JANET T. MILLS
GOVERNOR

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

AMANDA E. BEAL
COMMISSIONER

BOARD OF PESTICIDES CONTROL

April 25, 2025

9:00 AM Board Meeting

Join the meeting in person in Room 101, Deering Building, 32 Blossom Lane, Augusta
Or
Join the meeting now
Meeting ID: 279 693 380 912 3
Passcode: Hi7nL753

Dial in by phone
+1 207-209-4724,,292526228# United States, Portland
Find a local number
Phone conference ID: 292 526 228#

AGENDA

1. Introductions of Board and Staff

2. Minutes of the March 14, 2024 Board Meeting

   Presentation By: Alex Peacock, Director
   Action Needed: Amend and/or Adopt

3. Review of Board Responsibilities and Procedures

   Carey Gustanski, Assistant Attorney, General, will review Board procedures and Board member responsibilities.

   Presentation By: Carey Gustanski, Assistant Attorney General
   Action Needed: None; Board procedural review

ALEXANDER PEACOCK, DIRECTOR
90 BLOSSOM LANE, DEERING BUILDING

PHONE: (207) 287-2731
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4. Request to Reestablish EPA FIFRA, Section 24(c), registration for the use of Asulox Herbicide

The Special Local Need (SLN) registration for Asulox Herbicide (EPA Reg. No. 70506-139) was first approved in 2010. The Board approved a five-year extension in January 2020, which expired on December 31, 2024. Dr. Lily Calderwood, blueberry specialist at the University of Maine Cooperative Extension, requests to reestablish this expired SLN. In the absence of other effective control measures for bracken fern, this product has proven to be effective, especially in newly cleared land and abandoned fields returned to production. The proposed SLN will expire on December 31, 2030. There are no changes to the SLN label or the application conditions.

Presentations By: Julia Vacchiano, Registrar and Water Quality Specialist
Action Needed: Discuss; Approve/Disapprove SLN

5. Consideration of a Request for Variance from CMR01-026 Chapter 29 from RWC. Inc, to Treat Railroad Rights-of-way in Maine

R WC, Inc is seeking a variance from Chapter 29, Section 6, Buffer Requirements, in order to treat the Canadian Pacific Kansas City rail tracks rights-of-way in Maine. Board policy indicates that first-time variance requests must be considered by the Board. The policy further stipulates that railroad variance requests need to be consistent with the Maine Department of Transportation standards. The last variance for this railroad was approved at the April 5, 2024 Board meeting.

Presentations By: Alex Peacock, Director
Action Needed: Discuss; Approve/Disapprove Variance Request

6. Application for Emergency Use Permit to use Neonicotinoids in Rockport, ME

Staff have received a request for an emergency use permit to use Safari 20 SG (Active ingredient: dinotefuran) to manage a bronze birch borer infestation in Rockport.

Presentations By: Julia Vacchiano, Registrar and Water Quality Specialist
Action Needed: Discuss; Approve/Disapprove SLN

7. Proposed Amendment to Policy on Determining Allowable Pesticide Applications Pursuant to CMR 01-026, Chapter 29, Section 6

On November 18, 2011, the Board approved an interim policy allowing staff to approve Chapter 29 requests for variances to control vegetation that poses a dermal toxicity hazard. On December 13, 2013 the Board revised this policy to give staff the authority to approve requests for variance from CMR 01-026 Chapter 29, Section 6, for the control of invasive plants. Many of these variance requests are for controlling Japanese Knotweed (*Fallopia japonica, syn. Polygonum cuspidatum, Reynoutria japonica*). Staff have had inquiries about types of applications that may require variances, and are asking for Board input on amending this policy to include requirements for cut/stump applications.

Presentations By: Alex Peacock, Director

Action Needed: Discuss; Approve/Disapprove Policy Amendment

8. 2025 Water Quality Project Update

Every year, BPC receives funds from EPA to complete water quality testing in Maine. In previous years, BPC has focused on water quality related to aerial forestry practices, near agriculture and population centers, and drift related to browntail moth applications, among other topics. Staff have been thinking about ideas for future water quality efforts and would like Board input on potential future programs.

Presentations By: Julia Vacchiano, Registrar and Water Quality Specialist
Action Needed: Discuss

9. Consideration of Consent Agreement with Emerald Valley Farms, LLC of Caribou

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 to resolve the matter. This case involved several incidents where records were not properly maintained, PPE requirements were not followed, a pesticide was used inconsistently with its label, WPS standards were not followed, and a prohibited pesticide was distributed within the state.

Presentation By: Alex Peacock, Director
Action Needed: Discuss; Approve/Disapprove

10. Legislative Update

Currently, the Maine State Legislature is in the 132nd First Special Session, where 6 pesticide-related bills have been published. These bills are LD 356: An Act to Require Notification of Certain Outdoor Pesticide Applications, LD 1132: An Act to Further Protect Low-impact Landscaping, LD 1201: An Act to Protect Maine Agriculture and Farms by Exempting Certain Pesticides from Regulation, LD 1323: An Act to Prohibit the Use of Neonicotinoid Pesticides and the Use and Sale of Neonicotinoid-treated Seeds, LD 1557: An Act to Ensure Uniformity in the Regulation of Perfluoroalkyl and Polyfluoroalkyl Substances in Pesticides, and LD 1697: An Act to Increase Penalties to Deter Violations of the Laws Regarding Improper Pesticide Use. Staff will give an update on the status of these bills.

Presentation By: Alex Peacock, Director

Action Needed: None; Informational purposes

11. Other Old and New Business

a. Amended Blue Hill Municipal Ordinance

b. Variance Letter and Permit for CMR01-026, Chapter 22, JBI Helicopters

c. New pesticide active ingredient registration submitted in Maine: PDHP 25279

d. EPA Announces Changes to Pesticide Data Submission Process to Increase Efficiency and Reduce Burden

e. EPA Announces Multiple Actions to Protect Endangered Species from Insecticide Carbaryl

12. Schedule of Future Meetings

The next scheduled Board meeting date is June 6, 2025, at the Deering Building, Room 101, Augusta

Future Meetings: July 18, 2025, August 29, 2025, and October 10, 2025

Adjustments and/or Additional Dates?

13. 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.
- 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 Board's office or pesticides@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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JANET T. MILLS
GOVERNOR

AMANDA E. BEAL
COMMISSIONER

BOARD OF PESTICIDES CONTROL

March 14, 2025

9:00 AM Board Meeting

MINUTES

1. Introductions of Board and Staff

- Board members: Adams, Bohlen, Carlton, Fanning, Gray, Neavyn
- Staff: Boyd, Couture, Peacock, Pietroski, Saucier, Vacchiano

2. Consideration of a Request for Financial Support from Maine Mobile Health

Since 1995 the Board has supported the Migrant and Seasonal Farmworker Safety Education program. The Maine Mobile Health Program (MMHP) provided training to 65 farmworkers during the 2024 season. Funding to support the effort in 2025 is being requested in the amount of $6,432.00 which is the same funding amount provided by the Board in 2024. The funding has been accounted for in the Board's FY25 budget.

Presentations By: Hannah Miller, Director of Outreach, Maine Mobile Health
Action Needed: Discussion and Approve/Disapprove this Request.

- Amelia Lyons Rukema, Chief Executive Officer (CEO) for the Maine Mobile Health Program (MMHP), requested funding in the amount of $6432. During the 2024 season, MMHP provided Worker Protection Standard (WPS) training to 65 farmworkers in Spanish and Haitian Creole. Rukema thanked the Board for its past support and for considering this current request.
- Adams noted that this is already budgeted
    - **Bohlen/Gray: Moved and seconded to approve the fund request from MMHP in the amount of $6432**
    - **In Favor: Unanimous**

3. Minutes of the December 6, 2024 Board Meeting and January 15, 2025 Board Meeting

ALEXANDER PEACOCK, DIRECTOR
90 BLOSSOM LANE, DEERING BUILDING

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Presentation By: Alex Peacock, Director
Action Needed: Amend and/or Adopt

- **Bohlen/Neavyn: Moved and seconded to approve the December 6, 2024 and January 15, 2025 Board meeting minutes**
- **In Favor: Unanimous**

4. Election of Officers

The Board's statute requires an annual election of officers. The members will choose a chair and vice-chair to serve for the coming year.

Presentation By: Alex Peacock, Director
Action Needed: Nomination and Election of Officers

- Peacock told the Board that statutory requirements mandate that Board members elect officers.
- Carlton nominated Adams as Chair.
- Gray nominated Bohlen as Vice-Chair

- **Carlton/Gray: Moved and seconded to appoint Adams as Chair and Bohlen as Vice-Chair**
- **In Favor: Carlton, Fanning, Gray, Neavyn**
- **Abstained: Adams, Bohlen**

5. Variance Permit Request for MDOT

MDOT is seeking a variance from CMR01-026 Chapter 29, Section 6 (A), to treat State-maintained rights-of-way, roads, and transportation facilities for evergreen and deciduous overgrowth, grasses and weeds in guardrail areas, pavement cracks, and invasive plants.

Presentations By: Alex Peacock, Director
Action Needed: Discuss; Approve/Disapprove Variance Request

- Peacock told the Board that the Maine Department of Transportation, MDOT, submitted a request to vary from CMR01-026 Chapter 29, Section 6 (A) for general vegetation management on state-owned rights of way. He added that Gustave Nothstein, Statewide Transportation Operations Manager, MDOT, was in attendance to respond to any questions the Board may have.
- Adams asked if this work included any of the knotweed along the Kennebec River.
- Nothstein replied that that site was part of the management plan. He added that knotweed was difficult to control due to its affinity for water and ability to spread via fragments.
- Adams stated that he often drove along the Kennebec near Hinckley and had observed that the knotweed in that area was back away from the road, but never all the way down to the river. He told Nothstein that his crew did an excellent job.

- **Carlton/Bohlen: Moved and seconded to approve the variance request from MDOT**

- **In Favor: Unanimous**

6. Request to Extend Special Local Need [24(c)] Registration for Express® Herbicide with TotalSol (FMC Corporation) for Spot Application and Bunchberry Control in Lowbush Blueberries

In September 2008, the Board first approved a Section 24(c) registration for DuPont Express® Herbicide with TotalSol (EPA Reg. No. 729-9594). The 24(c) was renewed in 2010, 2013, 2019, and 2021. In 2021, a five-year extension for this SLN was approved with the stipulation that University of Maine Cooperative Extension conduct groundwater testing. This 24(c) allows for spot applications to control labeled weeds during the prune year and applications in the fall after harvest and in the spring of the non-crop year to control bunchberry. The proposed SLN will expire on December 31, 2030.

Presentations By: Julia Vacchiano, Registrar
Action Needed: Discuss; Approve/Disapprove SLN

- Vacchiano stated that this SLN for DuPont Express® Herbicide with TotalSol allowed for spot applications after harvest and in the spring of the non-crop year to control bunchberry. She added that the Board had previously approved renewal of this SLN with the condition that groundwater testing be conducted on this active.
- Lily Calderwood, Extension Wild Blueberry Specialist and Assistant Professor of Horticulture for UMaine, stated that the Board requested groundwater testing in 2019. She added that the groundwater testing returned no detectable results. Calderwood said that in 2021, a five-year extension of the SLN was requested and granted by the Board.
- Calderwood told the Board that the product was utilized to manage bunchberry in wild blueberry barrens. She added that bunchberry was a low-growing plant that was difficult to manage using cultural or other means because it was below the blueberry canopy. Calderwood explained that lowering the soil pH was not an option because bunchberry preferred low pH as well.
- Bohlen noted that the Board had renewed this SLN several times and asked why neither the pest nor the site had been added to the label yet.
- Calderwood replied that UMaine Extension had requested that the registrant add this use to the label, but it had not been added.
- Neavyn said that the memo provided stated that the active degraded rapidly in the soil and asked Calderwood if she knew the half-life.
- Calderwood said that she did not but would get the answer.

    - **Adams/Gray: Moved and seconded to approve the request to extend the SLN [24(c)] Registration for Express® Herbicide with TotalSol (FMC Corporation) to December 31, 2030**
    - **In Favor: Unanimous**

7. Request for Variance Permit from Irving Woodlands and JBI Helicopters

Due to increased populations of spruce budworm and the threat of large-scale defoliation that may result in tree decline and death, aerial forestry insecticide applications are being considered for 2025 to combat the potential budworm outbreak. JBI Helicopters will be conducting aerial applications for Irving Woodlands and is seeking a variance permit for

Chapter 22: Standards for Outdoor Application of Pesticides by Powered Equipment in Order to Minimize Off-Target Deposition Sections 3(B) and 3(C).

Presentations By: Alex Peacock, Director
Action Needed: Discuss; Approve/Disapprove Variance Request

- Ron Lemin was in attendance to speak as a representative for JBI Helicopters. Christopher Huston was present to talk on behalf of Irving Woodlands.
- Lemin told the Board that there were many Sensitive Areas Likely to be Occupied, SALOs, in the application area, and all precautions and standards detailed in Chapter 22 would be adhered to.
- Huston told the Board that the 38-40 places Irving Woodlands was seeking a variance for were all leases. He added that all leasees and recreational stakeholder groups would be contacted to notify them that the treatment area would be closed during the application until the impact area was treated and the restricted entry interval, REI, had elapsed. Huston stated that large temporary signs would be placed in obvious locations of ingress and egress, specifying that there was an aerial pesticide application in progress and entry was prohibited.
- Huston stated that all blocks impacted by a SALO would be treated using a helicopter rather than a fixed-wing aircraft.
- Carlton asked if a helicopter afforded better control of the application.
- Lemin replied in the affirmative but stated that it was slower and not as efficient.
- Carlton asked if all helicopters used in the application were equipped with GPS o the pilot could see the flight path.
- Lemin responded that they were, and the pilots all have maps, and the polygon, which includes all buffers and other information, is loaded directly into the aircraft.
- Bohlen commented that the Board needed to consider that this was not a one-off situation and they were likely to get this same question again. He added that addressing the SALOs for this application was not such a large issue, but an application with many more SALOs would be different.

    - **Gray/Carlton: Moved and seconded to approve the variance permit**
    - **In Favor: Unanimous**

8. Spruce Budworm Control in Northern Maine

Brief update on staff activities regarding possible aerial spray applications to control spruce budworm. Dr. Doug Van Hoewyk, BPC toxicologist, has completed a risk assessment of the proposed products for the effort, which include the active ingredient Bacillus thuringiensis sub. Kurstakii (Btk) and tebufenozide.

Presentations By: Alex Peacock, Director
Doug Van Hoewyk, Ph.D., Pesticide Toxicologist
Action Needed: Discussion

- Peacock updated the Board on activities regarding spruce budworm. He added that Pietroski had worked diligently to increase the number of licensed aerial applicators in

Maine and also with the Spruce Budworm Group to inform about licensing and pesticide application requirements.

- Pietroski stated that JBI Helicopter was bringing on thirteen applicators. BPC's contract with Metro Institute enabled staff to arrange for these individuals to take the necessary applicator exams in other states.
- Peacock introduced BPC's new Toxicologist, Doug Van Hoewyk. He added that Van Hoewyk had completed the risk assessments on the two actives proposed for spruce budworm control in northern Maine, and staff planned to turn the risk assessments into informational documents for the homeowners.
- The two actives, their characteristics, and why one may favor using one over the other were discussed.
- Neavyn stated that because this was an aerial application, there would be increased public interest, resulting in Northern New England Poison Control receiving many calls. He requested that they also have access to the provided information to come up with a public service message.

9. Consideration of Consent Agreement with Mosquito Squad of Southern Maine of Scarborough

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 to resolve the matter. This case involved several incidents where there was use of a pesticide inconsistent with its product label, application to a property without prior authorization, and pesticide drift onto a sensitive area likely to be occupied.

Presentation By: Allison Smith, Compliance Manager
Action Needed: Discuss; Approve/Disapprove

- Peacock summarized the enforcement case and detailed the multiple infractions, as well as the prior violations committed by the company that had resulted in prior enforcement actions. He reminded the Board that these infractions had been brought to them at a prior meeting.
- Adams asked if there was any discussion of revocation of licensure.
- Peacock responded that if the company committed another infraction, the issue would come before the Board.

    - **Adams/Gray: Moved and seconded to approve the consent agreement**
    - **In Favor: Unanimous**

10. Consideration of Consent Agreement with Stephen Antonson of Rockport

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 to resolve the matter. This case involved an application to a property without prior authorization.

Presentations By: Allison Smith, Compliance Manager
Action Needed: Discuss; Approve/Disapprove

- Peacock summarized the enforcement case detailed in the case summary and the consent agreement.
- Carlton noted the similarities to another recent enforcement case.
- The Board discussed the amount of the fine and whether it seemed sufficient.
- Peacock noted that the person could take civil action.
- Neavyn asked if the consent agreement could become evidence for a civil suit if the Board approved it, and whether their approval meant they agreed with the statement that the individual disputed the alleged violations and the findings of the Board.
- Gustanski stated that this was a negotiation of terms and said he did not think that it meant that the Board agreed. He added that the Board could
- Peacock stated that this was the language that was ultimately negotiated with the individual.
- Adams asked if this item could be tabled until the Board received clarification on whether their approval of this wording meant that they agreed with all of the language included in the consent agreement.
- Gustanski stated that if the individual refused to sign, the Board could still vote to levy a fine, and the case would be referred to the Assistant Attorney General's office.
- Adams replied that the Assistant Attorney General's office was limited to the statutory language, so the fine would remain the same.
- Bohlen commented that the problem here was less that someone used a pesticide illegally and more that someone did something egregious to their neighbor's property, and a $3,000 fine did not seem sufficient.
- Neavyn said that rubberstamping a nominal fine in this case sent a message that it was okay to destroy your neighbor's property and pay a fine that was nowhere near the amount that the individual gained in property value for the destruction.
- Carlton stated he saw no reason to rush this through and that he echoed the comments of Bohlen and Neavyn.
- Adams stated that it seemed the only option the Board had was to ask staff to try to renegotiate to have that statement removed.

    - **Carlton/Neavyn: Moved and seconded to disapprove of the consent agreement**
    - **In Favor: Unanimous**

11. Other Old and New Business

a. Variance Permit for CMR01-026, Chapter 29, New England Spray Tech, Shapleigh, ME

b. Hiring of New Toxicologist, Dr. Doug Van Hoewyk

d. EPA Announces Proposed Registration of New Pesticide Florylpicoxamid

e. EPA Shares Fish and Wildlife Service's Final Endangered Species Act Biological Opinion for Methomyl

f. Proposed Falmouth Municipal Ordinance

g. LD 356: An Act to Require Notification of Certain Outdoor Pesticide Applications

h. Final Service Container Policy

- Carlton said he would like to have a Board meeting at a different location in the state where there would be an opportunity for Board members to learn more about a specific application type, such as an aerial application.
- Adams suggested arranging the trip for the June 6, 2025 meeting.

12. Schedule of Future Meetings

The next scheduled Board meeting dates are April 25 and June 6, 2025

Future Meetings: June 6, 2025, July 18, 2025

13. Adjourn

- **Carlton/Fanning: Moved and seconded to adjourn at 10:45 AM**
- **In Favor: Unanimous**

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JANET T. MILLS
GOVERNOR

AMANDA E. BEAL
COMMISSIONER

Memorandum

To: Maine Board of Pesticides Control

From: Julia Vacchiano, Pesticides Registrar and Water Quality Specialist

Re: Request to Reestablish EPA FIFRA, Section 24(c), registration for the use of Asulox Herbicide (EPA Regulation # 70506-139) to control bracken fern in wild blueberries

March 6, 2025

The Special Local Need (SLN) registration for Asulox Herbicide (EPA Reg. No. 70506-139) was first approved in 2010 and the Board approved a five-year extension in January 2020 which expired December 31, 2024. Dr. Lily Calderwood, blueberry specialist at the University of Maine Cooperative Extension, requests the reestablishment of this expired SLN. In the absence of other effective control measures for bracken fern, this product has proven to be effective, especially in newly cleared land and abandoned fields returned to production. The proposed SLN will expire on December 31, 2030.

There are no changes to the SLN label and the application conditions, as listed below, remain the same.

- Applications will be no more than once every other year.
- Applications will be made during non-bearing years.
- Applications will be via spot treatment.

The presence of Asulam, the active ingredient in Asulox, in groundwater has not been evaluated in Maine.

Please review the following included documents:

- Letter of request from Lily Calderwood, Ph.D., University of Maine Cooperative Extension Blueberry Specialist
- 2020 Asulox Special Local Need Toxicological Review, Pamela Bryer, Ph.D.
- Letters of support from Cherryfield Foods Inc. and Wyman's
- UPL NA Inc. Asulox Herbicide Section 24(c) label for requested approval
- UPL NA Inc. Asulox Herbicide Section 3 label
- UPL NA Inc. Asulox Herbicide Safety Data Sheet

February 19, 2025

To Whom it May Concern,

On behalf of the University of Maine Cooperative Extension and lowbush (wild) blueberry producers in Maine, I request an extension of the 24C label for Asulox herbicide for use on bracken fern. Our current 24C label recently expired on December 31, 2024. There has been an Asulox 24C label approved for use on this crop since 2010.

Bracken fern, *Pteridinium* species, are a serious weed in lowbush blueberry fields. The successional habitat in which lowbush blueberry is grown exhibit the same conditions that bracken fern lives. Through my Extension program, growers are encouraged to identify weeds in their fields and use cultural methods of weed management including sulfur application to bring the pH down and mechanical weed removal before using an herbicide method of control. Unfortunately, bracken fern grows well in the acidic soils, which must be maintained for grass weed suppression and wild blueberry growth.

