



PAUL R. LEPAGE  
GOVERNOR

**STATE OF MAINE**  
**MAINE DEPARTMENT OF AGRICULTURE, CONSERVATION AND FORESTRY**  
**BOARD OF PESTICIDES CONTROL**  
**28 STATE HOUSE STATION**  
**AUGUSTA, MAINE 04333-0028**

WALTER E. WHITCOMB  
COMMISSIONER  
HENRY S. JENNINGS  
DIRECTOR

## **BOARD OF PESTICIDES CONTROL**

February 21, 2014

**AMHI Complex, 90 Blossom Lane, Deering Building, Room 319, Augusta, Maine**

## AGENDA

8:30 AM

- ## 1. Introductions of Board and Staff

2. Minutes of the January 8, 2014, Board Meeting

Presentation By: Henry Jennings  
Director

Action Needed: Amend and/or Approve

3. Consideration of Complaint Filed by Donna Herczeg of Portland Concerning TruGreen Lawncare and Sterling Insect-Lawn Control

Chapter 90 of the Board's rules (attached) allows citizens and organizations to submit complaints to the Director for the purpose of having the complaint placed on a Board Meeting agenda. While most complaints are not handled in this manner, Chapter 90 provides an alternate avenue to the public to present concerns directly to the Board on matters in which the compliance staff is unable to address. The Board will review the complaint and determine if any action is warranted at this time.

Presentation By: Henry Jennings  
Director

Action Needed: Determine whether any action is warranted

- #### 4. Review of Board Policy Relative to the Environmental Risk Advisory Committee

In 1999, the Board first created the Environmental Risk Advisory Committee (ERAC) as an analog to the Medical Advisory Committee (MAC), to assist the Board in evaluating and addressing state-specific environmental concerns. The ERAC has not been active since 2006, when it completed work relating to concerns about browntail moth spraying. Since the committee has no current membership, and it has not met in nearly eight years, the staff proposes that the Board review the ERAC policy to ensure that it best articulates the Board's goals, and decide whether the proposed membership still makes sense.

Presentation By: Henry Jennings Lebelle Hicks  
Director Staff Toxicologist

Action Needed: Provide Feedback to the Staff about the ERAC Policy and the Proposed Committee Membership

**5. Formation of an Environmental Risk Advisory Committee to Address Concerns about Potential Pesticide Impacts on Marine Invertebrates**

At the January 8, 2014, meeting, the Board reviewed pesticide-related bills currently being considered by the Maine Legislature. In the course of discussing LD 1678, An Act To Protect Maine's Lobster Fishery, the staff highlighted some related emerging research which suggests that synthetic pyrethroids may have the potential to cause adverse effects on aquatic invertebrates. As a result of the discussion, the Board voted to direct the staff to form an Environmental Risk Advisory Committee (ERAC), intended to assess the potential impacts of insecticides on lobsters and other marine invertebrates. The staff will suggest members for the committee and seek Board input as well.

Presentation by: Henry Jennings Lebelle Hicks  
Director Staff Toxicologist

Action Needed: Provide Guidance to the Staff on the Scope and Membership of the ERAC

## 6. Review of Current Rulemaking Ideas

Over the past several months, the Board has discussed a number of policy areas for which some additional refining of rules may be desirable. The staff will summarize recent rulemaking ideas and seek Board guidance on whether and when to initiate any additional rulemaking.

Presentation By: Henry Jennings  
Director

Action Needed: Provide Guidance to the Staff

## **7. Consideration of a Consent Agreement with Atlantic Pest Solutions of Kennebunkport**

On June 3, 1998, the Board amended its Enforcement Protocol to authorize staff to work with the Attorney General and negotiate consent agreements in advance on matters not involving substantial threats to the environment or public health. This procedure was designed for cases where there is no dispute of material facts or law, and the violator admits to the violation and acknowledges a willingness to pay a fine and resolve the matter. This case involved drift from a mosquito/tick control operation into a brook.

Presentation By: Raymond Connors  
Manager of Compliance

**Action Needed:** Approve/Disapprove the Consent Agreement Negotiated by Staff

**8. Consideration of a Consent Agreement with Ramon Forestry Service, LLC, of Clinton**

On June 3, 1998, the Board amended its Enforcement Protocol to authorize staff to work with the Attorney General and negotiate consent agreements in advance on matters not involving substantial threats to the environment or public health. This procedure was designed for cases where there is no dispute of material facts or law, and the violator admits to the violation and acknowledges a willingness to pay a fine and resolve the matter. This case involved drift to a residential property from an application to an abutting blueberry field.

Presentation By: Raymond Connors  
Manager of Compliance

Action Needed: Approve/Disapprove the Consent Agreement Negotiated by Staff

9. Consideration of a Consent Agreement with Gateway Inn of Medway

On June 3, 1998, the Board amended its Enforcement Protocol to authorize staff to work with the Attorney General and negotiate consent agreements in advance on matters not involving substantial threats to the environment or public health. This procedure was designed for cases where there is no dispute of material facts or law, and the violator admits to the violation and acknowledges a willingness to pay a fine and resolve the matter. This case involved applications by an unlicensed applicator to areas open to the public.

Presentation By: Raymond Connors  
Manager of Compliance

Action Needed: Approve/Disapprove the Consent Agreement Negotiated by Staff

10. Consideration of a Consent Agreement with Olde English Village, LLC, of South Portland

On June 3, 1998, the Board amended its Enforcement Protocol to authorize staff to work with the Attorney General and negotiate consent agreements in advance on matters not involving substantial threats to the environment or public health. This procedure was designed for cases where there is no dispute of material facts or law, and the violator admits to the violation and acknowledges a willingness to pay a fine and resolve the matter. This case involved pesticide applications by an unlicensed applicator.

Presentation By: Raymond Connors  
Manager of Compliance

Action Needed: Approve/Disapprove the Consent Agreement Negotiated by Staff

11. Consideration of a Consent Agreement with Jato Highlands Golf Course of Lincoln

On June 3, 1998, the Board amended its Enforcement Protocol to authorize staff to work with the Attorney General and negotiate consent agreements in advance on matters not involving substantial threats to the environment or public health. This procedure was designed for cases where there is no dispute of material facts or law, and the violator admits to the violation and acknowledges a willingness to pay a fine and resolve the matter. This case involved pesticide applications by an unlicensed applicator.

Presentation By: Raymond Connors  
Manager of Compliance

Action Needed: Approve/Disapprove the Consent Agreement Negotiated by Staff

12. Other Old or New Business

- a. Friends of Penobscot Bay Offer to Assist with Coastal Sediment Sampling—H. Jennings
- b. Risk Assessment of Mosquito Adulticides—L. Hicks
- c. Report to the Joint Standing Committee on Agriculture, Conservation and Forestry Regarding Grants and the Adequacy of the Product Registration Fee—H. Jennings
- d. Legislative Update—H. Jennings
- e. The Woodland Club Chapter 29 Variance—H. Jennings

- f. Central Maine Power Transmission Right-of-Way Vegetation Management Plan for 2014—H. Jennings
- g. Beekeeper Petition to Discourage Large Retailers from Selling Neonicotinoids—H. Jennings
- h. Other?

13. Discussion About the Approval Process Relating to a Registration Request for a *Bt* Soybean Product

Dow AgroSciences LLC, has submitted a request to register a *Bt* soybean product that may be used only for seed increase, breeding, research, and seed production in breeding nurseries and research stations. Since the Board has never registered a soybean plant incorporated protectant (PIP), the staff is seeking guidance about what sort of review process—if any—the Board would like to undertake before considering the registration request.

Presentation by: Lebelle Hicks  
Staff Toxicologist

Action Needed: Provide Guidance to the Staff About the Review of the Registration Request

14. Schedule of Future Meetings

March 28, May 9, June 17, August 18, and September 12, 2014, are tentative Board meeting dates. The June 17 meeting is planned to be held in the Madison/Skowhegan area, following a tour of Backyard Farms. The Board will decide whether to change and/or add dates.

Adjustments and/or Additional Dates?

15. Adjourn

## NOTES

- The Board Meeting Agenda and most supporting documents are posted one week before the meeting on the Board website at [www.thinkfirstspraylast.org](http://www.thinkfirstspraylast.org).
- Any person wishing to receive notices and agendas for meetings of the Board, Medical Advisory Committee, or Environmental Risk Advisory Committee must submit a request in writing to the Board's office. Any person with technical expertise who would like to volunteer for service on either committee is invited to submit their resume for future consideration.
- On November 16, 2007, the Board adopted the following policy for submission and distribution of comments and information when conducting routine business (product registration, variances, enforcement actions, etc.):
  - *For regular, non-rulemaking business*, the Board will accept pesticide-related letters, reports, and articles. Reports and articles must be from peer-reviewed journals. E-mail, hard copy, or fax should be sent to the attention of Anne Bills, at the Board's office or [anne.bills@maine.gov](mailto:anne.bills@maine.gov). In order for the Board to receive this information in time for distribution and consideration at its next meeting, all communications must be received by 8:00 AM, three days prior to the Board meeting date (e.g., if the meeting is on a Friday, the deadline would be Tuesday at 8:00 AM). Any information received after the deadline will be held over for the next meeting.
- During rulemaking, when proposing new or amending old regulations, the Board is subject to the requirements of the APA (Administrative Procedures Act), and comments must be taken according to the rules established by the Legislature.



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## BOARD OF PESTICIDES CONTROL

January 8, 2014

Augusta Civic Center, 76 Community Drive, Kennebec/Penobscot Room, Augusta, Maine

### MINUTES

**3:00–4:00 PM (BOARD MEETING)**

**4:00–5:00 PM OPEN FORUM (COSPONSORED BY THE IPM COUNCIL)**

**5:00–6:00 PM (BOARD MEETING CONTINUED)**

Present: Flewelling, Jemison, Stevenson, Morrill, Granger, Eckert

1. Introductions of Board and Staff
  - The Board, staff, and Assistant Attorney General Randlett introduced themselves
  - Staff present: Jennings, Connors, Tomlinson, Fish, Bills
2. Minutes of the December 13, 2013, Board Meeting

Presentation By: Henry Jennings  
Director

Action Needed: Amend and/or Approve

- On page 3, bullet 2, change “showed” to “should.”
- On page 6, last bullet, make “determination” plural.
  - **Granger/Eckert: Moved and seconded to accept the minutes as amended**
  - **In Favor: Unanimous**

3. Request from Maine Migrant Health Program and Eastern Maine Development Corporation to Help Support a Worker Safety Training Program for Summer 2014

Since 1995, the Board has supported a Migrant and Seasonal Farmworker Safety Education program. During 2013, 388 individuals received Worker Protection Standard training, 176 individuals received take-home exposure training and 260 received heat stress training. The Maine Migrant Health Program and Eastern Maine Development Corporation are proposing to provide one health and safety outreach worker during the 2014 agricultural season. Funding to support this effort is being requested in the same amount as last year, and funds have been budgeted in the Board’s FY’14 work plan.

Presentation By: Chris Huh, Program Manager, Farmworkers Jobs Program,  
Eastern Maine Development Corporation  
  
Elizabeth Charles, Enabling Services Coordinator, Maine Migrant Health  
Program

Action Needed: Discussion and determination if the members wish to fund this request

- Charles explained that in 2013 the program transitioned from having two AmeriCorps members to having a single paid employee on the Maine Migrant Health Program staff. That person was able to meet with all the farms from previous years, and provided training for a total of 388 workers in the Midcoast, Aroostook and Downeast areas. There was a lot of concern about fruit flies in 2013 and the program was able to provide supplemental print material to answer questions. For 2014, the partnership has secured a grant of \$3,010 from farm worker opportunity programs, and, combined with the requested \$3,500 from the BPC, it would support the summer staff position.
- Huh explained that the plan for 2014 is similar to 2013: a goal of 350 workers trained on the WPS, and 175 individuals trained on family pesticide exposure. The partnership would also like to do some outreach to new farms and growers. Some of the grant money also goes for assistance for transportation which is needed, as well.

- **Eckert/Flewelling: Moved and Seconded to Approve the Request**
- **In Favor: Unanimous**

#### 4. Continuing Discussion of Planning Session Topics

The Board discussed a variety of topics during its annual planning session as part of the September 6, 2013 Board meeting. Several topics were also discussed at the October 18 and December 13 meetings, and some decisions were made at the December 13 meeting. The Board will now review the status of the planning session topics and determine whether additional discussion and/or action is appropriate.

Presentation By: Henry Jennings  
Director

Action Needed: Provide Guidance to the Staff about Planning Session Topics

- Jennings explained that the memo for this agenda item included a new column listing outcomes and discussions to date. He thought that in reviewing the memo a few things would jump out that still needed addressing, but that was not the case. Some items did not get discussed at the planning session.
- Morrill said that there had been tremendous progress on the streamlining of licensing. Stevenson noted that though there is a lot of online training available, people don't know about it. Jennings said that since the last meeting the staff had made efforts to make it more visible on the website and that it would be mentioned at training seminars.
- Eckert remarked that she would like presentations on Maine-grown commodities to be available, if we could get Cooperative Extension to make them.
- Granger noted that Board members could request a topic to be added to an agenda at any time, so if people aren't prepared to talk about specific topics today, they could bring them back later.
- Jennings suggested that the Board review potential rulemaking at the February meeting and draft concepts in preparation for rulemaking.

#### 5. Water Quality Monitoring

The Board has a 20-plus year history of monitoring both ground and surface waters for pesticide residues. In 2005, the Maine Legislature reinforced the importance of the Board efforts by codifying the requirement for water residue surveys under 7 M.R.S. § 607-A (2-A). However, recently, sampling efforts have been curtailed due to difficulty contracting for competent laboratory services. The staff recently entered into an agreement with the Montana State Laboratory which utilizes cutting-edge pesticide analytical methodology. Consequently, plans are being made to resume water quality

monitoring. The staff will update the Board on the laboratory issues and seek Board input on water quality priorities.

Presentation by: Mary Tomlinson  
Water Quality Specialist

Action Needed: Provide Guidance to Staff on Water Quality Priorities

- Jemison remarked that the state has a history of doing a lot of water quality monitoring and that he finds the data very useful in his classes.
- Tomlinson explained that the Board now has a contract with the Montana Department of Agriculture lab for enforcement as well as water quality samples. It is a temporary arrangement until the Maine Health and Environmental Testing Lab (HETL) is able to handle the work. The Montana lab is on the cutting edge, they have developed a screening process for over 90 pesticides to subparts per billion. There will be only a two to three week turnaround instead of having to wait months for results. They can screen for newer pesticides that come on the market. We are also working with the Maine HETL lab so they can eventually take over the work; we need to have a Quality Assurance Project Plan (QAPP) and a memorandum of understanding, then we can transfer money from EPA for equipment.
- Jemison asked whether the Maine lab would eventually be able to do what the Montana lab is doing, and whether they have equipment the Maine lab doesn't have. Tomlinson said that the Maine lab is getting equipment from other grants. We are encouraging them to get EPA training, and one of their chemists did attend last year.
- Tomlinson explained that this year's testing is planned for late winter/early spring. Sediment sampling in the past was centered on Back Cove, but the staff will probably be redirecting the focus based on concerns across the country of pesticides affecting marine organisms; therefore, sampling will focus on the Maine coast.
- Granger asked if anything of concern had been found in Maine samples. Tomlinson said that the last sediment sampling in streams was done in 2010, and all results were substantially below human health limits, but close to aquatic limits. The methodology was not sensitive enough to detect compounds at ultra-low concentrations.
- Granger asked if other states are doing similar testing and if anyone is compiling the findings. Tomlinson said that USGS has a database and that EPA requires states to submit monitoring data and plans to use water and sediment data in risk assessments for re-registrations.
- Jemison asked what the role of the Board would be. Jennings said that in the past decisions had to be made about what to test for, but with the new lab in Montana they test for everything. A group will have to decide where to test, but there probably isn't time for the Board to approve a plan, since the testing should be done before the ground thaws. Tomlinson said the plan is to do 60 this year and 60 next year and that they would try to redo sites that have been done in the past.

## 6. Review of Pesticide Bills Before the Legislature

There are three bills concerning pesticides under considerations by the Agriculture, Conservation and Forestry Committee of the Maine Legislature: LD 1587 An Act To Temporarily Ban the Use of Neonicotinoid Pesticides; LD 1678 An Act To Protect Maine's Lobster Fishery; and LD 1674 An Act To Further Ensure the Provision of Safe Medical Marijuana to Maine Patients. The Board will discuss the bills and determine whether to take an official position and/or provide testimony on any of them.

Presentation By: Henry Jennings  
Director

Action Needed: Determine Whether to Take a Position on any of the Three Bills

- Jennings summarized LD 1587, An Act To Temporarily Ban the Use of Neonicotinoid Pesticides, and explained that, in his opinion, science doesn't point to neonicotinoids as the cause of Colony Collapse Disorder. A discussion ensued about the stresses on bees, and concern was raised about what would be used in place of the banned products, as it might be more risky. This was expressed as a concern in both the landscape and the agricultural areas.
  - **Granger/Morrill: Moved and seconded to oppose the bill and direct the staff to testify against it**
  - **In favor: Unanimous**

[4:00—BREAK FOR LISTENING SESSION; 5:00—RECONVENE]

- Jennings summarized LD 1674, An Act To Further Ensure the Provision of Safe Medical Marijuana to Maine Patients. Last year a bill was passed allowing growers to use 25(b) pesticides, provided the label was broad enough; this bill expands the pesticides that would be allowed. The concern is that as written it allows pesticides that aren't registered in Maine, nor is there any language about whether the use is allowed by the label. A discussion ensued about the various products listed in the bill. It was pointed out that if the bill passes as written it would allow the use of certain pesticides under DHHS rules that would be illegal to use under pesticide rules.
  - **Morrill/Flewelling: Moved and seconded to oppose the bill as written and direct the staff to testify against it**
  - **In favor: Unanimous**
- Jennings summarized LD 1678 An Act To Protect Maine's Lobster Fishery, and explained that methoprene is used in some states to control mosquito larvae in catch basins, but not in Maine. Resmethrin is also not used for mosquito control in Maine. Methoprene is mostly used in flea and tick products for pets. The way the bill is written, it would be difficult to enforce; technically any product applied on a pet could end up in the water. If there were an outbreak of a mosquito-borne disease in Maine, government agencies might want to have these products available. There is a potential for any pesticide to affect lobsters, so why not look at the wider issue? Jennings suggested convening an Environmental Risk Advisory Committee.
  - **Eckert/Granger: Moved and seconded to oppose the bill as written and direct the staff to testify against it**
  - **In favor: Unanimous**

7. Other Old or New Business

- a. Other?

8. Schedule of Future Meetings

February 21, March 28, May 9, and June 27, 2014, are tentative Board meeting dates. The June 27 meeting includes a tour of Backyard Farms in Madison in the morning, with a Board meeting at Madison High School after lunch. The Board will decide whether to change and/or add dates.

Adjustments and/or Additional Dates?

