

# New Pesticide Products Reviews

Determining Licensing Eligibility of  
Chemicals New to the State of Hawaii

4<sup>rd</sup> Annual Joint Government Water Conference  
July 26, 2018

Adam Yamamoto  
Education/Certification  
Pesticides Branch

# Pesticides in Water Program Workplan

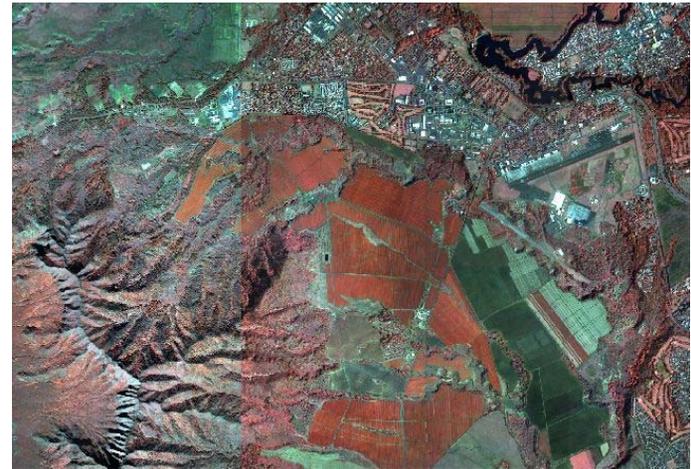
## EPA-Hawaii Performance Partnership Grant



- Primary objectives:
  - To initiate regulatory actions such as:
    - Use restrictions
    - Cancellation or registration denial, if it is determined that unreasonable risks are or will result from a pesticide's use
    - Develop a program to identify pesticides which could potentially leach

# New Product Reviews

- Required for all outdoor use products containing a new chemical,
- Submission of environmental fate data,
- Initial review process considers:
  - Federal registration status
  - Chemical properties
  - Method of application
  - Expected use



Chemical Name: \_\_\_\_\_

Date: \_\_\_\_\_

Registrant: \_\_\_\_\_

### ***Groundwater Review for New Chemicals***

Product contains a new active ingredient (first time product being licensed in Hawaii).

- 1) Product has Kd more than 5 (low laboratory-derived mobility) and low persistence characteristics (e.g. hydrolysis half-life less than 30 days at any pH or aerobic soil metabolism half-life less than 2 weeks). 0 points

Product has Kd less than 5 (laboratory-derived mobility) or persistence characteristics (e.g. hydrolysis half-life greater than 30 days at any pH or aerobic soil metabolism half-life greater than 2 weeks) similar to other pesticides found in groundwater as a result of normal label uses. 15 points

- 2) Total acreage (all uses on EPA stamped approved labels containing the active ingredient) is less than 10,000. 5 points

Total acreage (all uses on EPA stamped approved labels containing the active ingredient) is more than 10,000. 10 points

- 3) Application of the pesticide is made directly to the soil; or pesticide is systemic and acts by moving throughout the plant, including the roots. 10 points

Application of the pesticide is made to foliage, indoors, within the drip line of a structure's roof, in bait boxes or other protective devices to shield chemical from the environment, to swimming pools, as a coating for a structure, or other use patterns where contact with soil is minimal. 0 points

***If score is 30 points or higher at this point, request environmental fate data:***

Analysis of chemical data shows that the pesticide is "likely" to leach in areas registered for use, or has groundwater labeling restrictions or advisories based on modeling using Attenuation Factors or charts reflecting the relationship between chemical properties and Hawaiian soils. 15 points

Analysis of chemical data shows that the pesticide is "unlikely". 5 points

***Review Action:*** If there is a score of 45 or more: Submit for review and seek comments on classification: Options include: 1) do not license, 2) Annual Use Permit, or 3) licensed as restricted.

Score of less than 45: license product without a groundwater review.

## Three-tiered approach

1. Internal Review

2. Leaching Model

3. Full groundwater review

# 1. Internal Review

Product contains a new active ingredient (first time product being licensed in Hawaii).