There are 46,370 acres of commercial lowbush blueberry production in Maine. There are 512 total growers, 457 of which are conventional. In weed surveys we have found bracken fern to be one of the top two weeds that cover the most area in organic lowbush blueberry fields with very little bracken fern coverage in conventional fields. This is an indication that braken fern is prevalent on farms that have not applied Asulox. Conventional producers use this product on fields that are being brought into production as a spot application. This product is one of the only products available for conventional growers to use against bracken fern, which shades lowbush blueberry with its wide fronds.

Please support extending the Asulox 24C label for lowbush blueberry in Maine. Please let me know if the Board of Pesticide Control has any questions.

Sincerely,

Lily B. Calderwood

Dr. Lily Calderwood
University of Maine, Orono, ME 04469
Extension Wild Blueberry Specialist, Associate Professor of Horticulture

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AMANDA E. BEAL
COMMISSIONER

Memorandum

To: Board of Pesticides Control
From: Pam Bryer, Toxicologist
Subject: Asulox Special Local Need 2020 Review

February 19, 2020

Asulam has been used in Maine for several years under a Special Local Needs (SLN) registration for the control of bracken fern in lowbush blueberry fields. Previous reviews from the BPC toxicologist in 2010 and 2015 highlight the relatively low acute toxicity to many organisms, the short residence time in sunlit water and soil, and many pieces of missing data. In 2018, EPA issued a Proposed Interim Decision supported with several supporting documents and much of the data that was missing during the BPC's last SLN registration review is now available.

The primary concerns of this review focuses on: applicator safety, residues remaining on blueberries entering the marketplace, and ecological effects. This review is focused on the proposed use on lowbush blueberry in Maine. Spot use on blueberry fields during the non-bearing year is not consistent with how EPA modeled its potential effects during registration review. For example, the label allows asulam to be applied by aircraft over sugarcane twice a year (doubling the annual lbs/A over this proposed use). As a result, it is difficult to say how the effects demonstrated by EPA's predictive modeling compare to use in Maine. The modeling used throughout EPA's recent interim decision are at the very least conservative, however, they may be so conservative as to be unhelpfully vague for this specific use.

More data on the use patterns in Maine would help better understand how comparable Maine use patterns are to the patterns used by EPA in their interim decision modeling which were largely based on sugarcane. The label submitted with this SNL application allows for 3.34 lbs a.i./A as a spot treatment only once every other year. EPA reports that sugarcane growers used 270,000 lbs of asulam from 2011-2015. If we assume that 90% (10% are under organic production) of the 36,000 acres in Maine production use asulam consistent with the SLN label, Maine growers could use as much as 53,500 lbs each year (every-other-year application). EPA modeling uses the maximum allowable rate, however, their data show that sugarcane growers do not use the 3.6 lbs a.i./A rate two times a year as allowed. Typically, sugarcane growers use 1.5 to 2.5 lbs a.i./A

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only once a year. Additional use data from Maine growers could help fully understand potential effects.

Applicator Safety Concerns:
The application scenario for Maine applicators, ground-level spot applying, is unlikely to pose undue risk to applicators when used as labeled. Asulam has low hazard to mammals and the exposure pathways do not favor uptake during application. Dermal exposures are not considered to be important in mammals based on animal testing. Mammals show high tolerance to asulam exposures, in many of the toxicity tests the maximum exposure dose was reached before any effects were found. There were no thyroid or developmental changes following long-term exposures in rats.

In contrast, based on tumors found in rat studies, EPA has classified asulam within the Group C, possible human carcinogen category. Asulam can produce eye and skin irritation. The harm from asulam is considered mitigated by following the label instruction for proper PPE and REI.

Tolerance Concerns:
There is no tolerance established for asulam on blueberry. There is a tolerance for sugarcane, molasses from sugarcane, and several livestock products (fat, milk, etc.) likely to be fed molasses. There are SLNs in other states for seed spinach and seed alfalfa growing. There are no other established asulam tolerances in the Codex Alimentarius or for other countries.

Data is lacking on the length of time asulam persists in soil. This lack of fate data is a gap identified in EPA's 2018 interim decision. How asulam behaves in various environmental media is unknown. The Asulox label reads that results will not be visible during the year of application, "Control will be observed the year following application of the Asulox." The mechanism of action is to interfere with growth so it is understandable that asulam would not produce a remarkable response following application. But, how is control in the harvest year accomplished? Bracken fern are perennial and can have robust rhizomes. Asulam has high leaching potential and therefore it is expected to also easily translocate evenly throughout the plant tissues. Just as there is asulam for weed control in the bearing year, it is possible that asulam may occur in the blueberry fruit due to stored asulam in the blueberry roots. I have not received data that speaks to the potential for this fate pathway in blueberries. We would expect large quantities asulam to affect the blueberry crop since it is an herbicide. This product is used on 30% of all US grown sugarcane without tolerance violations. Clearly, in sugarcane there is a mechanism for asulam degradation, perhaps this same process could also be at work for blueberries. Additional clarification around the issue of fate in the environment would help us better assess potential residue levels in blueberry.

Ecological Concerns:
Leaching
The main concern with asulam comes from its potential for easily leaching. In sunlight asulam is rapidly broken down. If the product moves into the ground before being photodegraded EPA considers it a risk to ground and surface water. Data reported by EPA, found 8 detections out of

the 11,269 database returns for asulam; 2 groundwater and 6 surface water. The groundwater values were 0.0047 ug/L and 0.0285 ug/L. The surface water values were 0.0495 ug/L to 0.669 ug/L. In 2002, Maine CDC established a water quality guideline of 35 ug/L for asulam.

Asulam is considered to be practically non-toxic to freshwater fish and invertebrates. There is no data on marine/estuarine organisms.

In sum, although asulam readily leaches, the short half-life and low toxicity profile prevent undue harm to freshwater aquatic organisms.

Birds & Mammals
Asulam has little acute toxicity to birds and mammals, however, it does affect reproduction in both birds and mammals as a result of chronic exposures. In multiple species of birds, asulam exposure produced eggshell thinning. In mammals, there was a reduction in the number of viable offspring. Based on the modeled exposure patterns (e.g. the sugarcane scenario) EPA predicts chronic effects to be seen in birds and mammals.

In order to mitigate the potential adverse effects on birds and mammals, EPA changed the label language to reduce drift. The changes introduced in 2018 were: ground applications must be made no more than 4 feet from the ground or canopy and the droplets must be in the medium-coarser ASABE Standard 572.1 size range. EPA considered those changes to be sufficient to allow continued use at the current application rate.

Bees
During acute exposures asulam is practically non-toxic to bees on contact, however, there is a large data gap in the honey bee data. There is only one test, the adult acute contact test, that has been performed. There is not enough data to fully determine effects on bees.

In sum, EPA indicates in their 2018 interim decision that between the label changes and the knowledge that few or no producers are likely to be using asulam at the maximum allowable rate there should be no undue harm to the environment.

SLN request summary
It seems impossible that growers in Maine would ever reach the predicted harm from the high exposures modelled under the sugarcane scenario (3.65 lbs/A twice a year by aircraft). Asulam has a consistently low toxicity profile especially when drift is managed. It has low acute toxicity to many taxa and the chronic exposure endpoints of concern should be mitigated by the current label.

The only uncertainty in this use surrounds tolerance violations because of the potential presence of asulam in blueberries at harvest.

September 30, 2024

Brogan Tooley, Agroecologist
244 Main Street
Ellsworth, ME, 04605

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

Dear Members of the Maine Board of Pesticide Control,

I am writing to express my strong support for the approval of a 24(c) label for the special use of Asulox (ai: asulam) in managing bracken fern (*Pteridium aquilinum*) in wild blueberry production in Maine. As a significant stakeholder in the wild blueberry industry, managing the impact of bracken fern is critical to maintaining the health and productivity of our crops.

Bracken fern poses a serious challenge, particularly in fields transitioning into production. This perennial weed grows aggressively, developing a dense canopy that can shade out blueberry plants, leading to decreased yields and diminished harvester efficiency. While spot treatments have proven effective in managing bracken fern, our herbicide options remain limited, making it essential to have additional products available for long-term control.

As a large stakeholder managing thousands of acres of wild blueberries each year, we heavily rely on diverse herbicide options. The ability to rotate among different herbicide groups is essential for implementing Integrated Pest and Pollinator Management (IPPM) practices and mitigating the risk of herbicide resistance. We have seen positive results from using glyphosate (Group 9) through targeted

weed wiping; however, it is crucial to have alternative herbicides available. Asulox (Group 18) has demonstrated proven efficacy against bracken fern and has the potential to play a key role in our weed management strategy going forward.

Additionally, the growing concerns around organophosphates—both in terms of market acceptance and worker protection—underscore the need for effective alternatives. Maintaining Asulox as an option will enhance our ability to manage bracken fern effectively and ensure the sustainability of wild blueberry production in Maine.

I urge the Board to consider the importance of Asulox in managing bracken fern and to approve the 24(c) label for its use. Access to this herbicide will significantly support our efforts to produce high-quality wild blueberries while adhering to responsible agricultural practices.

Thank you for considering this request, I appreciate your attention to this important matter.

Sincerely,

Brogan Tooley (she/her)
Agroecologist, Research Manager, Wyman's
244 Main Street, Ellsworth, ME, 04605
btooley@wymans.com
(207) 390-1754

CHERRYFIELD FOODS INC.

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

February 24, 2025

To whom it may concern:

On behalf of Cherryfield Foods Inc., I am writing to express our full support for the renewal of the FIFRA 24(c) Special Local Need Label for Asulox® to control bracken fern in lowbush blueberries.

As a Wild blueberry grower and collaborator with numerous other growers, our farm management decisions rely heavily on a strong IPM program and we believe it necessary to have as many viable options in our toolbox to manage pest pressures when deemed necessary. Having options for specific weeds, like spot-spraying Asulox® for bracken fern, provides a pest-specific tool to limit the use of broad spectrum herbicides and reduce potential negative impacts in an efficient and cost effective approach. Bracken fern is a persistent problem for Wild blueberry growers with limited resources for adequate control, thus encouraging our support for renewing the 24 (c) Special Local Need Label for Asulox®.

Sincerely,

Spencer Fiser

Farm Operations Manager
Cherryfield Foods Inc.
320 Ridge Rd.
Cherryfield, ME 04622

FIFRA Sec. 24(c)

Special Local Need Label

FOR DISTRIBUTION AND USE ONLY WITHIN THE STATE OF MAINE

ASULOX® HERBICIDE

EPA Reg. No. 70506-139 EPA SLN No. ME-100003

This label is valid until December 31, 2030 or until otherwise amended, withdrawn, canceled, or suspended.

ASULOX FOR CONTROL OF BRACKEN FERN IN LOWBUSH BLUEBERRIES
Non-bearing fields only

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

This label and the federal label for this product must be in the possession of the user at the time of pesticide application.

Weed Species	Rate	Special Instructions
Bracken Fern (*Pteridium aquilinum*)	1 gal/acre	Bracken should be in full frond prior to application. Use Asulox only as a spot treatment. The use of a non ionic surfactant at 0.25% v/v may improve uptake of the Asulox. Treatment is limited to non bearing fields. Do not apply more than once every other year. Control will be observed the year following application of the Asulox. No visible control symptoms will be observed the year of application.

Rev. 3/6/2025
Expires Dec. 31, 2020

GROUP 18 HERBICIDE

ASULOX®

HERBICIDE

FOR AGRICULTURAL OR COMMERCIAL USE ONLY
NOT FOR USE BY HOMEOWNERS

For Postemergent Weed Control in Sugarcane, Turf, Ornamentals, Christmas Tree Plantings and Non-Cropland

ACTIVE INGREDIENT:	
Sodium salt of asulam (methyl sulfanilylcarbamate)*	36.2%
OTHER INGREDIENTS:	63.8%
TOTAL:	100.0%

*Equivalent to 33.1% asulam or not less than 3.34 lbs. per gallon.

EPA Reg. No. 70506-139 **EPA Est. No. 041876-IND-002**

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID	
IF ON SKIN OR CLOTHING:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 - 20 minutes. • Call a poison control center or doctor for treatment advice.
IF IN EYES:	• Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. • Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact Rocky Mountain Poison and Drug Safety at 1-866-673-6671 for emergency medical treatment information.	

See inside for additional Precautionary Statements and complete Directions For Use.

FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident, call CHEMTREC 1-800-424-9300.

Net Contents: 2.5 Gallons

HERBICIDE

UPL NA Inc. • 630 Freedom Business Center, Suite 402
King of Prussia, PA 19406 U.S.A. • 1-800-438-6071

UPL

PRECAUTIONARY STATEMENTS
HAZARD TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if absorbed through skin. Avoid contact with eyes, skin or clothing. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear long-sleeved shirt and long pants, chemical-resistant gloves (such as Nitrile, Butyl, Neoprene, and/or Barrier Laminate), and shoes plus socks. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROL STATEMENTS

When handlers use closed systems, enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations

Users should leave the treated area, remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This chemical is known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination. Surface water contamination may occur in areas with poorly draining soils and little or no buffers or in areas where drainage systems flow directly to surface water.

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not clean equipment or dispose of equipment washwater in a manner that will contaminate resources. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water by cleaning of equipment or disposal of wastes.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Read entire label before using this product.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated such as plants, soil or water is coveralls, chemical-resistant gloves, and shoes plus socks.

GENERAL INSTRUCTIONS AND INFORMATION

APPLICATION INSTRUCTIONS

Do not apply ASULOX® Herbicide through any type of irrigation systems.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulations.

SPRAY DRIFT

SENSITIVE AREAS: This herbicide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitats for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR. The interaction of many equipment and weather-related factors determine the potential for spray drift. The applicator is responsible for considering all these factors when making decisions. The following drift management requirements must be followed to avoid off-target movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulation.

1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed. The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

INFORMATION ON DROPLET SIZE: (This section is advisory in nature and does not supersede the mandatory label requirements)

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see **WIND**, **TEMPERATURE AND HUMIDITY**, and **TEMPERATURE INVERSIONS** below).

CONTROLLING DROPLET SIZE: (This section is advisory in nature and does not supersede the mandatory label requirements)

- Volume - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of Nozzles - Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

BOOM LENGTH: (This section is advisory in nature and does not supersede the mandatory label requirements)

For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

APPLICATION HEIGHT: (This section is advisory in nature and does not supersede the mandatory label requirements)

Applications should not be made at a height greater than 10 feet above the top of the target plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

SWATH ADJUSTMENT: (This section is advisory in nature and does not supersede the mandatory label requirements)

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator should compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.).

WIND: (This section is advisory in nature and does not supersede the mandatory label requirements)

Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. **NOTE:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

TEMPERATURE AND HUMIDITY: (This section is advisory in nature and does not supersede the mandatory label requirements)

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

TEMPERATURE INVERSIONS: (This section is advisory in nature and does not supersede the mandatory label requirements)

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

SUGARCANE

ASULOX Herbicide can be applied to either plant cane or cane grown from stubble. Apply ASULOX Herbicide as a water mix spray for ground applications. Use 15 to 100 gallons of water per acre, depending on local practice. For aerial application, ASULOX Herbicide should be mixed in 3 to 5 gallons of water per acre, except in Hawaii, where 5 to 10 gallons of water per acre should be used.

Addition of an adjuvant cleared for use on growing crops to the ASULOX Herbicide water mix spray will improve weed control when environmental conditions are not optimal. Use either a non-ionic surfactant containing a minimum of 80% active ingredient at the rate of 1 to 2 quarts per 100 gallons (0.25 to 0.5% V/V) of water mix spray or a crop oil concentrate containing 80 to 85% paraffin based petroleum oil and 15 to 20% non-ionic surfactant at the rate of 4 quarts per 100 gallons (1% V/V) of water mix spray.

The rates of ASULOX Herbicide given below are for broadcast applications. For banded application, reduce the rate proportionally to the width of the band according to the following formula:

$$\frac{\text{BAND WIDTH (inches)}}{\text{ROW WIDTH (inches)}} \times \text{Broadcast Rate} = \text{Band Rate/Acre}$$

For spot treatments, use a 5% v/v ASULOX Herbicide spray (1 gallon per 20 gallons of water). Do not exceed 8 pints of ASULOX Herbicide per acre per treatment.

Single Application Per Growing Season

WEED SPECIES	SPECIAL INSTRUCTIONS	RATE
Itchgrass or Raoulgrass *(Rottboellia exaltata)*	Apply when the grass is 8 inches tall or less (addition of surfactant is necessary).	8 pints/acre
Johnsongrass *(Sorghum halepense)*	Apply when the grass is between 12 to 18 inches tall. Johnsongrass should be actively growing and the average air temperature should be at least 60°F or higher.	
Paragrass or Californiagrass *(Brachiaria mutica* or *Panicum purpurascens)*	Apply when the grass is 6 to 8 inches tall or less.	
Crabgrass *(Digitaria* spp.*)*	If treatment is made before the grass reaches seed head formation then the lower rate should be used. If the grass is in early seed head formation then the higher rate should be used.	6 to 8 pints/acre
Alexandergrass *(Brachiaria plantaginea)* Foxtail *(Setaria* spp.*)* Goosegrass *(Eleusine indica)* Broadleaf Panicum *(Panicum adspersum)* Barnyardgrass *(Echinochloa crusgalli)*	If treatment is made when the grass is 6 to 8 inches tall or less, then the lower rate should be used. If the grass is greater than 8 inches tall, then the higher rate should be used.	

Two Applications Per Growing Season

This may be required when initial weed infestations are heavy and/or when rhizome Johnsongrass is present. Two applications may also be used when treating weed species which germinate at different times during one growing season.

WEED SPECIES	SPECIAL INSTRUCTIONS	1ST APPLICATION	2ND APPLICATION
Crabgrass *(Digitaria* spp.*)*	At each application the grass should be treated before seed head formation.	6 to 8 pints/acre	6 to 8 pints/acre
Itchgrass or Raoulgrass *(Rottboellia exaltata)*	At each application the grass should be 8 inches tall or less (addition of surfactant is necessary).	8 pints/acre	8 pints/acre
Johnsongrass *(Sorghum halepense)*	At each application the grass should be between 12 and 18 inches tall.	8 pints/acre	8 pints/acre

RESTRICTIONS AND PRECAUTIONS: Sugarcane

- ASULOX Herbicide should be used when the weeds are actively growing.
- Cover crops may be planted if plowed under and not grazed.
- The following pre-harvest intervals for ASULOX Herbicide applications to sugarcane must be observed: 1) Mainland U.S.A. (except Louisiana) – 140 days; 2) Louisiana only – 100 days; 3) Hawaii – 400 days.
- Do not graze or feed sugarcane fodder and forage to livestock.
- Cultivation and/or fertilizer applications or any other cultural practice that disturbs the root system of targeted weed species may result in less than optimum control when applying ASULOX Herbicide. These practices are not recommended within 7 days prior to or within 7 days after applications of ASULOX Herbicide.
- Differences in crop tolerance to ASULOX Herbicide among Sugarcane varieties has been reported in Louisiana. Contact your local County Agent or University Extension Specialist for further information.

NON-CROPLAND

ASULOX Herbicide may be used as a postemergent treatment to control weeds on non-cropland areas such as:

Boundary fences
Fence rows
Highway and roadside rights-of-way
Lumberyards
Pipeline rights-of-way
Railroad rights-of-way and yards
Storage areas and industrial plant sites
Utility rights-of-way and yards
Warehouse lots

A surfactant may be added to the spray solution at 0.25% by volume. (Use an approved non-ionic surfactant.)

Apply ASULOX Herbicide as a single water-mix spray for ground applications using 20 to 100 gallons of solution per acre, depending on local practice, to control the following weed species. Apply one application per season. Aerial application is prohibited.

WEED SPECIES	SPECIAL INSTRUCTIONS	RATE
Crabgrass *(Digitaria* spp.*)*	Apply before the grass reaches seed head formation.	1 gal/acre
Johnsongrass *(Sorghum halepense)*	Apply when the grass is 18 inches or taller. Use the higher rate in well established heavy infestations. For spot treatment in Hawaii, use the higher rate in 100 gallons of solution and apply an amount not to exceed 50 gallons of total solution per acre.	
Paragrass or Californiagrass *(Brachiaria mutica* or *Panicum purpurascens)*	Apply before the grass reaches seed head formation. For spot treatment in Hawaii, use the same rate in 100 gallons of solution and apply an amount not to exceed 50 gallons of total solution per acre.	
Western Bracken *(Pteridium aquilinum* var. *pubescens)*	Apply when the fern is in full frond.	7 to 8 pints/acre

CHRISTMAS TREE PLANTINGS

ASULOX Herbicide may be used as a postemergent treatment in Christmas Tree Plantings where Douglas Fir, Grand Fir, Noble Fir or Scotch Pine are grown. Do not graze or feed foliage from treated areas to livestock.

ASULOX Herbicide should be applied as a water mix spray. For ground application, use a minimum of 20 gallons of solution per acre. Do not use a wetting agent with ASULOX Herbicide. Apply one application per season. Aerial application is prohibited.