- The Board added August 18 and September 12 as meeting dates.

9. Adjourn

- **Granger/Morrill: Moved and seconded to adjourn at 5:30 PM**
- **In favor: Unanimous**

**01 DEPARTMENT OF AGRICULTURE, FOOD AND RURAL RESOURCES**

**026 BOARD OF PESTICIDES CONTROL**

**Chapter 90: COMPLAINTS**

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**SUMMARY:** These regulations describe the procedure a person must follow in bringing a complaint to the Board and outline the steps the Board may take in response.

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**Section 1. Purpose**

The purpose of this section is to provide a formal procedure which assures that the Board of Pesticides Control will consider all complaints regarding uses of pesticides.

**Section 2. Complaint**

Any person, individual, corporation, unincorporated association, group of individuals or government agency may submit a complaint regarding any person, known or unknown, relative to the use of pesticides.

**Section 3. Address to Director**

All complaints shall be sent to the Director, Board of Pesticides Control, Department of Agriculture, 28 State House Station, Augusta, Maine 04333-0028. Anyone who cannot submit a complaint in writing to the Director may make arrangements with the Director or staff to record the content of the complaint in a manner and time frame convenient to the Director, staff and complainant. The Director may, at his/her discretion, investigate the complaint prior to Board action.

**Section 4. Placed on Board's Agenda**

The complaint shall be placed on the Board's agenda, the Board shall give reasonable notice to the complainant, the person who is the subject of the complaint, if known, and any other party the Director believes is interested in the complaint.

**Section 5. Considered**

The Board shall consider the complaint along with any information which the Director may have available, and take whatever action it deems necessary to protect the public's interest. Action could include taking no action, requesting the Board's staff to investigate the complaint, scheduling an informal hearing between the affected parties or instituting formal adjudicatory

proceedings. Any such consideration shall not constitute an adjudicatory proceeding within the meaning of chapter 70 of the Board's regulations.

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**STATUTORY AUTHORITY:** 22 M.R.S.A., Chapter 258-A

**EFFECTIVE DATE:**

July 6, 1979 - filing 79-338

**AMENDED:**

October 2, 1996 - filing 96-410

**EFFECTIVE DATE (ELECTRONIC CONVERSION):**

March 1, 1997

**CONVERTED TO MS WORD:**

March 11, 2003

NOV 21 2013

November 19<sup>th</sup>, 2013

State of Maine  
Dept of Agriculture, Conservation & Forestry  
Board of Pesticides Control  
28 State House Station  
Augusta, Maine 0433{0028

Re: Complaint-Trugreen

Dear Henry Jennings, Director

This letter is a formal request to have the attached set of concerns placed on the Board of Pesticides agenda for review. As I would like to be present at that meeting, please notify me as soon as possible the date.

I have also included pictures of Sterling's Pesticide Application signage which I would like to present at this meeting. From the street the sign just looks like marketing signage and on the back is the pesticide caution sign. From the street there is no way to know that pesticides have been applied and from the back it is so small you can barely read the dates.

Thank you,



Donna Herczeg  
173 Longfellow St.  
Portland, ME 04103

207-879-6366  
[donnaph@maine.rr.com](mailto:donnaph@maine.rr.com)

## **Donna Herczeg**

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**From:** Donna Herczeg <donnaph@maine.rr.com>  
**Sent:** Tuesday, September 17, 2013 9:57 AM  
**To:** 'raymond.g.connors@maine.gov'  
**Subject:** Trugreen Complaint

Hi Raymond,

I am writing to you today to let you know about a conversation I had on September 12<sup>th</sup> with Anthony Terramagra, the Westbrook Service Manager at Trugreen.

As a neighbor who was called because I am on the Pesticide Information Registry, I wanted to know what was being sprayed that day and also discuss the weather conditions that were calling for heavy rainfall. This is what he told me after I requested the Materiel Data Sheet:

- 1) You can't go by what the MDS sheet says because that is the concentrated amount. After dilution "the sprays are less harmful than Windex".
- 2) He also said "the sprayed areas are safe to walk on after 2 hours and that he allows his children, dogs and cats to walk on the sprayed areas and they have never had an allergic reaction".
- 3) After my concerns about heavy rainfall being predicted the same day as spraying he said "only granular products leach from water penetration and that liquid sprays will not after 1 hour of application".
- 4) Said OSHA and the EPA have certified these products as safe.
- 5) Also informed me that after our discussion he called the Maine Board and spoke to Jan who said he was correct and that he could spray that day and that "they know who I am".
- 6) He also said I had better watch it or I would be facing litigation from my neighbors for harassment.

This same company told another neighbor that their products were organic and she asked that question every time they sprayed. It was not until I got the MDS sheets and showed her that she realized toxic chemicals were being sprayed on her lawn and discontinued the service.

Trugreen's marketing brochures states they are an "environmentally responsible lawn care" company, when in fact they are using toxic herbicides and pesticides. Their "Earthcare Program" states they use "organic-based" fertilizer treatments (a dubious claim at best), including pre and post crabgrass control, broadleaf weed control, and surface insect control, making it look like these products are environmentally safe as well. Even the front of one of these brochures says that dandelion's are a "harmful weed to a healthy lawn".

As a member of Beyond Pesticides and having personally done extensive research on lawn chemicals, I am extremely frustrated and concerned about the blatant disregard of the dangers these chemicals pose and the misleading negligent information this company is providing. These chemicals are proven to be toxic to wildlife, children and pets and are a major threat to aquatic wildlife and waterways.

I appreciate your help in this matter and hope you will take this letter seriously and investigate the claims that are being made by this company and employees.

Donna Herczeg  
173 Longfellow St.  
Portland 879-6366







STERLING  
207-767-5555

From: Terry Shoemaker [<mailto:terry@sterlingisthesolution.com>]  
Sent: Tuesday, February 11, 2014 12:04 PM  
To: Jennings, Henry  
Subject: Posting sign

To the board of pesticides:  
I am aware of the complaint on our posting signs. I will make sure when applications are made that the applicators face the warning symbol in the right direction

Terry Shoemaker

Sent from my iPhone

**From:** TERRAMAGRA, ANTHONY [<mailto:ANTHONYTERRAMAGRA@Servicemaster.com>]

**Sent:** Tuesday, February 11, 2014 10:26 AM

**To:** Jennings, Henry

**Cc:** Dufault, Ed A

**Subject:** RE: Trugreen Complaint

Hi Henry,

I am writing in response to the complaint filed by Donna Herczeg's. Our conversation was on September 12<sup>th</sup> 2013 as she said. We were scheduled to do an application on the neighbors lawn that day. We did inform here that we would be coming out. At the time she called into the branch to see what application would be applied. I let her know what would be applied and that if it did in fact rain that day that we would do a natural treatment. In response to her complaints read as follows,

1. I did explain that the MSDS sheets only give information on concentrates and not the diluted forms. It is company police and approved that our pesticides are diluted 100% from their lethal toxicity, and once diluted they are much safer than a lot of the products used on the market for consumers.
2. Also it states in the pesticide manuals and on the MSDS sheets that reentry to grounds that are sprayed is safe after the pesticide has dried on the surface which takes one to two hours( it takes a half hour to an hour for the dust to settle on a granular applications). I also did state that I have pets and kids that have had no health issues from pesticide use on my property when following these guidelines. She then stated that I was a horrible person for letting my kids and pets on the lawn. I told her I am following all guidelines of the pesticides I am using that are set by the federal and state government, at which point she told me our company is lying and so is the government.
3. I did explain that if the liquid application dries on the surface before the rainfall that there is less chance of leaching and that granular has a tendancy to leach more because it does not react until hit with water, which is also stated in the pesticide manuals.
4. I did say that the government agency's have approved the pesticides for use in the correct manor at which point she said the EPA and OSHA are wrong.
5. I called the pesticide board that day to make sure we were doing everything right and I was assured that I was following all state and federal laws.
6. I also did inform her that customers have complained about her harassing them and she should take up her concerns with them because it is their property and we are doing the job that we were contracted to do. Also we are not breaking any laws.

To sum up I did not make any claims that were not backed by the federal and state government. All of my employees are well informed of what they are using and any dangers they might pose to the environment. Donna has called in several times and tries to pull people into debating with her on the subject. I myself made the mistake of letting her draw me into the conversation with her. In the future I will follow all guidelines approved by the state and federal government as I always have and I will make sure that all people on the pesticide registry are well informed.

Also my company strives to make sure that we use the safest pesticides possible and does not make any claims that are not true. If we made false claims then we would be facing serious charges. If you need any more information from me please call me at 207-245-7254 or e-mail me.

Sincerely,

Anthony Terramagra



JOHN ELIAS BALDACCI  
GOVERNOR

STATE OF MAINE  
DEPARTMENT OF AGRICULTURE, FOOD AND RURAL RESOURCES  
BOARD OF PESTICIDES CONTROL  
28 STATE HOUSE STATION  
AUGUSTA, MAINE 04333-0028

SETH H. BRADSTREET III  
COMMISSIONER

HENRY JENNINGS  
DIRECTOR

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## MAINE BOARD OF PESTICIDES CONTROL POLICY RELATING TO THE ENVIRONMENTAL RISK ADVISORY COMMITTEE (ERAC)

Adopted June 25, 1999  
Amended September 29, 2000

### Background

The Maine BPC recognizes the potential impact of some pesticides on the environment from their federally approved label uses. Evaluation of these products with regard to specific situations and local Maine conditions is critical to reducing potential adverse effects on the environment. The Board needs expert advisors, knowledgeable in the field of environmental toxicology and ecology research, who can add their assessments to the medical, economic and benefit recommendations of others prior to the Board initiating and ruling on pesticide restrictions.

These persons will be established as a volunteer Environmental Risk Advisory Committee (ERAC) to the Board of Pesticides Control.

### Membership

The ERAC will be composed of four standing members and two ad hoc members. One standing member will be one of the Board members appointed to represent the public with a demonstrated interest in environmental protection. This member will also chair the committee. The other three standing members will be qualified professionals in related environmental or ecological research disciplines such as an aquatic or terrestrial biologist, aquatic or terrestrial entomologist and environmental toxicologist. In addition, up to six members will be chosen ad hoc with expertise specific to the potential environmental impact in question. The Board will solicit and review resumes for any vacancy on the ERAC. The Board should appoint persons whose disciplines in aggregate are suitable for identifying potential environmental problems and recommending courses of action that would prevent their occurrence.

### Term

The standing committee members of the ERAC will be appointed by the Board for three years of service, with terms to be staggered. The ad hoc members will serve for the duration of a specific issue but not longer than a three year term, unless re-appointed.

### Meetings

The Committee will meet on an as needed basis at the invitation of the ERAC chairman.

### Compensation

The ERAC is voluntary and no compensation for services is available. However, all reasonable travel expenses will be reimbursed, subject to the approval of the staff director, in a manner consistent with State Travel Policy.

## **DRAFT PROPOSED ERAC COMMITTEE MEMBERS 2/20/14**

### **1. Chair**

Curtis C. Bohlen, Board of Pesticides Control Member  
Director,  
Casco Bay Estuary Partnership  
University of Maine Muskie School of Public Service

### **2. Other Board members if they are interested**

### **3. Environmental toxicologist**

John Wise Ph.D  
Wise Laboratory CIAET  
USM PO Box 9300  
96 Falmouth St  
Portland, ME 04104-9300  
207-228-8050

**NOTE: If John is not available, maybe another member of his group**

### **4. Aquatic Entomologist**

Leon Tsomides  
ME DEP Land and Water Quality  
State House Station #17  
Augusta, ME 04333  
207-287-3901

### **5. Terrestrial Entomologist**

James Dill, PhD, IPM Entomologist  
University of Maine Cooperative Extension, Pest Management  
491 College Avenue  
Orono, Maine

### **6. Lobster Biologist from Department of Marine Resources**

Carl Wilson  
DMR Marine Fisheries Laboratory P O Box 8  
West Boothbay Harbor Me 04575  
(207) 633-9539

### **7. Expert on pyrethroid residues in sediment and pyrethroid analytical chemistry**

Lawrence LeBlanc Ph.D  
School of Marine Sciences  
5741 Libby Hall Room 215  
University of Maine  
Orono Me 04469-5714  
207-581-4376

## **DRAFT PROPOSED ERAC COMMITTEE MEMBERS 2/20/14**

### **8. Lobster development and mosquito insecticides**

Michael N. Horst PhD

Formerly of the School of Medicine, Mercer University Macon GA 31207 will be at the Darling Marine Center on his retirement. Dr. Horst participated in the evaluation of the health of lobster in Long Island Sound in 2003 to 2005 and presented at the lobster forum at UMO in 2005.

### **9. Others?**

Kohl Kanwit, Director of Public Health, Department of Marine Resources?

### **Staff**

Lebelle Hicks, PhD DABT Pesticides Toxicologist

Mary Tomlinson Water Quality Specialist

Henry Jennings, Director

## Potential Rulemaking Items for Board Consideration

BPC Rule	Potential Change	Reason for Change
20	Incorporate Positive Identification of Proper Treatment Site by Commercial Applicators into rule (see policy)	Clarity; policies are not enforceable
22 Section 2D	Exempt “linear” (ROW) projects from the Identifying and Recording Sensitive Areas requirement.	Because it is impractical to identify all sensitive areas within 500 feet of a ROW, the staff routinely grants variances from this requirement. Since the Board always grants variances with the same conditions, does it make sense to codify the de facto standard in rule?
22 Section 2D	Exempt the requirement for Identifying and Recording Sensitive Areas for category 7E (Biting Fly and other Arthropod Vectors (ticks)) as it is for 3B (turf), 3A (ornamental tree and plant) and 7A (structural)	Since all areas in a residential area are technically sensitive areas, there is no point in mapping them. Requiring signs serves a more useful purpose of alerting people entering a treated area.
22 Section 2D	Exempt the requirement for Identifying and Recording Sensitive Areas for category 6B (Industrial/Commercial/Municipal Vegetation Management) as it is for 3B (turf), 3A (ornamental tree and plant) and 7A (structural)	Since all areas in a residential area are technically sensitive areas, there is no point in mapping them. Requiring signs serves a more useful purpose of alerting people entering a treated area.
28 Section 3	Add category 7E to those required to post signs.	see above
28 Section 3	Add category 6B to those required to post signs.	see above
26 Section 1	Change the definition of “occupied buildings” to mean fully enclosed indoor spaces inside buildings	To clarify the intent of the rule and eliminate the need for the policy which states that open air structures are not buildings for the purpose of the rule.
27 Section 2B(4)ii	Add the words “in school buildings” to make it clear that all application records are required to be maintained	Fix a mistake from the last rulemaking and clarify the requirement
29 Section 6	Incorporate the policies around plants with a dermal toxicity hazard and invasive plants into rule.	Clarity; policies are not enforceable; eliminate the need for variances
31 Section 1E	Exempt employees and volunteers who supervise children from licensing requirements for the use of insect repellents to those children	Clarity
31 Section 4	Allow for reciprocal licenses for aerial applicators in the event of a vector-borne disease threat or other emergency	Eliminate the bottleneck of getting aerial applicators licensed in an emergency situation.
31 Section 5A(V)a,b	Revise the waiting periods for re-taking exams after failing	Some Board members questioned the propriety of the 15 and then 30 day (after failing twice) wait periods
32 Section 2A(4)a,b	Revise the waiting periods for re-taking exams after failing	Some Board members questioned the propriety of the 15 and then 30 day (after failing twice) wait periods

33 Section 2A(4)a,b	Revise the waiting periods for re-taking exams after failing	Some Board members questioned the propriety of the 15 and then 30 day (after failing twice) wait periods
41 Section 3	Remove hexazinone from Chapter	Was originally included so that only licensed applicators would have access to it; because farmers are now required to have an AgBasic License, there is no need for the special requirements.
New chapter	Create licensing and certification requirements for those who make pesticide recommendations as part of their job	To ensure that people making pesticide recommendations are aware of key laws about proper pesticide use.

## Proposed Administrative Consent Agreement Background Summary

**Subject:** Ted St. Amand  
Atlantic Pest Solutions  
PO Box F  
Kennebunkport, ME 04046-1695

**Date of Incident(s):** July 12, 2013

**Background Narrative:** The Board received a call from a Wayne resident alleging that an Atlantic Pest Solutions's employee, in the process spraying an abutting property for mosquitoes and ticks, caused pesticide to enter a small brook that drains into Androscoggin Lake. Board staff interviewed the caller and employees of Atlantic Pest Solutions and also collected foliage samples beside the brook as well as a foliage sample from plants growing in the brook. Lab results were positive for bifenthrin, the active ingredient in Talstar P, the insecticide applied by Atlantic Pest Solutions's employees to their customer's property.

### **Summary of Violation(s):**

- 7 U.S.C. § 136j (a)(2)(G), 7 M.R.S.A. § 606 (2)(B) and 22 M.R.S.A § 1471-D(8)(F), use of a pesticide inconsistent with the product labeling
- 22MRSA §1471-D(8)(C), used or supervised the use of pesticides applied in a careless, negligent or faulty manner or in a manner which is potentially harmful to the public health, safety or welfare or the environment

**Rationale for Settlement:** Evidence indicated that the application was made without taking sufficient precautions to keep the pesticide out of water. Allowing pesticide to enter surface water is a violation of the pesticide label as well as laws and regulations.

**Attachments:** Proposed Consent Agreement

## DEPARTMENT OF AGRICULTURE, FOOD AND RURAL RESOURCES

## BOARD OF PESTICIDES CONTROL

Ted St. Amand )  
Atlantic Pest Solutions ) ADMINISTRATIVE CONSENT AGREEMENT  
PO Box F ) AND  
Kennebunkport, ME 04046-1695 ) FINDINGS OF FACT

This Agreement, by and between Atlantic Pest Solutions (hereinafter called the "Company") and the State of Maine Board of Pesticides Control (hereinafter called the "Board"), is entered into pursuant to 22 M.R.S. §1471-M (2)(D) and in accordance with the Enforcement Protocol amended by the Board on June 3, 1998.