- 1) Product has  $K_d$  more than 5 (low laboratory-derived mobility) and low persistence characteristics (e.g. hydrolysis half-life less than 30 days at any pH or aerobic soil metabolism half-life less than 2 weeks). 0 points

Product has  $K_d$  less than 5 (laboratory-derived mobility) or persistence characteristics (e.g. hydrolysis half-life greater than 30 days at any pH or aerobic soil metabolism half-life greater than 2 weeks) similar to other pesticides found in groundwater as a result of normal label uses. 15 points

- 2) Total acreage (all uses on EPA stamped approved labels containing the active ingredient) is less than 10,000. 5 points

Total acreage (all uses on EPA stamped approved labels containing the active ingredient) is more than 10,000. 10 points

- 3) Application of the pesticide is made directly to the soil; or pesticide is systemic and acts by moving throughout the plant, including the roots. 10 points

Application of the pesticide is made to foliage, indoors, within the drip line of a structure's roof, in bait boxes or other protective devices to shield chemical from the environment, to swimming pools, as a coating for a structure, or other use patterns where contact with soil is minimal. 0 points

# 1. Internal Review (cont.)

## Chlorantraniliprole (e.g., Coragen)

- 1) Moderately mobile & long half-life
- 2) Potential for widespread use in the state
- 3) Systemic and can be applied to the soil



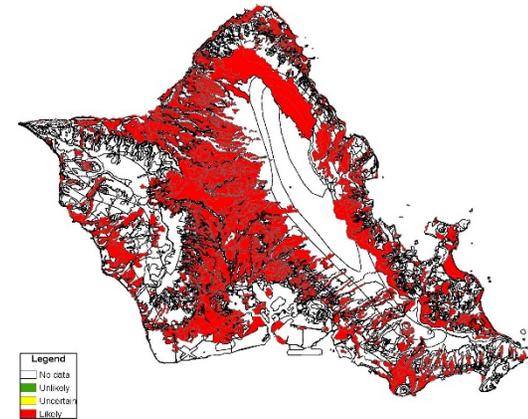
# 2. Leaching Model

*If score is 30 points or higher at this point, request environmental fate data:*

Analysis of chemical data shows that the pesticide is “likely” to leach in areas registered for use, or has groundwater labeling restrictions or advisories based on modeling using Attenuation Factors or charts reflecting the relationship between chemical properties and Hawaiian soils. 15 points

Analysis of chemical data shows that the pesticide is “unlikely”. 5 points

Atrazine: Oahu

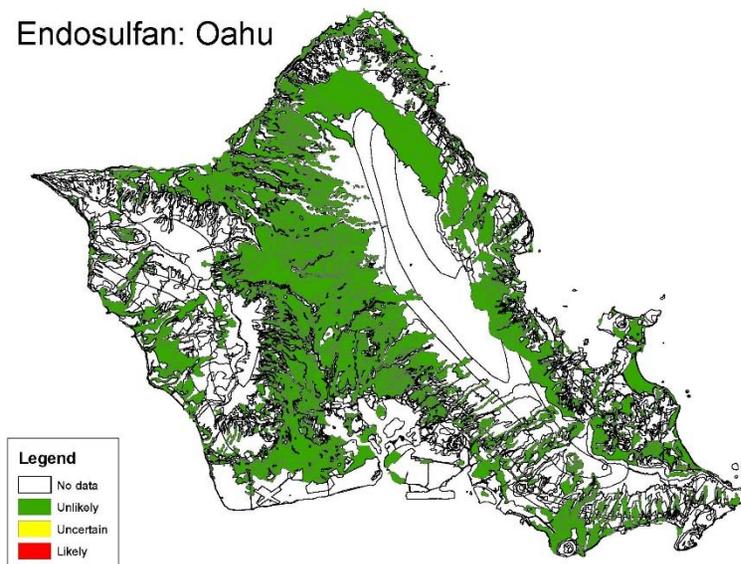


## Comprehensive Leaching Risk Assessment System (CLERS)

## 2. Leaching Model (cont.)

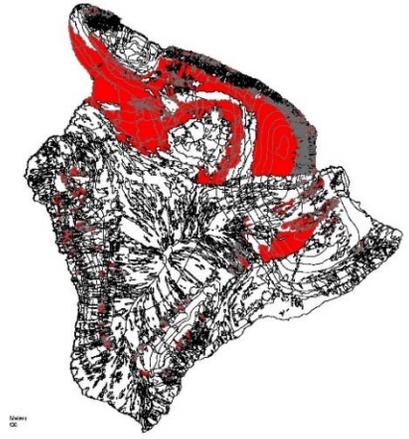
- Exposure assessment tool
- Only to serve as a screening tool
- Not intended for determination of potential leaching for individual map units