WEED SPECIES	SPECIAL INSTRUCTIONS	RATE
Western Bracken *(Pteridium aquilinum* var. *pubescens)*	Apply after bud break and hardening or firming of new tree growth. Bracken should be in full frond prior to treatment.	1 gal/acre

TURF
(Sod Farms Only)

ASULOX Herbicide can be applied on St. Augustinegrass and Tifway 419 Bermudagrass turf. Apply one application per season postemergence to the weeds listed below. Use 20 to 50 gallons of water per acre in the spray solution.

TURF SPECIES	WEED SPECIES	RATE
St. Augustinegrass	Bullgrass *(Paspalum supinum)* Crabgrass *(Digitaria* sp.*)* Goosegrass *(Eleusine indica)*	5 pints/acre
Tifway 419 Bermudagrass	Sandbur *(Cenchrus* sp.*)*	

Do not use a surfactant. Do not apply to turf which is under stress or freshly mowed.

ORNAMENTALS

ASULOX Herbicide can be applied as a single, postemergent, broadcast application on the following ornamentals:

JUNIPERS		YEWS	
Juniperus andorra	Juniperus horizontalis	Taxus cuspidata	Podocarpus macrophyllus
Juniperus chinensis	Juniperus litoralis	Taxus media	
Juniperus conferta	Juniperus sabina		

Treatment should be made with a minimum of 20 gallons of water per acre. Do not use a surfactant.

WEED SPECIES	SPECIAL INSTRUCTIONS	RATE
Barnyardgrass *(Echinochloa crusgalli)* Crabgrass *(Digitaria* sp.*)* Fall Panicum *(Panicum dichotomiflorum)* Foxtails *(Setaria* sp.*)* Goosegrass *(Eleusine indica)* Horseweed (marestail) *(Conyza canadensis)*	Apply when the weeds are between the stages of early seedling and early seed head formation.	1 gal/acre

Local conditions may affect the use of this chemical. Consult State Agricultural Extension or Experiment Station weed specialists for specific recommendations for local weed problems and for information on possible lower dosages.

STORAGE AND DISPOSAL

PESTICIDE STORAGE: Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Store at temperatures above 20° F.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container.

[for containers less than 5 gallons] Triple rinse as follows: empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a rinse tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

[for containers greater than 5 gallons] Triple rinse or pressure rinse as follows:

Triple rinse: empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Pressure rinse: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after flow begins to drip. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

CONTAINER DISPOSAL: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose.

Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

IMPORTANT INFORMATION
READ BEFORE USING PRODUCT

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product reflect the opinion of experts based on field use and tests, and must be followed carefully. It is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of UPL NA Inc. or Seller. Handling, storage, and use of the product by Buyer or User are beyond the control of UPL NA Inc. and Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold UPL NA Inc. and Seller harmless for any claims relating to such factors.

To the extent consistent with applicable law, UPL NA Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or UPL NA Inc., and Buyer and User assume the risk of any such use. To the extent consistent with applicable law, UPL NA INC. MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, UPL NA Inc. or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product and **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF UPL NA INC. AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF UPL NA INC. OR SELLER, THE REPLACEMENT OF THE PRODUCT**.

UPL NA Inc. and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by the duly authorized representative of UPL NA Inc.

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NOTES

GROUP 18 HERBICIDE

ASULOX®

HERBICIDE

FOR AGRICULTURAL OR COMMERCIAL USE ONLY
NOT FOR USE BY HOMEOWNERS

For Postemergent Weed Control in Sugarcane, Turf, Ornamentals, Christmas Tree Plantings and Non-Cropland

ACTIVE INGREDIENT:	
Sodium salt of asulam (methyl sulfanilylcarbamate)*	36.2%
OTHER INGREDIENTS:	63.8%
TOTAL:	100.0%

*Equivalent to 33.1% asulam or not less than 3.34 lbs. per gallon.

EPA Reg. No. 70506-139 **EPA Est. No. 041876-IND-002**

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID	
IF ON SKIN OR CLOTHING:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 - 20 minutes. • Call a poison control center or doctor for treatment advice.
IF IN EYES:	• Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. • Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact Rocky Mountain Poison and Drug Safety at 1-866-673-6671 for emergency medical treatment information.	

See inside for additional Precautionary Statements and complete Directions For Use.

FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident, call CHEMTREC 1-800-424-9300.

Net Contents: 2.5 Gallons

PRECAUTIONARY STATEMENTS
HAZARD TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if absorbed through skin. Avoid contact with eyes, skin or clothing. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

ENVIRONMENTAL HAZARDS

This chemical is known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination. Surface water contamination may occur in areas with poorly draining soils and little or no buffers or in areas where drainage systems flow directly to surface water.

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not clean equipment or dispose of equipment washwater in a manner that will contaminate resources. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water by cleaning of equipment or disposal of wastes.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Read entire label before using this product.

STORAGE AND DISPOSAL

PESTICIDE STORAGE: Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Store at temperatures above 20° F. **PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. **CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container.** [for containers less than 5 gallons] Triple rinse as follows: empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a rinse tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. **CONTAINER DISPOSAL: Refillable container.** Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

UPL NA Inc. • 630 Freedom Business Center, Suite 402, King of Prussia, PA 19406 U.S.A. • 1-800-438-6071

UPL

PEEL DOWN FOR DIRECTIONS >

148299-A (0423) ESL100719-10800-040323

Safety Data Sheet

Preparation Date 21-Apr-2015 **Revision date** 19-Jul-2022 **Revision Number:** 7

1. Identification of the Substance/Preparation and of the Company/Undertaking

Identification of the product
Product Description Asulox Herbicide

Other means of identification
Internal SDS code 12U-109
Registration number(s) 70506-139

Recommended use of the chemical and restrictions on use
Recommended use Herbicide.
Uses advised against Activities contrary to label recommendation

Details of the Supplier of the Safety Data Sheet
Supplier Address
UPL NA Inc.
630 Freedom Business Center
Suite 402
King of Prussia, PA 19406

Emergency telephone number
Company Phone Number 1-800-438-6071
Emergency telephone number Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887
Medical: Rocky Mountain Poison and Drug Safety (866) 673-6671 (24hrs)

2. Hazards Identification

Classification

OSHA Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin sensitization	Category 1A

Label elements

EMERGENCY OVERVIEW

WARNING

Hazard Statements
May cause an allergic skin reaction

Appearance brown **Physical state** Liquid **Odor** odorless

Precautionary Statements - Prevention

Do not breathe dust/fume/gas/mist/vapors/spray
In case of inadequate ventilation wear respiratory protection
Do not get in eyes, on skin, or on clothing
Wash face, hands and any exposed skin thoroughly after handling

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
Call a POISON CENTER or doctor if you feel unwell

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards Not Otherwise Classified (HNOC)
OTHER INFORMATION
• MAY BE HARMFUL IF SWALLOWED

3. Composition/information on Ingredients

Chemical name	CAS No	Weight-%
Ammonium hydroxide	1336-21-6	2.1
Asulam sodium	2302-17-2	35-37
Ethoxylated tallowamine	61791-26-2	2.2
Citric acid	77-92-9	2.1

If CAS number is "proprietary", the specific chemical identity and percentage of composition has been withheld as a trade secret.

4. First aid measures

FIRST AID MEASURES

Eye contact Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Skin contact Remove and wash contaminated clothing before re-use. Wash off immediately with plenty of water for at least 15 minutes. Call a poison control center or doctor for treatment advice.

Inhalation Call a physician or poison control center immediately. Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.

Ingestion Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice.

Most Important Symptoms and Effects, Both Acute and Delayed

Most Important Symptoms and Effects no data available.

Indication of Any Immediate Medical Attention and Special Treatment Needed

Notes to physician No information available. Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Carbon dioxide (CO2). Dry chemical. Foam. Aquatic.

Unsuitable extinguishing media no data available.

Specific hazards arising from the chemical
No information available.

Hazardous combustion products Carbon oxides. Oxides of nitrogen. Sulfur oxides.

Explosion data
Protective equipment and precautions for firefighters
Use personal protective equipment. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions Avoid contact with skin and eyes. Provide adequate ventilation. Use personal protective equipment.

Environmental Precautions

Environmental precautions Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Methods and material for containment and cleaning up

Methods for Clean-Up Sweep up and shovel into suitable containers for disposal.

7. Handling and Storage

Precautions for safe handling

Handling Keep out of reach of children. Wear personal protective equipment. Avoid breathing vapors or mists. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use.

Conditions for safe storage, including any incompatibilities

Storage Keep in a dry, cool and well-ventilated place. Do not transport or store below -6 C. Keep containers tightly closed in a cool, well-ventilated place.

incompatible materials Acids.

8. Exposure Controls/Personal Protection

Exposure guidelines This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Engineering controls Investigate engineering techniques to reduce exposures. Local mechanical exhaust ventilation is preferred. Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems.

Personal protective equipment

Eye/Face Protection Use eye protection to avoid eye contact. Where there is potential for eye contact have eye flushing equipment available. Safety glasses with side-shields.

Skin protection Neoprene gloves. Nitrile rubber. Impervious butyl rubber gloves. Chemical resistant protective clothing.

Respiratory protection Where airborne exposure is likely, use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. If exposures cannot be kept at a minimum with engineering controls, consult respirator

manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure, use an approved full face positive-pressure, self-contained breathing apparatus. Respiratory protection programs must comply with 29 CFR 1910.134.

General hygiene considerations
Do not eat, drink or smoke when using this product. Wash hands and face before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use. Wear suitable gloves and eye/face protection.

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance	brown
Physical state	Liquid
Odor	odorless
color	No information available

Property	VALUES	Remarks/ Method
pH	7.5	None known
Melting point/freezing point	8.5 °C	None known
Boiling Point/Range	104 °C	None known
Flash Point	No information available	None known
Evaporation Rate		None known
Flammability (solid, gas)		None known
Specific gravity	1.18 @ 20 C	None known
Bulk density	10 lb/gal	None known
Water solubility		None known
Solubility in Other Solvents	Soluble	None known
Partition coefficient: n-octanol/water		None known
Autoignition temperature		None known
Decomposition temperature		None known
Viscosity		None known

9.2 OTHER INFORMATION

molecular weight 253.24 g/mol

10. Stability and Reactivity

Reactivity
no data available

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
None under normal processing.

Conditions to avoid
Freezing temperatures.

incompatible materials
Acids.

Hazardous decomposition products
Carbon oxides. Nitrogen oxides (NOx). Oxides of sulfur.

11. Toxicological Information

Information on Likely Routes of Exposure

Product information Asulox:Acute oral LD50: >5,000 mg/kg (rat) Acute dermal LD50: >2,000 mg/kg (rabbit) Acute inhalation LC50: >5 mg/L 4 hr (rat) (dust/mist) No deaths Skin irritation: Non-irritating (rabbit)Eye irritation: Slightly irritating (rabbit)

Inhalation May cause irritation of respiratory tract. May be harmful if inhaled.

Eye contact May cause slight irritation.

Skin contact Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

Ingestion MAY BE HARMFUL IF SWALLOWED.

Information on Toxicological Effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization Repeated or prolonged contact may cause allergic reactions in very susceptible persons.
Mutagenic effects no data available.
Carcinogenicity Asulam:

The EPA has classified asulam as a Group C - possible human carcinogen - based on thyroid and adrenal tumors in rats. Carcinogenicity testing with Asulam sodium is not available. Hoever, the EPA considers Asulam sodium as a "Possible Human Carcinogen" based on structure activity relationship.

Asulam or Asulam sodium is not listed as a carcinogen by the NTP, IARC or OSHA.

Mutagenicity
No mutagenic effects were observed in studies performed with asulam.

Reproductive/Developmental Toxicity
No reproductive or developmental effects (teratogenicity) were observed in studies performed with Asulam. .

Reproductive effects Not Available.
STOT - Single Exposure no data available.
STOT - Repeated Exposure no data available.
Aspiration hazard No information available.

Numerical Measures of Toxicity - Product information

LD50 Oral > 5000 mg/kg (rat)
LD50 Dermal > 2000 mg/kg (rabbit)
LC50 Inhalation > 20 mg/l (1 hr) (rat)

12. Ecological Information

ecotoxicity

Do not apply directly to water to areas where surface water is present or to intertidal areas below the mean high water mark. Do not clean equipment or dispose of equipment washwater in a manner that will contaminate water resources or areable land. Do not apply when weather conditions favor drift from treated areas.

Persistence/Degradability
no data available.

Bioaccumulation/ Accumulation
Bioaccumulative potential.

Chemical name	Log Pow
Citric acid 77-92-9	-1.72

Other Adverse Effects
no data available

13. Disposal Considerations

Waste Treatment Methods

Waste Disposal Method Pesticide wastes can be hazardous. Improper disposal of excess pesticide or rinsate is a violation of Federal law. If the wastes cannot be disposed of by use or according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. 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. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. Do not apply directly to wetlands or water.

Contaminated packaging Do not reuse empty containers. Refer to product label.

Chemical name	Ammonium hydroxide

14. Transport Information

DOT
NOT REGULATED

TDG
NOT REGULATED

IATA
NOT REGULATED

IMDG
NOT REGULATED

15. Regulatory Information

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

signal word CAUTION

Ventilation Control PESTICIDE APPLICATORS & WORKERS THESE WORKERS MUST REFER TO PRODUCT LABELING AND DIRECTIONS FOR USE IN ACCORDANCE WITH EPA WORKER PROTECTION STANDARD 40 CFR PART 170.

Keep out of Reach of Children. Harmful if absorbed through the skin. Prolonged or frequent repeated skin contact may cause allergic reaction in some individuals.

International Inventories

USINV	Not present
DSL/NDSL	Not present
EINECS/	Not Present
ELINCS	
ENCS	Not Present
China	Not Present
KECL	Not Present
PICCS	Not Present
AICS	Not Present
TSCA	Not Present

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Ammonium hydroxide 1336-21-6	1000 lb			X

CERCLA

Not applicable

Chemical name	RQ	CERCLA EHS RQs	RQ
Ammonium hydroxide 1336-21-6	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ

CERCLA

Component	RQ
Ammonium hydroxide 1336-21-6 (2.1)	1000 lb

SARA Product RQ 0

RCRA

Pesticide Information

Component	FIFRA - Restricted Use	FIFRA - Pesticide Product Other Ingredients	FIFRA - Listing of Pesticide Chemicals	California Pesticides - Restricted Materials
Ammonium hydroxide 1336-21-6 (2.1)			X	
Citric acid 77-92-9 (2.1)			X	

State Regulations

State Right-to-Know

Chemical name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Ammonium hydroxide - 1336-21-6	X	X	X		

International regulations

U.S. EPA Label information

EPA Pesticide registration number 70506-139

16. Other Information

NFPA **HEALTH** 2 **flammability** 0 **Instability** 0 **Physical hazard** -

Preparation Date 21-Apr-2015
Revision date 19-Jul-2022
Revision Summary
Update section 2

Disclaimer

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End of SDS

BOARD OF PESTICIDES CONTROL
APPLICATION FOR VARIANCE PERMIT
(Pursuant to Chapter 29, Section 6 of the Board's Regulations)

I. TYLER CHATEAUVERT (413) 562-5681
Name Telephone Number

RWC, INC.
Company Name

PO BOX 876, 248 LOCKHOUSE RD WESTFIELD, MA 01086-0876
Address City State Zip

II. TYLER CHATEAUVERT CMA-6290
Master Applicator (if applicable) License Number

22 FLETCHER ROAD ENFIELD, CT 06082
Address City State Zip

III. **As part of your application, please send digital photos showing the target site and/or plants and the surrounding area, particularly showing proximity to wetlands and water bodies, to pesticides@maine.gov**

IV. **Area(s) where pesticide will be applied:**
Canadian Pacific Kansas City Railway-48' pattern (24' each side center of track)
CSX-48' pattern (24' each side center of track)
Belfast Moosehead Lake Railroad – 24' pattern (12'each side center of track)
Presque Isle Industrial Council – 24' pattern (12' each side center of track)
Maine – State owned Railroad Tracks – 48' pattern (24' each side center of track)
Eastern Maine Railroad – 48' pattern (24' each side center of track)
Turner Island LLC Railroad, S. Portland, Maine – 24' pattern (12' each side center of track)
Maine Northern Railway – 48' pattern (24' each side center of track)

V. **Pesticide(s) to be applied**: Various combinations of:

- Aquaneat (EPA Reg. No. 228-365)
- Credit 41 (EPA Reg. No. 71368-20)
- Escort XP (EPA Reg. No. 432-1549 or 101563-167)
- Esplanade 200 SC (EPA Reg. No. 432-1516)
- Milestone (EPA Reg. No. 62719-519)
- Opensight (EPA Reg. No. 62719-597)
- Oust Extra (EPA Reg. No.432-1557 or 101563-173)
- Oust XP (EPA Reg. No. 432-1552)
- Patriot (EPA Reg. No. 228-391)
- Polaris AC Complete (EPA Reg. No. 228-570)
- Roundup ProConcentrate (EPA Reg. No. 524-529)
- Whetstone (EPA Reg. No. 62719-597)

VI. **Purpose of pesticide application**: the ballast, shoulder and areas adjacent to shoulder sections of the right-of-way (diagrams of typical spray patterns enclosed) must remain weed, grass and brush free for just some of the following reasons:

a. To allow for proper inspection of tie fastenings, switches & rails
b. To maintain proper drainage
c. To allow for inspection of trains
d. To remove health and safety hazards
e. To improve working conditions
f. To reduce fire hazards
g. To improve visibility at road crossings

VII. **Approximate dates of spray application**: May 1st through September 30, 2025

VIII. **Application Equipment**: Hy-rail Truck Equipment with fixed mounted booms approximately 18 inches above the rail for weed and grass control and brush booms with fixed direct spray and mini wobbler tips.

IX. **Standard(s) to be varied from**:

Chapter 29 Section 6A, I to V – Buffer requirements (prohibiting pesticide applications within 25 feet of the high water mark).

X. **Method to ensure equivalent protection**:

The railroads patrolmen have track charts which show rivers, streams, ponds, road crossings, etc. He normally is in a track vehicle running ahead of the spray unit and through the use of radio communication, gives a warning signal where there are culverts, bridges with running water underneath and other sensitive areas adjacent to the track. RWC, Inc. has mounted in cab controlled gutters on the rear of our equipment to assure that no pesticides drip or enter the waterways of the State of Maine when going over the bridges. RWC, Inc. will leave a buffer of ten feet (10') from lakes, rivers, streams and surface waters and in the case of a public water supply will only apply Glyphosate, for a distance of one half mile before the site and one half mile beyond. Within the ten foot (10') buffer, alternative methods will have to be employed to control vegetation. RWC, Inc. will use drift control agents to reduce the chance of drift and enlarged droplet size continue using nozzles that enlarge droplet size, continue to use sticker-spreader-extender to adhere spray materials to ground or leaf surface, continue to use low volatile chemical, continue to monitor weather conditions and cancel applications when rainfall is predicted. RWC will conduct the applications in a manner which protects surface water as defined in Chapter 29, Section 6A.

Signed: _____ Date: 3/21/2025

Return completed form to: **Board of Pesticides Control, 28 State House Station, Augusta, ME 04333-0028**
OR E-mail to: pesticides@maine.gov

FIGURE 1
RAILROAD AREAS REQUIRING VEGETATION CONTROL

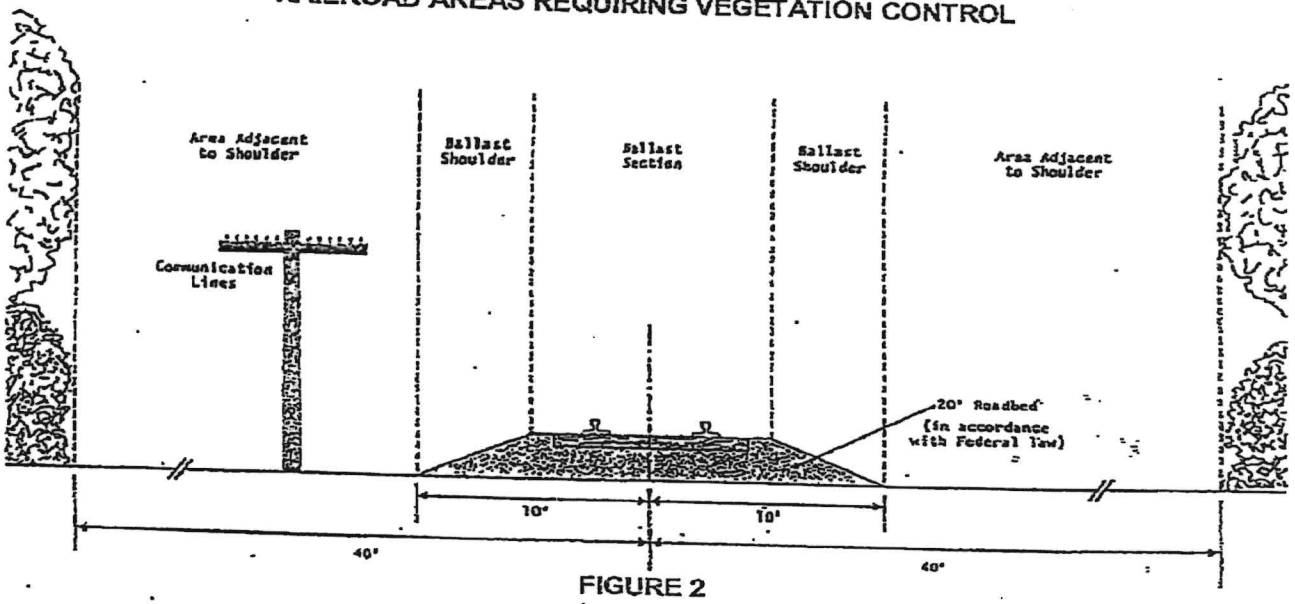
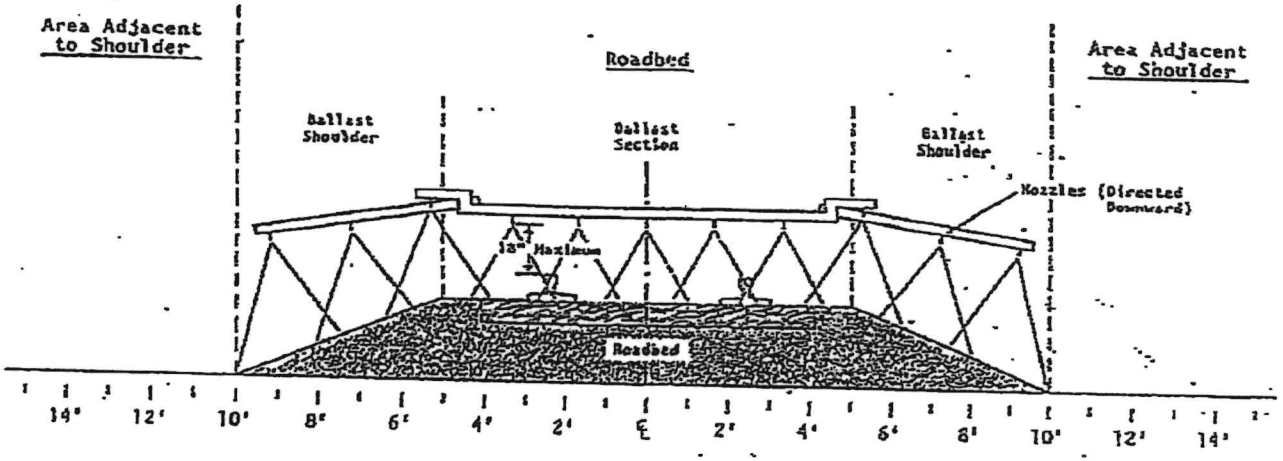


FIGURE 2

Note: Spray can be controlled to selectively treat all portions (Ballast, Shoulder, and Adjacent Area) or any of the individual portions alone.



