest species;

- b. Development of habitat for natural enemies of pests; and
- c. Controls such as lures, traps, and repellents.
- 16) Disease problems may be controlled through:
- a. Practices which suppress the spread of disease organisms; or
- b. Application of biological, botanical, or mineral inputs.

TITLE: CULTIVATION GOOD HANDLING PRACTICE

SOP # 010 I EFFECTIVE DATE: 4/15/16

WRITTEN BY: APPROVED BY:

PURPOSE/POLICY:

Lau Ola LLC is committed to cultivating healthy plants that provide the highest quality products for patients. Handling activities including harvest, processing, cure, and storage must be implemented so to prevent contamination of marijuana.

RESPONSIBILITIES:

- 1) The Director of Cultivation shall ensure a healthy cultivation environment.
- 2) All cultivation employees are responsible for the proper handling of marijuana to prevent contamination.

PROCEDURE:

Policy

1) The Director of Cultivation in coordination with the inventory manager must develop, implement, and maintain handling and storage measures that prevent spoilage, molding and other damage to the crop while preparing it for manufacturing and distribution.

Types of handling, processing, and storage activities

- 2) Allowed handling, processing, and storage activities include:
- a. Curing,
- b. Drying,
- c. Mixing,
- d. Grinding,
- e. Churning,
- f. Separating,
- g. Extracting,
- h. Freezing,
- i. Packaging, and
- j. Storing in bulk containers.

Processing

- 3) Policy
- a. The Director of Cultivation in coordination with the inventory manager shall develop, implement, and maintain processing practices that protect crops from contamination and maintain the quality of the marijuana.
- b. Processing refers to the management of the plant throughout harvesting and trimming activities.
- 4) Scheduling harvest activities

- a. The Director of Cultivation shall schedule harvests with the inventory manager when the crops are in a condition that will result in a harvest that meets demand and quality requirements.
- b. Factors including the life cycle stage of the plants and measured constituent levels (obtained from pre-harvest testing) should be considered, if applicable.
- c. Harvest operations should take place early in the lighting sequence whenever possible for optimal essential oil preservation.
- d. All marijuana must be processed in a safe and sanitary manner. Processed marijuana plants must be:
- i. Well cured and free of seeds and stems;
- ii. Free of dirt, sand, debris and other foreign matter;
- iii. Free of contamination by mold, rot, other fungus, and bacterial diseases;
- iv. Prepared and handled on food-grade stainless steel tables; and
- v. Packaged in a secure area under surveillance.

Processing practices

- 5) All processing operations must be performed in limited access areas with full surveillance camera coverage in accordance with security policies and procedures.
- 6) During processing operations, crops must be protected from:
- a. Moisture during harvest, handling, and storage to minimize growth of yeasts and molds; and
- b. Contact with rodents, insects, and other pests to prevent contamination.
- 7) During harvest operations crops must be moved to the trim area as soon as possible after harvest to prevent degradation of the crop.
- 8) Harvest containers must be maintained at levels so that no compacting of harvested marijuana occurs.

Employee training

- 9) Only trained cultivation employees under the direct supervision of the Director of Cultivation or inventory manager may perform processing operations.
- 10) The inventory manager or designee is responsible for verifying all processing data including batch numbers, yields, waste weight, etc.

Harvest records

- 11) The Director of Cultivation, in coordination with the inventory manager, is responsible for the entry of harvest information into the inventory management system and processing information in the crop processing log in the crop management system.
- 12) All harvesting activities should be completed within the policies and procedures outlined in the inventory policies of the company.

- 13) Harvest records, at a minimum, must include:
- a. The quantity of the harvest;
- b. Dates of planting and of harvest;
- c. A precise description of the cultivation site;
- d. The life cycle stage of the crop at the time of harvest;
- e. Relevant crop conditions throughout its cultivation; and
- f. Beginning and ending processing weights of each batch.
- 14) Processing records should be logged in the crop processing log in the crop management system and at a minimum, must include:
- a. The identification of the facility area in which any processing operation was undertaken for each crop including relevant information about pest control plans and cleaning procedures for the area.
- b. A description of equipment used in all processing operations describing the equipment used for each processing operation and information about equipment maintenance. Equipment information must be sufficient to demonstrate the condition of the equipment at each harvest.
- c. Relevant information to identify the water source for processing including logs and procedures must be sufficient to demonstrate the water quality at each harvest.
- d. A list of each employee working in each processing operation. Relevant information about employees including logs and procedures should be sufficient to also describe the steps that are taken to ensure worker safety and hygiene.
- e. Documentation of drying conditions and times; beginning and ending moisture content of each crop; and any additional information relevant to the drying process.
- f. Beginning and ending weights of each crop shall be maintained in the inventory management system.
- g. The inventory records shall reflect the specific identification of plants that were harvested for processing operations; the date of operations; the beginning and ending weights of each harvest; with sufficient detail to allow trace-back of any packaged lot to its specific cultivation history.
- h. The inventory management system must record transfer and transportation records, with sufficient detail to trace distribution of each crop, if necessary, throughout the chain of custody, from the cultivation facility to the patients(s) who receive(s) any portion of the crop.

Batch recordkeeping required

- 15) The inventory manager must assign a lot/batch number or other identifying code generated by the inventory management control system to each batch harvested.
- 16) Final batches should not weigh more than twenty pounds for weight trim operations and five pounds for dry trim operations.
- 17) Batch identification numbers must remain with each harvest throughout processing.

Processing equipment

- 18) The Director of Cultivation in coordination with the inventory manager shall ensure all equipment used for harvesting, trimming, curing, or storage is made of non-toxic and non-corrosive materials.
- 19) All equipment must be inspected by an employee to ensure it is in proper working order prior to each use; repairs must be made as necessary.
- 20) Equipment must be maintained in a clean condition ensuring that all parts that come in direct contact with the crop during processing are clean and free of potential contaminants.
- 21) Remnants of any prior processing activity must be removed from equipment prior to each use to prevent cross-contamination.
- 22) Harvest containers may not be used for storing or holding non-harvest materials, such as tools or chemicals. Containers must be cleaned and sanitized prior to use in each harvest.
- 23) All necessary personnel must be properly trained in the use of processing equipment, especially mechanized equipment.
- 24) Equipment must be operated in a manner that ensures the safety of the operators and avoids or minimizes damage to the harvested material.

Drying/curing practices

- 25) The Director of Cultivation in coordination with the inventory manager must determine the ideal time for harvest.
- 26) The Director of Cultivation is responsible for ensuring a clean and safe pre-harvest environment.
- 27) Harvesting work space and tools must be sanitized before and after each use.

Post-harvest handling

- 28) The Director of Cultivation must assign post-harvest responsibilities, including trimming, handling, drying, curing, packaging and storage of finished product.
- 29) Mold, pests, and saprophytes (fungi) are potential threats during post-harvest handling. The Director of Cultivation must implement steps to mitigate these threats.

Drying/curing policy

30) The Director of Cultivation in coordination with the inventory manager is responsible for implementing and maintaining drying and curing practices that protect crops from contamination and maintain the quality of the marijuana.

Drying/curing practices

31) Drying/curing areas are restricted to the Chief Executive Officer, Director of Cultivation, inventory manager and other staff members authorized in writing by the CEO.

- 32) All drying/curing operations must be performed in limited access areas with full surveillance camera coverage in accordance with security policies and procedures.
- 33) Drying/curing areas must be maintained to ensure that there is sufficient ventilation for airborne moisture to escape providing adequate air circulation throughout the drying area and sufficient odor mitigation.
- 34) Harvested material shall be placed on clean food-grade surfaces or hanging mesh trays that afford adequate air circulation. See SOP # 005E Drying of Plant Material.
- 35) If heaters or other sources of artificially generated heat are used in the drying operation, adequate ventilation of the heating equipment shall be provided and only fuels that will not result in hazardous combustion emissions coming into contact with the crop and thereby contaminating the material will be utilized.
- 36) If using mechanical drying equipment, such as belt, drum, rotary, or oven-tray dryers, all manufacturer instructions and established operating procedures must be followed to ensure that quality of the plant material is maintained.

Packaging, labeling, and storage

- 37) The Director of Cultivation in coordination with the inventory manager must develop, implement, and maintain packaging, labeling, and storage practices that prevent crop contamination, protect the quality of the marijuana, and properly identify all batches.
- 38) The Director of Cultivation, in coordination with the inventory manager, must accurately identify and label all marijuana transferred to bulk storage containers.
- 39) Packaging of bulk marijuana must be in food safe bags or containers approved by the Director of Cultivation. Labeling and packaging must comply with applicable laws and regulations.
- 40) Storage areas are restricted to the Chief Executive Officer, Director of Cultivation, the inventory manager other staff members authorized in writing by the CEO.
- 41) The Director of Cultivation must approve and witness the transfer of marijuana from the drying/curing area to storage.
- 42) Storage areas must have full surveillance camera coverage in accordance with security policies and procedures.
- 43) Bulk packaged crops are to be stored in cool, dry areas away from direct sunlight and exterior walls and off the ground in containers that protect against excessive exposure to air, light, and moisture.
- 44) Crops shall not be stored in the same area with any non-crop items (i.e. cleaning supplies, nutrients, etc).
- 45) The Director of Cultivation shall verify the weights of all harvested crop prior to storage.

Packaging and labeling for transfer

46) Packaging and labeling of bulk stored marijuana for distribution to another location must take place under camera surveillance.

TITLE: INTEGRATED CULTIVATION PEST MANAGEMENT

SOP # 010K EFFECTIVE DATE: 4/15/16

WRITTEN BY: APPROVED BY:

PURPOSE/POLICY:

Lau Ola LLC is committed to cultivating healthy plants that provide the highest quality products for patients. Integrated pest management ensures the prevention of pest infestation utilizing natural and organic methods.

RESPONSIBILITIES:

- 1) The Director of Cultivation shall ensure a healthy cultivation environment.
- 2) All cultivation employees are responsible for management of plant health care factors as directed by the Director of Cultivation.

PROCEDURE:

Summary

- 1) The goal of integrated pest management (IPM) is to apply a combination of control methods to prevent, reduce, or maintain pest populations at non-damaging levels. A summary of pest identification, prevention and treatments are explained below.
- 2) Pesticides should only be used as a last resort.
- 3) The Director of Cultivation must implement and monitor IPM practices to predict potential levels of crop damage, mitigate risk, and control pests.
- 4) Early identification of pest infections is crucial. Each cultivation employee must be trained on and responsible for plant inspection and identification.
- 5) A variety of mechanical, physical, and biological controls must be implemented.

IPM objectives

- 6) Prevention methods utilized:
- a. Cultural practices such as spacing, pruning, and sanitation can help with pest prevention.
- b. Ensure there are no open cracks in cultivation areas.
- c. Intercropping when growing outdoors.
- d. Maintaining a controlled environment.
- e. Traps should be used at all times.
- f. Pest scouting must be a priority during all other plant maintenance.
- 7) Suppression methods utilized:
- a. Cultural practices including pruning and immediate removal of diseased plants.
- b. Biological controls.
- c. Low dose natural oils.
- 8) Eradication methods utilized:

- a. Increase natural oil dose.
- b. Increase biological controls.
- c. Implement pesticide use.

IPM considerations

- 9) The following items must be considered when developing the IPM program:
- a. Current status of infestation
- b. Regulatory considerations
- c. Public perception
- d. Pest and crop life cycle stage
- e. Location
- f. Size
- g. Density
- h. Potential to spread
- i. Environmental impacts
- i. Previous results of measures
- k. Measurability

Acceptable methods of IPM

- 10) Pests may be controlled through:
- a. Mechanical or physical controls including but not limited to traps, light, or sound.
- b. Lures and repellents.
- c. Substances to prevent or control pests.

Cross-contamination prohibited

11) The Director of Cultivation may use substances to prevent or control pests provided, that, measures are taken to prevent contact of the organically produced products or ingredients with the substance used.

Management practices

- 12) The Director of Cultivation may implement any practice allowed by the USDA Organic Standards. Regular IPM practices include, but are not limited to:
- a. Daily monitoring of pest populations;
- b. Removal of pest habitat, food sources, and breeding areas;
- c. Utilization o.f verified "pest-free" supplies;
- d. Prevention of access to handling facilities;
- e. Management of environmental factors, such as temperature, light, humidity, atmosphere, and air circulation, to prevent pest reproduction;
- f. Disposition of infected crops; and
- g. Evaluation of the cost or prevention in relation to yield and quality improvements.

Recordkeeping

- 13) When a nonsynthetic or synthetic substance is utilized to prevent or control pests, the crop management system must be updated to reflect the use of such substances and methods of application.
- 14) The record must include a list of all measures taken to prevent contact of the organically produced products or ingredients with the substance used.
- 15) The Director of Cultivation must ensure the accuracy of log entries. Certified applicator license required
- 16) If pesticides, herbicides, insecticides, or fungicides, whether from natural or synthetic sources, are used on a crop, only cultivation employees trained by a third-party as a Certified Applicator should apply these at the labeled minimum effective rates.

Pesticide regulations

- 17) Pesticides include rodenticides, insecticides, bacteria/fungi (beneficial), herbicides, arachnicides, miticides, molluscicides, nematocides, growth regulators and others.
- 18) All pesticide applications must be compliant with:
- a. Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA);
- b. Superfund Amendments Reauthorization Act (SARA);
- c. Community Right to Know Act (EPCRA);
- d. Occupational, Safety and Health Act (OSHA); and
- e. State and local laws.

Label recommendations

19) Application and storage of pest control products must be in accordance with label recommendations and all regulations.