The parties to this Agreement agree as follows:

1. That the Company is in the business of applying pesticides including outdoor applications to control mosquitoes and ticks.
2. That the Board received a call from an abutter to a Company customer in Wayne. The caller said he thought a Company applicator crossed the property line and pesticide spray went into a small brook that drains into Androscoggin Lake.
3. That on July 12, 2013, a Board inspector met with the abutting property owner who called the Board and the inspector collected a foliage sample from plants growing in the brook and a soil sample from the edge of the brook.
4. That on July 16, 2013, the same Board inspector met at the Wayne application site with Company personnel Garrett Bissonnette (operations mgr.), Ralph Blumenthal (general mgr.), and Tyler Gagnon (licensed applicator /supervisor on the job). Also present were the Company customer and abutting property owner. The inspector pointed out the flags he placed in the ground to mark the places he sampled earlier. Gagnon pointed out where and how he directed his unlicensed co-worker, Benjamin Chick-Reny, who made the application to spray. Gagnon confirmed the company made a mosquito/tick application to the customer's property at 22 Island View Drive in Wayne on July 12, 2013.
5. That at the meeting described in paragraph four, Gagnon stated that Chick-Reny stood within two feet of standing water, his back towards the brook and sprayed inwards towards the customer's property using a hose connected to powered equipment in the back of a pickup truck. Gagnon acknowledged both he and Chick-Reny were involved in a confrontation with the abutting property owner during the application. The abutting owner took the position that spray was directed towards the standing water and flowing brook.
6. That at the meeting described in paragraph four, the inspector collected a specimen label for Talstar P Professional insecticide, the insecticide applied by Chick-Reny at the Wayne site on July 12, 2013, a photograph of the invoice/work order for that job, and a photo of the map of the job site. Gagnon also completed a written statement
7. That on July 17, 2013, the Board inspector met with Chick-Reny at the Company's Brunswick office. The inspector used the map collected at the meeting described in paragraph six to review the application practices of Chick-Reny for the Wayne job. Chick-Reny explained that he kept his back to any standing water or runoff areas and kept a three foot buffer from these areas when making his application. Chick-Reny also summarized his comments about the application in a written statement. The inspector collected an original Talstar P professional insecticide label and marked in blue on the map where the stream was, the applicator position when spraying, and an area not sprayed across the road.

8. That the lab results from the samples taken as described in paragraph two were positive for bifenthrin, the active ingredient in Talstar P Professional insecticide. The foliage sample was positive at 0.820 ppm and the soil sample was positive at 0.069 ppm.
9. That the Talstar P Professional insecticide label (EPA reg. #279-3206) states "To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters".
10. That the circumstances described in paragraphs one through nine, establish that the insecticide was applied in such a way as to allow it to enter surface water.
11. That the circumstances described in paragraphs one through ten constitute the use of a pesticide inconsistent with the product labeling in violation of 7 U.S.C. § 136j (a)(2)(G), 7 M.R.S.A. § 606 (2)(B) and 22 M.R.S. § 1471-D(8)(F).
12. That the circumstances described in paragraphs one through ten were in violation of the following, 22M.R.S. § 1471-D(8)(C) which reads, "used or supervised the use of pesticides applied in a careless, negligent or faulty manner or in a manner which is potentially harmful to the public health, safety or welfare or the environment".
13. That the Board has regulatory authority over the activities described herein.
14. That the Company expressly waives:
  - a. Notice of or opportunity for hearing;
  - b. Any and all further procedural steps before the Board; and
  - c. The making of any further findings of fact before the Board.
15. That this Agreement shall not become effective unless and until the Board accepts it.
16. That, in consideration for the release by the Board of the causes of action which the Board has against the Company resulting from the violations referred to in paragraphs eleven and twelve, the Company agrees to pay to the State of Maine the sum of \$750. (Please make checks payable to Treasurer, State of Maine).

IN WITNESS WHEREOF, the parties have executed this Agreement of two pages.

ATLANTIC PEST SOLUTIONS

By: Theodore W. St. Amanda - DM Date: 1/24/19

Type or Print Name: Theodore W. St. Amanda . DM.

BOARD OF PESTICIDES CONTROL

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Henry Jennings, Director

APPROVED

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Mark Randlett, Assistant Attorney General

## Proposed Administrative Consent Agreement Background Summary

**Subject:** Baldemar Ramon  
Ramon Forestry Service LLC  
765 Hill Road  
Clinton, Maine 04927

**Date of Incident(s):** April 28, 2013

**Background Narrative:** Board staff responded to a drift complaint in Palermo alleging that drift occurred to a residential property when a pesticide application was made to an abutting blueberry field. The owner / commercial applicator of Ramon Forestry Service LLC, Baldemar Ramon applied Fitness Fungicide (propiconazole) to the blueberry field. Two separate foliage samples collected from turf near the house on the abutting property tested positive for propiconazole.

### **Summary of Violation(s):**

CMR 01-026 Chapter 22 section 4 (B) I

Standards for Unconsented, Off-Target Drift of Pesticides

- I. General Standard. Pesticide applications shall be undertaken in a manner which minimizes pesticide drift to the maximum extent practicable, having due regard for prevailing weather conditions, toxicity and propensity to drift of the pesticide, presence of Sensitive Areas in the vicinity, type of application equipment and other pertinent factors.

**Rationale for Settlement:** The staff took into consideration the levels of residue detected, the precautions the applicator took, and the conditions on site at the time of the application.

**Attachments:** Proposed Consent Agreement

**STATE OF MAINE**  
**DEPARTMENT OF AGRICULTURE, CONSERVATION AND FORESTRY**  
**BOARD OF PESTICIDES CONTROL**

In the Matter of: )  
Baldemar Ramon ) ADMINISTRATIVE CONSENT AGREEMENT  
Ramon Forestry Service LLC ) AND  
765 Hill Road ) FINDINGS OF FACT  
Clinton, Maine 04927 )

This Agreement by and between Baldemar Ramon (hereinafter called the "Owner") and the State of Maine Board of Pesticides Control (hereinafter called the "Board") is entered into pursuant to 22 M.R.S.A. §1471-M (2)(D) and in accordance with the Enforcement Protocol amended by the Board on June 3, 1998.

The parties to this Agreement agree as follows:

1. That the owner works both as an employee of RT Allen & Sons Inc. and an independent pesticide applicator contractor (Ramon Forestry Service LLC.) hired by RT Allen & Sons Inc.
2. That on April 28, 2013, the owner, working in the capacity of a hired licensed commercial pesticide applicator, made a pesticide application to RT Allen & Sons Inc.'s 47 acre blueberry field (Sanborn Lot) on the Level Hill Road in Palermo.
3. That the following day the Board received a call from an abutting property owner who thought that based on prevailing winds during the application described in paragraph two, it was possible that drift came onto their property. They have two young children and had concerns about their family's potential exposure to the pesticide applied.
4. That on April 29, 2013, a Board inspector met with the abutting property owner and took two foliage samples and one wipe sample on their property. The foliage samples were taken at a distance of 10 feet from the southeast corner of the abutting property owner's house and 15 feet from the northeast corner of the house, respectively.
5. That the abutting property is a Sensitive Area Likely to be Occupied as that term is defined in CMR 01-026 Chapter 10 section 2(CCC).8.
6. That on the same day the Board inspector collected a foliage sample from the Sanborn Lot.
7. That on April 30, 2013, a Board inspector did an inspection with the Owner who stated he applied Fitness Fungicide to the Sanborn Lot using a mist blower on April 28, 2013.
8. That all samples collected as described in paragraphs four and six were sent to a lab for analyses.
9. That the lab results for the foliage sample collected ten feet from the southeast corner of the house was positive for propiconazole at 0.036 ppm (16% of target) and the foliage sample collected 15 feet from the northeast corner of the house was positive for propiconazole at 0.155 ppm (67% of target). The foliage sample collected from the Sanborn lot was positive for propiconazole at 0.252 ppm. Propiconazole is the active ingredient in Fitness Fungicide.
10. That CMR 01-026 Chapter 22 section 4(B).I requires applicators to undertake applications in a manner that minimizes pesticide drift to the maximum extent practicable.

JAN 21 2014

11. That CMR 01-026 Chapter 22 section 4(B).II provides that pesticide residues in or on any off-target Sensitive Area Likely to be Occupied resulting from off-target drift of pesticides from a nearby application that are 1% or greater of the residue in the target area are considered *prima facie* evidence that the application was not conducted in a manner to minimize drift to the maximum extent practicable.
12. That the circumstances described in paragraphs one through eleven establish that sufficient precautions were not taken to minimize drift to the maximum extent practicable.
13. That the circumstances described in paragraphs one through twelve constitute a violation of CMR 01-026 Chapter 22 section 4(B)I.
14. That the Board has regulatory authority over the activities described herein.
15. That the Owner expressly waives:
  - a. Notice of or opportunity for hearing;
  - b. Any and all further procedural steps before the Board; and
  - c. The making of any further findings of fact before the Board.
16. That this Agreement shall not become effective unless and until the Board accepts it.
17. That, in consideration for the release by the Board of the causes of action which the Board has against the Owner resulting from the violations referred to in paragraph thirteen, the Owner agrees to pay to the State of Maine the sum of \$400. (Please make checks payable to Treasurer, State of Maine.)

IN WITNESS WHEREOF, the parties have executed this Agreement of two pages.

RAMON FORESTRY SERVICE LLC

By: Baldemar Ramon Date: 1-16-2014

Type or Print Name: Baldemar Ramon

BOARD OF PESTICIDES CONTROL

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Henry Jennings, Director

APPROVED:

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Mark Randlett, Assistant Attorney General

check number 1738

check amount 400

check date 1/16/14

## Proposed Administrative Consent Agreement Background Summary

**Subject:** Ellen McLaughlin  
Gateway Inn  
1963 Medway Road  
Medway, Maine 04460

**Date of Incident(s):** Throughout 2012

**Background Narrative:** Through inspection work by a Board inspector, it was determined that the owner of the Gateway Inn made unlicensed indoor applications of pesticides to the facility. Pesticide applications were made to common areas as well as to rented rooms. In addition, the owner did not post the application information so that employees were informed about the pesticide applications.

### **Summary of Violation(s):**

- Any person making a pesticide application that is a custom application, as defined under 22 M.R.S. § 1471-C(5-A), must be a certified commercial applicator or under the direct supervision of a certified applicator in accordance with 22 M.R.S. § 1471-D(1)(A) and CMR 01-026 Chapter 31 Section 1(A) III.
- CMR 01-026 Chapter 26 Section 3(B) requires that at least 24 hours before a non-exempt pesticide application is made, a business must post or cause to be posted a Board approved written notice to employees about the applications.

**Rationale for Settlement:** The staff compared the violation to similar cases settled by the Board, the extent of the unlicensed applications and the applicator's lack of candor in formulating the penalty proposal.

**Attachments:** Proposed Consent Agreement

FEB 3 2014

STATE OF MAINE  
DEPARTMENT OF AGRICULTURE, CONSERVATION AND FORESTRY  
BOARD OF PESTICIDES CONTROL

CK#16953

Date: 1-29-14

Amt: \$500.00

PL

Ellen McLaughlin ) ADMINISTRATIVE CONSENT AGREEMENT  
Gateway Inn ) AND  
1963 Medway Road ) FINDINGS OF FACT  
Medway, Maine 04460 )

This Agreement, by and between Gateway Inn (hereinafter called the "Company") and the State of Maine Board of Pesticides Control (hereinafter called the "Board"), is entered into pursuant to 22 M.R.S. §1471-M (2)(D) and in accordance with the Enforcement Protocol amended by the Board on June 3, 1998.

The parties to this Agreement agree as follows:

1. That the Company is located in Medway, Maine and rents rooms to the public for overnight accommodations. The Company is owned and managed by Ellen McLaughlin.
2. That from a market place inspection on January 17, 2013, and sales records collected by a Board inspector during a follow up marketplace inspection at Maine Paper and Janitorial Products in Hermon on February 19, 2013, it was determined that the Company received a case (12 x 16 oz.) of Bed Bug, Lice and Dust Mite Spray (EPA reg. no. 706-110) on the following dates: June 10, 2011; August 19, 2011; August 31, 2011; September 18, 2011; September 30, 2011; October 15, 2011; October 31, 2011; March 3, 2012; March 17, 2012; April 16, 2012; August 18, 2012; September 3, 2012; and September 15, 2012. On July 19, 2011, the Company received two cases of this same product.
3. That Maine Paper and Janitorial Products invoice # 079751 indicates on January 23, 2013, the Company returned and was credited for one case (12 x 16 oz.) and four cans of Bed Bug, Lice and Dust Mite Spray.
4. That on January 17, 2013, a Board inspector contacted McLaughlin at the Company to ask about her use of the Bed Bug, Lice and Dust Mite Spray in 2012. McLaughlin stated she used it throughout the building throughout 2012 and that she would treat rooms for fleas and ticks when the renters had dogs with them while those guests were out on errands and activities. She said that a Dept. of Health and Human Services employee later told her she could not use the product. When the Board inspector asked McLaughlin for specific information on where and when she used the pesticide she asked him to leave the premises.
5. That on January 22, 2013, the Board inspector again met with McLaughlin at the Company's Medway site to do an inspection on her use of pesticides. McLaughlin stated that she applied Bed Bug, Lice and Dust Mite Spray at the facility sometime in August of 2012 when Modern Pest Control was there to treat a bed bug problem in room 104. McLaughlin said she sprayed the two mattresses, box springs and bed frames in the room. She also sprayed the hallway as a precaution because the articles she treated were carried out from the room and put on her truck for later disposal.
6. That during the inspection described in paragraph five, McLaughlin told the inspector she did not post notification information about the August 2012 application anywhere in the building for her employees.
7. That from the inspection described in paragraph five the inspector collected McLaughlin's typed statement about her use of Bed Bug, Lice and Dust Mite Spray as outlined in that same paragraph. McLaughlin wrote in part that she purchased the spray from Maine Paper.

8. That during the inspection described in paragraph five, the inspector collected signed written statements that in part stated McLaughlin did not know the disposition of 63 cans of the Bed Bug, Lice and Dust Mite Spray, that she started ordering sprays in 2012, that in the fall of 2012, around October, a DHS inspector told her to stop using sprays, and that she applied the spray as a flea treatment to unoccupied rooms.
9. That during the inspection described in paragraph five, McLaughlin showed the inspector 16 (13 oz.) cans of Bed Bug, Lice and Dust Mite Spray that were on her desk. McLaughlin stated these were the only cans of this product she could find on the premises. The inspector placed a stop sale, use, removal order on these products.
10. That CMR 01-026 Chapter 26 Section 3(B) requires that at least 24 hours before a non-exempt pesticide application is made, a business must post or cause to be posted a Board approved written notice to employees about the applications.
11. That the circumstances in paragraphs one, two, four, five, six, and ten constitute a violation of CMR 01-026 Chapter 26 Section 3(B).
12. That any person making a pesticide application that is a custom application, as defined under 22 M.R.S. § 1471-C(5-A), must be a certified commercial applicator or under the direct supervision of a certified applicator in accordance with 22 M.R.S. § 1471-D(1)(A) and CMR 01-026 Chapter 31 Section 1(A)III.
13. That a custom application is defined in 22 M.R.S. § 1471-C(5-A) as any application of any pesticide under contract or for which compensation is received or any application of a pesticide to a property open to use by the public. The applications described in paragraphs four and five were applications made to areas that are open to use by the public.
14. That the pesticide applications made to the Company as described in that paragraphs four and five above constitute custom applications under 22 M.R.S. § 1471-C(5-A) and, therefore, a commercial applicator's license was required for those applications.
15. That no one from the Company had a commercial pesticide applicator's license at the time of the pesticide applications described in paragraphs four and five were made.
16. That the circumstances described in paragraphs one, two, four, five, twelve, thirteen, fourteen, and fifteen constitute multiple violations of 22 M.R.S. § 1471-D(1)(A) and CMR 01-026 Chapter 31 Section 1(A)III.
17. That the Board has regulatory authority over the activities described herein.
18. That the Company expressly waives:
  - a. Notice of or opportunity for hearing;
  - b. Any and all further procedural steps before the Board; and
  - c. The making of any further findings of fact before the Board.
19. That this Agreement shall not become effective unless and until the Board accepts it.
20. That, in consideration for the release by the Board of the causes of action which the Board has against the Company resulting from the violations referred to in paragraphs eleven and sixteen, the Company agrees to pay to the State of Maine the sum of \$500. (Please make checks payable to Treasurer, State of Maine.)

IN WITNESS WHEREOF, the parties have executed this Agreement of three pages.

GATEWAY INN

By: Ellen McLaughlin Date: 12/9-14

Type or Print Name: Ellen McLaughlin

BOARD OF PESTICIDES CONTROL

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Henry Jennings, Director

APPROVED

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Mark Randlett, Assistant Attorney General

## Proposed Administrative Consent Agreement Background Summary

**Subject:** Donald and Christopher McCarthy  
Olde English Village, LLC  
503 Westbrook Street  
South Portland, ME 04106

**Date of Incident(s):** Various dates in 2011, 2012 and 2013

**Background Narrative:** A Board inspector followed up on a call received on January 15, 2013. The caller said that employees at the Olde English Village apartment building complex were making unlicensed pesticide applications. The inspector interviewed employees, including the manager of the facility. Based on those interviews, on-site observations of pesticides in inventory, application equipment seen and documentation of a specific, representative pesticide application, it was confirmed that employees of Olde English Village were making unlicensed commercial pesticide applications. In addition, while on site the inspector saw two employees with an unmarked, partially filled pesticide container.

**Summary of Violation(s):**

- Any person making a pesticide application that is a custom application, as defined under 22 M.R.S. § 1471-C(5-A), must be a certified commercial applicator or under the direct supervision of a certified applicator in accordance with 22 M.R.S. § 1471-D(1)(A) and CMR 01-026 Chapter 31 Section 1(A) III.
- 7 M.R.S. §606 2D, prohibits handling, transporting or otherwise distributing pesticides in a careless, faulty, or negligent manner.

**Rationale for Settlement:** The staff compared the violations to similar cases settled by the Board factoring in storing pesticides in an unmarked container.

**Attachments:** Proposed Consent Agreement

FEB 3 2014  
CK# 5222  
Date: 1-30-14  
Amt \$ 500.00  
PL

STATE OF MAINE  
DEPARTMENT OF AGRICULTURE, CONSERVATION AND FORESTRY  
BOARD OF PESTICIDES CONTROL

Olde English Village, LLC ) ADMINISTRATIVE CONSENT AGREEMENT  
503 Westbrook Street ) AND  
South Portland, ME 04106 ) FINDINGS OF FACT

This Agreement, by and between Olde English Village, LLC (hereinafter called the "Company"), and the State of Maine Board of Pesticides Control (hereinafter called the "Board"), is entered into pursuant to 22 M.R.S. §1471-M (2)(D) and in accordance with the Enforcement Protocol amended by the Board on June 3, 1998.