MAR 2 7 2025 6

BOARD OF PESTICIDES CONTROL APPLICATION FOR EMERGENCY USE PERMIT TO USE NEONICOTINOIDS IN RESIDENTIAL LANDSCAPES

I. DANIEL THRALL CMA-6158 (207)670-5357
Name Telephone Number

208 STAGECOACH Rd UNITY ME 04988
Address City State Zip

II. SAFARI 20 SG
Brand name of pesticide(s) to be applied

III. 11 ELM ST. ROCKPORT, ME. BIRCH TREES LEFT SIDE OF DRIVEWAY
Approximate area(s) where pesticides will be applied

IV. The purpose for which the pesticide application(s) will be made: To suppress and control current infestation of Brone Birch Borer, To Prevent further loss of trees,

V. The approximate application dates:

MAY 2025

VI. The type(s) of application equipment to be employed:

Basal Bark application with backpack sprayer set @ 20psi or less

VII. The approved pest species for which the application is being made:

Bronze Birch Borer

VIII. The reasons why the applicant seeks a variance from the requirements of CMR01-26 Chapter 41 Section 6:

Will cause significat Economic loss due to

AN OUTBREAK OR EXPECTED OUTBREAK OF A PEST.

Signed: [signature] Date: 3/25/2025

Return completed form to: **Board of Pesticides Control, 28 State House Station, Augusta, ME 04333-0028**

OR email to: pesticides@maine.gov

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

JANET T. MILLS
GOVERNOR

AMANDA E. BEAL
COMMISSIONER

Memorandum

To: Board of Pesticides Control
From: Alexander Peacock, Director
Subject: Policy on Determining Allowable Pesticide Applications Pursuant to CMR 01-026, Chapter 29, Section 6

April 25, 2025

Background:

On November 18, 2011, the Board approved an interim policy allowing staff to approve Chapter 29 requests for variances to control vegetation that poses a dermal toxicity hazard.

On December 13, 2013 the Board revised this policy to give staff the authority to approve requests for variance from CMR 01-026 Chapter 29, Section 6, for the control of invasive plants.

Many of these variance requests are for controlling Japanese Knotweed (*Fallopia japonica, syn. Polygonum cuspidatum, Reynoutria japonica*).

On March 5, 2010, The Board adopted a policy on Determining Allowable Pesticide Applications Pursuant to CMR 01-026, Chapter 29, Section 6.

Pesticide applications must be:

1. Directed away from surface water;

2. Directed at specific pest organisms or infestations in a manner that minimizes deposition to non-target species and areas;

3. Conducted using non-powered application equipment capable of targeting pest organisms while avoiding non-target species;

4. During any calendar year, is confined to no more than 20% of the area located within 25 feet of surface water; and

ALEXANDER PEACOCK, DIRECTOR
90 BLOSSOM LANE, DEERING BUILDING

PHONE: (207) 287-2731
WWW.THINKFIRSTSPRAYLAST.ORG

5. During any calendar year, does not cover any one contiguous area greater than 100 square feet.

Number 5 establishes the definition of broadcast applications as greater than 100 square feet. Any outdoor terrestrial broadcast application of pesticides, except for applications made to control arthropod vectors of human disease or stinging insects, within twenty-five (25) feet from the mean high water mark require a variance permit pursuant to CMR 01-026, Chapter 29, Section 6.

It has recently come to the attention of staff through several inquiries that applicators may believe that cut stump/stem treatments of Japanese knotweed do not require a variance permit when the treatment area exceeds 100 square feet.

Although cut stump/stem treatments eliminate the possibility of pesticide drift into the adjacent waterway there is concern for runoff. Round Up Custom for Aquatic & Terrestrial Use, EPA Reg No. 524-343, is the common herbicide used to control Japanese knotweed adjacent to water bodies. This product label allows for 2% solution when making a spray application to foliage of knotweed. When applying to cut stumps/stems of knotweed the label allows for a 50% solution and direct stem injection allows for full concentrate to be used.

Draft Policy:

To create clarity for the need to obtain a variance permit pursuant to CMR 01-026, Chapter 29, Section 6 when making cut stump/stem treatments of Japanese knotweed, staff proposes an amendment to the Policy on Determining Allowable Pesticide Applications Pursuant to CMR 01-026, Chapter 29, Section 6.

Proposed addition:

6. During any calendar year, cut stump and/or direct injection treatments for control of Japanese Knotweed (*Fallopia japonica, syn. Polygonum cuspidatum, Reynoutria japonica*) does not cover any one contiguous area greater than 100 square feet.

Conclusion:

Staff believe this amendment will clarify the need for a variance permit when making these types of pesticide applications within the designated 25-foot buffer zone for water bodies and waterways and ensure that properly trained and certified applicators are performing these applications to prevent adverse impacts on Maine's waters. Attached is a copy of the revised policy, an example of pesticide label language, and a photo of cut stem treatment.

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

JANET T. MILLS
GOVERNOR

AMANDA E. BEAL
COMMISSIONER

MAINE BOARD OF PESTICIDES CONTROL POLICY ON DETERMING ALLOWABLE PESTICIDE APPLICATIONS PURSUANT TO CMR 01-026, CHAPTER 29, SECTION 6

Adopted March 5, 2010
Revised April 25, 2025

BACKGROUND

The Board amended Chapter 29 in May of 2008, adding new Sections 5 and 6. Section 6 prohibits "broadcast" application of pesticides within 25 feet of certain defined surface waters, but does not prohibit pesticide applications that are not considered broadcast applications. The staff asked for clarification on what types of applications are allowed in the 25-foot-buffer area.

POLICY

The Board determined that the following characteristics indicate that an application is not a broadcast pesticide application, and therefore not prohibited by Chapter 29, Section 6. Pesticide applications must be:

1. Directed away from surface water;

2. Directed at specific pest organisms or infestations in a manner that minimizes deposition to non-target species and areas;

3. Conducted using non-powered application equipment capable of targeting pest organisms while avoiding non-target species;

4. During any calendar year, is confined to no more than 20% of the area located within 25 feet of surface water; and

5. During any calendar year, does not cover any one contiguous area greater than 100 square feet.

ALEXANDER PEACOCK, DIRECTOR
90 BLOSSOM LANE, DEERING BUILDING

PHONE: (207) 287-2731
WWW.THINKFIRSTSPRAYLAST.ORG

6. During any calendar year, cut stump/stem and/or direct injection treatments for control of Japanese Knotweed (*Fallopia japonica, syn. Polygonum cuspidatum, Reynoutria japonica*) does not cover any one contiguous area greater than 100 square feet.

Notes: Use of herbicides within 25 feet of a surface water must not violate shore land zoning requirements or the Natural Resource Protection Act for vegetation removal. In addition to limiting tree removal and trimming, minimum shore land zoning requirements also prohibit removal of vegetation under three feet in height, other ground cover, leaf littler and forest duff. Consult the local municipal ordinance or for applicable requirements for the shore land zone or the Land Division staff at the Department of Environmental Protection for locations outside the shore land zone. Consult the municipal code enforcement officer about treatment of invasive vegetation. For regulations covering Maine's unorganized territories, contact the Maine Land Use Regulation Commission.

GROUP 9 HERBICIDE

7

Roundup CUSTOM®

FOR AQUATIC & TERRESTRIAL USE

TRUEBLUE ADVANTAGE
PROVEN | RELIABLE | SUPPORTED

A broad-spectrum postemergence herbicide for aquatic and industrial, turf, ornamental, forestry, roadside, utility rights-of-way, select crop, and other listed terrestrial weed control.

(For a complete list of aquatic and terrestrial use sites, see the Directions for Use section of the attached labeling.)

ACTIVE INGREDIENT:	
*Glyphosate, N-(phosphonomethyl)glycine, in the form of its isopropylamine salt	53.8%
OTHER INGREDIENTS:	46.2%
	100.0%

* Contains 648 grams of the active ingredient glyphosate, in the form of its isopropylamine salt per liter, or 5.4 pounds per U.S. gallon, which is equivalent to 480 grams of the acid, glyphosate, per liter or 4.0 pounds per U.S. gallon (39.9% by weight).

EPA Reg. No. 524-343 EPA Est. 524-IA-1

Keep Out of Reach of Children

CAUTION

See inside for additional Precautions.
COMPLETE DIRECTIONS FOR USE

Not all products listed on this label are registered for use in California. Check the registration status of each product in California before using.

FOR PRODUCT INFORMATION OR ASSISTANCE USING THIS PRODUCT, CALL TOLL-FREE, 1-866-99BAYER (1-866-992-2937)

IN CASE OF AN EMERGENCY INVOLVING THIS PRODUCT OR FOR MEDICAL ASSISTANCE, CALL COLLECT, DAY OR NIGHT, 1-800-334-7577

Packed for:
BAYER CROPSCIENCE LP
800 N. LINDBERGH BLVD.
ST. LOUIS, MISSOURI 63167 USA

161018Bv2 10/20
US62176918

PERENNIAL WEEDS RATE TABLE

Weed Species	Broadcast Rate (quarts/acre)	Handheld Spray-to-Wet Concentration (% solution)
Bromegrass, smooth	1.5 – 2.3	0.75

Apply this product when most target plants have reached the boot to head stage of development. When application is made prior to the boot stage, reduced control can result. In the fall, make application before plants have turned brown.

Bursage, woolly-leaf	–	1.5
Canarygrass, reed	1.5 – 2.3	0.75

Apply this product when most target plants have reached the boot to head stage of development. When application is made prior to the boot stage, reduced control can result. In the fall, make application before plants have turned brown.

Cattail	2.3 – 3.75	0.75

Apply this product when target plants are actively growing and are at or beyond the early to full bloom stage of development. Enhanced results are achieved when application is made during the summer or fall months.

Clover; red, white	2.3 – 3.75	1.5
Cogongrass	2.3 – 3.75	1.5

Apply this product in late-summer or fall when cogongrass is at least 18 inches tall and actively growing. Due to uneven stages of growth and the dense nature of cogongrass vegetation, more than one application might be necessary to achieve control.

Cordgrass	2 – 8	5 – 8

Prior to application of this product for control of cordgrass, survey the area to determine if shellfish beds exist within the application area. If shellfish are intended to be harvested in the area, delay application of this product until after harvest or maintain a 50-foot buffer between the application area and commercial shellfish beds, or do not harvest shellfish for a minimum of 14 days following application of this product. See restrictions below.

Ideal conditions for control of cordgrass are when target plants are free of silt and debris and actively growing, and good spray coverage is achievable. The presence of debris or silt on the surface of cordgrass will reduce the performance of this product. To improve herbicide uptake, wash targeted plants prior to application and allow a minimum of 4 hours for plants to dry before applying this product. Where cordgrass has been cut or mowed prior to application, allow for sufficient re-growth before applying this product to ensure adequate interception and uptake of this product. Rainfall or immersion of the plant in tidewater within 4 hours after application could reduce the effectiveness of this product.

Apply 2 to 8 quarts of this product per acre using ground broadcast application or optical sensor equipment in 5 to 100 gallons of spray solution, or in 5 to 10 gallons of spray solution per acre when using aerial application equipment.

Apply a 5- to 8-percent solution of this product when using a handheld backpack sprayer or high-volume sprayer. Make all applications of this product for the control of cordgrass in a spray solution containing 0.25% or more (1 or more quarts per 100 gallons of spray solution) of a nonionic surfactant or other adjuvant that is compatible with this product and labeled for use with herbicides and approved for use on aquatic sites. For enhanced results, ensure complete coverage of cordgrass clumps.

RESTRICTIONS: If a minimum 50-foot buffer is maintained between the application area and commercial shellfish beds, there is no restriction on shellfish harvest. If application is made within 50 feet of commercial shellfish beds, DO NOT harvest shellfish for a minimum of 14 days following application of this product.

PERENNIAL WEEDS RATE TABLE

Weed Species	Broadcast Rate (quarts/acre)	Handheld Spray-to-Wet Concentration (% solution)
Cutgrass, giant*	3	1

More than one application of this product will be required to achieve control, especially where vegetation is partially submerged in water. Allow target weeds to re-grow to the 7- to 10-leaf stage before making next application.

Dallisgrass	2.3 – 3.75	1.5
Dandelion	2.3 – 3.75	1.5
Dock, curly	2.3 – 3.75	1.5
Dogbane, hemp	3	1.5

Apply this product when most target plants have reached the late-bud to flower stage of growth. For enhanced results, make application in late-summer or fall.

Fescue (except tall)	2.3 – 3.75	1.5
Fescue, tall	2.3	1

Apply this product when most target plants have reached the boot to head stage of growth. If applied prior to the boot stage, less than desirable control might be obtained.

Guinea grass	2.3	0.75

Apply this product when most target plants have at least reached the 7-leaf growth stage.

Hemlock, poison	1.5 – 3	0.75 – 1.5

Control can also be achieved by injecting 5 milliliters of a 5-percent solution of this product using a handheld injection device in one leaf cane per plant, 12 inches above the root crown.[1] No surfactant is required.

Hogweed, giant	–	–

Inject 5 milliliters of a 5-percent solution of this product into one leaf cane per plant, 12 inches above the root crown.[1] No surfactant is required.

Horsenettle	2.3 – 3.75	1.5
Horseradish	3	1.5

Apply this product when most target plants have reached the late-bud to flower stage of development. For enhanced results, apply in late-summer or fall.

Horsetail, field	–	–

Inject 0.5 milliliter of this product per stem directly into the plant stem, one segment above the root crown.[1] No surfactant is required.

Iceplant	1.5	1.5
Iris, yellow flag	–	–

Cut flower stems 8 to 9 inches above the root crown. Push a cavity needle into the stem center and then slowly remove it as you inject 0.5 milliliter of this product using a handheld injector.[1] No surfactant is required.

Ivy; cape, German	1.5 – 3	0.75 – 1.5
Jerusalem artichoke	2.3 – 3.75	1.5
Johnsongrass	1.5 – 2.3	0.75

Apply this product when most target plants have reached the boot to head stage of development or before plants have turned brown in the fall. When applied prior to the boot stage, reduced control can result.

Kikuyu grass	1.5 – 2.3	0.75

PERENNIAL WEEDS RATE TABLE

Weed Species	Broadcast Rate (quarts/acre)	Handheld Spray-to-Wet Concentration (% solution)
Knapweed	3	1.5

Apply this product when most target plants have reached the late-bud to flower stage of growth. For enhanced results, apply in late-summer or fall.

Knotweed; Bohemian, giant, Japanese	3	2

Apply 3 quarts of this product per acre as a broadcast application in 3 to 40 gallons of spray solution with 0.5 to 1 percent by volume of a nonionic surfactant. For application using a backpack sprayer and a spray-to-wet technique, apply a 2-percent solution of this product containing 0.5 to 2 percent by volume of a nonionic surfactant. For enhanced control, do not disturb vegetation in the application area for a minimum of 7 days after application.

Control can also be achieved by cutting stems cleanly just below the 2nd or 3rd node above the ground and immediately apply 0.36 fluid ounce (10 milliliters) of a 50-percent solution of this product in water into the "well" or remaining internode. Ensure that the upper plant material that was removed is gathered and properly discarded to prevent new plants from propagating from sprouting buds. Use of a bio-barrier, such as cardboard, plywood or plastic sheeting, will help guard against the spread of plant material. The combined total application rate of this product must not exceed 8 quarts per acre.[1] Control can also be achieved by injecting 5 milliliters of this product per stem into the second or third internode using a handheld injection device.[1] No surfactant is required.

Lantana	–	0.75 – 1

Apply this product when most target plants are at or beyond the bloom stage of growth. Use the higher spray solution concentration on plants that have reached the woody stage of growth.

Lespedeza	2.3 – 3.75	1.5
Loosestrife, purple	2	1 – 1.5

Apply this product when most target plants are at or beyond the bloom stage of growth. Enhanced results can be achieved when application is made during summer or fall months. Fall application must be made before a killing frost.

Lotus, American	2	0.75

Apply this product when most target plants are at or beyond the bloom stage of growth. Enhanced results can be achieved when application is made during summer or fall months. Fall application must be made before a killing frost. More than one application of this product might be necessary to control re-growth of underground plant parts and seeds.

Maidencane	3	0.75

More than one application of this product will be needed for control, especially for vegetation partially submerged in water. Allow plants to re-grow to the 7- to10-leaf stage before making next application.

Milkweed, common	2.3	1.5

Apply this product when most target plants have reached the late-bud to flower stage of growth.

Muhly, wirestem	1.5 – 2.3	0.75

Make application when most target plants are at least 8 inches in height (3- to 4-leaf stage of development) and actively growing.

Mullein, common	2.3 – 3.75	1.5
Napiergrass	2.3 – 3.75	1.5

PERENNIAL WEEDS RATE TABLE

Weed Species	Broadcast Rate (quarts/ acre)	Handheld Spray-to-Wet Concentration (% solution)
Knapweed	3	1.5

Apply this product when most target plants have reached the late-bud to flower stage of growth. For enhanced results, apply in late-summer or fall.

Knotweed; Bohemian, giant, Japanese	3	2

Apply 3 quarts of this product per acre as a broadcast application in 3 to 40 gallons of spray solution with 0.5 to 1 percent by volume of a nonionic surfactant. For application using a backpack sprayer and a spray-to-wet technique, apply a 2-percent solution of this product containing 0.5 to 2 percent by volume of a nonionic surfactant. For enhanced control, do not disturb vegetation in the application area for a minimum of 7 days after application.

Control can also be achieved by cutting stems cleanly just below the 2nd or 3rd node above the ground and immediately apply 0.36 fluid ounce (10 milliliters) of a 50-percent solution of this product in water into the "well" or remaining internode. Ensure that the upper plant material that was removed is gathered and properly discarded to prevent new plants from propagating from sprouting buds. Use of a bio-barrier, such as cardboard, plywood or plastic sheeting, will help guard against the spread of plant material. The combined total application rate of this product must not exceed 8 quarts per acre.[1] Control can also be achieved by injecting 5 milliliters of this product per stem into the second or third internode using a handheld injection device.[1] No surfactant is required.

Photo Courtesy of Invasive Plant Solutions


Photo Courtesy of Invasive Plant Solutions

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

JANET T. MILLS
GOVERNOR

AMANDA E. BEAL
COMMISSIONER

Memorandum

To: Board of Pesticides Control
From: Julia Vacchiano, Pesticide Registrar and Water Quality Specialist
RE: Water Quality Proposal for the Summer of 2025
April 17, 2025

Invasive plant species pose a significant and escalating threat to Maine's ecological health and economic vitality. Maine faces substantial pressure from aggressive invasive plant species, leading to habitat degradation and biodiversity loss. Licensed pesticide applicators diligently manage these species near waterways, adhering to best practices for herbicide application, they have expressed interest in data to confirm they are doing so effectively and responsibly.