Beneficial biologicals

- 20) The Director of Cultivation may implement the use of appropriate biological controls including predatory wasps and mites and nematodes, lacewings, ladybugs, pirate bugs, and others for preventative or mitigation purposes.
- 21) Release of biologicals is most effective between 60°F and 80°F while death occurs at 100°(F)

Releases of predatory mites may be localized, en masse, or through row augmentation using edge effect near entries to various rooms.

22) Use of biologicals should be limited to recognized and effective applications.

General IPM checklist

- 23) Cultivation and monitoring practices.
- a. Quarantine all new plant material entering the cultivation facility for ten days to two weeks.
- b. Document pest populations, record outbreaks, treatment methods, and results in the crop management system.
- c. Monitor propagation areas daily. Utilize pest monitoring traps. Record and review the quantity of pest and beneficial insects weekly.
- d. Do not reuse media including fiber, perlite or hydroton unless it has been sterilized in a procedure implemented by the Director of Cultivation.
- 24) Facility maintenance practices.
- a. Keep cultivation areas clean, dry, and free of algae and other clutter and trash. Remove pots of unwanted media from cultivation areas immediately.
- b. Maintain cracks, window and door frames, drain areas, and floor joints with sealant to limit pest movement.
- c. Eradicate any weeds or pest habitats surrounding the cultivation facility.
- d. Use appropriate traps and baits on a regular basis and replace as needed.
- e. Maintain roads near the cultivation facility so they are free of trash and debris that border the road. Irrigate dirt roads to reduce dust and use slow speeds. Overhead irrigation will decrease dust and disrupt the behavior of mite populations.
- 25) Biologicals and pesticides.
- a. Release biologicals in accordance with instructions.
- b. To the greatest extent possible, avoid disruption of biological controls when utilizing organic pesticides.
- c. Do not apply any chemical substance to the crop in the final three weeks of the flowering cycle.
- d. Turn off air circulation and ensure the ambient temperature is between 59 and 77 degrees. Do not apply foliar water immediately after applying pesticides.
- e. Adhere to all Restricted Entry Intervals (REI). Place a notice on all points of egress with name of the substance applied and the allowed time of entry.
- f. All cultivation employees must receive basic Worker Protection Standard training. Training must include recognizing the signs of pesticide poisoning.
- g. Purchase on demand and use pesticides as soon as possible. Avoid unnecessary storage.
- h. Store pesticides grouped by type in designated areas separated from water sources, maintenance chemicals, nutrients, or supplies in a dry, well-ventilated area.
- i. Dispose of pesticides in accordance with label instructions. Generally, liquid containers must be triple rinsed and punctured before discarding.
- j. The Director of Cultivation is authorized to engage necessary services whenever questions about pesticide use or permitting arise.
- k. Monitor all IPM treatments and record observations in the crop management system.

TITLE: LICENSED CULTIVATION OPERATIONS

SOP # 010L EFFECTIVE DATE: 4/15/16

WRITTEN BY: APPROVED BY:

PURPOSE/POLICY:

It is corporate policy to maintain in good standing all necessary licenses required to operate. RESPONSIBILITIES:

It is the responsibility of the Director of Cultivation to ensure that all cultivation facilities are properly licensed for all activities within the unit.

PROCEDURE:

- 1) The Chief Executive Officer shall maintain all required licenses in good standing.
- 2) The Director of Cultivation shall not allow any activities to take place in the cultivation unit if they are aware that the license required for that activity is not valid, expired, or on administrative hold
- 3) The Director of Cultivation shall ensure current license certificates are on display in a common area.
- 4) No expansion of facilities or production capacity shall be implemented without proper approval from all regulating agencies.

TITLE: LIMITED ACCESS CULTIVATION AREAS

SOP # 010M EFFECTIVE DATE: 4/15/16

WRITTEN BY: APPROVED BY:

PURPOSE/POLICY:

It is corporate policy to maintain limited access areas with restricted access rights based on security privileges. The safety of our employees and the prevention of diversion are the company's top priorities.

RESPONSIBILITIES:

- 1) It is the responsibility of the Director of Security to implement and enforce security policies and procedures throughout the operation.
- 2) It is the responsibility of the Director of Cultivation to ensure that all limited access areas in cultivation facilities remain monitored by surveillance cameras, secure, and are only accessed by those with appropriate access rights.

PROCEDURE:

- 1) The Director of Security oversees the security activities of the company.
- 5) The Director of Cultivation shall be responsible for the implementation and maintenance of all department limited access policies, procedures, and directives.
- 6) Only employees registered with the Department visibly displaying their registration identification or approved visitors accompanied by a manager level employee may enter limited access areas.
- 7) All areas of ingress and egress to limited access areas within the cultivation facility shall be clearly with a sign no smaller than 12" x 12" which reads, "Access to this area is restricted to persons with the DOH visibly displaying a registration identification card with appropriate access rights."

TITLE: CULTIVATION MONITORING AND RECORDKEEPING

SOP # 010N EFFECTIVE DATE: 4/15/16

WRITTEN BY: APPROVED BY:

PURPOSE/POLICY:

Lau Ola LLC is committed to maintaining accurate records in accordance with best practice and regulations.

RESPONSIBILITIES:

- 1) The Director of Cultivation and quality control personnel shall ensure quality control measures are followed in accordance with all policies and procedures.
- 2) All cultivation employees are responsible for the consistent quality of all marijuana.

PROCEDURE:

- 1) The Director of Cultivation must monitor the daily operations of the cultivation facility.
- 2) Any practice or procedure that results in non-compliance, inefficiencies, or sub-standard marijuana products must be revised and the necessary retraining scheduled.
- 3) The Chief Operating Officer must approve recommended procedural changes and obtain approval from the Department as necessary prior to implementation.
- 4) Cultivation records must at a minimum:
- a. Fully disclose all activities and transactions of the cultivation operation in sufficient detail as to be readily understood and audited;
- b. Be maintained for no less than 5 years;
- c. Be sufficient to demonstrate compliance with applicable regulations; and
- d. Be made available for inspection and copying during normal business hours by authorized representatives of the business, law enforcement, and the Department.
- 5) Inventory records must include the quantity of marijuana at the cultivation facility including the number of plants being cultivated on a daily basis as outlined by the company's inventory policies and procedures.
- 6) Disposal records must include the disposal method used for any marijuana that was cultivated or acquired but not used to manufacture product, including evidence of the disposal of the marijuana in accordance with waste disposal policies and procedures.

- 7) The Director of Cultivation may assign data entry tasks to qualified and trained employees. Paper logs maintained by cultivation employees must be retained for sixty months. Required documentation includes:
- a. Field history, previous land use records, previous facility use records. Document the date, location, and identity of all materials applied to the land or in the facility for each cultivation facility during the past thirty-six months in order to establish the date of the last application of prohibited materials. Include all fertilizer and pest-management materials applied.
- b. Activity logs. All cultivation activities must be recorded in the inventory management system or log maintained in the cloud record system. Activities that must be recorded include, but are not limited to:
- vi. Planting/propagation;
- vii. Material applications including formulas and quantities and notation if manure is applied;
- viii. Pruning;
- ix. Pest monitoring and actions taken;
- x. Harvest records and yields;
- xi. Crop destruction;
- xii. Procedure variances;
- xiii. Storage and transfer records; and
- xiv. Any unusual activities.
- c. Compost production records. For in-house composting, record the required information in the crop management system, including materials and quantities added, the estimated C/N ratio of the mixture, date and temperature, and the employee name each time the compost is turned
- d. The identity and source of all propagation material, with sufficient specificity to ensure that the material conforms to all established standards and can be traced to its source. Make such records whether material is obtained from an off-site source or produced on-site.
- e. Seed/planting stock records. Document any seed, cuttings, or planting stock used and document its origin. Record any seed treatments, coatings, or inoculants used.
- f. All fertilizers used on each agricultural crop and, if applicable, steps taken to monitor manure- or compost-based fertilizers for undesirable microbial pathogens and to monitor water quality from sites where composts are produced or stored.
- g. Information about water sources and equipment used in irrigation systems, as well as records of all tests performed to monitor water supplies used in irrigation and any records that establish conformity to applicable irrigation regulations.
- h. Steps taken to protect and maintain crops, including, at a minimum, a record of all pesticides, herbicides, insecticides, or fungicides used on each crop.
- i. Harvest records. The harvest records of each crop must be recorded in the inventory management system including the harvest date, crop identification, strain name, initial yield, final yield, storage location, and batch identification.
- j. Processing records consisting of, at a minimum, the quantity of the harvest; dates of planting and of harvest; processing details, a precise description of the agricultural site; the life-stage of the crop at the time of harvest; and other relevant crop conditions throughout its cultivation.
- k. Crop disposition records. Record all crops removed from cultivation and processed as waste as outlined in the inventory and waste SOPs.
- I. Transfer records. Any transfer of crops from a production or storage location must be recorded in the inventory management system including date of transfer, responsible

employee, second employee verification, batch identification, quantity, receiving location in accordance with the inventory procedures.

m. Equipment maintenance records. Record the date, equipment description, materials used, description of the cleaning or maintenance performed, and the responsible employee in the crop management system.

TITLE: CULTIVATION NUTRIENT BALANCE CHECKLIST

SOP # 010 O EFFECTIVE DATE: 4/15/16

WRITTEN BY: APPROVED BY:

PURPOSE/POLICY:

It is Lau Ola LLC policy to ensure all plants are evaluated daily for nutrient imbalances.

RESPONSIBILITIES:

- 1) It is the responsibility of the Director of Cultivation to document all cultivation procedures.
- 2) It is the responsibility of all cultivation employees to follow documented procedures and to notify the

Director of Cultivation of any necessary variance from documented procedures.

PROCEDURE:

- 1) Check media ph. Test all new media prior to planting.
- 2) Conduct plant tissue analysis.
- 3) Check daily for signs of deficiencies and toxicities:
- a. N . chlorosis (yellowing/discoloration) of new leaf tissue, orange-red discoloration on old leaves, small bud structure. No Green veins and free of lesions.
- b. P. tips of leaves and flowers brown and curl downward. Red/purpling of stem and petioles.
- c. K. older leaf tips burn and curl, petioles and branches redden.
- d. Ca . leaf margins curl with tip back.
- e. S . chlorosis with black outlines on the leaf and small bud structure. Can mimic N deficiency.
- f. B . gray spotting or chlorosis, terminal buds turn brown or gray.
- g. CI. deficiencies are rare, wilted leaves, bronzing or chlorosis.
- h. Cu. young leaves wilt and die at the tips and margins.
- i. Fe . interveinal chlorosis with bright green veins and stunted plant growth.
- j. Mn . interveinal chlorosis with dull veins, white margins and green halo spotting on young leaves, purple stippling possible, reduced length and number of branches. Toxicity molted leaves with orange-brown spots.
- k. Mg . interveinal chlorosis (at tips of leaves growing toward the petiole) with bright green veins.
- I. Zn . interveinal chlorosis and green marginal halo around the margin, wavy or wilted leaf margins, fibrous roots, fewer and smaller buds.
- 4) Maintain results in the crop management system.

TITLE: CULTIVATION PROCEDURE VARIANCES

SOP # 010P EFFECTIVE DATE: 4/15/16

WRITTEN BY: APPROVED BY:

PURPOSE/POLICY:

It is Lau Ola LLC policy to ensure all cultivation operations are performed in compliance with all documented protocols and procedures.

RESPONSIBILITIES:

- 1) It is the responsibility of the Director of Cultivation to document all cultivation procedures and cultivation protocols.
- 2) It is the responsibility of all cultivation employees to follow documented procedures or protocols and to notify the Director of Cultivation of any necessary variances.

DEFINITIONS:

Protocol: Written logbook, schedules, processes and operating practices performed in compliance with an approved Standard Operating Procedure.

Procedure: Currently approved Lau Ola standard operating procedures

PROCEDURE:

- 1) The Director of Cultivation shall designate a small process variance team. This team is responsible for assess the impact of any potential variations to an existing department protocol or
- procedure. This measure is to ensure a thorough decision making process was executed before a change in the current procedure or protocol occurs.
- 2) The Director of Cultivation must be notified of any variance from published protocols. Variances must be recorded in the Cultivation Department variance log in the crop management system.
- 3) It is the policy of the company that the team meet and discuss the implementation and assess the impact of any potential change in department protocols before they are authorized by the Director of Cultivation.
- 4) Necessary variations from established Standard Operating Procedures must be documented by the Director of Cultivation and approved by the Chief Compliance Officer.

 Important: Material modifications or revisions to Standard Operating Procedures related to the

cultivation, processing, manufacturing, distributing or dispensing policies may not be implemented without prior written approval of the Hawai`i Department of Health.

TITLE: CULTIVATION PROPAGATION SOP # 010Q EFFECTIVE DATE: 4/15/16

WRITTEN BY: APPROVED BY:

PURPOSE/POLICY:

Lau Ola LLC is dedicated to the healthy propagation of plant materials to provide quality marijuana for further processing.

RESPONSIBILITIES:

- 1) It is the responsibility of the Chief Production Officer to oversee the Director of Cultivation.
- 2) The Director of Cultivation is responsible for the propagation of all crops.

PROCEDURE:

General

- 1) All propagation material must be properly identified by genus, species, variety, and chemotype.
- 2) The Director of Cultivation must ensure that all plants are traceable to origin, and are free of pests and disease. To reduce the occurrence of male plants, which causes seed fertilization, cutting of female (or mother) plants will be the primary method of propagation of the company. Restricting male plants allows the female plants to produce more flowers and cannabinoids.
- 3) Mother plants will be selected by observing which appear to be the healthiest and strongest plants. In addition, plants expressing a lack of chlorophyll through a yellow coloring will not be considered for propagation.
- 4) The Director of Cultivation must ensure that the presence of male plants and different species, strains, or different plant parts are monitored and removed if present during the entire production process (propagation, cultivation, harvest, drying and packaging).