The parties to this Agreement agree as follows:

1. That the Company owns and manages the Olde English Village apartment complex at 503 Westbrook Street in South Portland, Maine.
2. That on January 15, 2013, the Board received a call alleging employees of the Company had performed unlicensed pesticide applications at the apartment building described in paragraph one.
3. That in response to the call in paragraph two, a Board inspector met with Company employees Leah Hennigar (building mgr.), Ronald Garland (maintenance mgr.), and Chris Anderson (worker) on January 29, 2013, to conduct an inspection on pesticide use at this facility.
4. That during the inspection described in paragraph three, Garland acknowledged that Company employees applied Bed Bugs No More insecticide to rented Company apartments. The inspector documented one such application made by Company employees Chris Anderson and Jeremy Creamer to the interior of rented apartment number 307 in B building on January 8, 2013.
5. That during the inspection described in paragraphs three and four, Company employees Chris Anderson and Jeremy Creamer arrived on site with an unmarked partially filled one gallon container they told the inspector contained Bed Bugs No More insecticide. Garland stated that the container probably got wet and the label fell off.
6. That during the inspection described in paragraphs three and four, the inspector saw a pump-up type hand sprayer with a Roundup herbicide logo on it, and asked what it was used for. Anderson stated it was used by Company employees to apply Roundup to Company sidewalks in the summer.
7. That the inspector asked Garland if there were any other pesticides stored at the Company. Garland said no.
8. That the inspector asked to see the boiler rooms for units A and F. No pesticides were found stored in unit A's boiler room. In the boiler room for unit F, the following stored pesticides were found: three cans of Raid Fogger, EPA reg. no. 4822-452; five cans of Bed Bug and Flea Fogger, EPA reg. no. 1021-1674-8845; and approximately twenty- four containers of JT Eaton Kills Bed Bugs and Crawling Insects, EPA reg. no. 56-67.
9. That a box that held full JT Eaton Kills Bed Bugs and Crawling Insects containers had a shipping label with Garland's name on it and was addressed to the Company. The date on the label was 6-18-10.
10. That Anderson, Garland, and Creamer said the JT Eaton Kills Bed Bugs and Crawling Insects insecticide had not been used at the Company in more than two years, but the Raid Fogger had been used within six months, and the Bed Bug and Flea Fogger within three months.

11. That the inspector saw an empty can of Bed Bug and Flea Fogger in the trash can directly under the shelf where the pesticides described in paragraph eight were stored.
12. That any person making a pesticide application that is a custom application, as defined under 22 M.R.S. § 1471-C(5-A), must be a certified commercial applicator or under the direct supervision of a certified applicator in accordance with 22 M.R.S. § 1471-D(1) (A) and CMR 01-026 Chapter 31 Section 1(A) III.
13. That a custom application is defined in 22 M.R.S. § 1471-C(5-A) as any application of any pesticide under contract, or for which compensation is received or any application of a pesticide to a property open to use by the public. Applications made to rented apartments are considered applications for which compensation is received, and applications made to the halls of the apartment building are considered as applications made to areas that are open to the public.
14. That neither the Company, nor anyone employed by the Company, had a commercial pesticide applicator's license at the time of the applications described in paragraph four, six, and ten were made.
15. That the circumstances described in paragraphs one through fourteen constitute violations of 22 M.R.S. § 1471-D(1)(A) and CMR 01-026 Chapter 31 Section 1(A) III.
16. That 7 M.R.S. §606 2D, prohibits handling, transporting or otherwise distributing pesticides in a careless, faulty, or negligent manner.
17. That the circumstances in paragraphs three, four and five, constitutes a violation of 7 M.R.S. §606 2D. Company employees used a pesticide in an unmarked container.
18. That the Board has regulatory authority over the activities described herein.
19. That the Company expressly waives:
  - a. Notice of or opportunity for hearing;
  - b. Any and all further procedural steps before the Board; and
  - c. The making of any further findings of fact before the Board.
20. That this Agreement shall not become effective unless and until the Board accepts it.
21. That, in consideration for the release by the Board of the causes of action which the Board has against the Company resulting from the violations referred to in paragraphs fifteen and seventeen, the Company agrees to pay to the State of Maine the sum of \$500. (Please make checks payable to Treasurer, State of Maine).

IN WITNESS WHEREOF, the parties have executed this Agreement of three pages.

OLDE ENGLISH VILLAGE LLC

By: 

Date: 1/30/14

Print name: CHRISTOPHER McCARTHY

Its: GENERAL MANAGER

BOARD OF PESTICIDES CONTROL

By: \_\_\_\_\_  
Henry Jennings, Director

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

APPROVED

By: \_\_\_\_\_  
Mark Randlett, Assistant Attorney General

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



## Proposed Administrative Consent Agreement Background Summary

**Subject:** Barry Webster

Jato Highlands Golf Course  
175 Town Farm Road  
Lincoln, ME 04457

**Date of Incident(s):** April 22, 2012 and May 15, 2012

**Background Narrative:** Jato Highlands Golf Course is a public golf course. Because the golf course is open to the public, pesticide applications at the course must be made or supervised by a licensed commercial pesticide applicator. In addition, each commercial pesticide application company, including golf courses that make their own pesticide applications, must employ at least one Master Applicator. The facility's golf course superintendent and master pesticide applicator terminated in September of 2011. A Board inspector documented that a Jato Highlands Golf Course employee made two unlicensed commercial pesticide applications in 2012.

**Summary of Violation(s):** CMR 01-026 Chapter 31, Section 1(A) Commercial pesticide applications can only be made or supervised by licensed commercial pesticide applicators.

**Rationale for Settlement:** The staff compared the violation to similar cases settled by the Board in formulating a penalty proposal.

**Attachments:** Proposed Consent Agreement

JAN 31 2014  
STATE OF MAINE  
DEPARTMENT OF AGRICULTURE, CONSERVATION AND FORESTRY  
BOARD OF PESTICIDES CONTROL

LKT 5543  
Date: 1-28-14  
\$250.00

Barry Webster ) ADMINISTRATIVE CONSENT  
Jato Highlands Golf Course ) AGREEMENT  
175 Town Farm Road ) AND  
Lincoln, ME 04457 ) FINDINGS OF FACT

This Agreement, by and between Jato Highlands Golf Course (hereinafter called the "Company") and the State of Maine Board of Pesticides Control (hereinafter called the "Board"), is entered into pursuant to 22 M.R.S. §1471-M (2)(D) and in accordance with the Enforcement Protocol amended by the Board on June 3, 1998.

The parties to this Agreement agree as follows:

1. That the Company operates a public golf course in Lincoln, Maine.
2. That on June 18, 2012, a Board inspector conducted a pesticide inspection and determined that on April 22, 2012, and again on May 15, 2012, Company employee Barry Webster applied Andersons Systemic Fungicide to the turf at the golf course with a granular spreader.
3. That the golf course is considered open to use by the public in accordance with 22 M.R.S. § 1471-C(5-A).
4. That the use of any pesticide in an area open to use by the public constitutes a commercial pesticide application in accordance with 22 M.R.S. § 1471-C(5).
5. That commercial pesticide applications can only be made or supervised by licensed commercial applicators pursuant to CMR 01-026 Chapter 31, Section 1(A).
6. That neither Webster nor anyone employed by the Company was a licensed commercial applicator at the time of the pesticide applications described in paragraph two.
7. That the circumstances described in paragraphs one through six constitutes violations of CMR 01-026 Chapter 31, Section 1(A).
8. That the Board has regulatory authority over the activities described herein.
9. That the Company expressly waives:
  - a. Notice of or opportunity for hearing;
  - b. Any and all further procedural steps before the Board; and
  - c. The making of any further findings of fact before the Board.
10. That this Agreement shall not become effective unless and until the Board accepts it.
11. That the Board has regulatory authority over the activities described herein.

12. That the Company expressly waives:
  - d. Notice of or opportunity for hearing;
  - e. Any and all further procedural steps before the Board; and
  - f. The making of any further findings of fact before the Board.
13. That this Agreement shall not become effective unless and until the Board accepts it.
14. That, in consideration for the release by the Board of the causes of action which the Board has against the Company resulting from the violations referred to in paragraph seven, the Company agrees to pay to the State of Maine the sum of \$250. (Please make checks payable to Treasurer, State of Maine).

IN WITNESS WHEREOF, the parties have executed this Agreement of two pages.

JATO HIGHLANDS GOLF COURSE

By: 

Date: 01/28/14

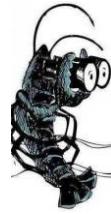
Type or Print Name: Thomas N. Gardner, owner

BOARD OF PESTICIDES CONTROL

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Henry Jennings, Director

APPROVED

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Mark Randlett, Assistant Attorney General



Dr. Henry Jennings, PhD, director  
Maine Board of Pesticides Control  
28 State House Station  
Augusta, ME 04333-0028

February 11, 2014

Dear Dr. Jennings

Friends of Penobscot Bay is a nonprofit citizens association dedicated to stewardship of Maine's biggest bay. Our membership includes leaders of Penobscot Bay's lobstering community and representatives of Penobscot Bay's other fisheries

We were glad to learn from your testimony on Thursday that the Maine Board of Pesticides Control is committing resources to sampling Maine's coastal sediments for their pesticide loads, and that the Board's Environmental Risk Advisory Committee will direct this effort.

Over the past year the Friends of Penobscot Bay has worked with researchers from University of Maine, Unity College and St Joseph's College, as well as the concerned public, on sampling and testing our bay's sediments and intertidal organisms for acidity, metals and other wastes.

Please let us know how we can best work with the Pesticides Control Board's Environmental Risk Advisory Committee to help make your testing initiative as thorough and successful as possible. We understand that volunteers from Friends of Casco Bay have been helpful in sample gathering for pesticides in Casco Bay, and we are pleased to offer the same volunteer deployment services in Penobscot Bay.

Learning about the level of pesticides in our lobsters and other seafood species, and what strategies to take to limit pesticide entry into our bay is very important to us! In summary we'd like to work with the Pesticides Control Board's Environmental Risk Advisory Committee to help make the Penobscot Bay portion of your coastwide testing initiative as thorough and successful as possible.

We look forward to hearing from you!

Sincerely  
Harlan McLaughlin

Harlan McLaughlin, president  
Friends of Penobscot Bay

Report on the Status of Products Registered  
for use as Wide Area Public Health  
Mosquito Adulticides in Maine-2013

And

Summary of EPA's Most Recent Public  
Health and Environmental Risk Assessments

Lebelle Hicks PhD DABT  
Pesticides Toxicologist  
Maine Board of Pesticides Control  
December 20, 2013

# **MOSQUITO WIDE AREA PUBLIC HEALTH ADULTICIDES IN MAINE 2013**

## **BACKGROUND**

The pesticides registered for use for mosquito control in Maine include:

Adulticides, products which kill adult mosquitoes, ten of which are discussed below

Repellents, products used on human skin, human gear and animals to repel adult mosquitoes

Aquatic larvicides, products added to water at breeding sites to prevent the development of the mosquitoes, these include the biological insecticides, the insect growth regulator methoprene and monomolecular films which mechanically control the larvae

Non-aquatic larvicides, insect growth regulators which are labelled for use indoors, outdoors and on animals

Of the 1,322 products registered for use on mosquitoes in Maine -2013, 1,125 of these products contain at least one adulticide and approximately 30 have specific directions for use in wide area public health uses (NSPIRS 2013). This review is limited to a subset of these products which are registered for use in public health wide area mosquito control projects used to address an outbreak of either Eastern Equine Encephalitis (EEE) or West Nile Virus (WNV). Since the labels are legal documents and are approved by EPA in accordance with their risk assessments, human health and environmental, the label statements limiting the areas of use and specifics of applications go a long way to limiting exposure while providing efficacy in control of adult mosquitoes.

There are two chemical classes of insecticides, pyrethrins-pyrethroids-PBO (including etofenprox, permethrin, piperonyl butoxide (PBO) (synergist), permethrin, phenothrin, prallethrin, pyrethrins and resmethrin) and the organophosphates (chlorpyrifos, malathion and naled). The synergist PBO is found in all but two of the pyrethroid-pyrethrin products and is not in the organophosphate products. A synergist increases the activity of the pyrethroid-pyrethrin insecticides while having no insecticidal efficacy of its own.

## **HUMAN RISK ASSESSMENT**

The human health risks are evaluated by comparing the most sensitive endpoint in lab animals, to expected environmental exposures. The standard measure of human health risk is the ‘margin of exposure’ (MOE). The MOE is the ratio of the most sensitive toxicity result from the animal study to the expected exposure dose resulting from the use in question. A pesticide product with a higher calculated MOE has a lower risk to humans. EPA has established chemical specific ‘levels of concern’ (LOC) for short (1 to 7 days) and intermediate (1 to 6 months) term exposures. Risks higher than the LOC are deemed acceptable. Human health risks are evaluated for toddlers for exposure following an application via incidental oral route (putting hands or objects in mouth after playing on grass, or eating grass) and dermal (skin) exposure and inhalation, and for adults via skin and inhalation routes (EPA 2012c).

With regard to the pyrethrins-pyrethroids and piperonyl butoxide (PBO), with the exception of prallethrin (a component of Duet EPA# 1021-1795-8329) the MOE exceed EPA's LOC by approximately ten to over a million times for both aerial and ground applications at the maximum use rate for public health adult mosquito control. EPA has yet to finalize the human health risk assessment for prallethrin. The human health risk associated with the use of these materials is exceedingly low. Mosquito adulticides are applied by ultra-low-volume equipment by air or by ground. For the adulticide products containing pyrethrins-pyrethroids-PBO, risks from aerial applications by ultra-low-volume are lower and efficacy against mosquitoes is better than those made by ground ultra-low-volume.

Given the low risks from exposure to the pyrethrins- pyrethroids-PBO, any could be used in a wide area public health adulticiding program. The phenothrin-PBO containing product, Anvil 10+10 (EPA# 1021-1688-8329) has been used in other states, because of its very low application rate (0.0036lbs ai/A), its low risk to humans, its allowed use over agricultural areas (40 CFR 180.647) and the tolerances in all raw agricultural commodities as a result of mosquito adulticiding.

The three organophosphates, chlorpyrifos, malathion and naled, registered for wide area adult mosquito control have lower margins of exposure (higher risk to people) than do the pyrethrins-pyrethroids-PBO compounds. However, with the exception of chlorpyrifos at 0.01 lb ai/A, the risk of inhalation exposure in both toddlers and adults is higher (the MOE is lower) than EPA's levels of concern for these applications. For air applications of the organophosphate pesticide naled, the calculated risks to toddlers range from 54 times higher than the level of concern for oral exposure to approximately 240 times higher for dermal exposure (EPA 2002a, EPA 2006a). Similar to phenothrin, there is a universal tolerance on agricultural products intended for human consumption for naled residues following wide area mosquito adulticiding applications (40CFR180.215). Among organophosphates, naled and malathion, are considered the lowest risk, effective pesticides and are often used in the southern and mid-western U.S. for wide area mosquito control.

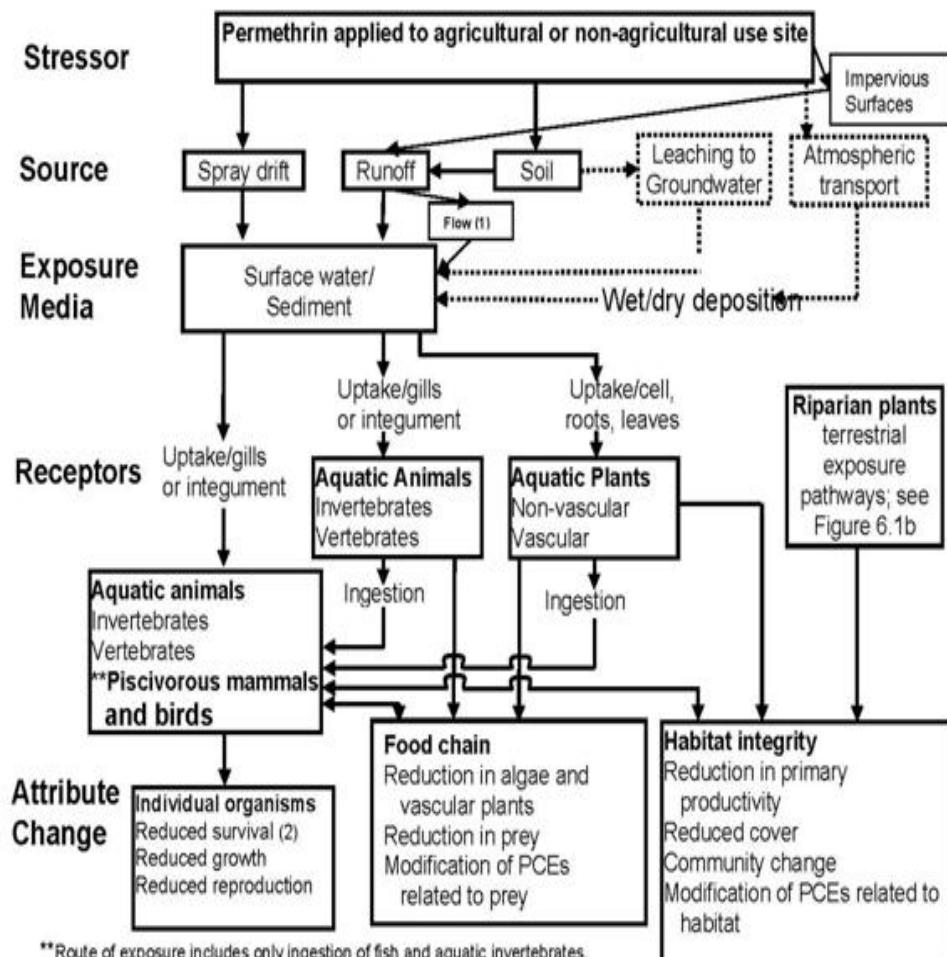
The potential for pesticides to cause an increase in cancer rates in the human population is considered in EPA risk assessments. The cancer potentials for the adulticides are categorized as "not likely" or "no evidence" for phenothrin, and naled, "not likely at low doses" for etofenprox and pyrethrins, suggestive or possible for PBO and malathion, and likely for permethrin and resmethrin (EPA 2012a). However, the cancer risks from exposure to permethrin following ultra-low-volume ULV applications is 3 orders of magnitude (1,000 times) lower than EPA's acceptable risk level of 1 in a million by ground and eleven orders of magnitude lower, when the application is done by air (EPA 2009d). The residential cancer risks following mosquito adulticiding with permethrin both by air and ground are lower than EPA's acceptable risk level 1 in a million (EPA 2006f).

Allergy reactions as a result of insecticide exposure, including asthma exacerbations are difficult to predict. Because of this, the message to the public if a municipal adulticiding application were to occur, would include, persons with allergies, take extra care (stay inside, close windows etc.) to reduce exposure.

## Environmental Risk Assessment

Because of the wide variety of ecological niches and species occupying those niches, assessing risks to organisms in the environment is much more complicated (Figure 1) than human health assessments.

**Figure 1 Aquatic Conceptual Model of Exposure pathways for Permethrin (EPA 2011h)**



Laboratory species are used to determine the critical toxicology value and exposure is estimated using a combination of modeling and environmental sampling. Unlike the human health process, the environmental risks are evaluated using the risk quotient method; estimated environmental concentration divided by the toxicity factor. In this case the lower the risk quotient, the lower the risks. The levels of concern (LOC) used by EPA have been established for acute (short term exposure, LOC = 0.5), chronic (long term exposure, LOC = 1).