Effective control of invasive species along waterways often requires targeted herbicide applications, even when adhering to IPM principles. In some cases, this necessitates obtaining variance permits from the Board of Pesticides Control when treatments occur within regulated buffer zones. A significant number of these variances have been granted for invasive species management. The BPC has the opportunity to utilize its water quality program and available funding to ensure that these essential control measures are implemented without negatively impacting adjacent waterbodies. Simultaneously, this presents a valuable chance to enhance our understanding of best management practices for applicators. To address these considerations, we propose a focused water quality study to be conducted during the summer of 2025. This study will investigate potential contamination resulting from permitted herbicide treatments for invasive species management near waterways, leveraging data from past variance requests.

This project seeks to use the allocated 2025 lab funds from the EPA to evaluate the mitigation measures required by variances, specifically those involving herbicide applications for invasive plant control near waterways, on water quality. The study will involve collecting environmental samples from selected water bodies and adjacent areas to characterize the presence and concentration of relevant substances. This data will contribute to a broader understanding of the environmental implications of current management practices.

While presenting just one potential area of focus for our 2025 water quality work, we have identified other avenues capable of yielding significant and timely data. These include the possibility of contributing to the Environmental Protection Agency's efforts to enhance water quality data related to public drinking water through watershed sampling, the opportunity to extend and modernize our 2006 analysis of Brown-tail moth impacts by evaluating current injection methods, the potential to assess the prevalence of neonicotinoid pesticides in aquatic environments, or a study to measure the water quality impact of planned large-scale applications for Spruce Budworm control. Suggestions and open discussion are encouraged as we move forward into the 2025 season.

Proposed Administrative Consent Agreement
Background Summary

Subject: Emerald Valley Ranches, LLC
498 West Presque Isle Rd.
Caribou, ME 04736

Date of Incident(s): July 2023

Background Narrative: On July 7, 2023, the Board received an anonymous complaint alleging that the Company had applied chlorpyrifos to its broccoli fields during 2023, and that migratory agricultural workers applied chlorpyrifos. The complainant alleged that the workers were not wearing respirators and had used their bare hands to smooth off the top of the hoppers containing the granular pesticide.

During the course of the inspection the licensed private applicator who holds a managerial/ownership position with the Company, provided a written statement to the inspector in which stated that the Company ceased the use of chlorpyrifos following the 2022 season.

On July 17, 2023, the inspector visited two broccoli fields grown by the Company in Caribou, Maine. The inspector obtained a set of three samples from each field consisting of one broccoli sample and two soil samples. The Massachusetts Pesticide Analysis Laboratory provided reports to the Board demonstrating that chlorpyrifos was present in all six samples.

On July 19, 2023, the licensed private applicator called the Board's offices and spoke to Manager of Compliance. Admitting—despite previous written statements to the contrary—that in the spring of 2023, Emerald Valley Ranch had applied Drexel Chlorpyrifos 15G, EPA Reg. No. 19713-505, to the two broccoli fields sampled by the Board.

Summary of Violations: CMR 01-026, . ch. 41, § 7 required that—as of September 20, 2022—anyone applying a pesticide containing chlorpyrifos must first obtain a permit issued by the Board and possess a valid applicator's license issued by the Board. The Company did not obtain a permit from the Board prior to making the 2023 chlorpyrifos applications

That pursuant to 01-026 C.M.R. ch. 50, § 1(A), commercial agricultural producers must maintain records of all pesticide applications. During 2022 and 2023, the Company did not maintain pesticide application records for any of the chlorpyrifos applications described in the agreement.

That the pesticide label for Drexel Chlorpyrifos 15G, EPA Reg. No. 19713-505, states—in part—that "loaders, applicators and all other handlers must wear: Coveralls over long-sleeved shirt and long pants, chemical-resistant gloves, chemical-resistant footwear plus socks and a NIOSH-approved dust/mist filtering respirator with MSHA/NIOSH approved number prefix TC-21C or NIOSH-approved respirator with any R, P, or HE filter."

That 40 C.F.R. § 170.507(b)(10)(i)-(iii) requires that agricultural employers to provide to handlers required to wear a respirator: a fit test which conforms to the provisions of 29 C.F.R. § 1910.134; training on the use of the respirator specified on the pesticide product labeling in a manner that conforms to the provisions of 29 C.F.R. § 1910.134(k)(1)(i)-(vi); and a medical evaluation by a physician or other licensed health care professional that conforms to the provisions of 29 C.F.R. § 1910.134 to ensure the handler's physical ability to safely wear the respirator specified on the pesticide product labeling.

7 U.S.C. § 136j(a)(2)(G) and 7 M.R.S. § 606(2)(B) prohibit the use or supervision of such use of a pesticide inconsistent with its label.

40 C.F.R. § 170.122 requires agricultural employers to display in a central location, where it can readily be seen and read by workers and handlers, information about each pesticide application made on the agricultural establishment including the location, the product name and EPA registration number, the time and date of the application, and the restricted entry interval. The Company did not post information about the use of the Drexel Chlorpyrifos 15G, EPA Reg. No. 19713-505 during 2022 or 2023.

7 M.R.S. § 607(1) requires that all pesticides distributed into the State of Maine to first be registered by the Board. Drexel Chlorpyrifos 15G, EPA Reg. No. 19713-505 was not registered for use in the State of Maine during 2022 or 2023.

Rationale for Settlement: The Company entered into an Administrative Consent Agreement and Findings of Fact with the Board on March 13, 2025, to resolve multiple violations of State and federal pesticide law. The licensed private applicator showed remorse for their actions and was cooperative throughout the remainder of the investigation process, including a season-long examination of the crop conducted by the Bureau of Agriculture that required testing for contamination before the crop could be sent to market during the 2023 season. The Company worked with BPC to ensure that the remaining inventory was properly disposed of. Maine Mobile Health provided and continues to provide worker protection standard training for company workers and handlers in their native language.

Attachments: Proposed Consent Agreement

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

In the Matter of:	)	ADMINISTRATIVE CONSENT
Emerald Valley Ranches LLC	)	AGREEMENT
498 West Presque Isle Road	)	AND
Caribou, Maine 04736	)	FINDINGS OF FACT

This Agreement, by and between Emerald Valley Ranches LLC (hereinafter referred to as the "Company") and the State of Maine Board of Pesticides Control (hereinafter referred to as the "Board"), as approved by the Office of the Attorney General ("OAG"), is entered into pursuant to 22 M.R.S. § 1471-M(2)(D), and in accordance with the Enforcement Protocol, as amended by the Board on December 13, 2013.

The parties to this Agreement agree as follows:

1. That the 130th Maine Legislature enacted Public Law 2021, Chapter 105, which was signed into law by the Governor on June 8, 2021. The bill became effective on October 18, 2021.

2. That Chapter 105 prohibits the distribution of a pesticide containing chlorpyrifos in the State beginning January 1, 2022, and requires the Board to regulate the use of existing stocks of chlorpyrifos through a permitting system.

3. That in response to Public Law 2021, Chapter 105, on May 6, 2022, the Board adopted an interim policy to guide issuance of permits as required by Public Law 2021, Chapter 105, pending the final adoption of a rule amendments to CMR 01-026, Chapter 41.

4. That in response to Public Law 2021, Chapter 105, the Board promulgated a rule, codified in CMR 01-026, Chapter 41, Section 7, which implemented a permitting requirement governing the use of chlorpyrifos in the State of Maine. The effective date of the rule was September 20, 2022.

5. That the Company operates a broccoli growing enterprise in Aroostook County, Maine, producing approximately 2,000 acres of broccoli annually. Produce from the operation is distributed as fresh pack broccoli throughout the Eastern Seaboard of the United States.

6. That on July 7, 2023, the Board received an anonymous complaint alleging that the Company had applied chlorpyrifos to its broccoli fields during 2023, and that migratory agricultural workers applied the chlorpyrifos. The complainant alleged that the workers were not wearing respirators and had used their bare hands to smooth off the top of the hoppers containing the granular pesticide.

7. That as a result of the complaint described in Paragraph 6, a Board inspector visited the Company headquarters to conduct a follow-up inspection on July 7, 2023.

8. That during the course of the inspection described in Paragraph 7, Drew Ayer, licensed private applicator who holds a managerial/ownership position with the Company, provided a written statement to the inspector in which Ayer stated that the Company ceased the use of chlorpyrifos following the 2022 season.

9. That during the course of the inspection described in Paragraph 7, the inspector requested permission to view Company facilities in which pesticides were stored.

10. That during the course of the inspection described in Paragraph 7, the inspector was shown a Company pesticide storage facility, and determined that no chlorpyrifos was present in the storage area observed.

11. That on July 17, 2023, the inspector visited two broccoli fields grown by the Company in Caribou, Maine. The inspector obtained a set of three samples from each field consisting of one broccoli sample and two soil samples.

12. That the samples described in Paragraph 11 were subsequently shipped overnight to the Massachusetts Pesticide Analysis Laboratory in Amherst, Massachusetts.

13. That over a three-day period between July 19 and July 21, the Massachusetts Pesticide Analysis Laboratory provided reports to the Board demonstrating that chlorpyrifos was present in all six samples collected by the Board inspector on July 17, 2023.

14. That on July 19, 2023, Ayer called the Board's offices and spoke to Manager of Compliance Alex Peacock. Ayer admitted—despite previous written statements to the contrary—that in the spring of 2023, Emerald Valley Ranch had applied Drexel Chlorpyrifos 15G, EPA Reg. No. 19713-505, to the two broccoli fields sampled by the Board.

15. That during a subsequent conversation later in the day between Ayer and Peacock, Ayer acknowledged that the Company started 2023 with 200 50-pound bags of Drexel Chlorpyrifos 15G in inventory.

16. That on July 19, 2023, a Board inspector traveled to a different Company facility and documented the presence of 24 50-pound bags of Drexel Chlorpyrifos 15G, EPA Reg. No. 19713-505, at a Company storage location that had not been disclosed prior to that date. The 24 bags represented the total product remaining as of that date.

17. That the Board inspector subsequently placed a Stop Sale Use or Removal Order, pursuant to 7 M.R.S. § 612, on the remaining inventory of the Drexel Chlorpyrifos 15G because lawful use of the product was prohibited by the provisions of 01-026 C.M.R. ch. 41, § 7.

18. That during the inspection described in Paragraph 7, the Board inspector obtained a copy of an invoice from Ayer issued by Whitaker Distribution, Inc., of Virginia Beach, Virginia, showing that Emerald Valley Ranch had purchased 600 50-pound bags of Drexel Chlorpyrifos 15G (30,000 pounds) on October 4, 2021.

19. That based on the information obtained by the Board and described in Paragraphs 14-18, the Company estimated that it applied 20,000 pounds of Drexel Chlorpyrifos 15G to its broccoli fields in 2022, and 8,800 pounds in 2023, which equals the product available to start 2023 minus the remaining inventory.

20. That during the conversations that took place with Peacock on July 19, Ayer stated that the Company applied Drexel Chlorpyrifos 15G at a rate of 13 pounds per acre. Accordingly, the Company would have applied Drexel Chlorpyrifos 15G to approximately 1,538 acres of broccoli in 2022 and 667 acres in 2023.

21. That in a letter dated July 24, 2023, the Commissioner of the Maine Department of Agriculture, Conservation and Forestry (Department) condemned the Company's 2023 broccoli crop pursuant to 22 M.R.S. § 2159.

22. That as a result of the July 24 letter, the Company provided the Department with an inventory listing all of the Company's 2023 broccoli fields together with their size, location, and planting date.

23. That 01-026 C.M.R. ch. 41, § 7 required that—as of September 20, 2022—anyone applying a pesticide containing chlorpyrifos must first obtain a permit issued by the Board and possess a valid applicator's license issued by the Board.

24. That the Company did not obtain a permit from the Board prior to making the 2023 chlorpyrifos applications described in this agreement.

25. That the actions described in Paragraphs 23 and 24 constitute multiple violations of 01-026 C.M.R. ch. 41, § 7.

26. That the Company is a "commercial agricultural producer" as defined under 01-026 C.M.R. ch. 10, § 2(H).

27. That pursuant to 01-026 C.M.R. ch. 50, § 1(A), commercial agricultural producers must maintain records of all pesticide applications.

28. That during 2022 and 2023, the Company did not maintain pesticide application records for any of the chlorpyrifos applications described in the agreement.

29. That the actions described in Paragraphs 26-28 constitute multiple violations of 01-026 C.M.R. ch. 50, § 1(A).

30. That chlorpyrifos is classified as an organophosphate.

31. That the pesticide label for Drexel Chlorpyrifos 15G, EPA Reg. No. 19713-505, states—in part—that "loaders, applicators and all other handlers must wear: Coveralls over long-sleeved shirt and long pants, chemical-resistant gloves, chemical-resistant footwear plus socks and a NIOSH-approved dust/mist filtering respirator with MSHA/NIOSH approved

number prefix TC-21C or NIOSH-approved respirator with any R, P, or HE filter."

32. That the pesticide label for Drexel Chlorpyrifos 15G, EPA Reg. No. 19713-505, also states—in part—"AGRICULTURAL USE REQUIREMENTS. Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS), 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, greenhouses and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE), restricted entry interval (REI), and notification of workers. The requirements in this box only apply to uses of this product that are covered by the WPS."

33. That 40 C.F.R. § 170.507(b)(10)(i)-(iii) requires that agricultural employers to provide to handlers required to wear a respirator: a fit test which conforms to the provisions of 29 C.F.R. § 1910.134; training on the use of the respirator specified on the pesticide product labeling in a manner that conforms to the provisions of 29 C.F.R. § 1910.134(k)(1)(i)-(vi); and a medical evaluation by a physician or other licensed health care professional that conforms to the provisions of 29 C.F.R. § 1910.134 to ensure the handler's physical ability to safely wear the respirator specified on the pesticide product labeling.

34. That during 2022 and 2023, the Company did not provide respirators, fit tests, or medical evaluations as required by the Drexel Chlorpyrifos 15G, EPA Reg. No. 19713-505 label and 40 C.F.R. § 170.507.

35. That 7 U.S.C. § 136j(a)(2)(G) and 7 M.R.S. § 606(2)(B) prohibit the use or supervision of such use of a pesticide inconsistent with its label, and 22 M.R.S. § 1471-D(8)(F) provides for court action to seek suspension or revocation of an applicator's license and/or certification for use or supervision of such use of a pesticide inconsistent with its label.

36. That the circumstances described in Paragraphs 31-35 constitute multiple violations of 7 U.S.C. § 136j(a)(2)(G) and 7 M.R.S. § 606(2)(B) and would permit court action to seek suspension or revocation of an applicator's license and/or certification pursuant to 22 M.R.S. § 1471-D(8)(F).

37. That the circumstances described in Paragraphs 31-35 constitute multiple violations of 40 C.F.R. § 170.507.

38. That 40 C.F.R. § 170.122 requires agricultural employers to display in a central location, where it can readily be seen and read by workers and handlers, information about each pesticide application made on the agricultural establishment including the location, the product name and EPA registration number, the time and date of the application, and the restricted entry interval.

39. That the Company did not post information about the use of the Drexel Chlorpyrifos 15G, EPA Reg. No. 19713-505 during 2022 or 2023.

40. That the circumstances described in Paragraphs 32, 38, and 39 constitute multiple violations of 7 U.S.C. § 136j(a)(2)(G) and 7 M.R.S. § 606(2)(B) and would permit court action to seek suspension or revocation of an applicator's license and/or certification pursuant to 22 M.R.S. § 1471-D(8)(F).

41. That the circumstances described in Paragraphs 32, 38, and 39 constitute multiple violations of 40 CFR Part 170.122

42. That 7 M.R.S. § 607(1) requires that all pesticides distributed into the State of Maine to first be registered by the Board.

43. That Drexel Chlorpyrifos 15G, EPA Reg. No. 19713-505 was not registered for use in the State of Maine during 2022 or 2023 pursuant to 7 M.R.S § 607(1).

44. That 01-026 C.M.R. ch. 20, § 1(B) prohibits the use of pesticides not registered in the State.

45. That the circumstances described in Paragraphs 14, 19, 20, 42, 43, and 44 constitute multiple violations of 01-026 C.M.R. ch. 20, § 1(B).

46. 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.

47. That this Agreement, and any potential admissions contained herein, shall not become effective unless and until the Board accepts it.

48. 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 25, 29, 36, 37, 40, 41, and 45, the Company agrees to pay a penalty to the State of Maine in the sum of $5,000.00, with $1,000.00 of the penalty suspended provided that the Company does not commit any violations of Federal or State of Maine pesticide law over a two-year period beginning on the effective date of this Agreement. (Please make checks payable to Treasurer, State of Maine.)

49. That in the event the Company commits any violations of Federal or State of Maine pesticide law—as determined by Board staff in the normal course of compliance investigations—over the two-year period beginning on the effective date of this Agreement, the suspended portion of the penalty becomes immediately due and payable.

50. The Board and OAG grant a release of their causes of actions against the Company, and its officers, directors, employees and agents for the specific violations cited in Paragraph 48 on the express condition that all actions listed in Paragraph 48 of this Agreement are completed

in accordance with the express terms and conditions of this Agreement and to the satisfaction of the Board and the OAG. The release shall not become effective until the Company has completed its obligations pursuant to Paragraph 48.

51. Any non-compliance with any term or condition of this Agreement, as determined by the Board and OAG in their sole discretion, voids the release set forth in Paragraph 50 of this Agreement and may lead to an enforcement, suspension/revocation, equitable, and/or civil violation action pursuant to Titles 7 and 22 of the Maine Revised Statutes.

52. Nothing in this Agreement shall be construed to be a relinquishment of the Board's or OAG's powers under Titles 7 and 22 of the Maine Revised Statutes against the Company for any other violations other than those expressly listed in this Agreement.

53. This instrument contains the entire agreement between the parties, and no statements, promises, or inducements made by either party or agent of either party that are not contained in this written contract shall be valid or binding; this contract may not be enlarged, modified, or altered except in writing signed by the parties and indorsed on this Agreement.

54. The provisions of this Agreement shall apply to, and be binding on, the parties and their officers, agents, servants, employees, successors, and assigns, and upon those persons in active concert or participation with them who receive actual notice of this Agreement.

55. By signing and executing this Agreement, the Company knowingly, intentionally, permanently, and irrevocably waives any and all defenses it has or may have with respect to the enforcement of this Agreement, including the enforcement of this Agreement as a final administrative order and a money judgment pursuant to 14 M.R.S. § 3138.

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

EMERALD VALLEY RANCHES LLC

By: Drew P. Ayer Date: 3-13-2025

Type or Print Name: Drew P. Ayer

BOARD OF PESTICIDES CONTROL

By: _____ Date: _____

Alexander Peacock, Director

APPROVED:

By: _____ Date: _____

Carey Gustanski, Assistant Attorney General

132nd MAINE LEGISLATURE

FIRST REGULAR SESSION-2025

Legislative Document **No. 356**

S.P. 142 In Senate, February 3, 2025

An Act to Require Notification of Certain Outdoor Pesticide Applications

(EMERGENCY)

Received by the Secretary of the Senate on January 30, 2025. Referred to the Committee on Agriculture, Conservation and Forestry pursuant to Joint Rule 308.2 and ordered printed.

DAREK M. GRANT
Secretary of the Senate

Presented by Senator BENNETT of Oxford.
Cosponsored by Senator: GROHOSKI of Hancock, Representatives: BELL of Yarmouth, CIMINO of Bridgton, DOUDERA of Camden, EDER of Waterboro, MILLIKEN of Blue Hill.

Emergency preamble. Whereas, acts and resolves of the Legislature do not become effective until 90 days after adjournment unless enacted as emergencies; and

Whereas, the Department of Agriculture, Conservation and Forestry, Board of Pesticides Control establishes procedures and standards for informing interested members of the public about outdoor pesticide applications in their vicinity; and

Whereas, the purpose of these procedures and standards is to safeguard the health and welfare of the residents of this State; and

Whereas, this legislation must take effect before the expiration of the 90-day period because this legislation amends those procedures and standards; and

Whereas, in the judgment of the Legislature, these facts create an emergency within the meaning of the Constitution of Maine and require the following legislation as immediately necessary for the preservation of the public peace, health and safety; now, therefore,

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

Sec. 1. 7 MRSA §604, sub-§25-B is enacted to read:

25-B. Pet. "Pet" has the same meaning as in section 712, subsection 16.

Sec. 2. 7 MRSA §606, sub-§2, ¶D, as amended by PL 2005, c. 620, §5, is further amended to read:

D. Handle, transport, store, display or distribute pesticides in such a manner as to endanger human beings or their pets or their environment or to endanger food, feed or any other products that may be transported, stored, displayed or distributed with such pesticides;

Sec. 3. 7 MRSA §606, sub-§2, ¶E, as amended by PL 2005, c. 620, §5, is further amended to read:

E. Dispose of, discard or store any pesticides or pesticide containers in such a manner as may cause injury to humans, vegetation, crops, livestock or pets, wildlife or beneficial insects or pollute any water supply or waterway;

Sec. 4. 7 MRSA §606, sub-§4 is enacted to read:

4. Unlawful use without proper notification. A person may not use any pesticide outdoors within 500 feet of a property owned by another person unless the person provides written notification to the owner, lessee or other legal occupant of the property of the intent to apply pesticides at least 7 days prior to the pesticide application. This subsection does not apply to aerial applicators as defined by the board by rule. The department shall adopt rules governing notification requirements. Rules adopted under this subsection are routine technical rules as defined in Title 5, chapter 375, subchapter 2-A.

Emergency clause. In view of the emergency cited in the preamble, this legislation takes effect when approved.