Endosulfan: Oahu

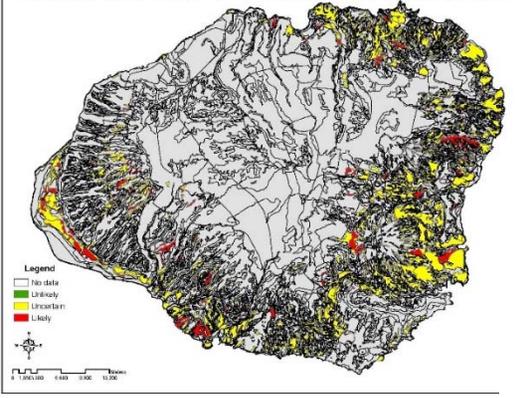


# Chlorantraniliprole

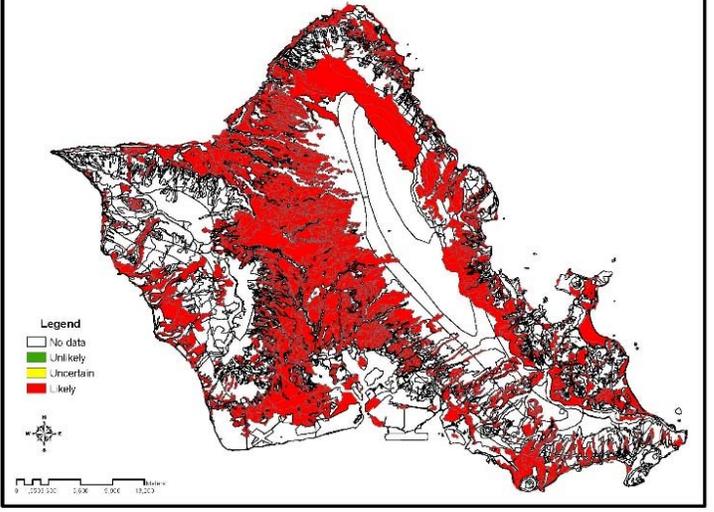
CLERS: LEACHABILITY OF CHLORANTRANILIPROLE, HAWAII



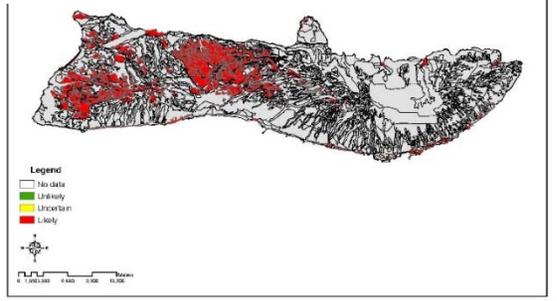
CLERS: LEACHABILITY OF CHLORANTRANILIPROLE, KAUAI



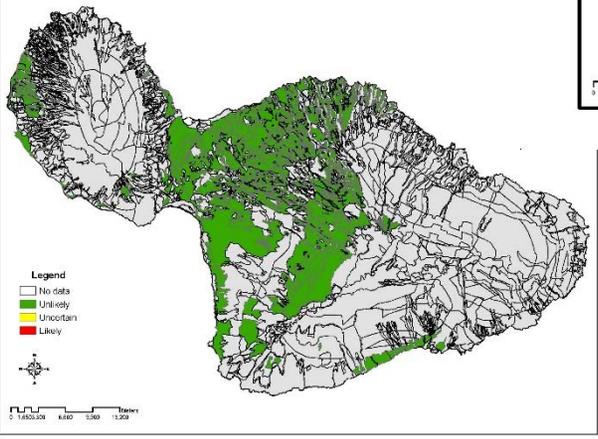
CLERS: LEACHABILITY OF CHLORANTRANILIPROLE, OAHU



LEACHABILITY OF CHLORANTRANILIPROLE, MOLOKAI



CLERS: LEACHABILITY OF CHLORANTRANILIPROLE, MAUI



# 3. Full Groundwater Review

**Review Action:** If there is a score of 45 or more: Submit for review and seek comments on classification: Options include: 1) do not license, 2) Annual Use Permit, or 3) licensed as restricted.

Score of less than 45: license product without a groundwater review.

## Request for full groundwater data package

- Degradation
- Metabolism
- Mobility
- Dissipation

# 3. Full Groundwater Review (cont.)



- Contract with University of Nebraska
  - Evaluate physical and chemical properties of compounds
  - Evaluate potential to move to runoff waters
  - Seek input from EPA and USGS
- Principal Investigators
  - Dr. Chittaranjan Ray (previously with UH Water Resource Research Center)



# Review Results

- Denied
- Restricted Use
- Annual Use Permit
- Environmental monitoring
- No restrictions

**RESTRICTED USE PESTICIDE**

FOR HAWAII DEPARTMENT OF AGRICULTURE USE ONLY:  
 Approved  Denied due to: \_\_\_\_\_  
Permit No: \_\_\_\_\_ Expires on: \_\_\_\_\_  
HDOA Approval \_\_\_\_\_ Date \_\_\_\_\_