Fish and aquatic invertebrates lack the metabolic capability of the mammalian liver and lack the protective barrier found in humans or other mammals, therefore they are generally more sensitive to insecticides. This is reflected in both the toxicity of the insecticides as well as the risks. Exposure to birds and wild mammals is estimated using the T-REX model (EPA 2012b). The risks to birds and

wild-mammals parallels the risks to humans. Because there was no toxicity seen in the animal studies, EPA did not perform risk assessments for etofenprox (EPA 2009a) and phenothrin (d-phenothrin; Sumithrin™) (EPA 2008f). The other pyrethrins-pyrethroids and PBO risks are within EPA's level of concern of acute and chronic exposures at rates used for mosquito control (EPA 2005g, EPA 2006i, EPA 2006b, EPA 2006d, EPA 2010b, EPA 2011h, EPA 2011i, EPA 2012h, EPA 2012i). The risk quotients for the organophosphates for birds and mammals are generally higher (more risky) than the pyrethrins-pyrethroids-PBO compounds (EPA 2008d, EPA 2008e, EPA 2008g, EPA 2009g) . They are still within EPA's level of concern for acute and chronic exposure.

The data currently in the EPA reviews indicate that the highest risks from ultra-low-volume mosquito adulticiding applications are to freshwater and marine invertebrates living in the water column and to those dwelling in the sediment. The toxicity of the pyrethrins and pyrethroids to sediment dwelling invertebrates is an area of active research. EPA has issued data-call-ins for the pyrethrins and most of the pyrethroids.

EPA's aquatic risk assessments rely on modeling for estimating environmental exposure. The assumptions are for multiple aerial applications 25 to 50 per year with intervals ranging from 1 day (EPA 2011h) to 7 days (EPA 2012h). They also assume that temperature is 85° F and the relative humidity is 90%. Most of the ultra-low-volume mosquito adulticide labels require a temperature of above 50° F. Given the climate in Maine and our relatively short warm season permitting mosquito development, and the fact that EEE and WNV are often not detected in mosquitoes until late in the season, the likelihood of more than one or two applications per year is low.

## **CONCLUSIONS**

Adult mosquito control is only one part of a comprehensive IPM approach that includes education to promote the use of repellents and staying indoors when risk is high, and when possible, eliminating standing water where mosquitoes breed, or treating mosquito breeding habitats with lower risk larvicides. However, the use of adulticides can be a lower risk and necessary means for protecting communities when the risk of WNV or EEE reaches critical levels. When risks of mosquito borne illness are high and mosquito habitat reduction and larval control are infeasible and/or insufficient to reduce adult mosquito populations, aerial or ground-based applications of insecticides are often a necessary component of an integrated mosquito management program (CDC 2003).

The overview of mosquito products and the label review are appended for consultation. The risk assessment information (100+ pages) is compiled and will be made available at your request.

## **SECTION 1. SCOPE; UNIVERSE OF PESTICIDE PRODUCTS REGISTERED FOR USE ON MOSQUITOES IN MAINE 2013 AND PESTICIDE PRODUCTS LABELED FOR USE AS PUBLIC HEALTH MOSQUITO ADULTICIDES**

The 53 active ingredients in the 1,322 products currently registered in Maine with mosquito control on their labels. The active ingredients are summarized in Table 1.1. These products have been grouped as to function: adulticide, aquatic larvicides, insect growth regulators, repellents, and products with multiple uses. When a product has two or more active ingredients in the same group, adulticide, larvicide or repellent, that is consider a single group. For example a product with two pyrethroids would be considered an adulticide, a product with one pyrethroid and an insect growth regulator would be considered a multi-use-product. One thousand one hundred and twenty five of the mosquito products registered in Maine-2013 contain at least one adulticide, 206 products contain at least one insect growth regulator (for purposes this classification products containing methoprene with non-aquatic uses are grouped with the IGRs and aquatic uses are grouped with the aquatic larvicides), 163 contain at least one repellent and 47 are aquatic larvicides. Three hundred and sixty five of these products contain one of two synergists, either PBO (piperonyl butoxide) or MGK 264 (N-Octyl bicycloheptene dicarboximide).

In addition to the active ingredients, pesticide products contain “inert” or “other” ingredients. These ingredients are present to increase the activity of the active ingredient, but they have no pesticidal action against the target pest. A review of the inert ingredients in the public health adulticides, could be undertaken, but was beyond the scope of the current project.

The products included in the current review were limited to the adulticide products with specific directions for wide area public health uses and include pyrethrins, five synthetic pyrethroids (etofenprox, permethrin, phenothrin, prallethrin and resmethrin) and three organophosphates (chlorpyrifos, malathion and naled) (Table 2.1). Future reviews of the other types of mosquito products may be done.

The most common active ingredients in mosquito products are: permethrin is also found in over 300 products, the synergist, PBO (over 300 products) and pyrethrins (over 200 products). These three active ingredients are found in the public health products listed in Table 2.1. Permethrin has uses on human gear, indoor, outdoor and direct uses on animals. PBO and pyrethrins have a variety of indoor, outdoor and direct uses on animal (NSPIRS 2013).

**Table 1.1 Overview of Mosquito Products Registered in Maine in 2013; The Active Ingredients in Bold are found in the Public Health Wide Area Mosquito Products**

Type	# Products	Active Ingredients	Notes
Biological larvicides	32	Bti-Bs	Microbial disruptors of insect midgut membranes (IRAC 2013)
Repellents	179	DEET	These repellents are registered for use on human skin and are recommended by the federal CDC as mosquito repellents.
		IR3535	
		Oil of Lemon Eucalyptus	
		Picaridin	
		PMD	
		MGK 326 Repellent (Dipropyl isocinchomeronate) is registered for use on human gear in products with indoor and outdoor uses. BPG (Butoxypolypropylene glycol) is found in combination with other repellents pyrethroids and synergist. Registered for agricultural use on livestock. Linalool is registered in impregnated materials (candles torches etc.) to repel mosquitoes outdoors. The linalool products also have indoor uses. Other repellents: Oil of Eucalyptus (can be used on skin), Metofluthrin, Oil of Citronella	
Synergists	455	<b>PBO (piperonyl butoxide)</b>	PBO used in most of the pyrethrin-pyrethroid products used in public health wide area projects.
		MGK 264 (N-Octyl bicycloheptene dicarboximide)	MGK 264 is found in a dozen products with human skin and gear on their labels and numerous indoor outdoor and animals use products.
Insect Growth Regulators	258	Methoprene	Methoprene is a juvenile hormone analogue (IRAC 2013) and is found in aquatic larvicide 12 products; the non-aquatic uses of methoprene are on cats and dogs for flea and tick control
		Pyriproxyfen	Pyriproxyfen is a juvenile hormone analogue (IRAC 2013). The primary uses of pyriproxyfen are on cats and dogs for flea and tick control

**Table 1.1 Overview of Mosquito Products Registered in Maine in 2013; The Active Ingredients in Bold are found in the Public Health Wide Area Mosquito Products**

Type	# Products	Active Ingredients	Notes
Neonicotinoids	38	Acetamiprid, Dinotefuran, Imidacloprid	These compounds activate the insect nicotinic acetylcholine receptor (nAChR) (IRAC 2013).
Organophosphates	39	<b>Chlorpyrifos, Malathion, Naled</b>	Organophosphate insecticides act by irreversibly inhibiting the enzyme acetylcholinesterase in the nervous system (IRAC 2013).. These may be used in public health wide area projects.
		DDVP, Tetrachlorvinphos	Six impregnated strips containing 18.6% DDVP and one DDVP/tetrachlorvinphos are registered for agricultural uses. DDVP is also found as a metabolite of naled
		Temephos	Temephos is an aquatic larvicide.
Carbamates	10	Carbaryl	Carbamate insecticides act by reversibly inhibiting the enzyme acetylcholinesterase in the nervous system (IRAC 2013)
Pyrethrins - Pyrethroids	1181	<b>Ethofenprox, Permethrin, Phenothrin, Prallethrin, Pyrethrins, Resmethrin</b>	Pyrethrins and pyrethroids act by modulating the sodium channels in neurons (IRAC 2013). Ethofenprox, Permethrin, Phenothrin, Prallethrin, Pyrethrins, or Resmethrin may be used in public health wide area projects. All of the public health products contain the synergist PBO except for the etofenprox products.
		Other pyrethroids: Allethrins-d and d-trans, Bifenthrin, Bioallethrin-s, Cyfluthrins, Cyhalothrins, Cypermethrins, Deltamethrin, Esfenvalerate, Fluvalinate, Tetramethrin	
Others	148	2-Phenylethyl propionate, d-Limonene, Fipronil, Mineral oil, NEEM, POE isoctadecanol, Soap, Spinosad, Triethylene glycol	Includes two aquatic larvicides with mechanical means of control; mineral oil and POE isoctadecanol.  Fipronil acts by blocking the GABA gated chloride channels in nerves. Spinosad acts as a nACh allosteric activator (IRAC 2013)

## **SECTION 2. TYPICAL ADULTICIDE PRODUCTS LABELED FOR WIDE AREA PUBLIC HEALTH ULV USES**

In an effort to summarize the potential for human and environmental hazards associated with public health mosquito abatement programs, a product search was conducted for Maine 2013 registration, followed by a search for active federal registrations for public health mosquito adulticide products. The search terms included: adult mosquito, and aerial or ultra-low volume (ULV) (NSPIR 2013). There were approximately 30 products identified by the search, with the language on their labels specifying:

*“For use only by federal, state, tribal, or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform adult mosquito control applications, or by persons under their direct supervision”*

The EPA registration numbers (EPA#) for the selected public health wide area mosquito adulticide products registered in Maine in 2013 containing synthetic pyrethroids, pyrethrins and PBO, their diluents, are found in Table 2.1. Similar information for the organophosphate containing products is found in Table 2.2.

The review is based on selected products because the number of products could change, with the Maine registration of a federally registered product. The federal search identified 108 products, 27 of which are currently registered Maine. Of the remaining 84 products, 78 have the same mosquito adulticide active ingredients and similar formulations as those registered in Maine-2013. The other six products, may be registered in Maine -2013, but do not have public health mosquito control uses on their labels. Four of these contain the active ingredients carbaryl (one home owner; three agricultural products), 2 contain the synthetic pyrethroid, lambda cyhalothrin. Wide area mosquito adulticiding public health uses are not on these federal labels (Bayer 2009, Tessendro-Kerley 2012, Tessendro-Kerley 2013, Loveland Chemical 2011, Syngenta 2010, LG Lifesciences 2009).

The maximum use rates in pounds pyrethroid-pyrethrins and PBO active ingredient per acre (lbs ai/A) are presented in Table 2.3. The organophosphate active ingredient maximum use rates are found in Table 2.4. The use rates for malathion are 0.23 lbs ai/A by air and 0.11 lbs ai/A by ground (Table 2.4.). Use rates for the synthetic pyrethroids, pyrethrins and the organophosphates chlormpyrifos and naled are the same for both aerial and ground ultra-low volume (ULV) applications.

**Table 2.1 Typical Public Health Adult Mosquito Products Containing Pyrethroids-Pyrethrins-Piperonyl Butoxide (PBO) Registered in Maine for 2013 sorted by Active Ingredient (NSPIRS 2013)<sup>(a)</sup>**

Active ingredients	Percent Active Ingredients	Diluent	EPA REG #	References
Etofenprox	4% Etofenprox	Ready to use	2724-807	Wellmark 2010a, Wellmark 2010b,
	20% Etofenprox	Oil	2724-791	Wellmark 2009a, Wellmark 2009b,
Permethrin-PBO	2% Permethrin, 2% PBO <sup>(b)</sup>	Ready to use	73748-3	Univar 2013a, Univar 2013b
	< 5% Permethrin, < 5% PBO	Oil	655-898	Prentiss 2012a, Prentiss 2012b
	20% Permethrin, 20% PBO	Water	432-796	Bayer <sup>(c)</sup> 2013a, Bayer 2013b
	20.6% Permethrin, 20.6% PBO	Oil or Water	53883-274	Control Solutions 2010a, Control Solutions 2010b,
	> 30 % Permethrin, > 30% PBO	Oil	73748-5	Univar 2013g, Univar 2013h
Phenothrin-PBO	10% Phenothrin <sup>(d)</sup> , 10% PBO	Oil	1021-1688-8329 <sup>(h)</sup>	Clarke <sup>(e)</sup> 2013a, Clarke 2009
Phenothrin-Prallethrin-PBO	5% Phenothrin <sup>(d)</sup> , 1% Prallethrin, 5% PBO	Oil	1021-1795-8329 <sup>(h)</sup>	Clarke 2013b, Clarke 2008
Pyrethrins-PBO	5 to 12% Pyrethrins, 25 to 60% PBO	Oil	1021-1199	MGK <sup>(f)</sup> 2013a, MGK 2013b
Resmethrin-PBO	4.14 to 18% Resmethrin, 12.42 to 54% PBO	Oil	432-716	Bayer 2012a, Bayer 2012b

a) Selection of a product for label review does not constitute an endorsement

b) PBO = Piperonyl butoxide, pesticide synergist

c) Bayer = Bayer Environmental EPA Company number 432

d) Phenothrin = Sumithrin

- e) The company number for these products is McLaughlin Gormley King (MGK) company number, 1021, the product number varies with the product and 8329 is the company number for the distributor, Clarke Mosquito Products
- f) MGK = McLaughlin Gormley King

**Table 2.2. Selected Public Health Adult Mosquito Products Containing Organophosphate Insecticides Registered in Maine for 2013 (NSPIRS 2013, Label)<sup>(a)</sup>**

EPA REG #	Active Ingredients	Diluent	lbs ai/gal	References
53883-251	19.36% Chlorpyrifos <sup>(b)</sup>	Oil	1.5	Control Solutions 2009a, Control Solutions 2010d
67760-34	96.5% Malathion	Oil	9.9	Cheminova 2011a, Cheminova 2011b,
5481-479	62% Naled	Water	7.5	AMVAC 20012a, AMVAC 20012b
5481-481	78% Naled	None	10.8	AMVAC 2010a, AMVAC 2010b
5481-480	87.4% Naled	Oil	13.2	AMVAC 2009a, AMVAC 2009b

a) Selection of a product for label review does not constitute an endorsement

b) There are a number of other chlorpyrifos containing products registered for public health mosquito adulticide use (NSPIRS 2013)

**Table 2.3 Use Rates for Active Ingredients (lbs ai/A and lbs ai/A/year) for Public Health Adult Mosquito Products Containing Pyrethroids-Pyrethrins and PBO**

Active Ingredients	Rate (lbs ai/A)	Annual Rate (lbs ai/A/year)	Reference
Etofenprox	0.007	0.18	Wellmark2010a, EPA 2009a
Permethrin	0.007	0.18	Bayer 2011f, EPA 2009c
Phenothrin (Sumithrin)	0.0036	1	MGK 2012a, EPA 2007, EPA 2008
PBO	0.08	2	EPA 2004b
Prallethrin	0.0008	0.02	Clarke Mosquito 2013b
Pyrethrins	0.008	0.2	MGK 2013a, EPA 2006b
Resmethrin	0.007	0.2	Bayer 2012a

**Table 2.4 Use Rates for Active Ingredients (lbs ai/A and lbs ai/A/year) for Public Health Adult Mosquito Products Containing Pyrethroids-Pyrethrins and PBO**

<b>Active Ingredients</b>	<b>Rate (lbs ai/A)</b>	<b>Annual Rate (lbs ai/A/year)</b>	<b>Reference</b>
Chlorpyrifos	0.01	0.26	Control Solutions 2009a, Control Solutions 2009b
Malathion (air)	0.23		Cheminova 2011a, EPA 2004a, EPA 2009b
Malathion (ground)	0.11		
Naled (air and ground)	0.1	10.73	AMVAC 20012a, AMVAC 20012b

## **SECTION 3. LABEL REVIEW**

Pesticide labels are legal documents. The statement “**It is a violation of Federal Law to use this product in a manner inconsistent with its labeling**” is required on all pesticide labels (EPA 2007 to 2012). The pesticide product label language requirements are spelled out in the EPA Label Review Manual found at: <http://www.epa.gov/oppfead1/labeling/lrm/> (EPA 2007 to 2012). These statements are required based on the toxicity databases for the technical grade active ingredient and the pesticide end use product (active and inert ingredients).

For the public health mosquito adulticide the label sections summarized below are signal words, hazards to humans and domestic animals and personal protective equipment. EPA assigns mammalian toxicity categories for the technical grade active ingredients (TGA) and the end use products offered for sale and use based on acute toxicity data. The criteria for EPA’s toxicity categories are set in 40CFR156.62 and the relationship with required label language are found in Appendix II.

### **SIGNAL WORDS, HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

#### ***PYRETHROIDS- PYRETHRINS-PBO PRODUCTS***

##### ***Signal Words***

*Etofenprox, Permethrin-PBO, Phenothrin (Sumithrin <sup>tm</sup>)-PBO, Phenothrin (Sumithrin <sup>tm</sup>)-PBO-Prallethrin, Pyrethrins-PBO, Resmethrin-PBO*

All of the wide area public health mosquito adulticide products containing pyrethrins, pyrethroids and PBO have “caution” signal words indicating low risks to mammals from acute exposure.

##### ***Hazards to humans and domestic animal***

Etofenprox, Permethrin-PBO, Phenothrin-PBO, (Anvil 10 +10-oil based), Pyrethrins-PBO, Resmethrin-PBO, have warnings for moderate eye irritation. Anvil 10 + 10 (EPA# 1021-1688-8239) also has a warning for moderate eye irritation

Phenothrin-PBO (Aqua Anvil-water based), Phenothrin (Sumithrin <sup>tm</sup>)-PBO-Prallethrin (Duet-oil based and Aqua Duet-water based) have no eye warnings.

##### ***Personal Protective Equipment***

In Table 2.1, the Pyrethrins-Pyrethroids-PBO containing products are primarily permethrin-BPO at a variety of concentrations. There are two products with etofenprox as the sole active ingredient, two phenothrin (Sumithrin <sup>tm</sup>)-PBO products, two phenothrin (Sumithrin <sup>tm</sup>)-PBO-prallethrin products, three pyrethrins-PBO products and two Resmethrin-PBO containing products. The personal protective equipment statements are found below.

Etofenprox containing products have no personal protective equipment requirements on the labels of the two mosquito adulticide product labels.

Ten of the eleven permethrin-PBO containing products registered for use in Maine 2013 have labels approved by EPA in 2011, 2012 and 2013 with the following personal protective equipment requirements:

“Mixers, loaders, applicators and other handlers must wear:

- Long-sleeved shirt and long pants,
- Shoes plus socks,
- Chemical-resistant gloves for all handlers except for applicators using motorized ground equipment, pilots, and flaggers
- Chemical-resistant apron for mixers/loaders, persons cleaning equipment, and persons exposed to the concentrate”

The other permethrin product, PBO/Permethrin 20:20, (EPA# 53883-274), has no PPE requirements and the label was approved in 2010. Since the RED for permethrin was issued in 2009 (EPA 2009c), most likely the next iteration of this label would incorporate the PPE requirements from the RED.