SUMMARY

This bill prohibits a person from using any pesticide outdoors within 500 feet of a property owned by another person unless the person provides written notification to the owner, lessee or other legal occupant of the property of the intent to apply pesticides at least 7 days prior to the pesticide application. The bill provides that this prohibition does not apply to aerial application of pesticides. The bill also explicitly prohibits handling, transporting, storing, displaying or distributing pesticides in a manner that endangers pets and explicitly prohibits disposing of, discarding or storing any pesticides or pesticide containers in a manner that may cause injury to pets.

132nd MAINE LEGISLATURE

FIRST REGULAR SESSION-2025

Legislative Document **No. 1132**

S.P. 453 In Senate, March 18, 2025

An Act to Further Protect Low-impact Landscaping

Reference to the Committee on Judiciary suggested and ordered printed.

DAREK M. GRANT
Secretary of the Senate

Presented by President DAUGHTRY of Cumberland.
Cosponsored by Representative HENDERSON of Rumford and
Senators: HICKMAN of Kennebec, INGWERSEN of York, Representatives: ANKELES of Brunswick, DODGE of Belfast, DOUDERA of Camden, SATO of Gorham.

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

Sec. 1. 33 MRSA §1451, sub-§1, ¶A-1 is enacted to read:

A-1. "Limited common element" has the same meaning as in section 1601-103, subsection (16).

Sec. 2. 33 MRSA §1451, sub-§2, as enacted by PL 2023, c. 376, §1, is amended to read:

2. Prohibition. A restriction may not prohibit or put an unreasonable limitation on low-impact landscaping on any portion of a condominium or real estate subject to common ownership ~~that is not subject to common ownership and that the owner has the right to exclusive use of~~, including limited common elements, as long as the owner maintains and regularly tends to the low-impact landscaping. Pesticides may not be applied to limited common elements or land within 50 feet of a unit without the express permission of the unit owner.

SUMMARY

This bill prohibits any instrument, such as a deed or bylaw, governing activities on real estate within a condominium or real estate subject to common ownership from prohibiting low-impact landscaping on any portion of a condominium or real estate subject to common ownership, including limited common elements. It also prohibits the application of pesticides on limited common elements or land within 50 feet of a unit without the express permission of the unit owner.

132nd MAINE LEGISLATURE

FIRST REGULAR SESSION-2025

Legislative Document **No. 1201**

S.P. 490 In Senate, March 20, 2025

An Act to Protect Maine Agriculture and Farms by Exempting Certain Pesticides from Regulation

Reference to the Committee on Agriculture, Conservation and Forestry suggested and ordered printed.

DAREK M. GRANT
Secretary of the Senate

Presented by Senator STEWART of Aroostook.
Cosponsored by Senator: TIMBERLAKE of Androscoggin, Representatives: COOPER of Windham, CRAY of Palmyra, GUERRETTE of Caribou, HALL of Wilton, JACKSON of Oxford.

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

Sec. 1. 38 MRSA §1614, sub-§4, ¶F, as enacted by PL 2023, c. 630, §1, is amended by amending subparagraph (3) to read:

(3) The United States Environmental Protection Agency pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act~~, except that any such products approved by the United States Environmental Protection Agency pursuant to that law for aerial or land application are not exempt from this section~~;

Sec. 2. 38 MRSA §1614, sub-§4, ¶F-1 is enacted to read:

F-1. A pesticide registered by the United States Environmental Protection Agency pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act applied by a person licensed by the Department of Agriculture, Conservation and Forestry, Board of Pesticides Control as an agricultural basic applicator, a private applicator or a commercial applicator;

SUMMARY

This bill amends the law providing for exemption of certain veterinary products from the law governing products containing perfluoroalkyl and polyfluoroalkyl substances, or PFAS, to allow products approved for use for aerial or land application that are regulated by the United States Environmental Protection Agency pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act. It creates an exemption for a pesticide registered by the United States Environmental Protection Agency pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act applied by a person licensed by the Department of Agriculture, Conservation, and Forestry, Board of Pesticides Control as an agricultural basic applicator, a private applicator or a commercial applicator.

132nd MAINE LEGISLATURE

FIRST SPECIAL SESSION-2025

Legislative Document **No. 1323**

H.P. 858 House of Representatives, March 27, 2025

An Act to Prohibit the Use of Neonicotinoid Pesticides and the Use and Sale of Neonicotinoid-treated Seeds

Reference to the Committee on Agriculture, Conservation and Forestry suggested and ordered printed.

ROBERT B. HUNT
Clerk

Presented by Representative DOUDERA of Camden.
Cosponsored by Senator INGWERSEN of York and
Representatives: CLUCHEY of Bowdoinham, FROST of Belgrade, GRAMLICH of Old Orchard Beach, HEPLER of Woolwich, PLUECKER of Warren, SINCLAIR of Bath,
Senators: TALBOT ROSS of Cumberland, TEPLER of Sagadahoc.

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

Sec. 1. 7 MRSA c. 103, sub-c. 11-B is enacted to read:

SUBCHAPTER 11-B

NEONICOTINOID PESTICIDES

§1061. Definitions

As used in this subchapter, unless the context otherwise indicates, the following terms have the following meanings.

1. Agricultural emergency. "Agricultural emergency" means an occurrence of any pest that presents an imminent risk of significant harm or injury to or loss of agricultural crops.

2. Bloom. "Bloom" means the period from the onset of flowering for a plant or the process of flowering of a plant until petal fall is complete.

3. Crop group. "Crop group" means the groupings of agricultural commodities specified in 40 Code of Federal Regulations, Section 180.41 (2023).

4. Environmental emergency. "Environmental emergency" means an occurrence of any pest that presents a significant risk of harm or injury to the environment or significant harm or injury to or loss of agricultural crops, including any exotic or foreign pest that may need preventive quarantine measures to avert or prevent that risk, as determined by the commissioner.

5. Neonicotinoid pesticide. "Neonicotinoid pesticide" means any pesticide containing a chemical belonging to the neonicotinoid class of chemicals, including imidacloprid, nithiazine, acetamiprid, clothianidin, dinotefuran, thiacloprid, thiamethoxam and any other chemical designated by the commissioner by rule as belonging to the neonicotinoid class of chemicals.

6. Neonicotinoid-treated seed. "Neonicotinoid-treated seed" means a treated seed that is treated or coated with a neonicotinoid pesticide.

7. Ornamental plants. "Ornamental plants" means perennial, annual, biennial and ground cover plants purposefully planted for aesthetic reasons.

§1062. Prohibited; application of neonicotinoid pesticides

1. Prohibited application. The following uses of neonicotinoid pesticides are prohibited:

A. Outdoor application to any crop during bloom;

B. Outdoor application to soybeans or any crop in the cereal grains crop group;

C. Outdoor application of neonicotinoid pesticides to crops harvested after bloom in the leafy vegetables; brassica; bulb vegetables; herbs and spices; and stalk, stem and leaf petiole vegetable crop groups; and

D. Application to ornamental plants.

2. Exemptions. The commissioner, after consultation with the Commissioner of Environmental Protection, may waive the requirements of this section and issue a written exemption order if the commissioner determines that:

A. A valid environmental emergency or agricultural emergency exists;

B. The neonicotinoid pesticide would be effective in addressing the environmental emergency or the agricultural emergency under paragraph A; and

C. A less harmful pesticide that is not a neonicotinoid pesticide or pest management practice would not be as effective in addressing the environmental emergency or the agricultural emergency under paragraph A.

3. Written exemption order contents. A written exemption order issued under subsection 2:

A. May not be valid for a period of more than one year;

B. Must specify the neonicotinoid pesticides, uses and crops or plants to which the exemption order applies; the date on which the exemption order takes effect; the exemption order's duration; and the exemption order's geographic scope, which may include specific farms, fields or properties; and

C. Must provide a detailed evaluation supporting a determination that an environmental emergency or agricultural emergency exists.

4. Written exemption order restrictions. A written exemption order issued under subsection 2 may establish restrictions on the use of neonicotinoid pesticides to which the exemption order applies to minimize harm to pollinator populations, bird populations, ecosystem health and public health or that the commissioner considers necessary.

5. Rescission. The commissioner, after consultation with the Commissioner of Environmental Protection, may rescind a written exemption order issued under subsection 2 at any time. A rescission may not go into effect until at least 15 days after the issuance of the written exemption order.

§1063. Prohibition on the use and sale of neonicotinoid-treated seeds

1. Prohibition. A person may not sell, offer for sale or use, distribute or use any neonicotinoid-treated seed for soybeans or for any crop in the cereal grains crop group.

2. Exemptions. The commissioner, after consultation with the Commissioner of Environmental Protection, may waive the requirements of this section and issue a written exemption order only if:

A. The person seeking the exemption order:

(1) Completes integrated pest management training, provided by the commissioner or an approved 3rd party;

(2) Completes a pest risk assessment and submits a pest risk assessment report to the commissioner; and

(3) Maintains current records of the pest risk assessment report under subparagraph (2) and records of when neonicotinoid-treated seeds are planted, both of which are subject to review upon request by the commissioner; and

B. Any neonicotinoid-treated seeds authorized for use under the exemption order are planted only on the property or properties identified in the pest risk assessment report under paragraph A, subparagraph (2).

3. Written exemption order contents. A written exemption order issued under subsection 2:

A. May not be valid for a period of more than one year; and

B. Must specify the types of neonicotinoid-treated seeds to which the exemption order applies, the date on which the exemption order takes effect and the exemption order's duration.

4. Written exemption order restrictions. A written exemption order issued under subsection 2 may establish restrictions to the use of neonicotinoid-treated seeds to which the exemption order applies to minimize harm to pollinator populations, bird populations, ecosystem health and public health or that the commissioner considers necessary.

5. Rescission. The commissioner, after consultation with the Commissioner of Environmental Protection, may rescind a written exemption order issued under subsection 2 at any time. A rescission may not go into effect until at least 30 days after the issuance of the written exemption order and may not apply to neonicotinoid-treated seeds planted or sown prior to the effective date of the rescission.

§1064. Report

Upon issuing a written exemption order under section 1062 or 1063, the commissioner shall submit a copy of the exemption order to the joint standing committee of the Legislature having jurisdiction over agriculture, conservation and forestry matters.

§1065. Rulemaking

The department may adopt rules as necessary for the purposes of implementing and enforcing this subchapter. Rules adopted pursuant to this section are routine technical rules as defined in Title 5, chapter 375, subchapter 2-A.

Sec. 2. Effective date. This Act takes effect January 1, 2026.

SUMMARY

This bill prohibits certain applications of neonicotinoid pesticides and prohibits the use and sale of neonicotinoid-treated seeds for certain crops. The bill authorizes the Commissioner of Agriculture, Conservation and Forestry, after consultation with the Commissioner of Environmental Protection, to waive these prohibitions and issue a written exemption order if certain conditions are met.

132nd MAINE LEGISLATURE

FIRST SPECIAL SESSION-2025

Legislative Document **No. 1557**

H.P. 1015 House of Representatives, April 10, 2025

An Act to Ensure Uniformity in the Regulation of Perfluoroalkyl and Polyfluoroalkyl Substances in Pesticides

Reference to the Committee on Agriculture, Conservation and Forestry suggested and ordered printed.

ROBERT B. HUNT
Clerk

Presented by Representative ARATA of New Gloucester.
Cosponsored by Representatives: COOPER of Windham, CRAY of Palmyra, DILL of Old Town, GUERRETTE of Caribou, HEPLER of Woolwich, JACKSON of Oxford, Senator: BERNARD of Aroostook.

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

Sec. 1. 7 MRSA §604, sub-§22-A, as enacted by PL 2021, c. 673, §1, is amended to read:

22-A. Perfluoroalkyl and polyfluoroalkyl substances or PFAS. "Perfluoroalkyl and polyfluoroalkyl substances" or "PFAS" has the same meaning as in ~~Title 32, section 1732, subsection 5-A~~ 40 Code of Federal Regulations, Section 705.3, as amended.

Sec. 2. 38 MRSA §1614, sub-§5, ¶H is enacted to read:

H. Notwithstanding subsection 1, paragraph F, for purposes of the prohibition on the sale of pesticide products containing intentionally added PFAS under this subsection, "perfluoroalkyl and polyfluoroalkyl substances" or "PFAS" has the same meaning as in Title 7, section 604, subsection 22-A and "pesticide" has the same meaning as in Title 7, section 604, subsection 25.

SUMMARY

This bill changes the definition of "perfluoroalkyl and polyfluoroalkyl substances," also referred to as PFAS, in the Maine Pesticide Control Act of 1975 to align with the United States Environmental Protection Agency's definition of "PFAS." The bill also applies this definition of PFAS for the purposes of the prohibition on the sale of pesticide products containing intentionally added PFAS.

132nd MAINE LEGISLATURE

FIRST SPECIAL SESSION-2025

Legislative Document **No. 1697**

H.P. 1132 House of Representatives, April 17, 2025

An Act to Increase Penalties to Deter Violations of the Laws Regarding Improper Pesticide Use

Reference to the Committee on Agriculture, Conservation and Forestry suggested and ordered printed.

ROBERT B. HUNT
Clerk

Presented by Representative DOUDERA of Camden.
Cosponsored by Representatives: GRAMLICH of Old Orchard Beach, HEPLER of Woolwich, PLUECKER of Warren.

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

Sec. 1. 7 MRSA §616-A, sub-§2, ¶A, as repealed and replaced by PL 2003, c. 452, Pt. B, §6 and affected by Pt. X, §2, is amended to read:

A. A person may not violate this subchapter or a rule adopted pursuant to this subchapter or Title 22, chapter 258-A or a rule adopted pursuant to Title 22, chapter 258-A. Except as provided in paragraph B, the following penalties apply to violations of this paragraph.

(1) A person who violates this paragraph commits a civil violation for which a fine ~~of not more than $1,500~~ may be adjudged as follows.

(a) A fine of not more than $25,000 may be adjudged except as provided in division (b).

(b) A fine of not more than $50,000 may be adjudged for an unauthorized pesticide application in a case in which the preponderance of the evidence demonstrates that the person who violated this paragraph benefited substantially from the violation as determined by the board by routine technical rule as described in Title 5, chapter 375, subchapter 2-A. Clear and convincing evidence that only one person benefited substantially from an unauthorized pesticide application constitutes prima facie evidence that the person is responsible for the unauthorized pesticide application.

(2) A person who violates this paragraph and is subject to a fine under subparagraph (1), division (a) after having previously violated this paragraph and having been subject to a fine under subparagraph (1), division (a) within the previous 4-year period commits a civil violation for which a fine of not more than ~~$4,000~~ $75,000 may be adjudged. A person who violates this paragraph and is subject to a fine under subparagraph (1), division (b) after having previously violated this paragraph and having been subject to a fine under subparagraph (1), division (b) within the previous 4-year period commits a civil violation for which a fine of not more than $150,000 may be adjudged.

Sec. 2. 7 MRSA §616-A, sub-§2, ¶B, as amended by PL 2011, c. 510, §1, is further amended to read:

B. A private applicator, as defined in Title 22, section 1471-C, may not violate a rule regarding records maintained pursuant to section 606, subsection 2, paragraph G. The following penalties apply to violations of this paragraph.

(1) A person who violates this paragraph commits a civil violation for which a fine of not more than ~~$500~~ $1,000 may be adjudged.

(2) A person who violates this paragraph after having previously violated this paragraph within the previous 4-year period commits a civil violation for which a fine of not more than ~~$1,000~~ $2,000 may be adjudged.

Sec. 3. Board of Pesticides Control to adopt rules. The Department of Agriculture, Conservation and Forestry, Board of Pesticides Control shall adopt routine technical rules as described in the Maine Revised Statutes, Title 5, chapter 375, subchapter 2-A to:

1. Establish a penalty schedule for violations of the laws and rules governing pesticides to create transparency for future penalties assessed;

2. Provide the means by which separate civil suits may be brought against the same violator of the laws and rules governing pesticides if pesticide migration through soil or bedrock occurs affecting more than one property;

3. Provide for the restoration of affected property and replacement of vegetation as penalties for violations of the laws and rules governing pesticides in addition to monetary penalties; and

4. Designate pesticides with the active ingredient tebuthiuron as state restricted use pesticides.

SUMMARY

This bill increases the maximum fine that may be adjudged for a violation of the laws and rules governing pesticides from $1,500 to $25,000 except in a case for an unauthorized pesticide application in which the preponderance of the evidence demonstrates that the violator benefited substantially from the violation, in which case the maximum fine is $50,000. Maximum fines for subsequent violations are increased to $75,000 and $150,000, respectively. The bill provides that clear and convincing evidence that only one person benefited substantially from an unauthorized pesticide application constitutes prima facie evidence that the person is responsible for the unauthorized pesticide application. The bill increases the maximum fine for a private applicator who violates rules regarding the maintenance of records from $500 to $1,000 and from $1,000 to $2,000 for subsequent violations.

The bill directs the Department of Agriculture, Conservation and Forestry, Board of Pesticides Control to adopt routine technical rules to:

1. Establish a penalty schedule for violations of the laws and rules governing pesticides to create transparency for future penalties assessed;

2. Provide the means by which separate civil suits may be brought against the same violator of the laws and rules governing pesticides if pesticide migration through soil or bedrock occurs affecting more than one property;

3. Provide for the restoration of affected property and replacement of vegetation as penalties for violations of the laws and rules governing pesticides in addition to monetary penalties; and

4. Designate pesticides with the active ingredient tebuthiuron as state restricted use pesticides.

Blue Hill Healthy Ecosystem Ordinance

Originally Adopted and Effective: 04/03/2020

Amended and Restated Effective: 04/05/2025

Certified by: 4/14/2025

4.14.25

04/14/25

4/14/25

Municipal Officers Date

A true copy, attest:

4/15/25

Sarah Lavallee, Town Clerk Date

BLUE HILL HEALTHY ECOSYSTEM ORDINANCE

A. PURPOSE

The Town of Blue Hill wishes to protect the environmental and economic viability of Blue Hill, Blue Hill Bay and other waterways that support the economic vitality of local farmland, forests, fisheries and the working waterfront. The intent of this ordinance is that the use of pesticides will not be detrimental to public health, safety, and welfare, or to natural ecosystems.

B. AUTHORITY

Pursuant to 30-A M.R.S. §3001, the State of Maine allows municipalities, through their home rule authority, to enact ordinances dealing with municipal affairs.

Pursuant to 22 M.R.S. §1471U, Maine municipalities may enact ordinances that apply to pesticide storage, distribution, or use.

Pursuant to 38 M.R.S. §1310-U, municipalities may enact ordinances with respect to solid waste facilities with standards that are not more strict than those contained in the Maine Hazardous Waste, Septage and Solid Waste Management Act, (38 M.R.S. §1301-1319-Y), the Natural Resources Protection Act (38 M.R.S. §480-A-480-Z).
the Site Location of Development Act (38 M.R.S. §481-490).

C. DEFINITIONS

Application The spreading of pesticides over an area by any means including but not limited to, in liquid or dry form: broadcasting, pasting, ground spraying, aerial spraying, soil injection, surface utilization.

CFR Code of Federal Regulations

Commercial Agriculture The production of crops for sale, including crops intended for distribution to wholesalers or retail outlets and any non-food crops.

Cultural Management Manipulation of growing conditions such as sanitation, the environment, or production timing to achieve disease, insect, or weed management.

Emergency A serious, unexpected, and often dangerous situation requiring immediate action.

Endocrine Disruptors Chemicals that can damage the hormone system, leading to cancer, birth defects, and other diseases and birth defects.

EPA The United States Environmental Protection Agency.

FIFRA The Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. §136 et seq.)

Herbicide A pesticide that is toxic to plants, used to destroy vegetation.

Integrated Pest Management The use of least toxic pest management practices employing cultural, mechanical, biological or chemical methods.

Invasive Species An animal, plant or insect that is not native to a particular ecosystem, and whose introduction does or is likely to cause economic or environmental harm or harm to human health. Invasive species include those plants listed under the Maine Department of Agriculture, Conservation and Forestry's Natural Areas Program as currently invasive, potentially or probably invasive, and highly likely but not currently invasive, as well as those insects listed by the Maine Forest Service as threats to Maine's forests and trees.

Neonicotinoid A class of synthetic, neurotoxic insecticides that are known to be harmful to bees and other pollinators.

Natural, Organic or Nonsynthetic A substance that is derived from mineral, plant, or animal matter and does not undergo a synthetic process as defined in the Organic Foods Production Act (7 U.S.C. § 6502(21)).

Organic Pest Management The act of managing or controlling pests through the use of mechanical, cultural, or biological processes, or through the use of natural, organic, or nonsynthetic substances.

Persistent Pesticides Are stable in the environment and resist being broken down

Person means any individual natural person, partnership, joint venture, society, association, company, club, trustee, trust or corporation; or any officer, agent, employee, or personal representative of any thereof, in any capacity acting either for her or himself or for any other person under either personal appointment or pursuant to law.

Pest Any organism declared to be a pest under circumstances that make it deleterious to living beings or the environment, as defined by U.S. Federal Code of Regulations (40 C.F.R. 152.5).

Pest Emergency is an urgent need to eliminate or mitigate a pest situation that poses a significant risk to the health and welfare of humans, animals or the environment, or poses an immediate threat of substantial property damage or loss. The existence of a pest emergency shall be determined by the Blue Hill Public Health Officer, and does not depend on whether the State of Maine has declared a pest emergency.