Inspection of material

- 5) The Director of Cultivation must:
- a. Evaluate all propagation material to ensure that it is free of pests and diseases as necessary to guarantee healthy plant growth.
- b. Examine propagation material to make sure that it is free of weeds or other species that are not the species to be cultivated.

Records required

6) Cultivation employees who propagate marijuana plants from seed, cutting, tissue culture, or any other means must keep accurate records to be entered into the inventory management system.

7) Records must accurately identify and record the seeds or vegetative planting stock as to genus and species, and to subspecies, variety, cultivar, and/or hybrid if applicable.

Strain selection

- 8) The Director of Cultivation in coordination with the Chief Executive Officer and Director of Manufacturing shall determine the mix of strains to be cultivated.
- 9) The following items should be considered when determining strain selection:
- a. The availability of the strain;
- b. Medicinal benefits:
- c. Other strains currently in production;
- d. Average yield;
- e. Length of cultivation cycle;
- f. Patient demand;
- g. Amount of plant material and quality available for extraction; and
- h. Difficulty of processing.

Clones

- 10) The company will primarily propagate through taking cuttings, or "clones" from mother plants. Cuttings will be taken from mother plants in the vegetative stage only.
- 11) The lab may implement tissue culture procedures in coordination with the Director of Cultivation.
- 12) Employees responsible for cutting and transferring clones must be thoroughly trained on how to assess mother plants as well as cut and transfer clones using methods outlined by the company.
- 13) Training should include the following items:
- a. Assessing and selecting mother plants;
- b. Preparation for cutting clones;
- c. Procedure for cutting clones, including root hormone applications;
- d. Transplanting clones; and
- e. Clone care, organization, and tracking.

Sanitation

14) It is the company policy to enforce strict sanitation standards throughout all operations including propagation. Young plants are more susceptible to pests and disease and require additional prevention measures.

- 15) The Director of Cultivation is responsible for ensuring that preparation procedures are followed prior to propagation, and that the workspace involving propagation is sanitized before and after each propagation task.
- 16) The following checklist shall be used to record propagation sanitation procedures:

Weekly:

- a. Cleaning and drying trays;
- b. Count thrips and fungus gnat found on traps, and replace traps;
- c. Disinfect stakes, clothespins, or any other tool used to support clones; and
- d. Replace mop heads.

Daily Clean Up:

- a. Vacuum and mop floors;
- b. Disinfect all surfaces and work spaces;
- c. Disinfect tools and put away;
- d. Check fans, lights, heaters, and domes;
- e. Transfer logbook information to calendar; and
- f. Spray or vent domes if necessary.

TITLE: CULTIVATION QUALITY ASSURANCE SOP # 010R EFFECTIVE DATE: 4/15/16

WRITTEN BY: APPROVED BY:

PURPOSE/POLICY:

Lau Ola LLC is committed to the safety of all personnel and quality of the marijuana it produces. RESPONSIBILITIES:

- 1) The Director of Cultivation and quality control personnel shall ensure quality control measures are followed in accordance with all policies and procedures.
- 2) All cultivation employees are responsible for the consistent quality of all marijuana. PROCEDURE:

Policy

1) The Director of Cultivation must develop, implement, and maintain sanitation and quality control practices that maintain the safety and quality of crops, including purity and consistency.

Cultivation environment

- 2) All necessary precautions must be taken during the cultivation and processing of marijuana to prevent contamination of marijuana and packaging materials. These safeguards include, but are not limited to:
- a. Cleaning and sanitizing all equipment, containers, and other contact surfaces as necessary;
- b. Controlling airborne contamination:
- c. Using sanitary handling procedures;
- d. Washing or cleaning containers and packaging components that contain soil or other contaminants;
- e. Using safe water in all operations;
- f. Performing chemical, microbiological, or other testing, as necessary to prevent the use of contaminated ingredients in cultivation and processing operations;
- g. Sterilizing, pasteurizing, freezing, refrigerating, heating, pressurizing, controlling hydrogenion concentration (pH), controlling humidity, controlling water activity (aw), or using any other effective means to remove, destroy, or prevent the growth of microorganisms and prevent marijuana product decomposition;
- h. Storing packaging materials, in-process marijuana, and marijuana products appropriately to prevent contamination and adulteration;
- i. Preventing cross-contamination and mix-ups between contaminated or adulterated marijuana and clean marijuana; and
- j. Using effective measures to protect marijuana products against adulteration by plastic, glass, metal, or other foreign materials when at risk due to processing equipment or materials.

Quality control measures in cultivation operations

3) The Director of Cultivation must establish surveillance schedules for each crop in cultivation.

Detailed visual surveillance of each crop must be performed and documented weekly at a minimum. Cultivation employees performing surveillance must look for and record findings for the cultivation area assigned. The following items should be included in surveillance operations:

- a. Signs of pest infestations.
- b. Changes in biological colonies.
- c. Mold and mildew.
- d. Leaf and tip burn, discoloration, and spotting.
- e. Changes in appearance of the media.
- f. Changes in stalk density and branch elasticity.
- g. Regular in-house testing must be scheduled by the Director of Cultivation based on current operational needs and recorded in the crop management system. Tests that must be performed include:
- i. Soil pH
- ii. Nutrient pH, Total Dissolved Solids (TDS), and Electro-Conductivity (EC)
- iii. Solution EC/pH testing using a saturated media extraction or the leachate pour-through method
- iv. Water Oxidation Reduction Potential (ORP)

Quality control measures in processing operations

- 4) The Director of Cultivation must ensure that all crops are evaluated during processing and tested in accordance with these procedures.
- 5) Cultivation employees working in processing operations must be trained to identify signs of contamination and sub-standard product.
- 6) The Director of Cultivation must approve the disposal of any crops.
- 7) Two or more trained employees must perform a visual microscopic and naked-eye inspection of each crop processed to determine:
- a. Organoleptic characteristics (color, texture and odor);
- b. Presentation of the material (raw, cut, crushed, compressed);
- c. The presence of admixtures, foreign matter (sand, glass particles, dirt), mold, or signs of decay:
- d. The presence of insects; and
- e. The presence of foreign material originating from poor or degraded containers.
- 8) All crops are to be inspected by two or more trained employees for all visible foreign matter and sub-standard material to be removed. Foreign matter includes:
- a. Plant material from other strains/species or from other parts of the harvested strains/species;
- b. Soil, media, and rocks;
- c. Insects; and
- d. Wire, glass, paper, tools or tool parts, and other man-made objects.
- 9) Sub-standard material includes, for example:
- a. Discolored leaves or flowers;
- b. Evidence of mold; or

- c. Any other material that would cause the crop to fail to meet its specifications as determined by the Chief Executive Officer or Director of Cultivation.
- 10) The inspection for foreign matter and sub-standard material must be conducted while the crop is sufficiently well displayed on a sanitary surface by two or more employees to allow for sufficient visibility (e.g., on a conveyor, or spread out on tables, screens, or tarps).
- 11) Damaged and/or degraded plant material must be removed and disposed of with cultivation manager approval and in accordance with waste disposal policies and procedures.

Pest control procedures

12) The cultivation area must be designed, maintained, and monitored to restrict pests, including insects, rodents, and other animals. The Director of Cultivation must ensure that pest management activities comply with company policies and procedures.

Facility sanitation practices

- 13) The Director of Cultivation must maintain written procedures assigning responsibility for sanitation and describing in sufficient detail the cleaning schedules, methods, equipment, and materials to be used in cleaning the production area; such written procedures must be followed, and records of cleaning and sanitation must be kept in the crop management system.
- 14) UV sterilization door strips and dip tanks should be used in critical locations throughout the facility.
- 15) Frequent hand-washing is necessary in all crop handling activities and must be enforced by the Director of Cultivation. Cultivation employees that do not comply with hand-washing requirements may be terminated.
- 16) All cultivation employees are responsible for the sanitation of cultivation areas. All critical areas must be clean and free of any contamination risks at the end of each shift.
- 17) Any mold found in the facility must be addressed by a mold removal expert immediately.

Representative and analytical samples

- 18) Representative samples sufficient in size shall be taken from each batch (each strain must be tested) by the quality assurance unit.
- 19) Analytical samples must be taken in accordance with sampling and retention policies.
- 20) Representative samples removed from cultivation inventory must be properly recorded in the inventory management system.
- 21) Sample records must accurately reflect the origination of the sample to allow trace-back.
- 22) Samples must be recorded in the inventory control system with the contents by the plant name and identification; the date of harvest; the identification number; and any other identifying

information and stored separately from product inventories in a manner that maintains sample quality and identification.

Waste disposal

- 23) All marijuana waste from cultivation operations must be disposed of in accordance with waste disposal policies and procedures.
- 24) All other cultivation waste must be stored and disposed of as to:
- n. Minimize the development of odors;
- o. Minimize the potential for waste to attract, harbor, or become a breeding place for pests;
- p. Protect against contamination of marijuana, contact surfaces, water supplies, and grounds surrounding the facility; and
- q. Control hazardous waste to prevent contamination of marijuana, contact surfaces, water supplies, and grounds surrounding the facility.

TITLE: CULTIVATION DEPARTMENT SAFETY

SOP # 010S EFFECTIVE DATE: 4/15/16

WRITTEN BY: APPROVED BY:

PURPOSE/POLICY:

Lau Ola LLC is committed to the safety of all employees. Safety procedures must be followed at all times.

RESPONSIBILITIES:

- 1) The Director of Cultivation shall ensure a safe cultivation environment.
- 2) All cultivation employees are responsible for safe operations.

PROCEDURE:

Policy

- 1) The safety of our employees is the first priority of the company. The Director of Cultivation must identify and mitigate department specific safety considerations.
- 2) Cultivation facilities have a high risk for electrical hazards, low-toxicity pesticides, and mold contamination.
- 3) The Director of Cultivation, in coordination with the facilities manager, shall schedule regular infrastructure and equipment maintenance in order to reduce fire risk and other potential hazards.
- 4) Other than electrical hazards, few exposures in a cultivation facility are expected to cause significant exposure risks.
- 5) Safety procedures shall develop a culture of safety in the cultivation facility.
- 6) All cultivation employees must receive department appropriate safety training and comply with all safety practices found herein as a condition of employment.

Emergency preparation

- 7) The Director of Cultivation must post and maintain an emergency contact list posted throughout the facility.
- 8) All cultivation employees must be properly trained in department specific Incident Response.
- 9) Emergency contacts must be posted throughout the facility and include:

- a. Director of Cultivation
- b. Management team members
- c. Fire response
- d. Law enforcement
- e. Poison control
- f. Ambulance
- g. 911- which can also activate the Spill Response Team

Material Safety Data Sheets

10) MSDS sheets for all chemicals used in the cultivation facility must be organized, accessible to all cultivation employees, and placed in multiple locations.

Fire safety

- 11) Flammable materials must be stored in a fire locker and properly labeled for first responder identification.
- 12) All areas of egress should be properly signed in accordance with NFPA 704 standards.
- 13) The facility must comply with all local fire codes. Fire extinguishers must be maintained annually.
- 14) All cultivation employees must be properly trained in fire prevention and mitigation measures.

Personal Protective Equipment (PPE)

- 15) The Director of Cultivation must implement and maintain a PPE program. The program must be compliant with OHSA and EPA standards and address:
- a. Hazards present;
- b. Selection, maintenance, and use of PPE;
- c. Training; and
- d. Monitoring.
- 16) Cultivation employees must be provided appropriate personal protective equipment and training, and must be trained in decontamination procedures.
- a. Upgraded PPE must be immediately provided if any change in facility status results in dangerous exposures to cultivation employees.
- b. Standard PPE required for all cultivation employees includes:
- xv. Accessible eye wash stations with sufficient quantities of potable water.
- xvi. Uniforms with some level of fire resistance.
- xvii. Chemical resistant gloves.
- xviii. Boots with water resistance and slip protection.
- xix. N-95 or P-100 disposable respirators.
- xx. A full-face air purifying respirator with a minimum of a P-100 filter, fitted by a qualified professional, is required for employees with beards or performing

substance spray applications.

xxi. Tyvex coveralls for employees performing substance spray applications.

Chemical spill response

- 17) All cultivation employees must be appropriately trained on spill response. Every employee is responsible for participating in spill response activities.
- 18) A fully stocked spill kit must be maintained in the cultivation facilities. Areas with high spill risk should be stocked with a mobile spill kit for immediate mitigation.
- 19) In the event of a spill, inform the Director of Cultivation immediately. The Director of Cultivation or Chief Executive Officer must notify necessary parties.
- 20) The Director of Cultivation shall determine the severity of the spill and the toxicity of the chemical and execute the appropriate response.
- 21) Remove all non-critical employees from the spill area and address any immediate needs.
- 22) Contain the spill. Use necessary PPE Containment solutions include absorbents and rubber dams.
- 23) Place necessary notifications at areas of entry to the spill area.
- 24) Dispose of all hazardous waste in accordance with manufacturer instructions and state and local laws.
- 25) Decontaminate the spill area in accordance with the MSDS and manufacturer instructions.
- 26) The Director of Cultivation in coordination with the inventory manager shall develop, implement, and maintain processing practices that protect crops from contamination and maintain the quality of the marijuana.

TITLE: CULTIVATION SECURITY OPERATIONS

SOP # 010T EFFECTIVE DATE: 4/15/16

WRITTEN BY: APPROVED BY:

PURPOSE/POLICY:

It is corporate policy to maintain a safe and secure working environment. The safety of our employees and the prevention of marijuana diversion is the company's top priorities.