Anvil 10 + 10 (EPA# 1021-1688-8329), hydrocarbon based, Multicide® Mosquito Adulticiding Concentrate 2705 (EPA# 1021-1688) requires applicators, mixers and loaders to wear: long-sleeve shirt and pants, shoes and socks, and chemical resistant gloves made of barrier laminate nitrile rubber, neoprene rubber or viton.

Aqua Anvil, water based (EPA# 1021-1807-8329): Multicide® Mosquito Adulticiding Concentrate 2807 (EPA# 1021-1807) labels require applicators mixers and loaders wear: long-sleeve shirt and pants and shoes and socks.

Duet (EPA#1021-1795-8329) petroleum base, Multicide Fogging Concentrate 2798 (EPA# 1021-1795) and Aqua Duet (EPA#1021-2562-8329), Multicide Fogging Concentrate 2922 (EPA# 1021-2562) labels require applicators mixers and loaders wear: long-sleeve shirt and pants and shoes and socks.

Two resmethrin products registered in Maine 2013 for adult mosquito control in public health settings are SCOURGE® Insecticide with resmethrin/piperonyl butoxide 18% + 54% MF FORMULA II (EPA# 432-667) and SCOURGE® Insecticide with SBP-1382/Piperonyl Butoxide 4%+12% MF FII (EPA# 432-716).

The personal protective equipment requirements from both labels are:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves for all handlers except applicators.

The Scourge product label for product with the higher concentrations, (EPA# 432-667), chemical resistant gloves are required for all applicators except applicators using motorized ground equipment pilots and flaggers.

## **Organophosphates**

### ***Signal Words***

The organophosphate products containing chlorpyrifos and malathion also have “caution” signal word. The naled containing products have “danger” signal words due to irreversible corrosive effects on the skin and eyes.

### ***Hazards to humans and domestic animal***

#### *Chlorpyrifos and Malathion*

Technical grade chlorpyrifos is more acutely toxic than technical grade malathion (Table B). The adulticide products are a soluble concentrate containing 19.36% chlorpyrifos (1.5 lbs/gal) product and a ready to use 96.5% malathion (9.9 lbs/gal) product. Both the chlorpyrifos product and the malathion product labels have “caution” as the signal word. The different human and domestic animal hazard sections reflect the differences in potency.

#### *Chlorpyrifos*

CSI 1.5 (EPA# 53883-251) human and domestic animal hazard section reads:

“Harmful if swallowed. Avoid contact with skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals (Control Solutions 2009a, Control Solutions 2009b).”

The Fyfanon (EPA# 67760-34) malathion containing product label states:

“Harmful by swallowing, inhalation or skin contact. Avoid contact with skin. Avoid breathing spray mist” (Cheminova 2011a, Cheminova 2011b.)”

#### *Naled*

All of the naled containing products registered for use as public health mosquito adulticides are classified **RESTRICTED USE PESTICIDE DUE TO EYE AND SKIN CORROSIVITY HAZARD** and have **DANGER** signal words because of corrosiveness to eyes and skin.

Human health hazard statements include:

- “Causes irreversible eye and skin damage.

- Causes skin burns.
- May be fatal if swallowed.
- Harmful if inhaled or absorbed through the skin.
- Do not get in eyes, on skin, or on clothing.
- Do not breathe vapor or spray mist.
- Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals (AMVAC 2009a, AMVAC 2010a, AMVAC 20012a.)”

### ***Personal Protective Equipment Requirements***

The organophosphate containing products include one chlorpyrifos, one malathion and three naled products. The personal protective equipment statements are found below.

#### *Chlorpyrifos*

CFI 1.5 containing 19.36% chlorpyrifos (1.5 lbs/gal) (EPA# 53883-251) has the following directions for personal protective equipment:

“Personal Protective Equipment (PPE): All mixers and loaders involved in ground application must wear coveralls over long-sleeved shirt and long pants, shoes plus socks, chemical-resistant gloves, and a NIOSH-approved dust mist filtering respirator with MSHA/NIOSH approval number prefix TC21C or a NIOSH-approved respirator with any R, P, or HE filter. Applicators involved in ground ULV application must use an enclosed cab as described in the

Engineering Controls Section of this label and must wear long-sleeved shirt and long pants, shoes plus socks, and chemical-resistant gloves. Aerial applicators and pilots must use an enclosed cockpit and wear long-sleeved shirt, long pants, shoes, and socks (Control Solutions 2009a, Control Solutions 2009b.)”

#### *Malathion*

Fyfanon ULV containing 96.5% malathion (9.9 lbs/gal) (EPA# 53883-34) label directions for personal protective equipment are:

“For all formulations and use patterns - mixers, loaders, applicators, flaggers, and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves
- Shoes plus socks (Cheminova 2011a, Cheminova 2011b)”

#### *Naled*

Personal protective equipment from the naled product labels read:

“If engineering controls are in use:

- Protective eye wear (goggles, face shield, or safety glasses)
- Long-sleeved shirt and long pants
- Socks plus shoes
- Chemical-resistant gloves (barrier laminate, butyl rubber, nitrile rubber, or viton, selection category E) and apron when mixing or loading. See engineering controls for additional requirements

In the absence of engineering controls:

- Protective eye wear (goggles, face shield, or safety glasses)
- Coveralls over long-sleeve shirt and long pants
- Chemical-resistant gloves
- Chemical-resistant footwear plus socks
- Chemical-resistant apron if exposed to the concentrate • Chemical-resistant headgear for overhead exposure
- A respirator with an organic-vapor removing cartridge with a prefilter approved for pesticides (AMVAC 2009a, AMVAC 2010a, AMVAC 20012a.)”

## **ENVIRONMENTAL HAZARD STATEMENTS**

### ***PYRETHROIDS- PYRETHRINS-PBO CONTAINING PRODUCTS***

The environmental hazard statement from Zenivex E20 (EPA#2724-791) containing 20% etofenprox label states:

**“This pesticide is toxic to aquatic organisms, including fish and aquatic invertebrates.** Runoff from treated areas or deposition into bodies of water may be hazardous to fish and other aquatic organisms. Do not apply over bodies (of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes or estuaries), **except when necessary to target areas where adult mosquitoes are present**, and weather conditions will facilitate movement of applied material away from water in order to minimize incidental deposition into the water body. Do not contaminate bodies of water when disposing of equipment rinsate or washwaters. [Emphasis added].

**This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds.** Time applications to provide the maximum possible interval between treatment and the next period of bee activity. Do not apply to blooming crops or weeds when bees are visiting the treatment area, **except when applications are 'made to prevent or control a threat to public and/or animal health determined by a state, tribal, or local health or vector control agency on the basis of documented evidence of disease-causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations**, or if specifically approved by the state or tribe during a natural disaster recovery effort (Wellmark 2010c, Wellmark 2010d.)” [emphasis added].

Similar extensive environmental hazard warnings are found on all of the pyrethrins-pyrethroid-PBO have warnings similar or identical to the Zenivex E20 (EPA# 2724-791) (Wellmark 2010c, Wellmark 2010d.)”

In addition, the two Scourge products containing resmethrin and PBO are classified as restricted use products because of acute toxicity to fish (Bayer 2012a, Bayer 2012b, Bayer 2012c, Bayer 2012d). The restricted use classification means that certification and licensing are needed to purchase and use the products.

### **ORGANOPHOSPHATE CONTAINING PRODUCTS**

Pyrofos 1.5 ULV Vector Control Insecticide containing 19.36% chlorpyrifos (1.5 lbs/gal) (EPA# 53883-251) has the following environmental hazard statements:

“This pesticide is toxic to fish, aquatic invertebrates, small mammals and birds. Runoff from treated areas or deposition of spray droplets into a body of water may be hazardous to fish and aquatic invertebrates. Do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes or estuaries) ~ **except when necessary to target areas where adult mosquitoes are present, (emphasis added)** and weather conditions weather facilitate movement of applied material beyond the body of water in order to minimize incidental deposition into the water body. Do not contaminate bodies of water when disposing of equipment rinsate or wash waters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treated area, **except 'When applications are made to prevent or control a threat to public and/or animal health determined by a state, or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes, or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort (emphasis added)** (Control Solutions 2009a, Control Solutions 2009b).”

The environmental hazard section of the Fyfanon ULV containing malathion read much the same as the synthetic pyrethroids:

“This pesticide is toxic to aquatic organisms, including fish and invertebrates. Use care when applying in or to an area which is adjacent to any body of water, and do not apply when weather conditions favor drift from target area. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. When applying as a wide area mosquito adulticide, before making the first application in a season, it is advisable to consult with the state or tribal agency charged with primary responsibility for pesticide regulation to determine if other regulatory requirements exist.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply or allow to drift onto blooming crops or weeds while bees are actively visiting the treatment area, **except when applications are made to prevent or control a threat to public**

**and/or animal health determined by a state, tribal or local public health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort (emphasis added).**

When applying as a wide area mosquito adulticide, do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes or estuaries), except when necessary to target areas where adult mosquitoes are present, and weather conditions will facilitate movement of applied material away from the water in order to minimize incidental deposition into the water body. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA (Cheminova 2011a, Cheminova 2011b.)”

Another consideration not found on other public health mosquito products is: “undiluted spray droplets of Fyfanon ULV Mosquito will permanently damage vehicle paint finishes unless the aircraft used for the ultra-low volume application meets all of the specifications listed under AERIAL APPLICATION (Cheminova 2011a, Cheminova 2011b).

Regarding non-target toxicity the naled labels read:

“This pesticide is toxic to fish, aquatic invertebrates, and wildlife. Runoff from treated areas or deposition of spray droplets into a body of water may be hazardous to fish and aquatic invertebrates. Before making the first application in a season, consult with the primary State agency responsible for regulating the pesticides to determine if permits are required or regulatory mandates exist. Do not apply over bodies of water (e.g., lakes, swamps, rivers, permanent streams, natural ponds, commercial fish ponds, marshes or estuaries), **except when necessary to target areas where adult mosquitoes are present (emphasis added)**, and weather conditions will facilitate movement of applied material away from the water in order to minimize incidental deposition into the water body. Do not contaminate bodies of water when disposing of equipment washwaters or rinsate (AMVAC 2009a, AMVAC 2010a, AMVAC 20012a).

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. To minimize hazard to bees, it is recommended that the product is not applied more than two hours after sunrise or two hours before sunset, limiting application to times when bees are least active. Do not apply this product or allow it to drift to blooming crops or weeds while bees are visiting the treatment area, except when applications are made to prevent or control a threat to public and/or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or the tribe during a: natural disaster recovery effort (AMVAC 2009a, AMVAC 2010a, AMVAC 20012a).

## LABEL LANGUAGE FOR USE OVER FARMS AND AGRICULTURAL AREAS

### **PYRETHROIDS- PYRETHRINS-PBO PRODUCTS**

Depending on the existence of US food or feed tolerances (Appendix III), the label language for the pyrethrins-pyrethroid containing adulticides is different.

Piperonyl butoxide (PBO), is present in all of the pyrethrins-pyrethroid products with the exception of the etofenprox products. PBO is exempt from tolerance on raw agricultural commodities when used according to good agricultural practice (40CFR180.905).

There are no tolerances for etofenprox in raw agricultural commodities with the exception of rice (40CFR180.620). Etofenprox containing products have label directions to “Cover exposed drinking water in corrals, feedlots, swine lots cropland or any exposed drinking water” and “do not spray or allow drift onto pastureland, cropland or potable water sources. Given the “cover drinking water” sources for livestock and “do not spray or allow drift” statements on the etofenprox labels, food residues resulting from public health mosquito applications should not be an issue.

Permethrin has many tolerances in raw agricultural commodities (40 CFR180.378) these are for the commodities listed on the permethrin product labels. Permethrin-PBO products, in one form or another have the following label language, “Do not spray this product on or allow it to drift onto cropland (other than crops listed) or potable water supplies (followed by the list of commodities which have tolerances for permethrin and PBO residues). In the treatment of corrals feedlots animal confinements/houses swine lots poultry ranges and zoos cover any exposed drinking water drinking fountains and animal feed before application.

Phenothrin has a universal tolerance 0.01 ppm for raw agricultural commodities (40CFR180.647) and PBO is exempt from tolerance (40CFR180.905). Prallethrin only has a universal tolerance for uses in food and feed establishments and no tolerances on raw agricultural commodities (40CFR180.545). Anvil 10 + 10, oil based and Aqua Anvil, water-based, have the following statement regarding use over agricultural areas: “May be applied over agricultural areas for the control of adult mosquitoes within or adjacent to the treatment areas” Because of the presence of prallethrin and the lack of tolerances, the Duet and Aqua Duet, Phenothrin-PBO-Prallethrin have the following statement regard agricultural areas: “Do not spray this product on or allow it to drift onto rangeland cropland poultry ranges or potable water supplies In treatment of corrals feed lots swine lots and zoos cover any exposed drinking water drinking water fountains and animal feed before application”

Pyrethrins are exempt from tolerance on raw agricultural commodities (40CFR180.905).

Pyrethrins-PBO product labels state: “This concentrate may be diluted or used as supplied for mosquito control programs involving residential, industrial, recreational and agricultural areas where adult mosquitoes are present in annoying numbers in vegetation surrounding swamps, marshes, overgrown waste areas, roadsides and pastures. Use in agricultural areas should be in such a manner as to avoid residues in excess of established tolerances for pyrethrins and PBO on crops or commodities”

Similar to prallethrin, resmethrin has a universal tolerance for uses in food and feed establishments and no tolerances on raw agricultural commodities (40CFR180.525.). Given the site limitations on the resmethrin containing product labels, food residues resulting from public health mosquito applications should not be an issue. The two Scourge products containing resmethrin and PBO labels state: “Scourge is designed for application as an Ultra-Low Volume (ULV) aerosol to control adult mosquitoes and flies in residential industrial urban recreational areas and other areas where the labeled pests are a problem.

### **ORGANOPHOSPHATE CONTAINING PRODUCTS**

There are at least 80 tolerances (40CFR180.342) for chlorpyrifos, given the non-crop-land statement on the chlorpyrifos label, food residues resulting from public health mosquito applications should not be an issue. Chlorpyrifos containing product, CSI 1.5 ULV (EPA# 53883-251) is designed for application either as a thermal fog or as an ultra-low volume (ULV) non-thermal aerosol (cold fog) to control adult mosquitoes in: “Outdoor residential and recreational areas and other non-cropland areas where these insects are a problem”

Malathion has tolerances in over 150 commodities (40CFR180.111). Given the site limitations on the malathion containing product label, food residues resulting from public health mosquito applications should not be an issue. Aerial Applications for Fyfanon ULV are limited to “Rangeland, Pasture, and Other Uncultivated Non-Agricultural Areas (Wastelands, Roadsides). There are no such limits on ground applications.

There are 38 tolerances for naled. In addition, a universal tolerance of 0.5 part per million is established for the pesticide naled in or on all raw agricultural commodities, except those otherwise listed in this section, from use of the pesticide for area pest (mosquito and fly) control (40CFR180.215). Two of the three products containing naled have mosquito (and nuisance fly) uses only, Dibrom Concentrate (EPA# 5481-480) and Trumpet EC (EPA# 5481-481). The third product, Dibrom 8 Emulsive (EPA# 5481-479) has the mosquito, nuisance fly and agricultural uses on its label. The two products with no agricultural uses on their labels have the following directions regarding use over agricultural areas:

“It is not necessary to avoid farm buildings, dairy barns, pastures, feed or forage areas. Use in agricultural areas must be in a manner as to ensure that residues do not exceed the established federal tolerance for the active ingredient in or on raw agricultural commodities resulting from use for wide area pest control. Treat shrubbery and vegetation where mosquitoes may be present. Shrubbery and vegetation around stagnant pools, marshy areas, swamps, residential areas, municipalities, woodlands, pastures, farm buildings and feedlots may be treated.”

The product with both agricultural and mosquito/ nuisance fly uses, Dibrom 8 Emulsive (EPA# 5481-479) in the section on controlling mosquitos reads:

“It is not necessary to avoid farm buildings. Make applications during peak of infestation and repeat as necessary. See crop recommendation for use limitations near harvest. Treat shrubbery and

vegetation where mosquitoes may rest. Shrubbery and vegetation around stagnant pools, marshy areas, ponds and shorelines may be treated.