State of Hawaii  
DEPARTMENT OF AGRICULTURE  
Division of Plant Industry  
1428 S. King Street  
Honolulu, HI 96814

**ANNUAL USE PERMIT  
PESTICIDE CONTAINING PICLORAM  
FOR PURCHASE AND USE**

Farm or Business Name \_\_\_\_\_ Phone Number \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_  
Business Address \_\_\_\_\_

Active Ingredient: \_\_\_\_\_  
Crop Type: \_\_\_\_\_ lbs. per acre per year  
Maximum Use Rate: \_\_\_\_\_ acres  
Total Treated Area: \_\_\_\_\_  
Max Amount Per Year: \_\_\_\_\_ lbs. active ingredient



# What about products that are already licensed?

- Mechanisms for evaluating licensed products
  - Environmental Monitoring
  - Collaboration with other agencies
    - Department of Health Safe Drinking Water Branch
    - HEER Office
    - USGS
    - US FWS
  - Re-evaluate registered uses

# Resources



- Hawaii Department of Agriculture Licensed Pesticide Listing  
<https://data.hawaii.gov/Health/Currently-Licensed-Pesticide-Listing/ufr5-uv4x>

**Currently Licensed Pesticide Listing**  
 Based on Current & Expired Product List  
 List of pesticide products currently licensed for distribution and sale in the state of Hawaii. This list is provided for informational purposes only. Restricted use pesticides are ▶

Manage More Views Filter Visualize Export

	PROD_NAME	EPAREGISNO	CLASSIFIC	EXP_YEAR	NAME	COMPANY	PRODUCT_	LABELS
3	1300 Orthene TR Total Release Insecticide	499-421	g	2016	BASF Corporation	9131	178	<a href="http://hawaii.gov/hdoa/labels/9131.178_2016.pdf">http://hawaii.gov/hdoa/labels/9131.178_2016.pdf</a>
4	14 Antibacterial All Purpose Cleaner	6836-78-1677	g	2016	Ecolab, Inc.	9203	329	<a href="http://hawaii.gov/hdoa/labels/9203.329_2016.pdf">http://hawaii.gov/hdoa/labels/9203.329_2016.pdf</a>
5	14 Plus Antibacterial All Purpose Cleaner	6836-349-1677	g	2017	Ecolab, Inc.	9203	494	<a href="http://hawaii.gov/hdoa/labels/9203.494_2017.pdf">http://hawaii.gov/hdoa/labels/9203.494_2017.pdf</a>
6	15-5-10 Fertilizer Plus 1.0% Ronstar	9198-203	g	2016	The Andersons Lawn Fertilizer Divisio	8054	5	<a href="http://hawaii.gov/hdoa/labels/8054.5_2016.pdf">http://hawaii.gov/hdoa/labels/8054.5_2016.pdf</a>
7	1600 X-clude Formula 2	499-539	g	2016	Whitmire Micro-Gen Research Labora	9454	245	<a href="http://hawaii.gov/hdoa/labels/9454.245_2016.pdf">http://hawaii.gov/hdoa/labels/9454.245_2016.pdf</a>
8	1600 X-clude Formula 2 Microencapsulated Insecticide	499-539	g	2016	BASF Corporation	9131	179	<a href="http://hawaii.gov/hdoa/labels/9131.179_2016.pdf">http://hawaii.gov/hdoa/labels/9131.179_2016.pdf</a>
9	1-Stroke Environ	1043-26	g	2017	STERIS Corporation	9445	10	<a href="http://hawaii.gov/hdoa/labels/9445.10_2017.pdf">http://hawaii.gov/hdoa/labels/9445.10_2017.pdf</a>
10	2 in 1 Humidifier Cleaning Solution	64914-1	g	2017	Sunbeam Products, Inc.	8977	3	<a href="http://hawaii.gov/hdoa/labels/8977.3_2017.pdf">http://hawaii.gov/hdoa/labels/8977.3_2017.pdf</a>
11	2,4-D Amine 4	83520-13	g	2015	Tacoma Ag, LLC	8705	3	<a href="http://hawaii.gov/hdoa/labels/8705.3_2015.pdf">http://hawaii.gov/hdoa/labels/8705.3_2015.pdf</a>
12	2,4-D Ester 4	83520-20	g	2015	Tacoma Ag, LLC	8705	4	<a href="http://hawaii.gov/hdoa/labels/8705.4_2015.pdf">http://hawaii.gov/hdoa/labels/8705.4_2015.pdf</a>
13	2,4-D Ester 6	83520-21	g	2015	Tacoma Ag, LLC	8705	7	<a href="http://hawaii.gov/hdoa/labels/8705.7_2015.pdf">http://hawaii.gov/hdoa/labels/8705.7_2015.pdf</a>
14	20 Mule Team Octabor Manufacturing Grade	1624-125	g	2017	U.S. Borax Inc.	9435	31	<a href="http://hawaii.gov/hdoa/labels/9435.31_2017.pdf">http://hawaii.gov/hdoa/labels/9435.31_2017.pdf</a>
15	20 Neutral Disinfectant Cleaner	47371-129-1677	g	2016	Ecolab, Inc.	9203	430	<a href="http://hawaii.gov/hdoa/labels/9203.430_2016.pdf">http://hawaii.gov/hdoa/labels/9203.430_2016.pdf</a>
16	20% Algicide Pool Time	45309-54-67262	g	2017	Recreational Water Products, Inc.	9624	188	<a href="http://hawaii.gov/hdoa/labels/9624.188_2017.pdf">http://hawaii.gov/hdoa/labels/9624.188_2017.pdf</a>
17	2000 Flushes Bleach	6836-288-71903	g	2016	WD-40 Company	8094	4	<a href="http://hawaii.gov/hdoa/labels/8094.4_2016.pdf">http://hawaii.gov/hdoa/labels/8094.4_2016.pdf</a>
18	2000 Flushes Blue Plus Bleach	6836-288-71903	g	2016	WD-40 Company	8094	5	<a href="http://hawaii.gov/hdoa/labels/8094.5_2016.pdf">http://hawaii.gov/hdoa/labels/8094.5_2016.pdf</a>