RESPONSIBILITIES:

It is the responsibility of the Director of Cultivation to ensure that all cultivation facilities are safe and secure for agents of the company and marijuana products.

PROCEDURE:

- 1) The Director of Security oversees the security activities of the company.
- 2) The Director of Cultivation shall be responsible for the implementation and maintenance of all department security policies, procedures, and directives.
- 3) All cultivation employees must receive security training and comply with all department specific security measures, as well as, all company security policies and procedures.
- 4) No marijuana in any stage of cultivation may be visible to other departments or to the public.
- 5) No signage shall identify the cultivation facility or its operations to other departments or the public.
- 6) Access to the cultivation facility is restricted to cultivation employees and approved company personnel and visitors in accordance with the policies and procedures outlined in the company's visitor procedures
- 7) Unannounced visits to the cultivation facility are prohibited except for visits from law enforcement, regulatory agencies, or Lau Ola security personnel

TITLE: CULTIVATION SPRAY AND FEEDING PROTOCOLS

SOP # 010U EFFECTIVE DATE: 4/15/16

WRITTEN BY: APPROVED BY:

PURPOSE/POLICY:

Lau Ola LLC is committed to cultivating healthy plants that provide the highest quality products for patients. Spray and feeding protocols are required to ensure proper crop applications.

RESPONSIBILITIES:

- 1) The Director of Cultivation must maintain a current plant spraying and feeding protocol. Each cultivation employee must review the spraying and feed protocols daily.
- 3) Each employee is responsible for following the established protocol unless otherwise directed by the Director of Cultivation.

PROCEDURE:

- 1) All crop applications must follow established spraying and feeding protocols established by the Director.
- 2) Any variance from the published protocol must be recorded in the procedure variance log in the crop management system.
- 3) Records of published protocols should be maintained for thirty-six months at a minimum. The protocol must detail for each strain in production:
- c. Product to be applied.
- d. Reason for application.
- e. Method of application.
- f. Frequency of application.
- g. Next scheduled date of application.
- h. Employee responsible for next application.
- i. Status of lights, HVAC, and air circulation during application (i.e. lights on, HVAC off, and fans off).
- i. PPE required for application (i.e. mask required, Tyvex suit optional).
- k. Restrictions preventing application (i.e. do not apply within four hours of any foliar application).
- I. Life Cycle Stage restrictions -(i.e. apply in vegetative state only or may be applied in all stages).
- m. Re-entry intervals.
- n. Posting requirements.
- o. Other precautions (i.e. cover medium).

TITLE: CULTIVATION WATER QUALITY SOP # 010V EFFECTIVE DATE: 4/15/16

WRITTEN BY: APPROVED BY:

PURPOSE/POLICY:

It is corporate policy to ensure the proper environment for optimal plant health and environmental safety.

RESPONSIBILITIES:

- 1) It is the responsibility of the Director of Cultivation to monitor environmental controls to ensure plant
- and employee health and safety.
- 2) It is the responsibility of all cultivation agents to report environmental issues to the Director of Cultivation.

PROCEDURE:

Policy

- 1) The company recognizes the limited water resources that exist. Water conservation is a primary goal of our operations.
- 2) The Director of Cultivation shall consistently review water resources, quality, and technological advancements in relation to cultivation.
- 3) The Director of Cultivation, in coordination with the Chief Executive Officer, shall report to the executive management team any opportunities for conservation and efficiencies in the cultivation operations.
- 4) The Director of Cultivation must ensure that cultivation operations comply with all state and local water regulations applicable.

Water quality requirements

- 5) Cultivation employees must identify all water used on any marijuana crop in the crop management system including its source (i.e. well, gray water system, water supply company, or other sources) if the water did not originate from the municipal water supply.
- 6) The Director of Cultivation must test the water source quarterly, after any unusual natural event (flooding), and when PPM/pH readings change significantly. Testing must identify pathogenic microbes that may be present in water supplies (e.g., E-coli and other coliforms), heavy metals, pesticide residues, or other contaminants. Maintain records of all results in the crop management system.

7) All water used in the facility must, at a minimum, meet Human Health Standards for water quality.

Equipment maintenance

- 8) The Director of Cultivation is responsible for maintenance of hoses, irrigation systems, and other equipment that may contaminate water or marijuana crops.
- 9) Irrigation systems must be in good working condition to prevent wasting of water and to avoid high moisture levels that may contribute to mold and fungal problems.
- 10) If reverse osmosis (RO) and Ultra-violet light systems (UV) or other water quality systems are utilized, they must be professionally serviced in accordance with manufacturers recommendations. Filters and other parts that come in contact with water must be cleaned and replaced as often as needed to prevent contamination. Maintenance activities must be recorded in the crop management system.

Water quality and irrigation checklist

- 11) All employees must be trained on the proper handling and storage of water with a focus on avoiding contamination.
- 12) Water and nutrient solutions should not sit in the open environment for longer than four hours. If agitation and aeration pumps are used in holding containers it may sit in the open environment for no longer than twenty fours.
- 13) Do not drain nutrient solutions into a public drain without confirming with the cultivation manager the disposal is in accordance with applicable laws and regulations and in accordance with the manufacturers recommendations
- 14) Disinfect spray nozzles immediately if they come in contact with a contamination source. Keep hoses away from media and compost. Clean hoses as needed.
- 15) Plants should be watered in a manner that adequately contains the water to avoid run through. Only highly trained employees should be responsible for irrigation. Marijuana has a low crop coefficient and should typically require approximately 5 gallons per 45 sq ft.
- 16) If automated irrigation systems or flood tables are used, employees must be trained to mitigate for equipment failure.
- 17) Group plants by strains for watering efficiency. Maintain water and nutrient solution application information in the crop management system.
- 18) If municipal water supplies are utilized, the Director of Cultivation must test quality and nutrients levels quarterly and make necessary adjustment to nutrient solutions.

- 19) Irrigation equipment must be professionally maintained per the manufacturors recommendations. Any parts that may be a source of contamination must be cleaned and replaced as often as needed.
- 20) Programmable irrigation equipment should be inspected daily to ensure accuracy of applications.
- 21) If plants are flooded or root balls remain in high moisture, careful inspection for Pythium induced root rot must be performed regularly.
- 22) Check for signs of water quality changes daily including:
- a. Build-up of lime scale indicating high calcium and magnesium or sulfate.
- b. Red and black particles and stained fixtures indicating high iron or manganese.
- c. Salty taste indicating increased levels of chloride.
- d. A rotten odor and tarnished copper indicating sulfides.
- 23) Document all watering activities, including water source and water volume.

CULTIVATION STANDARD OPERATING PROCEDURES

TITLE: Facilities: General Compliance

SOP # 3.1

EFFECTIVE DATE:

WRITTEN BY: APPROVED BY:

PURPOSE:

To ensure all staff members follow the Facilities: General Compliance policies.

RESPONSIBILITIES:

It is the responsibility of the Chief Cultivation Officer to adopt and implement the Facilities: General Compliance policies.

POLICIES/PROCEDURES:

- (a) Cultivation operations must comply with all legal requirements pertaining to the following as applicable:
- (1) Restrictions on the size of the cultivation area;
- (2) Restrictions on the number of marijuana plants allowed or other quantitative limits; and
- (3) Light pollution restrictions.
- (b) Location of cultivation operations:
- (1) Indoor cultivation operations may be located on any property that is zoned for such use and must be located in a fully permitted, non-residential structure that:
- (i) Was constructed in compliance with local building code;
- (ii) Has a complete roof enclosure supported by connecting walls extending from the ground to the roof;
- (iii) Is secure against unauthorized entry; and
- (iv) Minimizes unnecessary visual, auditory or olfactory evidence of indoor marijuana cultivation.
- (c) Cultivation operations that transport marijuana must do so in a secured enclosed container or secured trunk of the delivery vehicle.

CULTIVATION STANDARD OPERATING PROCEDURES

TITLE: Facilities: Fire Prevention

SOP # 3.2

EFFECTIVE DATE:

WRITTEN BY:

APPROVED BY:

PURPOSE:

To ensure all staff members follow the Facilities: Fire Prevention policies.

RESPONSIBILITIES:

It is the responsibility of the Chief Cultivation Officer to adopt and implement the Facilities: Fire Prevention policies.

POLICIES/PROCEDURES:

- (a) Any room in an indoor cultivation operation in which operational supplemental lighting, ballasts, or electrical control panels are located must be constructed with a minimum of a one-hour firewall assembly.
- (b) Indoor cultivation operations must:
- (1) Provide at least one operating fire extinguisher, and

- (2) Provide additional fire extinguishers in a number proportional to the watts of supplemental lighting used in the facility (one fire extinguisher per every 10,000 watts of lighting), or in accordance with local fire code.
- (c) Fire extinguishers must be:
- (1) Easily accessible to employees from every room and in each hallway of the facility;
- (2) Maintained annually or as otherwise specified by the manufacturer; and
- (3) Of the appropriate class rating for the type of fire associated with the functions being performed in the facility (i.e., electrical, chemical).
- (d) Flammable products must be stored in a properly marked fire containment cabinet or area.
- (a) Signage that complies with National Fire Protection Association (NFPA) standard 704 must be placed at entrances to exposure areas.

RETAIL DISPENSARY STANDARD OPERATING PROCEDURES

RETAIL DISPENSARY PERSONNEL

SOP # 001	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To provide employees with the structure and method of employment as it relates to the retail dispensary.

RESPONSIBILITIES:

It is the responsibility of the Dispensary Operating Officer to adopt and implement the following policies and procedures.

ASSOCIATED MATERIALS:

Training Acknowledgement Receipt

POLICIES/PROCEDURES:

- 1. Dispensary employees
 - a. Qualifications (minimum standards for dispensary facility employees)
 - i. Employee will be at least 21 years of age
 - ii. Subject to a thorough background check defined by HR Policies and Procedures
 - iii. A felony conviction immediately disqualifies individual from employment with Lau Ola
 - iv. Pursuant to Chapter 11-850, and any other applicable Hawaii State laws
 - b. Staff
 - i. Lau Ola will employ Certified Dispensary Technicians, certified through the Cannabis Training Institute, or comparable industry recognized certifying body and a registered Hawaii State Licensed Pharmacist having demonstrated accredited continuing education (CE) in the area of medical marijuana or other licensed professional to operate retail dispensing locations.
 - ii. Lau Ola will employ a physician as its Medical Director who may:
 - 1. Facilitate the development of guidelines for disease and patient specific treatment plans
 - 2. Facilitate the development of guidelines for a Lau Ola product formulary that will help guide product selection
 - iii. All Lau Ola retail dispensary employees will report to the Director of Dispensaries who is responsible for all retail location operations
 - c. Recruitment
 - i. As defined by HR Policies and Procedures and pursuant to Chapter 11-850
 - d. Hiring
 - i. As defined by HR Policies and Procedures and pursuant to Chapter 11-850
 - e. Training of operators, employees, or subcontractors of retail dispensary locations will

include the following:

- i. Relevant SOP's
- ii. Healthcare related HIPAA training
 - 1. Including training modules and a proficiency exam
- iii. Health, Safety, and Sanitation Standards
 - 1. Training will encompass and comply with State and county health, safety, and sanitation regulations which at a minimum address:
 - a. Exclusions for handling of product which include open lesions, boils, sores, infected wounds, or illness
 - b. Hygiene training for staff members who handle product with specific attention to preventing microbial contamination
 - c. Hand washing requirements
- iv. Inventory control and management
 - 1. Biotrack THC software
- v. Security
 - 1. As defined by Security Policy and Procedures
 - 2. As referenced in this SOP under Retail Dispensary Operations section (1)
- vi. Prohibitions and Enforcement
 - 1. Implementation of policies and procedures in accordance with Chapter 11-850-93 and 11-850-101
- f. Employee Records
 - i. The dispensary will have available an adequate method to record the month, day, year and time an employee arrives at and exits the facility.
 - Entries shall be made upon the beginning and ending of a shift, and at any time an employee leaves and returns to the premises for any reason.
 - 2. The method utilized above will record employee hours worked
 - 3. Employee records will be retained for a minimum of six (6) years
 - ii. Lau Ola will provide the names of all employees to the Department of Health
- g. Ensuring best practice standards for a well trained staff
 - i. Only competent and trained staff will carry out a procedure
 - 1. Employees must not carry out tasks identified/defined within the SOP's unless they have been trained to do so
 - ii. Both the employee and the designated trainer will attest to the completion of the training using a "Training Acknowledgement Receipt"
 - iii. Training will be completed upon hire and completed annually thereafter to ensure employees are kept current on all training subjects and any updates or changes made therein

RETAIL DISPENSARY STANDARD OPERATING PROCEDURES

RETAIL DISPENSARY STAFF RESPONSIBILITIES

SOP # 001 (A)	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To define the responsibilities of retail dispensary staff.

RESPONSIBILITIES:

It is the responsibility of the Dispensary Operating Officer to adopt and implement the following policies and procedures.