## **References**

- 40CRF180.215, 2013, Tolerances for Naled
- 40CRF180.647, 2013, Tolerances for Phenothrin (Sumithrin)
- AMVAC 2009a, Dibrom Concentrate, EPA# 5481-480, containing 87.4% naled, EPA Label
- AMVAC 2009b, Dibrom Concentrate, EPA# 5481-480, containing 87.4% naled, ME-2013 Label
- AMVAC 2010a, Trumpet EC Insecticide, EPA# 5481-481, containing 78% naled, EPA Label
- AMVAC 2010b, Trumpet EC Insecticide, EPA# 5481-481, containing 78% naled, ME-2013 Label
- AMVAC 2012a, Dibrom 8 Emulsive, EPA# 5481-479, containing 62%, naled, EPA Label
- AMVAC 2012b, Dibrom 8 Emulsive, EPA# 5481-479, containing 62%, naled, ME-2013 Label
- Bayer CropSciences 2009, Sevin Brand RP4 Carbaryl Insecticide, EPA# 264-335, containing 43% Carbaryl EPA Label
- Bayer Environmental Services 2011a, Aqua-Permanone, EPA# 432-796, containing 20% permethrin-20% PBO, EPA Label
- Bayer Environmental Services 2011b, Aqua-Reslin, EPA# 432-796, containing 20% permethrin-20% PBO, ME-2013 Label
- Bayer Environmental Services 2011c, Omen 30-30 ULV, EPA# 432-1235, containing 30% permethrin-30% PBO, EPA Label
- Bayer Environmental Services 2011d, Permanone 30-30, EPA# 432-1235, containing 30% permethrin-30% PBO, ME-2013 Label
- Bayer Environmental Services 2011e, Permanone Insecticide Concentrate, EPA# 432-1250, containing 31.28% permethrin-66% PBO, EPA Label
- Bayer Environmental Services 2011f, Permanone 31-66, EPA# 432-1250, containing 31.28% permethrin-66% PBO, ME-2013 Label
- Bayer Environmental Services 2011g, Pyrenone Crop Spray, EPA# 432-1033, EPA Label
- Bayer Environmental Services 2012a, Scourge Insecticide w/ Resmethrin/Piperonyl Butoxide 4%+12% MF FII, EPA# 432-716, containing 4.14% resmethrin-12.42% PBO, EPA Label
- Bayer Environmental Services 2012b, Scourge Insecticide w/ Resmethrin/Piperonyl Butoxide 4%+12% MF FII, EPA# 432-716, containing 4.14% resmethrin-12.42% PBO ME-2013 Label
- Bayer Environmental Services 2012c, Scourge Insecticide w/ Resmethrin/Piperonyl Butoxide 18% + 54% MF FII, EPA# 432-667, containing 18% resmethrin-54% PBO, EPA Label
- Bayer Environmental Services 2012d, Scourge Insecticide w/ Resmethrin/Piperonyl Butoxide 18% + 54% MF FII, EPA# 432-667, containing 18% resmethrin-54% PBO, ME-2013 Label
- Centers for Disease Control and Prevention (CDC) 2003, Epidemic/Epizootic West Nile Virus in the United States: Guidelines for Surveillance, Prevention and Control

Cheminova 2011a, Fyfanon ULV Mosquito Insecticide, EPA# 67760-34, containing 96.5% malathion, EPA Label

Cheminova 2011b, Fyfanon ULV Mosquito Insecticide, EPA# 67760-34, containing 96.5% malathion, ME-2013 Label

Clarke Mosquito Control 2013a, Anvil 10+10 ULV, EPA# 1021-1688-8329, containing 10% sumithrin (phenothrin)-10% PBO, ME-2013 Label

Clarke Mosquito Control 2013b, Duet EPA# 1021-1795-8329, containing 1% Prallethrin 5% sumithrin (phenothrin)-5% PBO, ME-2013 label

Clarke Mosquito Control 2013c, Aqua Anvil Water Based Adulicide, EPA# 1021-1807-8329, containing 10% sumithrin (phenothrin)-10% PBO, Label from Clarke mosquito Website:  
[http://www.clarke.com/index.php?option=com\\_content&view=category&layout=blog&id=47&Itemid=126](http://www.clarke.com/index.php?option=com_content&view=category&layout=blog&id=47&Itemid=126)

Clarke Mosquito Control 2013d, Aqua Duet, EPA# 1021-2562, containing 1% Prallethrin 5% sumithrin (phenothrin)-5% PBO, Label from Clarke mosquito Website:  
[http://www.clarke.com/index.php?option=com\\_content&view=category&layout=blog&id=47&Itemid=126](http://www.clarke.com/index.php?option=com_content&view=category&layout=blog&id=47&Itemid=126)

Control Solutions 2009a, Pyrofos, EPA# 53883-251, containing 19.36% chlorpyrifos (1.5 lbs/gal) EPA Label

Control Solutions 2010e Pyrofos, EPA# 53883-251, containing 19.36% chlorpyrifos (1.5 lbs/gal) ME-2013 Label

Control Solutions 2010a, PBO/Permethrin 20:20, EPA# 53883-274, containing 20.6% permethrin-20.6% PBO, EPA Label

Control Solutions 2010b, Vector-Flex 20:20, EPA# 53883-274, containing 20.6% permethrin,-20.6% PBO, ME-2013 Label

Direct AG Source 2013, Permethrin 3.2 AG, EPA# 83222-3, containing 36.8% Permethrin [3.2 lbs/gal] EPA Label

Dow AgroSciences 2012, Dursban 50W in Water Soluble Packet,s EPA# 62719-72, Wettable Powder in Water Soluble bags Containing 50% Chlorpyrifos EPA Label

EPA 2002a, 2006a, Interim Re-registration Eligibility Decision for Naled; Finalized in 2006

EPA 2005g, Screening Ecological Risk Assessment for the Re-registration of Piperonyl Butoxide Insecticide Synergist

EPA 2006b, Revised Pyrethrins RED Chapter after Additional 60-Day Comment Period Phase 5

EPA 2006d, Re-registration Eligibility Decision (RED) for Resmethrin

EPA 2006f, Revised Occupational and Residential Exposure Assessment and Recommendations for the Re-registration Eligibility Decision (RED) for Resmethrin

EPA 2006i, The Agency Revised Risk Assessment for the Registration Eligibility Decision for Permethrin Following Public comments, Phase III

EPA 2006j, Glyphosate Human Health Risk Assessment for Proposed Use on Indian Mulberry and mended Use on Pea, Dry. PC Code: 417300, Petition No: 5E6987, DP Num: 321992, Decision No. 360557.

EPA 2008d, EFED Registration Review-Preliminary Problem Formulation for the Ecological Risk Assessment of Naled

EPA 2008e, EFED Registration Review – Preliminary Problem Formulation for Ecological Risk and Environmental Fate, Endangered Species and Drinking Water Assessments Chlorpyrifos (PC Code 059101; DP Barcode D355212)

EPA 2008f, EFED Preliminary Environmental Fate And Effects Assessment Science Chapter for the Re-registration Eligibility Deciscion of D-phenothrin (Sumithrin)

EPA 2008g, Risks of Naled Use to Federally Threatened California Red Legged Frog (*Rana aurora drayonii*)

EPA 2009a, Environmental Fate and Ecological Risk Assessment for Etofenprox New Uses on Rice and Vector Control

EPA 2009d, Permethrin: Sixth Revision of the HED Chapter of the Re-registration Eligibility Decision Document (RED)

EPA 2009g, Registration Review Preliminary Problem Formulation for the Ecological Risk, Environmental Fate and Endangered Species Assessments for Malathion (PC code 057701; DP Barcode D359863)

EPA 2010b, EFED Registration Review Problem Formulation for Piperonyl Butoxide

EPA 2011h, EFED Registration Review Preliminary Problem Formulation for Permethrin

EPA 2011i, EFED Registration Review Preliminary Problem Formulation for Pyrethrins

EPA 2012a, Chemicals Evaluated for Carcinogenic Potential, Office of Pesticides Programs 2012

EPA 2012b, Use's Guide to T-REX Version 1.5

EPA 2012c, Standard Operating Procedures for Residential Pesticide Exposure Assessment

EPA 2012h, EFED Registration Review: Preliminary Problem Formulation for Environmental Fate, Ecological Risk, Endangered Species, and Drinking Water Exposure Assessment for Prallethrin

EPA 2012i, EFED Registration Review:Preliminary Problem Formulation for Resmethrin

LG Lifesciences 2009, Lamdastar 1 CS-PCO, EPA# 71532-27, containing 12% lambda cyhalothrin Fed Label

Loveland Chemical 2011, Carbaryl 4L, EPA# 34704-447, containing 43% Carbaryl EPA-Label

McLaughlin Gromley King 2012a, Pyrocide Mosquito Adulticiding Concentrate for ULV Fogging 7395, EPA# 1021-1570, containing 12% pyrethrins-60% PBO, ME-2013 Label

McLaughlin Gromley King 2012b, Pyrocide Mosquito Adulticiding Concentrate for ULV Fogging 7395, EPA# 1021-1570, containing 12% pyrethrins-60% PBO, EPA Label 2012

McLaughlin Gromley King 2012c, Multicide Mosquito Adulticiding Concentrate for ULV Fogging 2705, EPA# 1021-1688, containing 10% sumithrin (phenothrin)-10% PBO, EPA-2012 Label

McLaughlin Gromley King 2012d, Multicide Mosquito Adulticiding Concentrate for ULV Fogging 2795, EPA# 1021-1795, containing 1% Prallethrin 5% sumithrin (phenothrin)-5% PBO, EPA-2012 Label

McLaughlin Gromley King 2012c, Multicide Mosquito Adulticiding Concentrate for ULV Fogging 2705, EPA# 1021-1807, containing 10% sumithrin (phenothrin)-10% PBO, EPA-2012 Label

McLaughlin Gromley King 2012d, Multicide Mosquito Adulticiding Concentrate for ULV Fogging 2795, EPA# 1021-2562, containing 1% Prallethrin 5% sumithrin (phenothrin)-5% PBO, EPA-2012 Label

McLaughlin Gromley King 2013a, Pyrocide Fogging Formula 7067, EPA# 1021-1199, containing 5% pyrethrins-25% PBO, EPA Label

McLaughlin Gromley King 2013b, Pyrocide Fogging Formula 7067, EPA# 1021-1199, containing 5% pyrethrins -25% PBO, ME-2013 Label

McLaughlin Gromley King 2013c, Pyrocide Mosquito Adulticiding Concentrate for ULV Fogging 7396, EPA# 1021-1569, containing 5% pyrethrins-25% PBO, EPA Label

McLaughlin Gromley King 2013d, Pyrocide Mosquito Adulticiding Concentrate for ULV Fogging 7396, EPA# 1021-1569, containing 5-pyrethrins-,25% PBO, ME-2013 Label

NuFarm Americas 2012, ATERA GC 2+1 SC Insecticide, EPA# 228-557, containing 21.99% [2 lbs/gal] imidacloprid and bifenthrin 10.654% [1 lb./gal]

Prentiss 2012a, Prentox Perm-X UL 4-4, EPA# 655-898, containing 4% permethrin-4% PBO, EPA Label

Prentiss 2012b, Prentox Perm-X UL 4-4, EPA# 655-898, containing 4% permethrin-4% PBO, ME-2013 Label

Prentiss 2012c, Prentox Perm-X UL 30-30, EPA# 655-811, containing 30% permethrin, 30% PBO, EPA Label

Prentiss 2012d, Prentox Perm-X UL 30-30, EPA# 655-811, containing 30% permethrin-30% PBO, ME-2013 Label

Prentiss 2012e, Prentox Perm-X UL 31-66, EPA# 655-812, containing 31% permethrin-66% PBO, EPA Label

Prentiss 2012f, Prentox Perm-X UL 31-66, EPA# 655-812, containing 31% permethrin-66% PBO, ME-2013 Label

Syngenta 2010, Demand Pest Tabs, EPA# 100-1082, containing 10% lambda-cyhalothrin, EPA Label

Tessendro-Kerley 2012 Sevin Brand 4F Carbaryl Insecticide, PA# 61842-38, containing 43% Carbaryl, EPA-Label

Tessendro-Kerley 2013 Sevin Brand 85 Sprayable Carbaryl Insecticide, EPA# 61842-33, containing 85% Carbaryl, EPA-Label

United Phosphorous 2012, Up-Cyde Pro 2.0 EC Termiticide/Insecticide (EPA # 70506-19) EPA Label

Univar Environmental Services 2013a, Masterline Kontrol 2-2, EPA# 73748-3, containing 2% permethrin-2% PBO, EPA Label

Univar Environmental Services 2013b, Masterline Kontrol 2-2, EPA# 73748-3, containing 2% permethrin-2% PBO, ME-2013 Label

Univar Environmental Services 2013c, Masterline Kontrol 4-4, EPA# 73748-4, containing 4.6% permethrin-4.6% PBO, EPA Label

Univar Environmental Services 2013d, Masterline Kontrol 4-4, EPA# 73748-4, containing 4.6% permethrin-4.6% PBO, EPA Label

Univar Environmental Services 2013e, Masterline Aqua Kontrol Concentrate, EPA# 73748-1, containing 20% permethrin-20% PBO, ME-2103 Label

Univar Environmental Services 2013f, Masterline Aqua Kontrol Concentrate, EPA# 73748-1, containing 20% permethrin-20% PBO, EPA Label

Univar Environmental Services 2013g, Masterline 30-30, EPA# 73748-5, containing 30% permethrin-30% PBO, ME-2103 Label

Univar Environmental Services 2013f, Masterline 30-30, EPA# 73748-5, containing 30% permethrin-30% PBO, EPA Label

Wellmark International 2010c, Zenivex E20, EPA# 2724-791, containing 20% etofenprox, EPA Label

Wellmark International 2010d, Zenivex E20, EPA# 2724-791, containing 20% etofenprox, ME-2013 Label

Wellmark International 2010a, Zenivex E4 RTU, EPA# 2724-807, containing 4% etofenprox, EPA Label

Wellmark International 2010b, Zenivex E4 RTU, EPA# 2724-807, containing 4% etofenprox, ME-2013 Label

**Report to the Joint Standing Committee on Agriculture, Conservation and Forestry—126<sup>th</sup> Maine State Legislature**

**Pursuant to 7 M.R.S.A. § 607(6), Grants Funded, Adequacy of the Product Registration Fee**

*Submitted by the Maine Board of Pesticides Control, February 15, 2014*

In 2013, the Maine Legislature revised 7 M.R.S. § 607(6) by enacting Public Law 2013, Chapter 290. The new amendments require the Board to:

- increase the pesticide product registration fee from \$150 to \$160 per product per year;
- make an annual grant to the University of Maine Cooperative Extension of no less than \$135,000;
- provide grants for other programs within certain guidelines if funding is available; and
- annually submit a report to the joint standing committee of the Legislature having jurisdiction over agriculture, conservation and forestry matters on grants funded and recommendations on the adequacy of the fee to fund the specified programs.

Since the amendments to 7 MRSA §607 became effective on January 1, 2014, there have not been any grants issued pursuant to the statute. Funding appears adequate to provide the annual grant to the University of Maine Cooperative Extension by April 1, 2014. Whether any additional grants may be funded during the 2014 calendar year has yet to be determined.

At this time, the \$160 annual pesticide product fee appears adequate to fund both the Board and related Department programs, and the annual grant to the University for both 2014 and 2015. A more careful assessment of the adequacy of the fee for these purposes is advisable at this time in 2015.



# 126th MAINE LEGISLATURE

## SECOND REGULAR SESSION-2014

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**Legislative Document**

**No. 1744**

H.P. 1250

House of Representatives, January 23, 2014

### **An Act To Protect Maine Lakes**

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Approved for introduction by a majority of the Legislative Council pursuant to Joint Rule 203.

Reference to the Committee on Environment and Natural Resources suggested and ordered printed.

*Millicent M. MacFarland*  
MILLICENT M. MacFARLAND  
Clerk

Presented by Representative McCABE of Skowhegan.

Cosponsored by Senator GRATWICK of Penobscot and

Representatives: BLACK of Wilton, CHIPMAN of Portland, GRAHAM of North Yarmouth, HAMANN of South Portland, HICKMAN of Winthrop, McLEAN of Gorham, POWERS of Naples, Senator: JOHNSON of Lincoln.

1       **Be it enacted by the People of the State of Maine as follows:**

2           **Sec. 1. 38 MRSA §410-L, first ¶**, as enacted by PL 1997, c. 643, Pt. YY, §1, is  
3       amended to read:

4           The Lakes Assessment and Protection Program is established within the department  
5       to monitor and protect the health and integrity of the State's lakes through activities  
6       identified in section 410-M.

7           **Sec. 2. 38 MRSA §410-M**, as amended by PL 2011, c. 655, Pt. EE, §22 and  
8       affected by §30, is repealed and the following enacted in its place:

9       **§410-M. Lakes assessment and protection**

10       In implementing the Lakes Assessment and Protection Program, the commissioner  
11       shall ensure that the department:

12       **1. Education.** Develops:

13       A. Educational materials that inform the public about the health and functions of  
14       lakes in the State; the value of lakes to the residents, communities and economy of  
15       the State and wildlife in the State; the sources of risk posed to the health and integrity  
16       of lakes; and actions that individuals can take to help preserve the health and water  
17       quality of lakes. The department shall make the educational materials readily  
18       available on its publicly accessible website and through other outreach resources; and

19       B. Educational materials designed for classroom instruction relating to the health and  
20       integrity of lakes in the State. To the extent possible, the department shall serve as a  
21       resource to schools and teachers. The department shall make the educational  
22       materials readily available to schools;

23       **2. Monitoring lakes and conducting research.** Monitors lakes and conducts  
24       research relating to the ecology and health of lakes, the vulnerability of and risks to lakes,  
25       the relationship between lake water quality and development, the design and effectiveness  
26       of best management practices and the effectiveness of efforts to protect lakes. The  
27       department shall integrate the use of water quality monitors, academic institutions and  
28       other lake monitoring resources in monitoring pursuant to this subsection. The  
29       department shall make data collected pursuant to this subsection and the department's  
30       analysis of the data regularly available on its publicly accessible website and through  
31       other outreach resources. The department shall include the data and analysis in the report  
32       submitted to the Legislature pursuant to section 464, subsection 3, paragraph A;

33       **3. Compliance monitoring and enforcement.** Promotes and monitors compliance  
34       with and enforcement of the natural resources protection laws, the mandatory shoreland  
35       zoning laws, the storm water management laws, the erosion and sedimentation control  
36       laws and other state and local laws providing standards for the protection of lakes;

37       **4. Water quality and habitat protection, restoration and maintenance.** Directs  
38       and assists with activities that protect, restore and maintain lake water quality and the  
39       quality of habitat in lakes and on land surrounding lakes that affect the health and

1       integrity of lakes. The department shall develop partnerships pursuant to subsection 5 to  
2       assist with these activities; and

3       **5. Partnerships.** Develops partnerships with lake associations, municipalities,  
4       businesses, academic institutions, water quality monitors and other interested individuals  
5       to increase public understanding about risks posed to the health and integrity of lakes and  
6       actions that can be taken to reduce those risks and sustain lake water quality. To the  
7       extent possible, the department shall provide technical and financial assistance to partners  
8       pursuant to this subsection. A partnership developed pursuant to this subsection may  
9       assist the department in water quality and habitat protection, restoration and maintenance  
10      activities pursuant to subsection 4.

11      **Sec. 3. 38 MRSA §418-B** is enacted to read:

12      **§418-B. Restrictions on application of fertilizers, herbicides, pesticides and soil**  
13      **amendments**

14      **1. Definitions.** As used in this section, unless the context otherwise indicates, the  
15      following terms have the following meanings.

16      A. "Fertilizer" means a substance containing one or more recognized plant nutrients  
17       that is used for its plant nutrient content and designed for use or claimed to have  
18       value in promoting plant growth. "Fertilizer" does not include animal and vegetable  
19       manures that are not manipulated, marl, lime, limestone or topsoil.

20      B. "Herbicide" means a substance or mixture of substances used to destroy,  
21       desiccate, defoliate or prevent the growth of unwanted vegetation.

22      C. "Pesticide" means any substance or mixture of substances intended for preventing,  
23       destroying, repelling or mitigating any pest and any substance or mixture of  
24       substances intended for use as a plant regulator, defoliant or desiccant.

25      D. "Soil-amending ingredient" means any substance that is intended to improve the  
26       chemical, biological or physical characteristics of the soil.

27      E. "Soil amendment" means any product consisting of a soil-amending ingredient  
28       and other ingredients.

29      **2. Prohibition.** Notwithstanding any other provision of law, a person may not apply  
30       a fertilizer, herbicide, pesticide, soil-amending ingredient or soil amendment within 25  
31       feet of fresh surface waters, except that a person may apply a fertilizer, herbicide,  
32       pesticide, soil-amending ingredient or soil amendment within 25 feet of fresh surface  
33       waters for agricultural production from April 1st to October 15th on ground that is not  
34       frozen.

35      **Sec. 4. 38 MRSA §444-B** is enacted to read:

36      **§444-B. Photographic record of shorelines to assist enforcement**

37      To aid in enforcing shoreland zoning ordinances, the following goals and  
38       requirements relating to establishing a photographic record of the shorelines of great  
39       ponds are established.

1           **1. State's goals.** The State's goals for establishing a photographic record of the  
2           shorelines of great ponds are as follows.

3           A. By December 31, 2016, it is the goal of the State to have a photographic record of  
4           the shorelines of 50% of great ponds bordered by at least 10 developed lots.

5           B. By December 31, 2018, it is the goal of the State to have a photographic record of  
6           the shorelines of 70% of great ponds bordered by at least 10 developed lots.