# Resources

- National Pesticide Information Retrieval System (NPIRS)

<http://nspirs.ceris.purdue.edu/docf/fmenu.html>



[My NPIRS](#) | [Searches](#) | [Meetings](#) | [Resources](#) | [Contacts](#)

## Federal Product Search

### EPA Registration Data

Search by **Federal Status** | **EPA Registration Numbers** | **Registration Dates** | **Registration Type** or lookup an entry in the **EPA Company Name Dictionary**.

### Company or Brand Name

Search by **Primary Company Name** | **Distributor Company Name** | **Primary Brand Name** | **Distributor Brand Name**.

### Active Ingredient

Search by **Specific Active Ingredients** | **Percent of Active Ingredients** | **Exclude Active Ingredients** | **Sole Active Ingredient Products** or lookup an entry in the **Chemical Dictionary**.

### Site of Application

Search by **Specific Sites** | **Site Categories** | **Site Dual Qualifier** | **Seed Treatment Sites** or lookup an entry in the **Site Dictionary**.

### Pest to be Controlled

Search by **Specific Pests** | **Pest Groups** or lookup an entry in the **Pest Dictionary**.

### Other Options

Search by **Formulation** | **Signal Word** | **Use Restriction** | **Product Use Types** | **Conditional Registrations** | **Federal Lists**.