Pesticide Any substance or mixture of substances including but not limited to herbicides, insecticides, rodenticides, disinfectants, and antibiotics, and any fertilizer mixture which contains any of the foregoing intended to kill, repel, or mitigate species designated as pests, including plants, insects, or other organisms.

Synthetic A substance formulated or manufactured by a chemical process or by a process that chemically changes a substance extracted from naturally occurring sources. The term shall not apply to substances created by naturally occurring biological processes.

Water Body Any pond, lake, river, stream, or tidal area.

Wetlands Areas where water covers the soil, or is present either at or near the surface of the soil all year or for varying periods of time during the year.

D. PERMITTED AND PROHIBITED PEST MANAGEMENT ACTIVITIES AND/OR MATERIALS

This section shall apply to outdoor pesticide applications conducted within the Town of Blue Hill on both public and private land.

1. Permitted Pest Management Activities

a. Organic Pest Management.

b. Use or application of synthetic substances specifically listed as "allowed" on the U.S. Department of Agriculture's National List of Allowed and Prohibited Substances, National Organic Program (CFR Title 7 205.601). except for CFR Title 7 205.601 (b)(2)(ii) petroleum-based plastic mulch.

c. Use or application of pesticides determined to be "minimum risk pesticides" pursuant to the FIFRA and listed in 40 CFR 152.25 (f), provided that all of the associated criteria and limitations are met.

d. Application of a pesticide that is permitted by this ordinance must be applied in accordance with instructions included on the manufacturer's label.

Notwithstanding the foregoing permitted activities listed above, if any of the materials to be used are listed in Section 3, below, such materials may not be used, stored or sold in the Town of Blue Hill.

2. Prohibited Pest Management Activities

a. Application, storage, or sale of prohibited pest management materials (see 3. below), or any products containing these materials, such as fertilizers, within the Town of Blue Hill.

3. Prohibited Pest Management Materials

a. Any insecticide in the neonicotinoid family of pesticides.

b. Any pesticide classified as "carcinogenic to humans" or "likely to be carcinogenic to humans" by the California Office of Environmental Health Hazard Assessment, Proposition 65

c. Any pesticide classified by the U.S. Environmental Protection Agency as a *restricted use pesticide*, 40 CFR 152.175.

d. Any pesticide classified as an *endocrine disruptor* by the California Department of Public Health.

e. Any pesticide classified a *developmental toxin*, or a *reproductive toxin* by the California Office of Environmental Health Hazard Assessment, Proposition 65.

f. Any herbicide identified as *persistent* by the U.S. Composting Council.

g. Any pesticide identified as a *nonsynthetic substance* specifically listed as *prohibited* on the U.S. Department of Agriculture's National List of Allowed and Prohibited Substances, (National Organic Program), 7 CFR §205.602.

h. Any pesticide identified as a *synthetic substance* other than those specifically listed as *allowed* in the U.S. Department of Agriculture's National List of Allowed and Prohibited Substances, (National Organic Program) CFR Title 7 205.601.

4. Pest Emergencies

a. Prohibited pesticides may be used when a pest emergency exists. In such circumstances, a waiver is required from the Town of Blue Hill Public Health Officer.

b. In case of a pest emergency, the Town of Blue Hill recommends the implementation of Integrated Pest Management practices before resorting to the use of prohibited pesticides.

c. The presence of weeds or common fungal diseases in the usual course of turf maintenance shall *not* be considered a need for exemption.

d. Financial difficulty is *not* considered a need for exemption.

E. EXEMPTIONS

1. Commercial Agriculture.

2. Pet supplies for tick and flea treatment when used in the manner specified by the manufacturer.

3. Disinfectants, germicides, bactericides, miticides, and virucides, when used in the manner specified by the manufacturer.

4. Insect repellants for bodily or clothing application when used in the manner specified by the manufacturer.

5. Indoor pesticide use, when used in the manner specified by the manufacturer.

6. Rodent control supplies when used in the manner specified by the manufacturer.

7. Swimming pool supplies when used in the manner specified by the manufacturer.

8. General use paints, stains, wood preservatives, and sealants, structural wood preservation, when used in the manner specified by the manufacturer.

9. Drinking water and wastewater treatment.

10. Injections of pesticides into trees to control Dutch elm disease, emerald ash borer, or browntail moth, by a licensed pesticide applicator and under the oversight of the Blue Hill Tree Warden.

F. WAIVERS

The Town of Blue Hill Public Health Officer is authorized to grant waivers from the provisions of this ordinance when a pest emergency exists. A waiver may be granted to a licensed applicator or homeowner only for a specific use of a specific pesticide. The waiver shall be approved for a period of not more than thirty (30) days. The Public Health Officer may grant a waiver renewal for a maximum of three (3) years if they find that the applicator has performed satisfactorily, that the location of the treatment, and the pesticide and method of application will be the same as the initial waiver, and that the need for the renewed waiver is the result of the same ongoing infestation or problem.

No waiver will be approved for storage or application of prohibited pest management materials within 250 feet of the maximum high water line of a water body, wetland, or drainage ditch.

1. The licensed applicator or homeowner who seeks a waiver shall submit a Pesticide Waiver Application (available at the Blue Hill Town Office or on the Town website) to the Public Health Officer.

2. The form shall include:
    a. The reason for requesting the application of a prohibited pesticide;
    b. Explanation of why other approaches for control of the pest cannot be utilized, or will create greater risk to the environment;
    c. Identifying the pest;
    d. Naming the pesticide for which the waiver is sought;

e. Listing the amounts to be applied;
f. Describing the proposed method of application;
g. Identifying the proposed location(s) of the application(s);
h. Noting the application date(s);
i. Listing the measures that will be taken to limit any adverse impacts on the environment.

3. Upon receipt of an application for a pesticide use waiver or the renewal of an existing waiver, the Public Health Officer shall consider the application within fifteen (15) days of its receipt. The Public Health Officer may obtain outside assistance in their review of the application.

4. The Public Health Officer shall approve the application only if they find that:

   a. There is an immediate threat to human health, the environment or animals,
   b. Control methods allowed by the ordinance are not adequate to address the threat, and
   c. The licensed pesticide applicator or property owner has proposed an approach that presents the least risk to the marine and terrestrial environment and undertakes to limit the potential adverse impacts.

5. A decision of the Public Health Officer with respect to the granting or denial of a waiver may be appealed to the Select Board within fifteen (15) days of the Public Health Officer's decision. The Select Board shall act on an appellate basis in reviewing the decision and may affirm or modify the Public Health Officer's decision.

G. VIOLATIONS and ENFORCEMENT

This ordinance will be enforced by the Blue Hill Public Health Officer, according to the policies governing enforcement of ordinances of the Town of Blue Hill.

Each day a violation occurs shall be deemed a separate violation.

Any Person violating this Ordinance shall be fined as follows:

1. A fine not exceeding $100.00 for the first violation.
2. A fine not exceeding $250.00 for the second and each subsequent violation.
3. Reimbursement of the Town's legal fees and costs for prosecution of each violation.

H. PUBLIC NOTIFICATION OF PROHIBITED PESTICIDE USE

A property owner, commercial farmer, or person hired to apply a prohibited pesticide shall post notification of prohibited pesticide use if applied within 250 feet of abutting neighbor or public way. Areas treated shall be posted in a manner and at locations designed to reasonably assure that persons entering such area will see the notice. Such notice shall be posted 48 hours prior to the application date, and shall remain in place at least 48 hours following the completion of the application.

Posting Requirements

1. The sign shall measure at minimum 8 1/2 x 11 inches, made of rigid, weather resistant material, with dark bold letters.
2. The sign must bear:
    a. The word CAUTION in 72 point type,
    b. The word PESTICIDE APPLICATION in 32 point type or larger,
    c. The date and time of the application,
    d. The common name, trade name, and Environmental Protection Agency registration number of the pesticide,
    e. A detailed description of the location of the application of the pesticide, and
    f. Any reentry precautions form the pesticide labeling.

I. SEVERABILITY

If any section, paragraph, sentence, word, or phrase of this ordinance is for any reason held to be invalid or unenforceable by any court, such decision shall not affect the validity of the remaining provisions of this ordinance.

J. CONFLICTS WITH OTHER ORDINANCES

Whenever a provision of this ordinance conflicts with or is inconsistent with another provision of this ordinance or of any other ordinance, regulation, or statute, the more restrictive chapter. article. or ordinance of the Town of Blue Hill code shall control.

K. EFFECTIVE DATE

The ordinance shall become effective immediately upon its adoption at a Town Meeting, and, upon such adoption, shall repeal and replace the ordinance entitled "Blue Hill Heathy Ecosystem Ordinance" as originally adopted on April 3, 2020 and amended through April 6, 2024.

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

JANET T. MILLS
GOVERNOR

AMANDA E. BEAL
COMMISSIONER

April 18, 2025

JBI Helicopters, LLC.
720 Clough Mill Rd.
Pembroke, NH 03275

RE: Variance permit for CMR 01-026 Chapter 22 (B)(C), JBI Helicopters, LLC.

Greetings,

The Board of Pesticides Control considered your application for a variance from Chapter 22, Section 3, subsections B&C. The variance is approved, provided all products to be used are registered in the State of Maine or were registered at the time of purchase. This permit does not exempt notification to owners/occupants of sensitive areas likely to be occupied (SALOs) that are within 500 feet of the spray area pursuant to Chapter 51: Notice of Aerial Pesticide Applications, Section II. Nor does this permit allow for the off-target deposition of pesticides (either through drift or direct application) onto a property you are not contracted to apply.

The Board has authorized the issuance of a single-season permit for Chapter 22, Section 3, subsections B&C, specifically for spruce budworm control applications only. Therefore, this permit is valid until July 31, 2025, as long as applications are consistent with the information provided on the variance request. Please notify the Board in advance of changes, particularly if you plan to use a different product from those listed.

Please bear in mind that your permit is based upon your company adhering to the precautions listed in Section VIII of your Chapter 22 variance request.

I will alert the Board at its next meeting that the variance permit has been issued. If you have any questions concerning this matter, please feel free to contact me at (207) 287-2731.

Sincerely,

Alexander Peacock

Alexander Peacock
Director

ALEXANDER PEACOCK, DIRECTOR
90 BLOSSOM LANE, DEERING BUILDING

DEPARTMENT OF Agriculture Conservation & Forestry

PHONE: (207) 287-2731
THINKFIRSTSPRAYLAST.ORG

SECTION 5. VARIANCES FROM STANDARDS

A. Variance Permit Application

An applicator may vary from any of the standards imposed under this chapter by obtaining a permit to do so from the Board. Permit applications shall be made on such forms as the Board provides and shall include at least the following information:

I. JBI Helicopters
720 Clough Mill Road, Pembroke, NH 03275 603-225-3134

II. Aroostook County, Maine
Western area being primarily the land which lies between the Quebec border and the St. John River. The Eastern area being primarily land directly adjacent to and north of the Fish River Chain of Lakes.

III. Mimic 2LV(tebufenozide) and Foray 76b(Btk)

IV. Spruce Budworm Early Intervention Strategy

V. May 15 – June 30 depending on bud and larval development

VI. The application will occur via aerial. Primarily fixed wing application, but all areas impacted by a SALO in the "Eastern" area will be rotary

VII. Chapter 22 Section 3, B and C

VIII. Alternative Method of Compliance for SALO Checklist

1. Process and procedures to render any lease or structure in the "Western" project not likely to be occupied to exempt the SALO requirements
    a. Notification
        i. Notification of all leasees the treatment area will be closed during the program until impact area and methods of ingress and egress are treated and REI has elapsed
        ii. Notification of all recreational user stakeholder groups the treatment area will be closed until treatment is complete and REI has elapsed
    b. Signage
        i. Large Temporary Signs will be placed in obvious locations on methods of ingress and egress with language specifying Aerial Pesticide Applications in progress and entry not permitted

ii. Signage will also meet all requirements for Chapter 51.I.C

c. Ground Verification
    i. Landowner representatives and supporting resources will traverse likely ingress and egress areas to ensure compliance with signage and prevent slippage
d. Aerial Verification
    i. Pilots will be made aware of locations for final visual inspections while passing by on flight lines to insure no slippage
e. SALO Checklist Documentation
    i. None Required due to efforts to ensure the areas were not occupied

2. Treat all SALOs in the "Eastern" project as a singular treatment area, reporting as a project level checklist instead of individual requirements
    a. Notification
        i. Letters to all property owners within 500'
        ii. Letters to all structure owners within 1000'
    b. Signage
        i. Large Temporary Signs will be placed in obvious locations on methods of ingress and egress with language specifying Aerial Pesticide Applications in progress and entry not permitted
        ii. Signage will also meet all requirements for Chapter 51.I.C
    c. Ground Verification
        i. Landowner representatives and supporting resources will traverse likely ingress and egress areas to ensure compliance with signage and prevent slippage
    d. Aerial Best Practices
        i. Applications will be performed in early morning hours to limit amount of potential human activity
        ii. Applications will be performed with a favorable wind direction to avoid drift to SALO locations
        iii. Applications will be performed with a wind speed of 2-10 mph
    e. SALO Checklist Documentation
        i. Treat all identified SALOs as one treatment polygon requiring only one document

11c

Registration Decision for the New Active Ingredient PDHP 25279

Approved by:

MICHAEL GOODIS

Digitally signed by MICHAEL GOODIS
Date: 2023.02.22 11:51:42 -05'00'

Ed Messina, Esq., Director
Office of Pesticide Programs
U.S. Environmental Protection Agency

1. Summary

This document announces that the U.S. Environmental Protection Agency (EPA) completed its evaluation of the new biochemical pesticide PDHP 25279 and concluded that it meets the standard for registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). On February 3, 2022, EPA proposed to register a pesticide product containing the new active ingredient, PDHP 25279, and released that proposed decision for a 15-day public comment period. EPA received no comments on the proposed decision.

Peptide Derived from Harpin Protein (PDHP) 25279 is a microbially produced peptide which is formulated into the end-use product PHC 25279 as wettable, spray-dried granules at a concentration of 1%. PHC 25279 is intended to be used in the field or greenhouse and is to be applied as a dip to leaves or roots pre-transplant, as a seed treatment, or by foliage spray to vegetable crops, ornamentals, tobacco, small fruit crops, landscape plants, and turf. PDHP 25279 does not directly interact with the target pest. Instead, it induces natural defense mechanisms in the plant by eliciting the hypersensitive response, which is characterized as rapid, localized cell death in plant tissue after infiltration of the peptide into the intercellular spaces of plant leaves.

Currently, there are three registered harpin protein active ingredients: harpin, harpin αβ, and Ea peptide 91398. Harpin (PC code 006477) is a 404 amino acid (AA) protein first registered in 2000. Harpin αβ (PC code 006506) is a 412 AA protein that is composed of harpin protein fragments derived from various bacterial plant pathogens and was registered in 2004. Ea peptide 91398 (the active ingredient in PHC 91398, PC code 005200) is a synthetically produced 27 AA peptide derived from the hrpW protein found in the bacterium *Erwinia amylovora*, a plant pathogen that causes fire blight in plants, and was first registered in 2020. The product characterization, human health, and nontarget organism data supporting the registration of PDHP 25279 and the product, PHC 25279, are in part based on molecular and toxicological similarities to these previously registered harpin active ingredients, particularly Ea peptide 91398 and its corresponding end-use product PHC 91398 (EPA Reg. No. 71771-12).

Dietary exposure to residues of the active ingredient in food and drinking water is expected to be negligible. PDHP 25279 was found to have low toxicity via the oral route of exposure, did not show any homology to known or putative allergens, and is rapidly degraded in simulated gastric fluids. Because PDHP 25279 is a protein, it generally is expected to be biodegradable through microbial activity in the soil. Supporting this assumption is the observation that PDHP 25279 is degraded within 5 minutes by subtilisin A, an environmental protease. It is expected that biological processes will reduce run-off and potential exposure of drinking water to negligible levels. The presence of PDHP 25279 on treated crops is likely to be further reduced through normal washing and handling processes. Together, any potential dietary risk from the use of PDHP 25279 to human health is therefore considered negligible.

There is a potential for occupational dermal, eye, and inhalation exposure from mixing the powder with solvent for application and from surface spraying. PDHP 25279 was found to be non-toxic via the oral route of exposure, and via inhalation. In studies conducted on Ea peptide 91398, it was not found to be a dermal sensitizer and was non-toxic in dermal application to rats in quantities of 5,000 mg per kg of body weight. As mentioned above, Ea peptide 91398 and PDHP 25279 share a high degree of similarity. The results from the acute oral and inhalation studies conducted on PDHP 25279, coupled with findings that Ea peptide 91398 is non-toxic when exposed dermally, support the conclusion that there are no occupational risks associated with manufacture of PHC 25279 containing PDHP 25279, or its application according to the use instructions on the product label. Respiratory personal protective equipment is required since repeated exposures to high concentrations of microbial proteins may cause allergic sensitization and PDHP 25279 is a microbially derived peptide.

Nontarget organism exposure and toxicity data were cited from previously registered products containing Harpin, Harpinαβ, and Ea Peptide 91398, which are similar to PDHP 25279. These studies did not result in any adverse effects on any non-target organisms tested. Additionally, the degradation study submitted to support the uses of PDHP 25279 demonstrated rapid degradation times, consistent with previous generations of products containing harpin protein. The lack of toxicity, coupled with minimal environmental exposure and the history of safe use of similar active ingredients indicate that the product containing PDHP 25279 will not result in adverse effects to non-target organisms. PDHP 25279 is not expected to result in discernible effects to non-target organisms. Due to a reasonable expectation of no discernible effects to occur to any non-target species, including listed species, a "No Effect" determination has been made for direct and indirect effects to listed species and their designated critical habitats resulting from the uses of PDHP 25279, as labeled.

After reviewing the submitted and publicly available data and information for PDHP 25279, EPA concluded that there is a reasonable certainty of no harm from residues of this new active ingredient, and its use will not cause unreasonable adverse effects to human health or the environment. Under FIFRA section 3(c)(5), EPA is registering one end use product:

PHC 25279 (EPA File Symbol: 717117-14)

Active Ingredient:	PDHP 25279
Activity:	The active ingredient is a plant response-elicitor peptide based on a naturally occurring harpin protein, PDHP 25279. The peptide works to reduce the incidence and severity of plant disease by eliciting the plant's own natural defense system, referred to as systemic acquired resistance, thereby enhancing overall plant health.
Uses:	Pre-plant foliar or root dip, foliar application, sprinkler or drip chemigation, and seed treatment.
Crops:	Artichoke, Asparagus, potato, corn, sweet corn, cotton, soybean, canola, sunflower, sugar beets, wheat, grass, hay, sugarcane, tobacco, berries, avocado, citrus, almond, walnuts, apple, pear, stone fruit, grapes, hops, kiwifruit, aloe, banana, coffee, figs, herbs, mango, mint, papaya, pineapple, trees, turf, and ornamentals.

Furthermore, EPA has established a tolerance exemption for residues of PDHP 25279 in or on all food commodities when used in accordance with label directions and good agricultural practices (40 CFR 180.1398).

2. Background

On January 11, 2021, EPA received an application from Plant Health Care, Inc. that proposed to register a new pesticide product, PHC 25279, containing the new active ingredient, PDHP 25279. Plant Health Care provided data and other information (e.g., scientific rationales and published literature) to support the registration. In addition, Plant Health Care, Inc. submitted a petition to establish a tolerance exemption for residues of PDHP 25279 in or on all food commodities.

In the Federal Register of August 13, 2021 (86 FR 44706), EPA published a Notice of Receipt (NoR) that announced receipt of an application for registration of type of PDHP 25279. In the Federal Register of June 17, 2022 (87 FR 36438), EPA published a Notice of Filing (NoF) for the petition requesting the

exemption from the requirement of a tolerance for residues of PDHP 25279. During the public comment periods, no comments were received in response to the NoR; one comment was received in response to the NoF (see section 4 below). On February 8, 2023, EPA revised 40 CFR Part 180 to establish a tolerance exemption for residues of PDHP 25279 in or on all food commodities when used in accordance with label directions and good agricultural practices (88 FR 8233).

3. Evaluation

In evaluating a pesticide registration application, EPA assesses a variety of studies to determine the likelihood of adverse effects (i.e., risk) from exposures associated with the use of the product. Risk assessments are developed to evaluate how the active ingredient might affect a range of nontarget organisms, including humans and terrestrial and aquatic wildlife (plants and animals).

Based on these assessments, EPA evaluates and approves language for each pesticide label to ensure the directions for use and safety measures are appropriate to mitigate any potential risk. In this way, the pesticide label communicates essential limitations and mitigations that are necessary for public and environmental safety. In fact, FIFRA section 12(a)(2)(G) states that it is unlawful for any person to use a registered pesticide in a way that conflicts with the label.

3.1 Assessment of Human Health Exposure and Risk

To assess risks to human health from use of biochemical pesticides, EPA evaluates the potential toxicity of a product and the likelihood, amount, and types of exposure users and bystanders are likely to experience. In conducting a risk assessment, EPA must consider: (1) the hazards of a substance and (2) the exposure to that substance that a person will be exposed to as a consequence of use either directly or indirectly. EPA uses this combined information to assess and characterize the risk(s) and predict the probability, nature, and magnitude of the adverse health effects that may occur from use of the substance in the manner described.