7           C. By December 31, 2020, it is the goal of the State to have a photographic record of  
8           the shorelines of 90% of great ponds bordered by at least 10 developed lots.

9           **2. Shoreline inventories.** The department, municipalities and the Maine Land Use  
10          Planning Commission shall provide leadership in achieving the State's goals in subsection  
11          1. To minimize costs, the department, municipalities and the Maine Land Use Planning  
12          Commission shall work with lake associations, land trusts, community groups, colleges  
13          and universities and volunteers to create photographic records of the shorelines of  
14          developed great ponds and shall work to update the records in 2020 and every 5 years  
15          thereafter.

16          **3. Priority great ponds.** The department shall develop and make available to the  
17          public biennially a list of priority great ponds for developing a photographic record of the  
18          shorelines of great ponds. Priority must be based on water quality conditions, density of  
19          shoreline development, projections of future development and the absence of an existing  
20          photographic record of the complete shoreline.

21          **4. Rules.** The department shall adopt rules to implement this section. Rules adopted  
22          pursuant to this subsection are routine technical rules as defined in Title 5, chapter 375,  
23          subchapter 2-A. By January 15, 2015, the department shall adopt rules requiring:

24           A. An applicant for a permit for development within a shoreland zone to provide to  
25           the permitting authority a preconstruction photograph and a postconstruction  
26           photograph of the shoreline vegetation and development site; and

27           B. A municipal permitting authority to visit a proposed development site prior to  
28           final approval of a permit for development within a shoreland zone.

29          **Sec. 5. 38 MRSA §450** is enacted to read:

30          **§450. Training for municipalities**

31          The department and the Department of Agriculture, Conservation and Forestry shall  
32          develop and make available to municipal officials and code enforcement officers training  
33          relating to the provisions of this article including the importance of the law in protecting  
34          the quality of surface waters of the State, changes in department rules relating to  
35          shoreland zoning and municipal enforcement obligations. The training must be provided  
36          in multiple locations in the State and may be provided in conjunction with other training  
37          programs.

38          **Sec. 6. Landscape contractor certification program.** By December 1, 2015,  
39          the Department of Environmental Protection shall develop an environmental leader

1 certification program for landscape contractors that provide landscape services to  
2 properties adjacent to surface waters of the State. The certification program must focus  
3 on low-maintenance landscape design and landscaping methods that are protective of  
4 water quality.

5 **Sec. 7. Vacancies.** By December 31, 2014, the Department of Environmental  
6 Protection shall hire qualified personnel for vacant staff positions that have been  
7 authorized by the Legislature for the purpose of education, monitoring, research and  
8 enforcement activities related to the protection of the health and integrity of the State's  
9 lakes.

10 **Sec. 8. Reducing water quality impacts of camp roads, logging roads,  
11 driveways and boat launches.** The Department of Environmental Protection shall  
12 evaluate options and develop a strategy for reducing risks to the water quality of lakes of  
13 the State from camp roads, logging roads, driveways and boat launches. In conducting  
14 the evaluation, the department shall seek input from the Maine Land Use Planning  
15 Commission, lake associations, municipalities, conservation organizations and other  
16 stakeholders. By December 1, 2015, the department shall submit its recommendations to  
17 the joint standing committee of the Legislature having jurisdiction over environmental  
18 and natural resources matters, and the committee may report out a bill relating to the  
19 recommendations to the Second Regular Session of the 127th Legislature.

20 **Sec. 9. Promoting voluntary certification for pollution reduction  
21 measures by lakefront property owners.** By December 1, 2014, the Department of  
22 Environmental Protection shall evaluate the status of the LakeSmart program, which was  
23 transferred from the department to the Maine Lakes Society. The evaluation must include  
24 the following information for a period beginning on the date management of the program  
25 was transferred:

- 26 1. The number of property owners who received LakeSmart Awards;
- 27 2. The number of lake associations involved in helping promote the program;
- 28 3. The number of lakes for which property owners received LakeSmart Awards; and
- 29 4. Implementation challenges experienced by the Maine Lakes Society.

30 The evaluation must also include information relating to the financial sustainability of  
31 the LakeSmart program. The department shall solicit information necessary for the  
32 evaluation from the Maine Lakes Society and shall evaluate whether additional funding  
33 or technical resources from the department would help ensure the success of the program.  
34 The department shall make a report of its evaluation available for public comment. By  
35 January 15, 2015, the department shall submit the report and public comments to the joint  
36 standing committee of the Legislature having jurisdiction over environmental and natural  
37 resources matters. The committee may report out a bill relating to the report to the First  
38 Regular Session of the 127th Legislature.

## SUMMARY

This bill amends the laws governing the Lakes Assessment and Protection Program. It prohibits the application of fertilizers, herbicides, pesticides and soil amendments within 25 feet of fresh surface waters. It establishes goals for developing a photographic record of the shorelines of lakes. It directs the Department of Environmental Protection and the Department of Agriculture, Conservation and Forestry to develop training for municipalities relating to the laws regulating shoreland zoning. It also directs the Department of Environmental Protection to:

- 9           1. Develop an environmental leader certification program for landscape contractors;
  - 10          2. Fill vacant staff positions;
  - 11          3. Evaluate options and develop a strategy for reducing risks to lake water quality
  - 12          from camp roads, logging roads, driveways and boat launches; and
  - 13          4. Evaluate the LakeSmart program.



PAUL R. LEPAGE  
GOVERNOR

STATE OF MAINE  
DEPARTMENT OF AGRICULTURE, CONSERVATION AND FORESTRY  
BOARD OF PESTICIDES CONTROL  
28 STATE HOUSE STATION  
AUGUSTA, MAINE 04333-0028

WALTER E. WHITCOMB  
COMMISSIONER  
  
HENRY S. JENNINGS  
DIRECTOR

February 11, 2014

Ryan Minzner  
The Woodlands Club  
39 Woods Road  
Falmouth, Maine 04105

Re: 2014 Variance Permit

Dear Mr. Minzner:

This letter will serve as The Woodlands Club's Chapter 29 variance permit for your 2014 pest management program. Please bear in mind that this variance permit is dependent upon following the measures outlined in the variance application, particularly Section IX: Method to assure equivalent protection.

We will alert the Board at its February 21, 2014 meeting that the variance permit has been issued. If you have any questions concerning this matter, please feel free to contact me at 287-2731.

Sincerely,

A handwritten signature in black ink that reads "Henry Jennings".

Henry Jennings  
Director  
Maine Board of Pesticides Control



January 3, 2014

Henry Jennings, Director  
Maine Board of Pesticide Control  
State House Station 28  
Augusta, ME 04333

Dear Mr. Jennings:

Enclosed is a copy of Central Maine Power Company's Transmission Right-of-Way Vegetation Management Plan for 2014. If you have any questions, I can be reached at 621-3942.

Sincerely,

A handwritten signature in black ink that reads "Nicholas Hahn".

Nicholas Hahn  
Vegetation Management

---

83 Edison Drive, Augusta, ME 04336  
Telephone 207.623.3521  
[www.cmpco.com](http://www.cmpco.com)



## DRIFT MANAGEMENT PLAN FOR CENTRAL MAINE POWER TRANSMISSION LINE RIGHTS-OF-WAY

During the 2014 calendar year, Central Maine Power Company (CMP) will be treating approximately 10,000 acres as part of our regular vegetation management program. Some of this acreage is comprised of agricultural and industrial uses, and only needs to be patrolled. Integrated vegetation management techniques are employed on the remaining acreage to minimize the use of herbicides.

The first phase of the program requires that a contract crew patrol each right-of-way cutting all hardwood species over 8 feet tall and most of the softwood species. The stumps of trees capable of resprouting are treated with a herbicide. This reduces the amount of foliage that must be treated each cycle. Areas not suitable for foliar herbicide application during the summer are to be entirely cut at this time, and stump treatment to be used where appropriate.

The second phase of this year's program requires that the contract crew patrol each transmission line a second time, treating all remaining tree species capable of growing into the conductors or that block access to the right-of-way. The herbicides are applied with a backpack, hand pressurized spray tank. The tank pressure is low, so the potential for off target movement of the mix is minimized. A contract crew composed of 5 to 8 people will selectively treat the capable species.

A no spray zone is maintained around wells, municipal water supplies or any open water. The buffer zone will vary depending on the topography, a minimum of 25 feet is maintained on all water and a minimum 100-foot buffer is maintained on drinking water supplies. These buffers provide an additional margin of safety.

A low-pressure foliar application technique will be used on the majority of right-of-way scheduled this year. The herbicides and adjuvants, including a drift control agent, are mixed in water at rates of 1/8% - 5%. A hand-pressurized backpack sprayer is used to selectively apply the mix directly to the leaves of the undesirable species. The large droplet size, low tank pressure, and drift control agents, combined with the selective application technique, reduces the potential for drift to a very minimal level. The following is a list of herbicides CMP may use depending on species composition, density and environmental factors:

Garlon 4 Ultra	Arsenal Powerline	Milestone VM
Rodeo	Stalker	Krenite

Before a treatment technique or herbicide is selected, a review of the right-of-way is conducted including a list of landowner maintenance agreements, known municipal water supplies, and brush densities. This information helps CMP personnel select the herbicides and determine the mix rates.

A form is given to each crew foreman before the job starts listing all special arrangements, herbicides, and mix rates. All the work is performed by licensed contract

crews. The contract crews will post a sign on the first structure on each side of all public roads stating the date and herbicide used. If herbicides are not applied near the road crossing structure, the first structure where herbicides are used will be posted.

Each town that has a transmission right-of-way scheduled for herbicide work in 2014 will be notified in advance. A landowner maintenance agreement is available to any landowner or municipality objecting to the use of herbicides. The landowner agrees to keep brush to a height less than 10 feet and a CMP inspector looks over each area annually. CMP personnel will notify the staff of the Board of Pesticide Control at the start of the season of general work locations. Daily locations are available at CMP's General Office.

The following list identifies the CMP transmission section numbers and general locations for 2014 scheduled work. Plan and profile maps for each right-of-way are on file at the General Office in Augusta.

## 2014 CMP TRANSMISSION VEGETATION MANAGEMENT SCHEDULE

<u>Section</u>	<u>Location</u>
5	Detroit - Parkman
5A	Corinna
17	Rockport - Camden
21	Rockport - Rockland
21A	Rockport
41	Farmingdale - Lewiston
41A	Gardiner
49	Windsor - Rockport
60	Windsor - Farmingdale
62	Lewiston - Pownal
64	Lewiston - Pownal
66	Moscow - Detroit
67	Detroit - Windsor
67A	Benton
72	Lewiston
72A	Lewiston
82	Athens - Detroit
83	Moscow - Benton
83C	Skowhegan
84	Winslow - Windsor
85	Detroit - Parkman
105	Old Orchard Beach
106	Old Orchard Beach
201	Lewiston
203	Detroit - Bucksport
211	Rumford - Woodstock
212	Farmingdale - Lewiston
	Indian Stream Twp. -
222	Moscow
222A	Moscow
241	Benton - Oakland
241A	Benton - Oakland
241B	Cornville - Madison
242	Benton - Winslow
374	Buxton - Pownal
385	Sanford - Buxton
388	Windsor - Winterport
388BHE	Bucksport - Orrington
391	Sanford - Buxton

**From:** Jadczak, Anthony M  
**Sent:** Tuesday, February 11, 2014 2:03 PM  
**To:** Jennings, Henry; Fish, Gary  
**Subject:** FW: [MSBA Board:1250] petition to remove neonicotinoids from plants at Lowes and Home Depot

The latest neonic activities.

**From:** [msba-board@googlegroups.com](mailto:msba-board@googlegroups.com) [mailto:[msba-board@googlegroups.com](mailto:msba-board@googlegroups.com)] **On Behalf Of** Erin MacGregor-Forbes  
**Sent:** Monday, February 10, 2014 9:07 PM  
**To:** [ccbeekeepers@googlegroups.com](mailto:ccbeekeepers@googlegroups.com); [york-county-beekeeper@googlegroups.com](mailto:york-county-beekeeper@googlegroups.com); [maine-swarm@googlegroups.com](mailto:maine-swarm@googlegroups.com); [msba-board@googlegroups.com](mailto:msba-board@googlegroups.com)  
**Subject:** [MSBA Board:1250] petition to remove neonicotinoids from plants at Lowes and Home Depot

Hello Beekeepers –

There is a printable valentine towards the bottom of this email that you can print and bring to your local home depot or Lowes, asking them not to sell plants that have been treated with neonicotinoids.

With the help of beekeepers around the country, this campaign could really make a difference in the quality of plant material that our friends, neighbors, and community members are buying, and planting where our colonies forage. Much of the plant material (if not all) that is purchased at these stores has been treated with systemic neonicotinoids which express themselves in the nectar and pollen of the plants, causing a number of problems when the nectar and pollen are brought back to the honey bee (or native bee) nest.

Please take a moment to read this email, communicate with our local retailer, and share with your friends.

Best to you and your bees,  
-Erin

Friends,

Big news: On top of the 203,000 people nationwide who signed our petition telling Home Depot and Lowe's to stop selling bee-killing pesticides, hundreds of thousands of other people nationwide have signed similar petitions with other organizations. **In total, more than half a million people are now calling on the stores to take responsibility and stop selling neonic pesticides.**

Now its time to turn up the pressure on Lowe's and Home Depot. There are a number of petition delivery events in the next few days where activists will be delivering signatures and bee-themed valentines to local stores. If you live in or near one of the following cities, click the appropriate link below to RSVP for the petition delivery event. These are peaceful events so we ask that you're courteous to store employees, managers and shoppers if you choose to attend.

- [Eugene, Oregon: Saturday February 15 at 11 a.m.](#)
- [Emeryville, California: Wednesday, February 12 at 11 a.m.](#)
- [Washington, DC: Wednesday February 12 at 11 a.m.](#)
- [Minneapolis, MN: Wednesday February 12 at 11:15 a.m.](#)

You can also deliver a valentine to your local Home Depot or Lowe's. Click here to [download a printable valentine](#) to deliver, and [click here for instructions on how-to deliver it](#).

Or [click here to share the graphic below on Facebook](#).

# Show Bees Some LOVE

TELL HOME DEPOT  
AND LOWE'S TO  
**STOP SELLING BEE  
KILLING PESTICIDES!**

[valentine.beeaction.org](http://valentine.beeaction.org) #beelove

Join the National Swarm February 10th-16th



In addition, we encourage everyone who plants their own pollinator-friendly plants from seeds, or purchases already potted plants, to use only organic or 'non-neonicotinoid treated' soils. This should assure that pollinators will not be assimilating 'neonics' through nectar or pollen. We thank you again for your continuing concern and involvement in the important work of saving the pollinators.

Thanks,  
Philip Smith

P.S. You can also forward the petition to your friends and family with this link: <http://www.credomobilize.com/petitions/home-depot-and-lowe-s-you-must-stop-selling-bee-killing-pesticides>

You received this email because you signed the petition 'Home Depot and Lowe's: You must stop selling bee-killing pesticides!'. If you don't want to receive emails from the 'Home Depot and Lowe's: You must stop selling bee-killing pesticides!' campaign in the future, please [unsubscribe](#).

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You received this message because you are subscribed to the Google Groups "MSBA Board" group. To unsubscribe from this group and stop receiving emails from it, send an email to [msba-board+unsubscribe@googlegroups.com](mailto:msba-board+unsubscribe@googlegroups.com).

To post to this group, send email to [msba-board@googlegroups.com](mailto:msba-board@googlegroups.com).

Visit this group at <http://groups.google.com/group/msba-board>.

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## **DAS-81419-2 Soybean**

**Plant-incorporated protectant *Bacillus thuringiensis* subsp. *kurstaki* Cry1Ac protein and *Bacillus thuringiensis* subsp. *aizawai* Cry1F protein as produced in insect-protected soybean cells (OECD Unique Identifier: DAS-81419-2).**

**Active Ingredients:**

*Bacillus thuringiensis* Cry1Ac protein and the genetic material (vector pDAB9582) necessary for its production in DAS-81419-2 soybean ..... 0.000079 - 0.00014%\*

*Bacillus thuringiensis* Cry1F protein and the genetic material (vector pDAB9582) necessary for its production in DAS-81419-2 soybean ..... 0.001041 - 0.00169%\*

**Other Ingredient:**

The marker protein, PAT (phosphinothricin N-acetyltransferase), and the genetic material (vector pDAB9582) necessary for its production in DAS-81419-2 soybean ..... 0.000063 - 0.00011%\*

\*Maximum percent (wt/wt) of dry grain.

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

NET CONTENTS \_\_\_\_\_

**EPA Registration No. 68467-20**

**EPA Establishment No. 62719-IN-1**

Dow AgroSciences LLC  
9330 Zionsville Road  
Indianapolis, IN 46268

### **DIRECTIONS FOR USE**

It is a violation of Federal law to use this plant-incorporated protectant in a manner inconsistent with its labeling.

DAS-81419-2 Soybean was transformed to express *Bacillus thuringiensis* Cry1Ac and Cry1F insecticidal proteins. The insect-protected DAS-81419-2 Soybean may be used only for seed increase, breeding, research, and seed production in breeding nurseries and research stations as specified in the terms of this registration and on this label.

The insect-protected soybean may be grown on up to a total of 250,000 acres per year with no more than 20,000 acres per county (in non-cotton growing regions); 10,000 acres per county (in cotton-growing counties with at least 25,000 acres of soybean); or 1,000 acres per county (in cotton-growing counties with less than 25,000 acres of soybean) per year in the United States and the Commonwealth of Puerto Rico. Cotton growing regions are defined as follows: Alabama, Arkansas, Florida, Georgia, Louisiana, North Carolina, Mississippi, South Carolina, Oklahoma (only the counties of Beckham, Caddo, Comanche, Custer, Greer, Harmon, Jackson, Kay, Kiowa, Tillman, and Washita), Tennessee (only the

counties of Carroll, Chester, Crockett, Dyer, Fayette, Franklin, Gibson, Hardeman, Hardin, Haywood, Lake, Lauderdale, Lincoln, Madison, Obion, Rutherford, Shelby, and Tipton), Texas (except the counties of Carson, Dallam, Hansford, Hartley, Hutchinson, Lipscomb, Moore, Ochiltree, Roberts, and Sherman), Virginia (only the counties of Dinwiddie, Franklin City, Greensville, Isle of Wight, Northampton, Southampton, Suffolk City, Surrey, and Sussex), and Missouri (only the counties of Dunklin, New Madrid, Pemiscot, Scott, and Stoddard).

Equipment used for planting, harvesting, and handling of this insect-protected soybean must be thoroughly cleaned before further use. All plant propagation materials produced by Dow AgroSciences LLC and its cooperators that contain the insect-protected soybean must be securely stored for export, future planting, research, or use for additional plant propagation materials pursuant to the terms of this registration. Harvested seeds are not allowed for sale as commercial seed in the U.S.