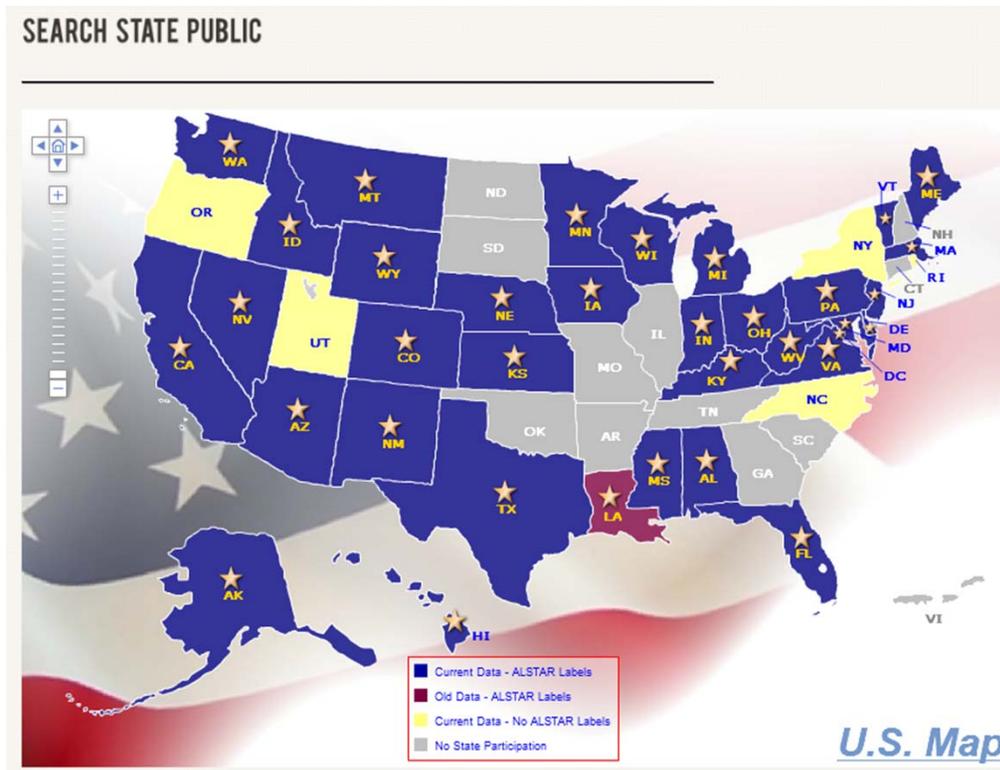


Purdue Memorial Union at Night

# Resources

- NPIRS State Public

<http://npirspublic.ceris.purdue.edu/state/>



**NPIRS** National Pesticide  
Information  
Retrieval System

About Us

Outreach

## SEARCH HAWAII STATE PESTICIDE PRODUCTS

Search for pesticide products currently registered in a state using *one* of the following methods: EPA Registration Number, State Product Name, State Company Name or Active Ingredient. Only a single keyword i.e., lemongrass or keyword set i.e., lemon oil, may be used as your search criterion.

### EPA REGISTRATION NUMBER

Search by the two-part EPA registration number using the following format: company number-product number.

### PRODUCT NAME

Search by the full or partial name of a product registered in a state.

### COMPANY NAME

Search by the full or partial name of a company registering products in a state.