ASSOCIATED MATERIALS:

Inventory log

POLICIES/PROCEDURES:

- 1. A seed to sale methodology is utilized by Lau Ola at all times
 - a. Maintenance of physical inventory at the retail dispensing locations will be the responsibility of retail dispensary staff. These responsibilities include:
 - i. Rotating stock
 - ii. Identifying "out dated" stock requiring disposal
 - 1. All outdated stock will be identified and segregated from other product
 - a. Procedures for disposal of product in accordance with Chapter 11-850-43
 - iii. Reconciliation of physical inventory ensuring physical quantity on hands is equivalent to the electronic inventory quantity on hand
 - a. Shift counts: product in sales room
 - b. Daily counts: product in sales room
 - c. Weekly: products in storage (back room safe)
 - d. Monthly: complete inventory (all product om premises)
 - e. Semi-annual: complete inventory and second count
 - iv. Pharmacist(s) and Certified Dispensary Technician(s) will attest to the above
 - 1. An inventory log will be utilized for the reconciliation of physical inventory and will include the date of inventory process, name and signature of the authorized employee
 - v. Checking-in transported product from our dispensary facilities, and identifying any discrepancies between manifest and product received
 - vi. Organizing inventory according to a classification system approved by the Director of Dispensaries
 - b. The Director of Dispensaries will make all necessary changes to procedures and retrain personnel immediately upon discovering a problem in inventory management
- 2. Certified Dispensary Technicians may:
 - a. Facilitate product selection

- b. Provide minimum standard counseling
- c. Sale of product to a qualifying patient or primary caregiver
- d. Coordinating deliveries with dispensary facilities
- 3. Pharmacist will be responsible for:
 - a. Overseeing day-to-day operations
 - b. Managing cash flow
 - c. Inventory management
 - d. Ensuring adherence to state laws and rules
 - e. Diligent record keeping in accordance with Department rules
 - f. Ensuring HIPAA compliance
 - g. Supervising a staff that will be ready for unannounced inspections at any time
- 4. Lau Ola will employ a physician as its Medical Director who may:
 - a. Facilitate the development of guidelines for a Lau Ola product formulary that will help guide product selection
- 5. All Lau Ola retail dispensary employees will report to the Director of Dispensaries who is responsible for all retail location operations

RETAIL DISPENSARY STANDARD OPERATING PROCEDURES

RETAIL DISPENSARY OPERATIONS: WORKFLOW

SOP # 002	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To provide employees an overview of Lau Ola's Retail Dispensary Model of Care.

RESPONSIBILITIES:

It is the responsibility of the Dispensary Operating Officer to adopt and implement the following policies and procedures.

ASSOCIATED MATERIALS:

Patient Intake Form Notice of Privacy Practices Dispensary Flowchart

POLICIES/PROCEDURES:

- 1. Written certification for the medical use of marijuana will not be provided to any person by any providers that are associated with Lau Ola including officers, employees, agents, or anyone with financial interest in a licensed dispensary
- 2. Only qualified patients meeting registration requirements in the state of Hawaii will be allowed entry into the dispensary (Lau Ola will update its SOP's to reflect changes made by the Department of Health effective January 1, 2018 to include qualifying patients in other states that register with the Department. Changes made to Lau Ola's SOP will comply with updated rules and regulations set forth and defined by the Department.)
 - Lau Ola will utilize a 3 point verification of identification (valid medical marijuana registration card and valid government issued photo identification) for qualifying patients
 - i. Front door Security
 - 1. 2 ID's available before entering premises
 - ii. Reception area- Certified Dispensary Technician
 - 1. Verifies the validity of both documents
 - iii. Sales Room (point of sale)- Certified Dispensary Technician
 - 1. Final verification of documents
 - b. Lau Ola will follow its security and IT protocol for allowing access to all other "authorized" individuals defined within this SOP
 - c. Flow of retail dispensary (door to door)
 - i. Front door:
 - 1. A valid medical marijuana registration card and valid government issued photo identification will be required before entering the premises

2. Initial screening will be completed by plain-clothed security at the front door of the premises

ii. Reception Area:

- 1. Upon entry into the retail dispensary facility, a Certified Dispensary Technician will verify the validity of both forms of identification at the reception area/desk
- 2. Once validated, a patient profile will be created for new patients, and existing profiles will be updated utilizing the following demographic and health related information:
 - a. Name, DOB, physical address, phone number, governmentissued ID number, primary care physician, provider of written certification for the medical use of marijuana, expiration date of registration card; ailments/condition(s) for which marijuana or manufactured marijuana product is being used, other prescription medications currently being taken
 - b. A copy of Lau Ola's "Notice of Privacy Practices" will be offered at the point of sale transaction
- 3. Quantity and date of last sale will be evaluated for appropriate timing and quantity limits
 - a. In situations where a qualifying patient presents for an "early fill" or has reached the maximum quantity in a period of time, the qualifying patient will be denied access to the sales room.
- 4. Once the above parameters have been met, the dispensary employee will allow access to the waiting room area until such time that the qualifying patient is allowed access to, and enters the sales room where the final sale of product will take place.

iii. Waiting Room:

- 1. Educational space
 - a. Educational materials available include:
 - i. Guide to understanding medical cannabis
 - ii. Materials highlighting the different properties of medical cannabis and the effects that go along with each strain
 - iii. Education about our products and manufacturing methods
 - iv. Overview of Hawaii State and Federal laws related to medical cannabis
- 2. Menu board will be displayed that will include the following consumer information:
 - a. Product availability, corresponding percentages of tetrahydrocannabinol (THC) and cannabidiol (CBD), their corresponding properties, effects, and pricing
- 3. Product selection process begins
 - a. Qualifying patient may evaluate menu board for self-directed product selection and request access to the sales room
 - b. Licensed professional available for consultation to facilitate

product selection.

- i. Licensed professional may review patient profile
- Product selection(s) including formulation, and potency will be based on patient preference and feedback, and in conjunction with standards set forth by our Medical Director
- iii. Licensed professional will fully inform about possible side effects of various products, strains, and discuss the pros and cons of various dosing methods
- c. Patients will be offered comprehensive counseling by our licensed professional, which will include a description of the strain and known indications; dosage form, potency, route of administration and duration of product effects; direction for use; common side effects or adverse effects; drug interactions; proper and secure product storage
- d. Under no circumstances will any staff counsel with regard to medical claims. Only counseling about the effects of the active ingredient will be allowed based on medical literature.
- 4. Quantities dispensed will based on frequency of use, severity of symptoms, and will ensure an "adequate supply" necessary for the uninterrupted availability of product for the purpose of alleviating symptoms or effects of the debilitating medical condition for which product is being purchased, and in accordance with maximum dispensing limits set forth by the Department of Health
 - a. Quantities of a product or combination of products will not exceed 4 ounces of marijuana during a period of fifteen consecutive days, and shall not exceed 8 ounces of total product during a period of thirty consecutive days
 - b. It is the responsibility of the Lau Ola retail dispensary employees to determine the quantity of product purchased by a qualifying patient from any other licensed dispensary within the state
 - c. Lau Ola will not sell any amount of product that exceeds the limits identified by the Department of Health

iv. Consultation room:

1. Located in waiting area and will be used to maintain confidentiality during patient consultations

v. Sales room:

- 1. Is a separate and secured room containing:
 - a. Secured and locked display cases, vault, or locked container securely affixed to a wall or floor for product
- 2. A counter physically separating qualifying patient from products and dispenser
- 3. There may only be a maximum occupancy ratio of two customers to every one retail dispensing location employee
- 4. The Certified Dispensary Technician will retrieve the selected

- product(s) from secured and locked container(s) and begin point of sale transaction
- 5. The Certified Dispensary Technician will counsel at the point of sale.
 - a. Lau Ola's minimum counseling standards include reiterating the following: formulation, potency, instructions for use, potential side effects, and "use by date"
- 6. Qualifying patient will be asked if there are any further questions about the selected product for purchase or the accompanying package insert given at each point of sale transaction.
- 7. The qualifying patient will have to sign off using a signature device that will capture an electronic attestation capturing the qualifying patient name, date and time of sale, product(s) being purchased, and quantity of product(s) being purchased
- 8. After transaction complete, qualifying patient will be given purchased product and will leave the premises
- d. Ensuring best practices for patient safety and care
 - i. Lau Ola will prohibit the return or exchange of product after such product has been taken off the premises of the retail dispensary
 - ii. Lau Ola will use a "minimum counseling" standard at each point of sale
 - iii. Consultation with a licensed professional will be available for our qualified patients
 - iv. Lau Ola will periodically survey and assess our patient with respect to ailment, product selection (formulation, potency, use,) and symptom control/severity
 - v. Patients encouraged to use product tracking sheets for self-monitoring experience with product and dose
 - vi. Lau Ola is committed to the continual refining of our practices that include products and services to enhance patient safety, accessibility, adherence, and outcomes
 - vii. Development of a patient feedback section on Lau Ola's website to be used for reporting:
 - 1. Adverse drug reactions
 - 2. Patient satisfaction
 - 3. Customer complaints

PATIENT INTAKE

SOP # 002 (A)	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all employees follow patient intake policies and procedures.

RESPONSIBILITIES:

It is the responsibility of the Dispensary Operating Officer to adopt and implement the following policies and procedures.

ASSOCIATED MATERIALS:

Patient Intake Form

- 1. Lau Ola will utilize a 3 point verification of identification (valid medical marijuana registration card and valid government issued photo identification) for qualifying patients
 - a. Front door Security
 - i. 2 ID's available before entering premises
 - b. Reception area- Certified Dispensary Technician
 - i. Verifies the validity of both documents
 - c. Sales Room (point of sale)- Certified Dispensary Technician
- 2. Upon entry into the retail dispensary facility, a Certified Dispensary Technician will verify the validity of both forms of identification at the reception area/desk
 - a. Once validated, a patient profile will be created for new patients, and existing profiles will be updated utilizing the following demographic and health related information:
 - i. Name, DOB, physical address, phone number, government-issued ID number, primary care physician, provider of written certification for the medical use of marijuana, expiration date of registration card; ailments/condition(s) for which marijuana or manufactured marijuana product is being used, other prescription medications currently being taken
 - b. Quantity and date of last sale will be evaluated for appropriate timing and quantity limits
 - i. In situations where a qualifying patient presents for an "early fill" or has reached the maximum quantity in a period of time, the qualifying patient will be denied access to the sales room.
 - c. Once the above parameters have been met, the dispensary employee will allow access to the waiting room area until such time that the qualifying patient is allowed access to, and enters the sales room where the final sale of product will take place.

COUNSELING

SOP # 002 (B)	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure appropriate counseling is offered to all qualifying patients and caregivers.

RESPONSIBILITIES:

It is the responsibility of the Dispensary Operating Officer to adopt and implement the following policies and procedures.

ASSOCIATED MATERIALS:

Medical Marijuana Professional Counseling Guide Package Insert

- 1. Patient Counseling
 - a. At patient intake, and at point of sale, an offer to provide counseling will be offered to all qualifying patients
 - b. Qualifying patients will be offered various levels of counseling
 - i. Qualifying patients may request counseling by our licensed professional
 - ii. Comprehensive counseling
 - 1. Facilitate product selection and quantity based on
 - a. Ailment for which patient is seeking product
 - b. Severity of symptoms
 - c. Ease of access to facility
 - d. Patient preference and feedback
 - 2. Description of the strain of medical marijuana product and known indications
 - 3. Dosage form
 - 4. Dosage
 - 5. Route of administration
 - 6. Duration of effects of the product
 - 7. Special directions and precautions for preparation, administration
 - 8. Common side effects or adverse effects
 - 9. Interactions
 - 10. Therapeutic contraindications that may be encountered, including how to avoid them, and actions required if they occur
 - 11. Instruction in techniques for self-monitoring
 - c. The Certified Dispensary Technician will counsel qualifying patients at each point of sale
 - i. Lau Ola's minimum counseling standards include reiterating the following:

- 1. Formulation
- 2. Potency,
- 3. Instructions for use,
- 4. Potential side effects
- 5. "Use by date"
- d. Qualifying patient will be asked if there are any further questions about the selected product for purchase or the accompanying package insert given at each point of sale transaction
- e. Under no circumstances will any staff counsel with regard to medical claims. Only counseling about the effects of the active ingredient will be allowed based on medical literature.

ACCEPTING PRODUCT DELIVERIES

SOP # 003	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To provide policies and procedures for accepting product deliveries.

RESPONSIBILITIES:

It is the responsibility of the Dispensary Operating Officer to adopt and implement the following policies and procedures.

ASSOCIATED MATERIALS:

Inventory Reconciliation Log

- 1. Dispensary Technician is responsible for coordinating and confirming delivery from a Lau Ola dispensary facility
 - a. Authorized vehicle pulls into secured loading dock
 - i. Transport employees check in with back door security
 - 1. Swipe employee badge to log entry into retail dispensary facility and upon authentication of employee authorization, transport drivers gain access to back room of retail dispensary facility
 - Two retail dispensary employees will accept order (security and retail dispensary employee)
 - Transport drivers will be met by a retail dispensary employee that will unlock secured vehicle compartments and begin to retrieve containers from secured vehicle compartments
 - Retail dispensary employee will visually inspect the transport container to make sure it is secured, locked and has manifest displayed on outside of container
 - 1. Included on the manifest will be a list of its contents to include product, quantities transported, weight of products transported including total weight of container
 - 2. Before ties on container are cut, the container is weighed to make sure weight is equivalent what is on the manifest
 - a. If correct, ties will be cut and container opened for reconciliation of physical product against manifest
 - iii. Product(s) are immediately scanned into Biotrack THC inventory control management software
 - iv. Products put directly into back room safe
 - v. Reconciliation of physical quantity of product being added to back-stock in safe will be completed and recorded on an inventory reconciliation log

c.	The above processes will take place in full view of security cameras that record in high resolution with time and date embedded in the feed

MEDICAL MARIJUANA

SOP # 004	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To familiarize retail dispensary employees with the types of medical marijuana and medical marijuana products that will be dispensed and the requirements for package and labeling of such products.

RESPONSIBILITIES:

It is the responsibility of the Dispensary Operating Office to ensure adherence to the following policies and procedures.

ASSOCIATED MATERIALS:

Sample Label Product Portfolio

- 1. All retail dispensary employees will familiarize themselves with the types of marijuana and marijuana products that Lau Ola will be authorized to manufacture and sell pursuant to Chapter 329D 10 HRS and 11-850-71 HAR:
 - a. Marijuana in the form of dried matured processed flowers of female cannabis plants
 - b. Capsules
 - c. Lozenges
 - d. Pills
 - e. Oil and oil extracts
 - f. Tinctures
 - g. Ointments
 - h. Skin lotion
 - i. Other products as specified by the Department
- 2. Package and Labeling requirements for the above products shall adhere to the following criteria:
 - a. Child-resistant prescription vials and child-resistant, tamper-proof packaging will be used in accordance with the requirements set forth by Chapter 11-850-92 and with Title 16 C.F.R 1700 of the Poison Prevention Packaging Act
 - i. One-time use of containers to ensure child resistant mechanism
 - ii. Packaging will be sufficient to allow law enforcement personnel to reasonably determine the contents of the unopened package
 - b. Limits:
 - i. No more than 10mg tetrahydrocannabinol for one dose, serving, or single wrapped item provided that no product that is sold in a pack of multiple doses, servings, single wrapped items, or any containers of oils shall contain a total

of more than 100mg of tetrahydrocannabinol per pack or container.

- c. Each package labeling using black lettering on white background will include:
 - i. The phrases "For medical use only" and "Not for resale or transfer to another person"
 - ii. Information about the contents and potency of the product
 - 1. Net weight in ounces, grams, or volume
 - 2. Equivalent physical weight of the marijuana used to produce the manufactured marijuana product if applicable
 - 3. Concentration of tetrahydrocannabinol or ^9 tetrahydrocannabinol, total tetrahydrocannabinol and activated tetrahydrocannabinol-A, and cannabidiol
 - iii. Retail dispensary license number and name of production center where marijuana in the product was produced
 - iv. Batch number and date of packaging
 - v. Computer tracking inventory identification number barcode generated by tracking software
 - vi. Date of harvest or manufacturer and "use by date"
 - vii. Instructions for use
- d. A package insert will accompany any product sold, and shall include the following information
 - i. "This product may be unlawful outside of the State of Hawaii and is unlawful to possess or use under federal law"
 - ii. "This product has intoxicating effects and may be habit forming"
 - iii. "Smoking is hazardous to your health"
 - iv. "There may be health risks associated with consumption of this product"
 - v. "This product is not recommended for use by women who are pregnant or breast feeding"
 - vi. "Marijuana can impair concentration, coordination, and judgement. Do not operate a vehicle or machinery under the influence of this drug"
 - vii. "When eaten or swallowed, the effects of this drug may be delayed by two or more hours"
 - viii. A disclosure of the type of extraction method including any solvents, gases, or other chemicals or compounds used to produce the manufactured marijuana product
 - ix. The name of the laboratory that performed the testing
 - x. Lau Ola will not label any of its products "organic"
- 3. Retail dispensary staff will inspect product(s) packaging upon receiving a delivery as a quality control measure to ensure package and labeling compliance prior to sale to the qualifying patient

RETAIL DISPENSARY FACILITY

SOP # 005	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure retail dispensary employees follow policies and procedures as it relates to the retail dispensing facility.

RESPONSIBILITIES:

It is the responsibility of the Dispensary Operating Officer to adopt and implement the following policies and procedures.

ASSOCIATED MATERIALS:

- 1. Signage
 - Dispensary will display a copy of the dispensary license, Narcotics enforcement division certificate, and any other required permits or licenses at all times pursuant to Chapter 11-850-91
 - b. Lau Ola will post a sign no greater than one thousand six hundred square inches that bears only the business or trade name in text
 - i. Pictures or illustrations are prohibited
 - ii. If an applicable law or ordinance restricting outdoor signage is more restrictive, that law or ordinance shall govern
 - c. No marijuana or manufactured marijuana products will be displayed in windows or in public view
- 2. Physical facilities of dispensing operations must:
 - a. Be operated in adherence with all regulations in the jurisdiction:
 - i. Locations and zoning:
 - No dispensary shall be permitted within seven hundred fifty feet of the real property comprising a playground, public housing project or complex, or school
- 3. A dispensary shall provide the department with the address, tax map key number, and a copy of the premises lease, if applicable, of the proposed location of each retail dispensing location allowed under a license not less than sixty days prior to opening for business
- 4. Location shall remain locked at all times.
- 5. Lau Ola's retail dispensary locations will be open the full allotted time as dictated by the DOH, and will adjust based on sales volume, patient feedback, and considerations for the local zoning and surrounding communities.
- 6. Lau Ola will observe and be closed on all State and Federal Holidays including: New Year's Eve; Dr. Martin Luther King Jr. Day; President's Day; Prince Kuhio Day; Good Friday;

Memorial Day; King Kamehameha Day; Independence Day; Statehood Day; Labor Day; Veteran's Day; Thanksgiving; and Christmas

- 7. Be maintained in a clean and orderly condition
- 8. Be equipped with such utensils and equipment as are necessary to conduct all operation
- 9. Physical facilities of dispensing operations must:
 - a. Provide and use appropriate storage conditions to protect the physical and chemical integrity of manufactured marijuana product
 - b. Provide and use a secure area for storage of marijuana or manufactured marijuana product in inventory
 - c. Provide and use a secure area to manage financial transactions
- 10. Storefront operations must maintain Americans with Disabilities Act (ADA) compliance.
- 11. Each medical marijuana dispensary licensed must:
 - a. Be subject to an annual announced inspection and unlimited unannounced inspections of its operations by the department;
 - b. Submit reports on at least a quarterly basis, or as otherwise required, and in the format specified by the department; and
 - c. Annually cause an independent financial audit, at the dispensary licensee's own expense, to be conducted of the dispensary, its production center, and retail dispensing locations and shall submit the audit's findings to the department.

12. Record Retention

- a. The following records will be retained by the retail dispensing locations for a minimum of six (6) years:
 - i. Inventory tracking including transport of product(s)
 - ii. Sales and compliance with dispensing limitations for each qualifying patient and primary caregiver
 - iii. Financial records including income, expenses, bank deposits and withdrawals, and audit reports
 - iv. Logs from sign-in system capturing information for the entry and exit for dispensary facilities
 - v. Employee records

PROHIBITIONS AND ENFORCEMENT

SOP # 006	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To clearly define prohibitions pursuant to Chapter 11-850-93 and enforceable acts in accordance with 11-850-101.

RESPONSIBILITIES:

It is the responsibility of the Dispensary Operating Officer to implement policies and procedures that address the following prohibitions.

ASSOCIATED MATERIALS:

- 1. In accordance with Chapter 11-850-93 and 11-850-101 Lau Ola at a minimum will prohibit:
 - a. Free samples of product
 - b. Consumption of product on any dispensary premises
 - c. Dispensing of product as premade or manufactured cigarettes or in any form prepare specifically for smoking or inhaling
 - d. Making available for sale or as gifts or premiums any supplies or paraphernalia that provide for the use of medical marijuana in smokable or inhalable form
 - e. Return or exchange or product after such product has been taken from the premises of the retail dispensary
 - f. Transfer of product to any other dispensary
 - g. Transport of product to another county or island
 - h. Off-premise delivery of product to qualifying patients
 - i. Accepting of any product from any other dispensary
 - j. Individuals that are not "authorized" as defined in other sections of this SOP into the premise
 - k. Display products in windows or in public view
- 2. At a minimum, Lau Ola will enforce the following prohibitions:
 - a. The sale or provision of product to unauthorized persons
 - b. The sale or provision of product to qualifying patients or primary caregivers in quantities that exceed limits established by the Department of Health
 - c. Any use or consumption of product(s) on the premises of a retail dispensing location
 - d. The distribution of product, for free, on the premises of a retail dispensing location
 - e. Discrepancies identified during inventory
 - f. Diversion
 - g. Theft
 - h. Loss
 - i. Any criminal action involving a Lau Ola facility or employee

- j. The forgery or alteration of a medical marijuana permit
- k. The use of a false name or patient identification number, or the giving of a false address
- 1. The alteration of a state issued medical use of marijuana permit card
- m. Alteration or falsification of medical marijuana dispensary records
- n. Omitting to make a true entry in medical marijuana dispensary records
- o. Altering, erasing, obliterating, deleting, removing, or destroying a true entry in medical marijuana dispensary records
- 3. Any and all of the above will be reported to the Director of Dispensaries, the Department of Health and Narcotics Enforcement Division.
- 4. Lau Ola will document and report any loss or theft of product from the retail dispensaries to the appropriate law enforcement agency and to the Department of Health
 - a. Lau Ola will maintain copies of any documentation required for at least 6 years after the date on the documentation
 - b. Copies will be provided to the Department for review upon request

QUALITY CONTROL, HEALTH, SAFETY AND SANITATION STANDARDS

SOP # 007	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure retail dispensary employees follow quality control, health, safety and sanitation standards.

RESPONSIBILITIES:

It is the responsibility of the Dispensary Operating Officer to adopt and implement the following policy and procedures.

ASSOCIATED MATERIALS:

- 1. Lau Ola dispensary facilities will implement and adhere to standards set forth by State and county health, safety, and sanitation regulations in accordance with Chapter 11-850-75
 - a. Staff will be ready at any time for an inspection
- 2. Lau Ola will ensure that all marijuana and manufactured marijuana products it dispenses are safe for use or consumption by qualifying patients
- 3. Lau Ola will exclude any person from any contact with marijuana or manufactured marijuana product if open lesions, boils, sores, infected wounds, or illness is suspected or confirmed
- 4. Lau Ola will have hand washing facilities that are adequate and convenient, furnished with running water, and provide effective hand cleaning and sanitizing preparations
- 5. All persons working in direct contact with marijuana and manufactured marijuana products will conform to hygienic practices while on duty as a condition of employment. These practices include:
 - a. Maintaining adequate personal cleanliness
 - b. Washing hands thoroughly in an adequate hand washing area before starting work and at any other time when the hands may have become soiled or contaminated
- 6. All litter and waste will be properly removed and operating systems for waste disposal maintained in an adequate manner in avoidance of a contamination source in area where marijuana or manufactured marijuana products are exposed
- 7. Floors, walls, and ceilings of dispensary facilities will be constructed to ensure they are adequately maintained and in good repair
- 8. Adequate lighting will be present in all areas where marijuana or manufactured marijuana product are stored and sold, and where equipment or utensils are cleaned
- 9. Adequate screening or other protection against the entry of pests will be provided
- 10. Disposal of rubbish will occur throughout the day during operational hours to minimize the development of odor and the potential for waste to become an attractant, harborage, or breeding place for pests
- 11. Animals will not be allowed in dispensary facilities, except for service animals in accordance

with section 347-2.5, HRS

- 12. Lao Ola will maintain buildings, fixtures, and other facilities in a sanitary condition
- 13. Any toxic cleaning compounds, sanitizing agents, and pest control measures such as bait traps will be used and maintained in a manner that protects against contamination of marijuana or manufactured marijuana products and in accordance with any applicable local, state, or federal law, rule, regulation or ordinance

REPORTS, AUDITS AND INSPECTIONS

SOP # 008	EFFECTIVE DATE:
	APPROVED BY:

PURPOSE:

To ensure retail dispensary employees follow the requirements and policies regarding reports, audits, and inspections.

RESPONSIBILITIES:

It is the responsibility of the Dispensary Operating Officer to adopt and implement the following policies and procedures.

ASSOCIATED MATERIALS:

POLICIES/PROCEDURES:

- 1. Reports
 - a. Retail dispensary locations will submit quarterly reports as defined by the department in Chapter 11-85-38 on a form and in a manner prescribed by the Department of Health and according to due date requirements set forth by the department (January 15, April 15, July 15, October 15)
 - i. Lau Ola will ensure the following information is included in submitted reports to the Department:
 - 1. Records of entry and exit for all individuals that have entered a Lau Ola dispensary facility
 - 2. Amounts by category of marijuana produced and manufactured marijuana products manufactured and offered for sale
 - 3. A list of all marijuana, manufactured marijuana products or unusable marijuana materials that have been destroyed or will be destroyed
 - 4. A summary financial statement
 - 5. Laboratory results of all test conducted
 - 6. Description of any breach or halt in Lau Ola's security or tracking systems
 - 7. Any other information requested by the Department

2. Audits

- a. Lau Ola will obtain an independent financial audit annually, and will provide a copy of the audit's findings to the Department
 - i. The report must be completed and submitted to the Department no later than sixty days prior to the end of the license expiration date, or at another time as the Department may direct
 - ii. If Lau Ola's license is revolved, suspended, surrendered, or expires, Lau Ola will file a final report thirty days following revocation, suspension, surrender, or expiration

3. Inspections

- a. All retail dispensary locations and employees will be prepared for and compliant with the requirements set forth by annual announced and unlimited unannounced inspections by the department, and other government employees or official acting in an official capacity as defined by Chapter 11-850-37
 - i. The Department shall have access to all parts of the dispensary property, equipment, records, documents, and any other substance, material, or information relevant to ensure Lau Ola's compliance with Chapter 11-850
 - ii. No employee shall refuse, delay or interfere with any inspection
 - iii. Upon inspection, Lau Ola shall anticipate the written notice of the Department's findings

SECURITY

SOP # 009	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure retail dispensary employees adhere to security guidelines set forth below.

RESPONSIBILITIES:

It is the responsibility of the Dispensary Operating Officer to adopt and implement the following policies and procedures.