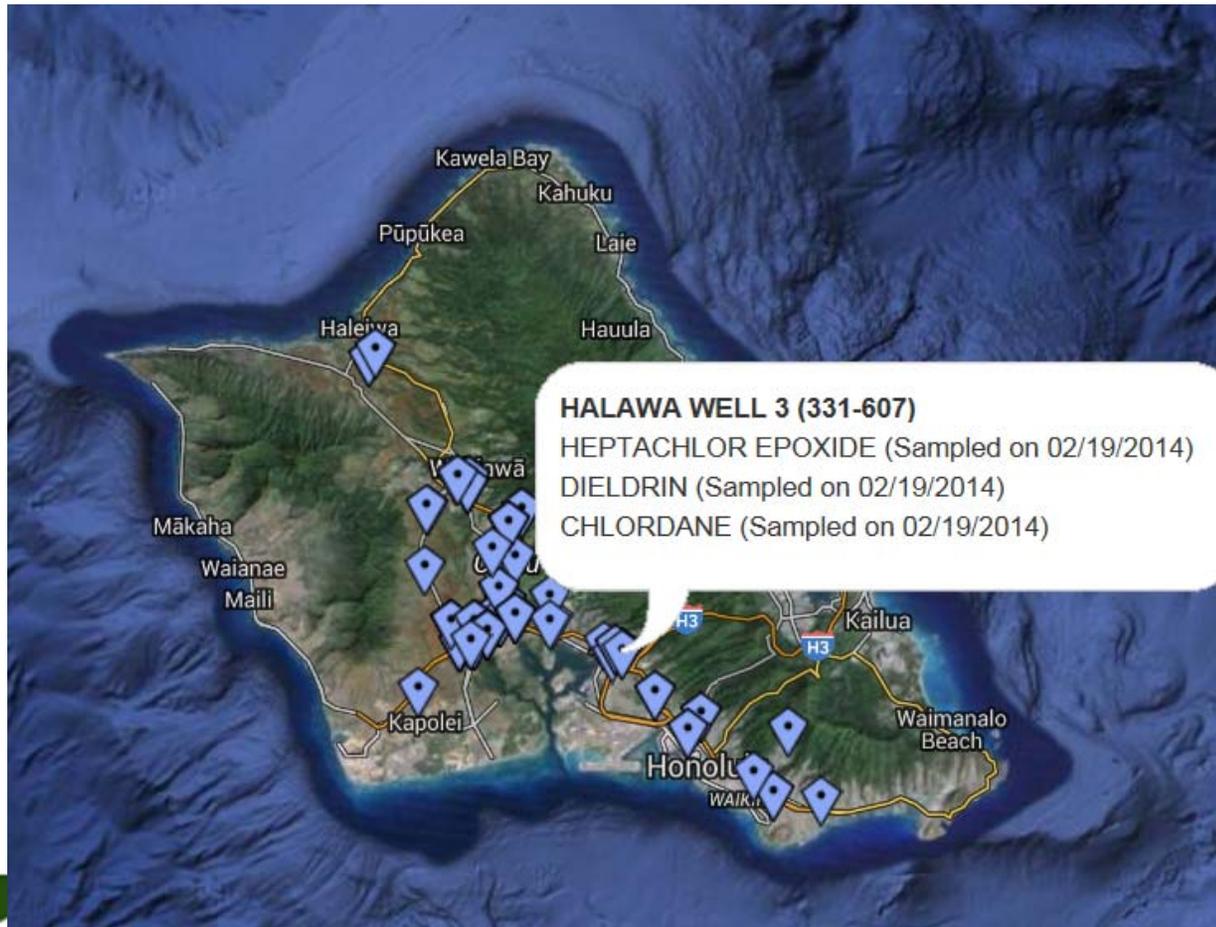
### ACTIVE INGREDIENT

Search by the PC code, Chemical Abstract Services Number (CAS) or the full or partial chemical name.

Search Hawaii Pesticide Data

# Resources

- HDOH Groundwater Contamination Viewer <http://eha-web.doh.hawaii.gov/gw-contam/>



# Resources

- EPA Chemical Search

<http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:1:0::NO:1::>

## Office of Pesticide Programs

You are here: [EPA Home](#) » [Pesticides](#) » [Chemical Search Home](#) » [Chemical Details](#)

[Chemical Details](#)

[Regulatory Actions](#)

[Science Reviews](#)

[Emergency Exemption](#)

[Dockets](#)

[Try Another Search](#)

## Atrazine

1,3,5-Triazine-2,4-diamine, 6-chloro-N2-ethyl-N4-(1-methylethyl)-

### Chemical Group(s)

This chemical is managed as part of a group or group(s).

#### Reregistration Case:

ATRAZINE , Case #7279

#### Registration Review Case:

ATRAZINE , Case #7279

### Substance Information

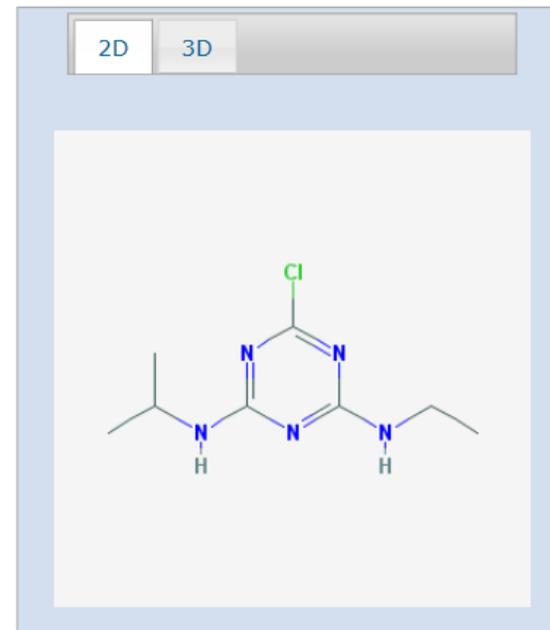
#### Latest Registration Process: Registration Review



Related Chemical Abstract Service # 11121-31-6; 12040-45-8; 12797-72-7; 1912-24-9; 39400-72-1; 69771-31-9; 93616-39-8

First Registered Date October 17, 1973

Pesticide Type Conventional Chemical



Identifiers

# SB 3095 Updates

- Reporting of Restricted Use Pesticides (RUPs) begins 1/1/19;
  - Each applicator must submit annual report of previous year RUP use by 1/30.
  - Reports include;
    - Fed and State registration numbers,
    - Commercial product name,
    - Active ingredients,
    - Total quantity used for each RUP,
    - General description of geographic location (TMKs),
    - Date RUP was applied.
  - HDOA will report RUP use by county;
    - Total quantity used,
    - Total area pesticide was applied.