ASSOCIATED MATERIALS:

- 1. Operators, employees, and subcontractors shall wear an identification cards issued by Lau Ola that will have a photo on the front and a magnetic data strip on the back
 - a. It shall be worn in a visible location at all times when on the premises of the dispensary facility
- Only authorized employees of the dispensary will be permitted to touch or handle any marijuana or manufactured marijuana products
- 3. Security standards for the retail dispensary location will include at a minimum:
 - h. Video surveillance system compliant with Chapter 11-850-51
 - i. Lau Ola will retain all security recordings for a minimum of one year
 - i. An alarm system able to detect unauthorized entry and which notifies law enforcement in emergencies in accordance to Chapter 11-850-51
 - i. A locked entry point to the dispensary facility
 - i. Upon screening, authorized individuals able to enter the dispensary facility as defined by Chapter 11-850-51 are restricted to the following:
 - 1. Approved individuals with government issued photo identification
 - a. Qualifying patients
 - b. Primary caregivers
 - c. A government employee or official acting in the person's official capacity
 - d. Dispensary employee
 - e. Department of Health approved list of persons furnished by Lau Ola that are allowed into facility for a specific purpose for that dispensary, including but not limited to construction, maintenance, repairs, legal counsel, or investors; provided that:
 - i. The person has been individually approved by the department to be included on the list
 - ii. The person is at least twenty-one years of age, as verified by a valid government issued identification

card

- iii. The department has confirmed that the person has no felony convictions
- iv. The person is escorted by an authorized Lau Ola employee at all times while in the dispensary facility
- v. The person is only permitted within those portions of the dispensary facility as necessary to fulfill the person's purpose for entering
- vi. The person is only permitted within the dispensary facility during the times and for the duration necessary to fulfill the person's purpose for entering
- vii. The dispensary will keep an accurate record of each person's first and last name, date and times upon entering and exiting the dispensary facility, purpose for entering, and the identity of the escort
- viii. Lau Ola will adhere to the approved list which is effective for one year from the date of the department approval
- k. Security device designated by Security and in accordance with Chapter 11-850-51 will be used to equip all entrances, exits, windows, and other points of entry
- 1. An electronic record of any authorized person previously defined will record at a minimum the name, date, time, purpose of entry to and exit from the dispensary facility
- m. Exterior lighting sufficiently illuminating all entries and exits that allows for the clear and certain identification of any person and activities
- n. In the event of a breach or failure of its security system, the retail dispensary location will immediately suspend operations and secure affected dispensary until the security system is fully operable

MEDICATION TRANSPORT

SOP # 010	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To provide policies and procedures as it relates to the transport of product(s).

RESPONSIBILITIES:

It is the responsibility of the Dispensary Operating Officer to adopt and implement the following policies and procedures.

ASSOCIATED MATERIALS:

- 1. Only designated employees, trained and knowledgeable on transportation protocols required by the Department of Health as defined in Chapter 11-850-36 may transport marijuana and manufactured marijuana products between its dispensary facilities, or between its facilities and a laboratory for testing
- 2. Every transport of product will be accompanied by at least two qualified employees which will use specialized delivery vehicles with additional security features such cameras, GPS, and secured compartments within the body of the vehicle
- 3. Transport vehicle will be tracked using GPS
- 4. Each time products are transported, the dispensary facility shall prepare a manifest on a form prescribed by the department that lists the elements required by the department's tracking system
- 5. Only employees at dispensary facilities will have authorized access to the internal secured containers/compartments within the vehicle
 - a. Upon arrival at the corresponding facility 2 employees will accept orders
 - Secured containers will be used for transport and will contain only those products listed on the manifest, and under conditions that maintain their quality and safety
 - 1. A copy of the manifest will be included in the interior and attached to the exterior of the secured container
- 6. Transport between or among dispensary facilities:
 - a. Transport container will be packed, secured, loaded, unloaded and unpacked in full view of security surveillance cameras.
- 7. Upon receipt of marijuana and manufactured marijuana product the dispensary facility or laboratory will immediately compare manifest with what is received
 - a. Discrepancies will be immediately documented and reported to the Compliance Officer, loss prevention, appropriate law enforcement agency and the Department pursuant to Chapter 11-850-36
- 8. Transport will only include stops listed on the manifest, and using routes that reduce the

possibility of theft or diversion

- 9. In regards to the transport of marijuana and manufactured marijuana product, the following is prohibited:
 - a. Transport off-site to qualifying patients
 - b. To another county or island within the same county
 - c. To any other dispensary
 - d. Shall not accept for transport any products from any other dispensary
 - e. To, from, within any federal fort or arsenal, national park or forest any other federal enclave, or any other property possessed or occupied by the federal government

CONFIDENTIALITY

SOP # 011	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure adherence to HIPAA standards of patient privacy as it relates to the dispensing of medical marijuana.

RESPONSIBILITIES:

It is the responsibility of the Dispensary Operating Officer to adopt and implement the following policies and procedures.

ASSOCIATED MATERIALS:

Notice of Privacy Practices

- 1. Employees of the retail dispensary will be trained and demonstrate competency on the subject of confidentiality and patient privacy
 - a. Lau Ola retail dispensary locations will integrate HIPAA standards of practice into our working dispensary model of care
- 2. A copy of Lau Ola's "Notice of Privacy" will be offered to the qualifying patient at the point of sale transaction
- 3. Photography or video recording inside the dispensary facility is prohibited by anyone other than approved entities or individuals as defined by the Department of Health (Chapter 11-850-40)

WASTE DISPOSAL AND DESTRUCTION

SOP # 012	EFFECTIVE DATE:
	APPROVED BY:

PURPOSE:

To ensure employees follow policies and procedures pursuant to Chapter 11-850-43 as it relates to waste disposal and destruction.

RESPONSIBILITIES:

It is the responsibility of the Dispensary Operating Officer to adopt, implement and refine the following policies and procedures.

ASSOCIATED MATERIALS:

Waste Disposal Log

- 1. Product(s) identified for disposal will be identified, segregated and secured in a manner that does not compromise or contaminate surrounding product(s)
- 2. Products will be recorded on a waste disposal log

ADVERSE DRUG EVENT

SOP # 013	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To provide protocols related to adverse drug events that are reported to Lau Ola.

RESPONSIBILITIES:

It is the responsibility of the Dispensary Operating Officer to adopt and implement the following policies and procedures.

ASSOCIATED MATERIALS:

- 1. Dispensing operations must establish a policy for receiving and recording adverse event reports associated with use of the marijuana or manufactured marijuana products it provides. Such policy must include:
 - a. Identification of the minimum data elements to record for any adverse event report, which could include:
 - i. An identifiable individual who is reported to have experienced the adverse event
 - ii. An initial reporter, who may be the same as the identifiable individual or another person
 - iii. The identity of the specific marijuana or manufactured marijuana product used, if known
 - iv. A description of the adverse event
 - b. A procedure for determining if an adverse event must:
 - i. Be reported to any public health authority
 - ii. Be reported to the physician of record for the qualifying patient reported to have experienced the adverse event, if known
 - iii. Require a product recall
 - c. Procedures for communicating the policy to:
 - i. Employees of the dispensing operation with task assignments that require knowledge of the policy
 - Qualifying patients and/or their primary caregiver who are provided with marijuana or marijuana-derived products by the dispensing operation
- 2. An adverse event report recorded under a policy established by a dispensing operation

may not be construed as an admission or as evidence that the marijuana or manufactured marijuana product involved caused or contributed to the adverse event.

CASH MANAGEMENT

SOP # 014	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all employees follow cash management policies and procedures.

RESPONSIBILITIES:

It is the responsibility of the Dispensary Operating Officer to adopt and implement the following policies and procedures.

ASSOCIATED MATERIALS:

POLICIES/PROCEDURES:

The Managing Pharmacist or other licensed professional must ensure a system of internal controls is maintained for cash handling and accounting functions. Tight controls must remove opportunities for unauthorized access to cash. All cash handling will be done in view of a surveillance camera.

- 1. Dual custody is required any time cash is transferred from the cash drawer to the automated cash vault and from the facility to the bank.
- 2. Petty cash must be controlled by the managing licensed professional and reconciled by a managing licensed professional and a Security Officer. The petty cash account will be limited to an amount approved by the Dispensary Operating Officer. All receipts and vouchers must be accounted for and the drawer must always be in balance.
- 3. Pin debit transactions must be reconciled weekly by the managing licensed professional.
- 4. Two employees are required to open any cash safe or vault.
- 5. The managing licensed professional will ensure proper separation of duties, including the separation of the following activities
 - a. Making deposits and recording accounting entries
 - b. Approving petty cash transaction and replenishing the petty cash account
 - c. Approving expenses

STORAGE REQUIREMENTS

SOP # 015	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all employees follow storage requirement policies and procedures.

RESPONSIBILITIES:

It is the responsibility of the Dispensary Operating Officer to adopt and implement the following policies and procedures.

ASSOCIATED MATERIALS:

- 1. The Managing Pharmacist or licensed professional is responsible for ensuring compliance of all storage areas
 - a. Adequate lighting, ventilation, temperature, humidity, space, and equipment will be provided
 - b. Separate areas for storage of medical marijuana product that is outdated, damaged, deteriorated, mislabeled, or contaminated, or whose containers or packaging have been opened or breached, until such products are destroyed will be provided
 - c. All storage areas will be maintained in a clean and orderly condition
 - d. All storage areas will be free from infestation by insects, rodents, birds, and pests of any kind
 - e. All medical marijuana products will be returned to a secure, locked area at the end of the business day
- 2. Storage Areas Must Remain Secured
 - a. All safes, vaults, and any other equipment or areas used for the storage of medical marijuana products are securely locked and protected from entry at all times, except for the actual time required to remove or replace medical marijuana products
 - b. Surveillance camera(s) will be pointed directly at each storage area and the camera's field of view will not be obstructed
- 3. Product Storage Environmental Control
 - Storage facilities will be designed and maintained to be dry, well-ventilated, and have sufficient insulation or other temperature-control features to avoid extreme temperature fluctuations.
 - b. A humidifier or de-humidifier may be incorporated, if needed.
 - c. Storage areas will utilize and maintain carbon filtration or other means of odor control

CASH TRANSPORT

SOP # 016	EFFECTIVE DATE:
WRITTEN BY:	APPROVED BY:

PURPOSE:

To ensure all employees follow cash transport policies and procedures.

RESPONSIBILITIES:

It is the responsibility of the Dispensary Operating Officer to adopt and implement the following policies and procedures.

ASSOCIATED MATERIALS:

- Cash transport involves similar anti-diversion safeguards and protocols that we apply to the handling of product.
 - a. Retail dispensary sites will use electronic registers whereby transactions can be seen on CCTV remotely from one of our designated security checkpoints at the production facility property.
 - b. The pharmacist managing each retail dispensary location will be responsible for the managing cash flow.
 - c. When the product is the delivered the transportation safe will be loaded with the dispensary revenue that is collect from the previous day.
 - d. The safe is secured by the dispensary personnel then transported back to the production facility.
 - e. The drivers and compliance officer will not be able to access the funds in the transport safe.

- f. The funds will be delivered to a specific area of the production facility designated for daily revenue.
- g. The funds will be removed by the facilities personnel and placed in a safe specified as a cash safe.

In-Dispensary Education

Upon their first visit, a qualifying patient or caregiver will be directed to a seating area to view an orientation video that explains the role of the pharmacist in helping select beneficial products for specific needs, CBD/THC ratios, intake options and product safety information. The video will be available in English, Hawaiian, Marshallese and Japanese. Patients will receive educational materials including: 1) an overview of State and Federal medical marijuana laws; 2) a guide to medical marijuana; 3) a product tracking sheet for self-monitoring; 4) dispensary protocols; and 5) HIPPA Notification of Privacy.

Community Education Programs

Focused programs will be held island wide (locations will be chosen after consulting with the Independent Physicians Association) and feature physicians, scientists, pharmacists, nurses and Native Hawaii healers such as . Audiences include patients in palliative care/hospice and nursing homes, caregivers and staff, veteran groups, and adults interested in natural healing. Outreach efforts will not occur with be organizations and non-profits that receive federal funding.

Physician and Healthcare Professional Education

Our Medical Director and/or pharmacists will present Grand-Rounds and in-services to doctors and allied professionals. A website will host a compendium of resources and scientific studies. A Medical Director will have office hours for consultations for general or patient/condition specific questions.

Please refer to 5.1 for "How Lau Ola is addressing key concerns expressed by the Big Island community".

Producing and maintaining a supply of marijuana that is sufficient to meet the needs of qualifying patients:

As of the latest published statistics, there are 5,741 medical marijuana patients and caregivers in the County of Hawaii. Lau Ola LLC and their consultants, after analyzing all the mainland medical marijuana states that have similar models to the State of Hawaii and interviewing dozens of County of Hawaii cardholders, have collated all that information, adjusted for population, and are making the assumption that 50% County of Hawaii card holders, plus a 10% contingency, will seek medical marijuana from Lau Ola LLC dispensaries upon the opening of our two locations (Hilo and Kona). Studies also have included how much product each of those patients can be expected to require on a daily, monthly and annual basis. Our assumptions may be somewhat aggressive (i.e. might result in some initial oversupply), but Lau Ola LLC feels that it is critical that an uninterrupted supply of product is available for County of Hawaii patients to (a) ensure the success of the model that has been built by Hawaii State (b) has made sure the necessary operating cash is on hand to ensure operations until demand can be exactly known and adjusted for. It is critical that patients, after making the initial decision to seek a dispensary, do not arrive at that dispensary to find that the product of their choice is not available, and thus revert to their previous supply source and undermine the efforts of the State. Based on those assumptions, Lau Ola LLC engineers and production managers have designed a medical marijuana production facility that will exceed the anticipated market demand for high-quality, contaminant-free medical marijuana and ensure all eligible patients have a sufficient supply of a variety of products to meet their specific needs. Lau Ola LLC has secured a cultivation facility, has existing buildings that are

right now in the process of being retrofitted for an indoor cultivation facility. Engineering

Partners, out of Hilo, have been contracted with, and have been in the process of, drawing up plans for a facility capable of ultimately cultivating six thousand plants at a time, the maximum number as allowed by law. This will include the required security, office space, break rooms, lab space for manufactured products, processing and drying rooms, and ancillary support infrastructure required. Initial electricity needs are now available, with a substantial 240kva service from HELCO in place, and, additionally, a fully permitted and operational

In summary, in unmatched anywhere in the State of Hawaii for being ideal for medical marijuana cultivation under the guidelines of State law and the balance of existing green

energy and HELCO existing service.

onsite.