# SB 3095 Updates

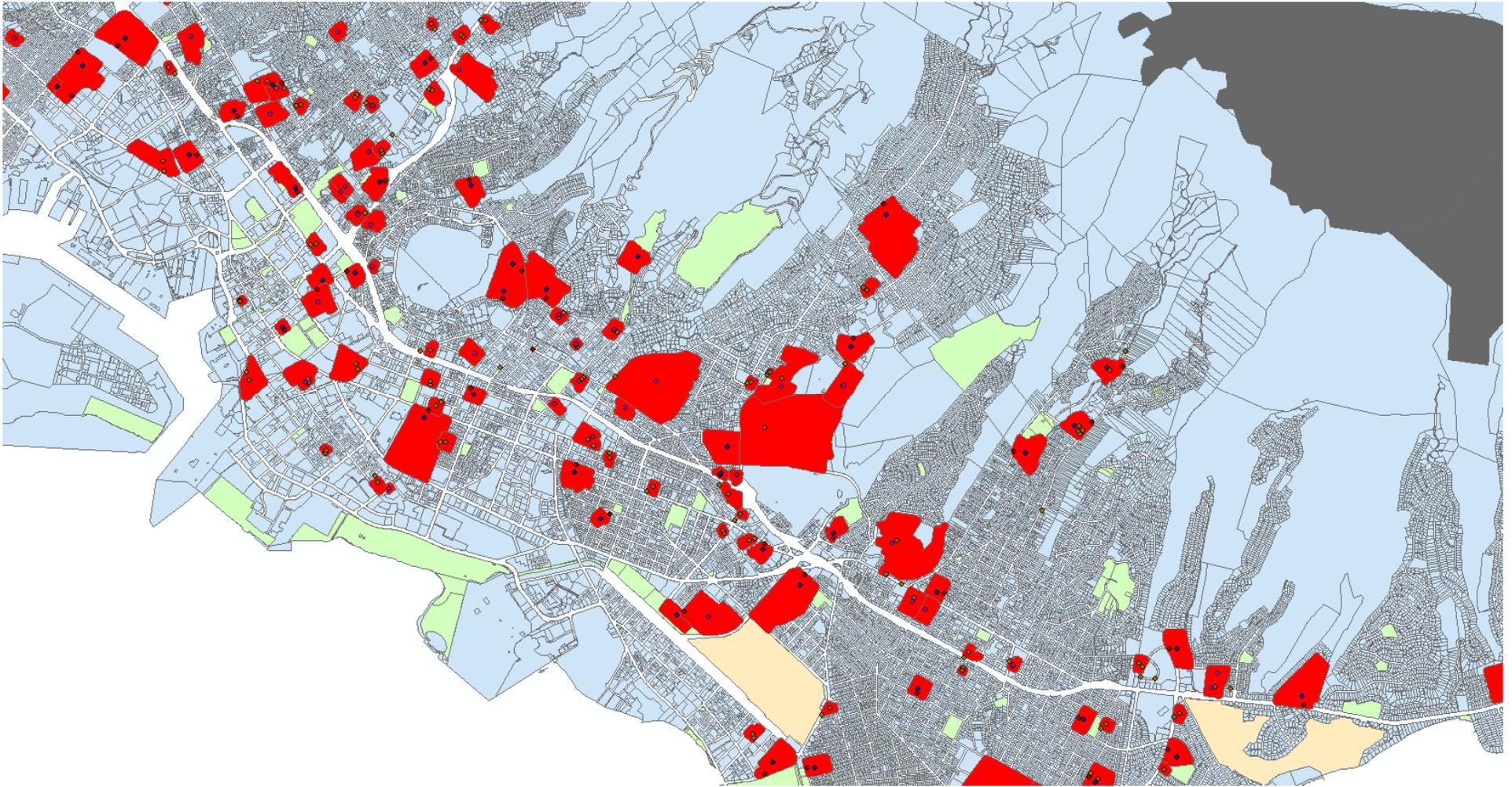
- Chlorpyrifos;
  - Temporary permit from HDOA to use; until 12/31/22
  - Use ban 1/1/2023
- Commercial Disposal Program
  - To begin Jan. or Feb. 2019
- Pesticide Drift Monitoring Study
  - Evaluates pesticide drift at 3 pilot schools
  - Results will be submitted to legislature by 2020



# SB 3095 Update

- School Buffer Zones
  - To begin 1/1/19
  - No application of RUPs within 100ft of school property during normal school hours (7:00am to 4:00pm);
    - Schools include all public and private preschools, elementary, middle, and high schools (universities are exempt)
  - Fumigation exemption

# School Buffer Zones



# Questions?



## Registration & Review Unit

Monica Tauyan

808-973-9412

[Monica.L.Tauyan@Hawaii.gov](mailto:Monica.L.Tauyan@Hawaii.gov)

## Education & Certification Unit

Adam Yamamoto

808-973-9409

[Adam.y.yamamoto@Hawaii.gov](mailto:Adam.y.yamamoto@Hawaii.gov)