The product production timeline that Lau Ola and its consultants have developed includes the need for all compliance for State and County regulations, and realistic phases of production development and permitting. Upon notification of application award, Lau Ola LLC will immediately ramp up the permitting and construction of the cultivation facility, and the retrofitting and improvements required for the dispensaries. (It should be noted that Lau Ola has, immediately available, all capital required for these capital improvement startup costs. There will be no delays due to a disruption in the cash flow required for construction). Phase 1 cultivation will not require any additional power other than that onsite and available today. Approximately 50% of the maximum number of plants allowed under State law will be cultivated in the Phase 1 startup. Because Lau Ola LLC has a site secured, and is at this time spending risk money to position the facility to an indoor cultivation operation, it is expected that product will be available to Hawaii patients by the fourth quarter of 2016. This is an aggressive timeline, and to

assume a sooner date is unrealistic and would demonstrate a lack of understanding of the permit process and the business as a whole.

With the facility already in place and operating at approximately 40% capacity, the anticipated increase in product demand will be easily be met as there will be additional power immediately available on reserve to increase production over twenty four months as required, and before that capacity is at maximum draw, Lau Ola LLC will have permitted and installed the additional power required for buildout to maximum capacity. With power in place, and the square footage already built for cultivation, it will simply be a matter of easily scaling up with additional lights as demand increases.

Providing safe, accessible retail dispensing locations

Lau Ola's goal is to build a system that addresses the concerns of the neighborhoods, local businesses, law enforcement and general public while not compromising the needs of patients themselves. To obtain these goals, each retail location will have physical and electronic security to ensure patient and personnel security and accessibility. Lau Ola LLC retail locations will only have two days of expected sales inventory at one time. Medical marijuana will be to prevent diversion and loss with limited access to the minimum of authorized persons. All except for actual time required to remove and replace marijuana.

Retail sites will be locked all times and no unauthorized persons or uncertified patients will be allowed to enter (11-850-33). The safe area will have barriers to prevent unauthorized person access. All persons entering the dispensary will be qualified before being given access to the patient area (11-850-51). The area will be alarmed 24/7 with

The security system will include but may not limited to perimeter alarm, motion detectors and

video cameras. Video cameras will be located internally and show exit and entry points, all areas inside the dispensaries and externally to show entry, exit, loading areas along with (11-850-51).

The two locations that we have secured for these dispensaries are industrial but unique as they are both in areas that have heavy bypass traffic that would discourage diversion, theft or robbery.

Measuring and improving customer satisfaction

Lau Ola recognizes the importance of working closely with qualified patients and their caregivers to manage the effectiveness and quality of medical marijuana and the patient experience. A key component is providing patients and caregivers with a convenient process for providing feedback and reporting experiences. Lau Ola plans to develop a patient feedback section on our web page. In addition, we will provide comment/feedback cards easily accessible at each Dispensary. Patients can fill out the comment/feedback cards and place them into a secure box to be opened only by an authorized employee.

Through these mechanisms, qualified patients and their caregivers will be able to provide feedback about their overall patient experience. Patient feedback will also provide insight about the understanding of products and services from the patient's perspective. It will enable us to refine products and services based on patient needs and improve procedures. By allowing the patient and the caregiver different portals for feedback, Lau Ola will be able to enhance all areas of the patient experience and improve patient outcomes.



(5) - List of Appendices

Appendix 5.1	Addressing Key Community
	Concerns
Appendix 5.2	Lau Ola Foundation
Appendix 5.3	Patient Feedback Survey
Appendix 5.4	Consumer Info and Education

Appendix 5.1

HOW LAU OLA IS ADDRESSING KEY CONCERNS EXPRESSED BY THE BIG ISLAND COMMUNITY

Members of the Lau Ola Application Team expanded our understanding of how key stakeholders view the provision of medical cannabis grow, production, transport and dispensary operations in Hawaii County. In short, we listened.

Our research included gaining the perspectives of:

- Card holders, caregivers and patient advocates
- Physicians and naturopathic doctors
- Leasing agents for dispensary sites and adjacent businesses
- Members of the community where our grow/production sites will be located
- · Native Hawaiian healers
- DEA agents
- County Council Members and State Representatives
- Agricultural experts and UH scientists
- · Real estate and community activists, and
- Critical substance abuse prevention organizations, such as the Big Island Substance Abuse Council.

KEY ISSUES AND HOW LAU OLA IS ADDRESSING THEM

What is Lau Ola's approach to education and community engagement with the Native Hawaiian population?

Hannah Preston-Pita, Psy.D, CSAC – CEO, Big Island Substance Abuse Council and members of the BISAC Board

Our approach toward community engagement and education about medical cannabis on Hawai'i Island is to connect science, culture and ohana. Because of the diversity of potential clients who are expected to participate in our cannabis dispensary, we will host informational meetings with groups of residents and members of clubs and organizations who are involved with providing health care services. In this way, we can offer face-to-face interactions with residents, share information, and address their concerns in a supportive environment.

By answering questions about the different ways that cannabis helps to relieve pain, or to treat auto-immune disorders, we can support the needs of clients who have decided to seek relief from their suffering by using plant-based medicinal products. Hawai'i Island has a significant proportion of licensed cannabis users compared to other islands, however, we also have very high rates of debilitating conditions, such as cardiovascular disease and diabetes, as well as the highest rate of suicide.

will develop a community education program to specifically reach the Native Hawaiian population. This cultural approach for island natives will integrate the terminology and practices of traditional Hawaiian healing arts such as la'au lapa'au (herbal medicine), lomilomi (physical medicine) and ho'oponopono (psychosocial medical care). These arts are appropriate for using topical cannabis products that help to

provide relaxation, heightened awareness and stress relief. Topical applications are preferred over inhaled products, due to non-interactions with the lungs and airways.

In our community awareness gatherings, we will employ the protocols used in ho'oponopono, a Hawaiian system of restoring understanding amongst extended family members. This system sets the tone of respect and sincerity within the circle of participants, which aids in raising awareness and deepening their understanding of the topics being discussed. For clients who seek to use medical cannabis for assistance in coping with their mental or social functioning, this traditional system of care and communication is effective.

Our handouts at community meetings will include information on the medicinal nature of cannabinoids and medical cannabis products. Attendees will also learn of the State approved ways medical cannabis may be ingested and their advantages and disadvantages will be clearly described in simple terms and images.

Whenever appropriate for the specific setting for our meetings, a PowerPoint presentation will be used to help convey statistical, financial, technical, cultural and medical details about the dispensary, product lines and the people involved with the administration and operation of the dispensary. Because medical research of cannabis has been suppressed for 80 years, we will be collecting and disseminating current knowledge and evidence available at meetings and link to scientific studies on our Website.

How can physicians trust that Lau Ola is really providing marijuana for "medical" use?

Lynda Dolan, MD, Family Medicine physician and Board Member of Hospice of Hilo
Prescription medication abuse is a serious problem throughout the nation, as is
illicit drug use. As detailed in this Application, Lau Ola's dispensaries will operate
within the same regulatory framework as commercial pharmacies in Hawaii, which
affords the best means to provide "medical cannabis". Traditionally, pharmacists have a
trusted relationship with physicians and patients that is rooted in pharmaceutical
knowledge and credibility. We believe pharmacists are the rightful dispensers of
medical cannabis, as they are the healthcare professional that legally dispense other
Schedule 1 drugs and hold the confidence of patients and their physicians.

Our dispensary's patient tracking systems, counseling sessions, product packaging and "pharmacy like" interiors are intended to reinforce that our products are medicine that are formulated to alleviate and help specific conditions. The high level of professionalism, and counseling sessions that include a check for possible interactions of other reported drugs that the patient takes, exemplifies how Lau Ola will seek to ensure our patient's and their physician's understand that Lau Ola's products are medicine and are dispensed as such.

How will Lau Ola help busy physicians understand the science behind medical cannabis?

Numerous physicians

Lau Ola's team of healthcare professionals understands the dynamics of the physician shortage on Hawaii Island. This, along with the emphasis on transition to the patient-centered medical home model, means physicians often have little time or mindshare for learning about new and/or non-allopathic medications. Yet, with the opening of dispensaries, Lau Ola knows it is incumbent on our company to inform physicians of the science behind cannabinoids.

Our educational outreach will also include which cannabinoids are effective for use with Hawaii's approved conditions, and ensure physician knowledge that Lau Ola's products encompass four intake methods for patient preference and comfort, along with other in-depth scientific information on cannabinoids.

We also want to ensure physicians know that Lau Ola's medicines have been tested for purity, the absence of mold, mildew and bacteria, and formulated into dosages within state established regulations.

Lau Ola will inform physicians about medical cannabis and our products by:

- Grand Rounds and group presentations, such as to the East and West Hawaii IPAs and the medical and ER staffs of the HHSC hospitals and North Hawaii Community Hospital and the FQHCs (Bay Clinic, West Hawaii Community Health Center, Hamakua and Kohala Health Centers).
- 1:1 meetings/telephone conversations with Lau Ola's Medical Director Dickran Boranian, MD, and our pharmacists.
- A compendium of scientific and peer-reviewed studies of cannabinoids on Lau Ola's website, which we will continue to update and notify physicians of new content postings on an "opt-in" basis.
- Consultations as needed with Lau Ola's Medical Director or pharmacists regarding general or patient care questions by telephone or email within 24 hours of initiating a request.

How will you keep our (Referring to the communit	y near the Lau Ola's
grow/production facilities.)	
Lorraine Mendoza, property owner near Lau Ola's	facilities
Lau Ola's grow and production facilities will be located with	thin a subset of
	Security of the Lau
Ola compound and the surrounding neighborhood is one of our hig	hest priorities. Our
plans call for the placement of video cameras	
,	The use of video
surveillance, which by law informs the public of its existence, has	proven to be a very
effective deterrent to anyone loitering or traveling through the area	without a legitimate
reason to do so. In addition to preventing unwarranted traffic in th	e area, Lau Ola's
compound will be highly secured,	that is monitored
24/7 by our on-site security officers. Lau Ola's video feed will be	simultaneously sent to
the Hawaii Police Department and to the Department of Health, wh	
ensure the safety.	-
Traffic to the farm by Lau Ola personnel will increase use of	of the main road
clightly; however this means that staff will also be participating in	

Watch type effort and reporting any unusual citing or loitering individuals to the

compound's security.

What will Lau Ola do to improve the economic conditions on the Hamakua Coast?

Rep. Mark Nakashima, House District 1 (Hamakua, North Hilo, South Hilo) Chairman and CEO Richard Ha and Rep. Nakashima share an unbending commitment to improving the economic viability of the Hamakua Coast, Hilo and the surrounding communities. They also share a deep seeded respect for the region's rich agricultural land. Richard's pragmatic decision to embrace the growth and production of medical cannabis was made with a keen understanding of the advanced scientific growing methods available to increase crop yields. Thus, medical cannabis represents a tremendous opportunity to honor the agricultural heritage of the region and improve its economy. Medical cannabis operations will employ workers displaced by the impending banana bunch virus, and produce a valuable natural medicine that is in keeping with cultural traditions.

In addition to generating agricultural jobs at varying levels of expertise, Lau Ola's dispensary model will employ pharmacists and possibly train student pharmacists from around the county in cannabis medicine. This would provide a hub for this highly sought after specialty training. In addition, Lau Ola's corporate headquarters will add jobs, and subsequent spending, in the community.

Lau Ola LLC

Lau Ola Foundation Will Fund Educational and Health Programs on Hawaii Island

During its first year of operations, Lau Ola LLC will establish a 501(c) 3 with the mission to fund and conduct educational activities on the Island, as well as programs that will facilitate access to medical cannabis by patients with limited financial resources or in need of transportation assistance.

Additionally, Lau Ola's Foundation's goals include being an accessible philanthropic organization that provides funding to organizations providing health and wellness activities on the Island. (Note: Lau Ola's management understands from our discussions with numerous non-profits that many of them are unable to accept funding from a medical cannabis company because they also receive federal funding.)

Lau Ola's target funding of the Foundation is three to four percent of net revenues annually.

Specifically, the Foundation will fund a Compassionate Care program to assist palliative care/hospice patients, veterans, and nursing home patients with transportation to a dispensary and access to our medicine on a sliding scale. Given the Island's geography and the frailty of these patients, we believe transportation programs are critical to ensure equitable and safe access to medical cannabis.

Lau Ola's Foundation will fund a variety of educational programs that take into account the cultural diversity of the Island and emphasize the "medical" nature of cannabis medicines. Our Native Hawaiian focus, for example will employ the protocols used in ho'oponopono, a Hawaiian system of restoring understanding amongst extended family members. This system sets the tone of respect and sincerity within the circle of participants, which aids in raising awareness and deepening their understanding of the topics being discussed.

Our company's Foundation looks forward to being a very positive addition to improving health on the Island.