To evaluate hazard for biochemical pesticides, EPA typically requires a range of Tier I data: acute toxicity data (acute oral toxicity, acute inhalation toxicity, acute dermal toxicity); irritation tests (primary eye irritation, primary dermal irritation and dermal sensitization); subchronic testing (90-day oral); mutagenicity testing (bacterial reverse mutation test and in vitro mammalian cell assay) and developmental toxicity testing (prenatal development). Tier II and III testing is triggered only when there is indication, usually through lower tier testing, that a biochemical pesticide has unusual characteristics, such as subchronic toxicity, or is suspected or known to be a carcinogen.

3.1.1 Product Characterization

The data and information submitted to address the product analysis data requirements for the pesticide product containing PDHP 25279 have been classified as acceptable. PDHP 25279 is a microbially produced peptide which is formulated into the end-use product PHC 25279 as wettable, spray-dried granules at a concentration of 1%. PHC 25279 is intended to be used in the field or greenhouse and is to be applied as a dip to leaves or roots pre-transplant, as a seed treatment, or by foliage spray to vegetable crops, ornamentals, tobacco, small fruit crops, landscape plants, and turf. PDHP 25279 does not directly interact with the target pest. Instead, it induces natural defense mechanisms in the plant by eliciting the hypersensitive response, which is characterized as rapid, localized cell death in plant tissue after infiltration of the peptide into the intercellular spaces of plant leaves.

As a term of registration, the applicant will be required to submit the results of confirmatory storage stability and corrosion characteristic studies (ongoing at the time of registration).

3.1.2 Toxicological and Allergenicity Data and Information

In support of the application, Plant Health Care, Inc. submitted an acute oral study in rats, an acute inhalation study in rats, digestibility studies of PDHP 25279 in simulated gastric fluids and subtilisin A, a bioinformatics study on the allergenic potential of PDHP 25279, and requests to waive additional mammalian toxicity requirements as specified in 40 CFR § 158.2050 based on the similarities of PDHP 25279 to Ea peptide 91398.

The waiver rationales are based on the results of the previous human health evaluation for Ea peptide 91398 (end use product PHC 91398) and information on the equivalence of these substances to PDHP 25279 (end use product PHC 25279). There are two notable differences between these two active ingredients. First, Ea peptide 91398 is produced synthetically, whereas PDHP 25279 is produced through microbial fermentation, which results in the presence of microbial fermentation byproducts (biosolids) in the PHC 25279 end use product. Secondly, PDHP 25279 contains three amino acid substitutions that allow for post-fermentation processing of the peptide. To address the toxicological equivalence of the new active ingredient and end-use product, the applicant conducted two acute toxicity studies. Studies were conducted on the end-use product (EP), PHC 25279 containing 1% PDHP 25279 peptide active ingredient due to the instability of the peptide in the technical grade of the active ingredient (TGAI) form at room temperature. Both PHC 25279 and the previously registered PHC 91398 were shown to have low oral and inhalation toxicity profiles, resulting in both being classified as EPA Toxicity Category IV. The acute oral LD_{50} was determined to be >5,000 mg/kg for both end use products and the acute inhalation LC_{50} was found to be >5.23 mg/L for PHC 91398 and the LC_{50} > 2.11 mg/L for PHC 25279. Notably, in these studies the active ingredient content of the two products was virtually identical (1.039% and 1%, respectively), further supporting the comparability of the test results. Both acute toxicity studies were conducted with the maximum allowable level of biosolids per the manufacturing process and thus represent a worst-case scenario that still resulted in low toxicity through these routes of exposure.

Toxicological equivalence of the two active ingredients was also examined with regard to their potential to be cross-reactive with known or putative allergens. The peptide sequence of PDHP 25279 was compared to a database of known and putative allergenic proteins. The comparisons of the PDHP 25279 protein sequence to the allergen sequences showed no homology with any of the sequences in the allergen database. Subsequent re-analysis showed the same results, i.e., there were no contiguous 8-residue matches or >35% matches within a contiguous stretch of 80 AA between the PDHP 25279 protein sequence and known and putative allergen sequences. Similar results were observed in the bioinformatics analysis conducted for Ea peptide 91398. Thus, the likelihood for the PDHP 25279 peptide to be cross-reactive with any of these allergens is low.

Both harpin peptides also behaved similarly in the presence of the proteases pepsin and subtilisin A, showing rapid degradation in the presence of both enzymes. The results of an in vitro digestibility study using PDHP 25279 indicated that the digestion of PDHP 25279 was complete at the five-minute mark for pepsin and the one-minute mark for subtilisin A. A similar finding was made for Ea peptide 91398, in which complete digestion with pepsin and subtilisin A took place within one minute and twenty minutes, respectively. The more rapid degradation of PDHP 25279 in the presence of subtilisin A demonstrates that the PDHP 25279 peptide is likely rapidly degraded in soil, which may reduce dietary exposure for use of the product in soil. This information is relevant because the end use product, PHC 25279, is meant for application as a seed treatment and root dip (among other application methods to

include pre-transplant foliar dip and foliar application). Additionally, the subtilisin A susceptibility by this environmental protease further supports the biological equivalency finding of the two proteins.

EPA reviewed waiver rationales for the following data requirements: acute dermal toxicity study, primary dermal irritation study, primary eye irritation study, dermal sensitization study, 90-day oral toxicity in rodents, 90-day dermal toxicity, 90-day inhalation toxicity, prenatal developmental toxicity study, bacterial reverse mutation test, and in vitro mammalian cell assay. Included in these rationales were citations to studies which were conducted on PHC 91398, containing Ea peptide 91398. Given the high degree of similarity in the amino acid sequences between PDHP 25279 and Ea peptide 91398 and their similar findings in acute oral and acute inhalation studies, EPA found the waiver rationales to be adequate for evaluating human health risk for PHC 25279. Thus, considering the lack of effects observed in laboratory testing in both acute oral and inhalation studies for PHC 25279, acute toxicity to humans and animals is not expected via the dermal or ocular route.

To date, there have been no reported hypersensitivity incidents during the production of PHC 25279. *Erwinia amylovora*, the source organism from which PDHP 25279 is derived, is a plant pathogen responsible for causing fire blight in plants such as apple, pear, and raspberry. *E. amylovora* is a Gram-negative bacterium belonging to the family *Enterobacteriaceae*. Human infections by *Erwinia*-like microorganisms have rarely been identified. Although two cases of human infection with *Erwinia spp.* have been reported, neither case has been attributed to *E. amylovora*. Furthermore, while the DNA sequence information for the PDHP 25279 peptide from *E. amylovora* provided the genetic template for production of PDHP 25279, the bacterium itself is not used at any point during the production process. Therefore, there is no indication that the source organism would raise any toxicological concerns.

3.1.3 Aggregate Exposure and Risk Characterization

In examining aggregate exposure, EPA considers available information concerning exposures from the pesticide residue in food and all other non-occupational exposures, including drinking water from ground water or surface water and exposure through pesticide use in gardens, lawns, or buildings (residential and other indoor uses).

The Agency has considered available information on the aggregate exposure levels of consumers (and major identifiable subgroups of consumers) to the pesticide residue and to other related substances. These considerations include dietary exposure under the tolerance exemption and all other tolerances or exemptions in effect for PDHP 25279 residues, and exposure from non-occupational sources.

As described previously, no adverse effects of concern were observed in toxicological tests with PDHP 25279 and the highly similar Ea peptide 91398; therefore, the EPA did not conduct a quantitative exposure assessment.

Dietary Exposure and Risk Characterization:

EPA did not conduct a quantitative dietary exposure and risk assessment because dietary exposure to residues of the active ingredient, PDHP 25279, in food and drinking water is expected to be negligible. Supporting this conclusion is the observation that PDHP 25279 is degraded within 5 min by subtilisin A, an environmental protease. PDHP 25279 is a protein and as such is generally expected to be biodegradable through microbial activity in the soil. It is therefore expected that biological processes will reduce run-off and potential exposure of drinking water to negligible levels. Furthermore, the presence of PDHP 25279 on treated crops is likely to be further reduced through normal washing and handling processes.

EPA's risk assessment concluded that, similar to Ea peptide 91398, PDHP 25279 has low toxicity via the oral route of exposure, did not show any homology to known or putative allergens, and is rapidly degraded in simulated gastric fluids. Together, any potential dietary risk from the use of PDHP 25279 to human health is therefore considered negligible.

Non-occupational, Residential Exposure and Risk Characterization:

Because PDHP 25279 is not for residential use, EPA did not conduct a residential exposure assessment. For non-occupational exposure, there is a potential for dermal exposure by handling of plants treated with PDHP 25279. However, PDHP 25279 is expected to be of low toxicity through the dermal route of exposure, given the low toxicity through the oral and inhalation routes and its similarity to Ea peptide 91398, which was found to be of low toxicity and not a skin sensitizer.

Cumulative Effects:

Section 408(b)(2)(D)(v) of FFDCA requires that, when considering whether to establish, modify, or revoke a tolerance, EPA consider "available information concerning the cumulative effects of [a particular pesticide's] … residues and other substances that have a common mechanism of toxicity." No risk of cumulative toxicity/effects from PDHP 25279 or the similar Ea peptide 91398 has been identified as no toxicity has been shown for PDHP 25279 in the submitted studies. Therefore, EPA has not assumed that PDHP 25279 has a common mechanism of toxicity with other substances.

3.1.4 Determination of Safety for U.S. Population, Infants, and Children

U.S. Population:

For all the reasons discussed above, EPA concluded that there is reasonable certainty that no harm will result to the U.S. population, including infants and children, from aggregate exposure to residues of PDHP 25279. This includes all anticipated dietary exposures and all other exposures for which there is reliable information.

Infants and Children:

FFDCA section 408(b)(2)(C) provides that, in establishing or modifying a tolerance or tolerance exemption for a pesticide chemical residue, EPA shall assess risk considering the available information about consumption patterns among infants and children, special susceptibility of infants and children to pesticide chemical residues, and the cumulative effects on infants and children of the residues and other substances with a common mechanism of toxicity and ensure there is a reasonable certainty of no harm to infants and children from aggregate exposure to the pesticide chemical residue. In addition, FFDCA section 408(b)(2)(C) requires that, in the case of threshold effects, EPA apply an additional tenfold (10X) margin of safety for infants and children to account for prenatal and postnatal toxicity and the completeness of the database on toxicity and exposure, unless EPA determines, based on reliable data, that a different margin of safety will be safe for infants and children. This additional margin of safety is commonly referred to as the Food Quality Protection Act Safety Factor. In applying this provision, EPA either retains the default value of 10X or uses a different safety factor when reliable data available to EPA support the choice of a different factor.

An FQPA safety factor is not required for PDHP 25279 at this time as no dietary endpoints have been identified based on the lack of human-relevant adverse effects, including toxicity and allergenicity of PDHP 25279.

3.1.5 Occupational Exposure and Risk Characterization

There is a potential for occupational dermal, eye, and inhalation exposure from mixing the powder with solvent for application and from surface spraying. PDHP 25279 was found to be non-toxic via the oral route of exposure, and via inhalation. In studies conducted on Ea peptide 91398, it was not found to be a dermal sensitizer and was non-toxic in dermal application to rats in quantities of 5,000 mg per kg of body weight. As mentioned above, Ea peptide 91398 and PDHP 25279 share a high degree of similarity. The results from the acute oral and inhalation studies conducted on PDHP 25279, coupled with findings that Ea peptide 91398 is non-toxic when exposed dermally, support the conclusion that there are no occupational risks associated with manufacture of PHC 25279 containing PDHP 25279, or its application according to the use instructions on the product label. Respiratory personal protective equipment is required since repeated exposures to high concentrations of microbial proteins may cause allergic sensitization and PDHP 25279 is a microbially derived peptide.

3.1.6 Human Health Conclusions

EPA previously conducted a thorough human health risk assessment for the registration request of PHC 91398 containing the active ingredient Ea peptide 91398 and found it to not pose a human health risk (US EPA 2020a; EPA File Symbol No. 71771-12). PDHP 25279 is highly similar to Ea peptide 91398 based on its molecular composition (i.e., only 3 AA are different) and toxicological profile. Similar to Ea peptide 91398, PDHP 25279 was found to have low toxicity via the oral and inhalation routes of exposure, did not show any homology to known or putative allergens, and is rapidly degraded in simulated gastric fluids. Therefore, EPA concludes that there will be no unreasonable adverse effects for humans as a result of the registration of PHC 25279 or its application if used according to the label and good agricultural practices.

The database of studies required to support the assessment of the risk posed by PDHP 25279 to human health is complete. For more information on the human health risk assessment of PDHP 25279 (U.S. EPA 2023), please see the supporting documentation provided in the associated regulatory docket (search for “EPA-HQ-OPP-2021-0394” at www.regulations.gov).

3.2 Assessment of Ecological Exposure and Risk

To assess ecological risks from use of biochemical pesticides, EPA evaluates the likely environmental impacts as a result of exposure of the chemical to plants and animals in the environment and to whether that exposure will cause harm or ecological effects. EPA uses this combined information and considers the overall toxicity to characterize the risk(s) in order to identify what levels may cause harmful effects on the plants and animals of concern that may occur from use of the substance in the manner described.

To evaluate toxicity, EPA initially requires that a wide range of studies including Tier I testing be done on the following nontarget organisms: mammalian (acute, subchronic, prenatal developmental, and mutagenicity), birds (acute oral and dietary), fish (acute freshwater fish and aquatic invertebrates), plants, and insects. Testing is organized in a tiered structure, where Tier I studies test worst-case exposure scenarios and higher tiers (Tiers II and III) generally encompass definitive risk determinations and longer-term greenhouse or field testing. Higher tier testing is implemented only when unacceptable

effects are seen at the Tier I screening level. All data requirements may be addressed with guideline studies or scientific rationales.

The database of studies and information required to support the assessment of risk to the environment is adequate for making a determination for the registration of PDHP 25279 (U.S. EPA 2022). To address the data requirements, Plant Health Care, Inc., submitted guideline studies, cited previously submitted studies for similar harpin active ingredients, and provided scientific rationales supported by the open literature. Based on these acceptable data and scientific rationales, adverse effects to nontarget organisms are not expected from use of the PDHP 25279 pesticide product when applied to use sites. A summary of the data and information reviewed for PDHP 25279 follows.

3.2.1 Terrestrial Animals and Plants

The application methods for PDHP 25279 include root dip and seed treatments as well as use as a foliar spray. Root dip and seed treatments result in negligible exposure to non-target organisms. The primary route of exposure for non-target organisms to PDHP 25279 is from the foliar spray use. The foliar spray use has the potential to leave residue that non-target organisms have access to via consumption, dermal contact, pollination, or run-off. The highest application rate for the product (PHC 25279) is 3 oz per acre. As the product contains 1% of the new active ingredient, this equates to a maximum of 0.03 oz of the active ingredient per acre at the highest application rate.

Birds and Mammals:

While foliar spray applications of PHC 25279 are likely to result in the highest level of potential exposure of PDHP 25279 for terrestrial animals, contact through foliar spray is expected to be limited from the low application rate and the low persistence of PDHP 25279 in the environment. Birds and mammals may be exposed through contact with the treated plant or consumption of treated plant material. The short degradation time of PDHP 25279 would likely not allow it to persist very long in an area impacted by drift. Previous studies on early generations of harpin active ingredients suggest that they rapidly degrade on plant surfaces with degradation times on the order of minutes to 3 to 4 days. A recent degradation study conducted with PDHP 25279 found that the peptide was almost entirely degraded within a minute of exposure to the environmental protease, Subtilisin A. Therefore, PDHP 25279 was determined to be readily biodegradable and is unlikely to persist in the environment, limiting exposure potential to non-target organisms. EPA concluded that, due to the combination of the quick degradation time demonstrated for PDHP 25279 and the low application rate, in conjunction with the high similarity between this peptide and previous generations of harpin proteins, PDHP 25279 exposure to terrestrial non-target organisms is expected to be minimal.

Nontarget Insects and Honeybees:

Exposure of PDHP 25279 to non-target insects and honeybees is not likely due to the low application rates of PHC 25279, quick degradation potential, and its non-toxic mode of action. A rationale and bridging argument were submitted to demonstrate the similarity between the previously registered synthetic Ea Peptide 91398 (PHC 91398) and PDHP 25279. This bridging argument and rationale were found acceptable to support PDHP 25279. A rationale based on the two honeybee toxicity studies, conducted for Ea Peptide 91398 (see US EPA 2020b), to satisfy the nontarget insect data requirement was also submitted and found acceptable. The rationale also noted that impacts to non-target insects are not likely due to the low application rates, quick degradation potential, history of safe use and its non-toxic mode of action. EPA concluded that, given that the mode of action is not likely to be toxic to

insects, the low exposure, and lack of toxicity to honeybees, risk to non-target insects and honeybees is not anticipated.

Nontarget Plants:

An acceptable scientific rationale was submitted by the applicant in lieu of data on the effect of PDHP 25279 on nontarget plants. No recent plant studies were submitted for this application. Exposure to off-field plants is expected to be minimal due to the combination of the quick degradation time demonstrated for PDHP 25279 and the low application rate of PHC 25279. The mode of action of this product is non-toxic in nature to plants. The product promotes gene expression through the jasmonic/ethylene and salicylic acid-dependent signaling, and it activates the plant's defense system which initially causes localized cell death in tissues infiltrated by the peptide. This triggers a cascade of metabolic effects, which promotes an immune response within the plant to increase resistance to bacterial and fungal infections, suppression of nematode egg production as well as increased yield and growth. The effect in the plant is direct but does not cause lethality to the plant. EPA found that, due to the lack of hazard to non-target plants and low expected environmental exposures, no discernible effects to non-target plants are anticipated from PDHP 25279.

3.2.2 Aquatic Animals and Plants

The only application method of PHC 25279 that could potentially result in exposure of PDHP 25279 to aquatic flora and fauna is the foliar spray method via drift. Exposure through runoff events is expected to be negligible due to the rapid degradation times in the field and previous studies with similar harpin proteins. As part of its human health and product characterization risk assessment, EPA reviewed a degradation study that demonstrates PDHP 25279 is readily degraded by two common proteases. Therefore, PDHP 25279 is unlikely to persist in the environment, and exposure to non-target aquatic animal and plants is expected to be limited. Furthermore, the transitory nature of PDHP 25279 is similar to Harpin and harpin αβ proteins, which in previous studies were found to degrade between 15 seconds and 15 minutes on plant surfaces. Another study found that the harpin protein degrades on plant surfaces from 3 to 4 days after application, which was thought to suggest photodegradation. Data from the same study also found that harpin proteins completely degrade in the presence of chlorinated water and other oxidative compounds, thereby limiting the potential of irrigation runoff of harpin proteins from impacting aquatic systems. The weight of evidence that oxidative agents and chlorinated water degrading harpin proteins supports the finding that potential exposure to aquatic systems is expected to be negligible.

The applicant submitted an acceptable rationale and bridging argument for freshwater fish and aquatic invertebrate (daphnia) data requirements. EPA concluded that, given the lack of toxicity of previous generations of harpin proteins and low exposure in aquatic environments, effects from PDHP 25279 on freshwater and estuarine/marine fish and aquatic invertebrates are not anticipated.

3.2.3 Endangered Species Conclusion

Since EPA has determined that no effects are anticipated for any nontarget species exposed to PDHP 25279 as a result of the uses, EPA also does not expect discernible effects to federally listed threatened and endangered ('listed') species. Therefore, EPA made a "No Effect" determination for direct and indirect effects to federally listed threatened or endangered species and their designated critical habitats resulting from the labeled uses of PDHP 25279.

4. Benefits and Public Comments

By definition, biochemicals are favorable when compared to currently registered conventional alternatives because biochemicals are naturally occurring substances (or substances structurally similar and functionally identical to naturally-occurring substances) with a history of exposure to humans and the environment demonstrating minimal toxicity and a nontoxic mode of action to the target pest(s). Benefits of biochemical pesticides as compared to conventional pesticides typically include lower toxicity profiles for humans and nontarget organisms, and faster degradation in the environment.

Like other biochemicals, PDHP 25279 aligns with some of the potential benefits above and could fill particular needs in unique markets. For example, PDHP 25279 does not directly interact with the target pest. Instead, it induces natural defense mechanisms in the plant by eliciting the hypersensitive response, which is characterized as rapid, localized cell death in plant tissue after infiltration of the peptide into the intercellular spaces of plant leaves. Hence, the mode of action of PDHP 25279 is non-toxic, and PDHP 25279 is not expected to have toxic effects on nontarget organisms, applicators in the field, or food or drinking water consumed by the U.S. population.

EPA has provided the public two opportunities to comment on the proposed registration of PDHP 25279 and its associated tolerance exemption petition through information presented in the Federal Register and/or on www.regulations.gov. On August 13, 2021, EPA announced receipt of an application in the Federal Register to register PHC 25279 (71771-RU), containing the new biochemical active ingredient PDHP 25279. No comments were received during the open comment period for the Notice of Receipt. On June 17, 2022 (86 FR 44706), EPA published a Notice of Filing (NoF) that announced requests to establish an exemption from the requirement of a tolerance in 40 CFR part 180 for residues of PDHP 25279 in or on all food commodities when used in accordance with label directions and good agricultural practices. On July 4, 2022, EPA received one comment on the NoF in support of the tolerance exemption:

"I am writing in support of this petition to modify regulations for residues of the fungicide chemical PDHP 25279 applied to growing crops or seeds. PDHP 25279 is classified as a toxicology category IV substance for exposure via the oral, dermal, and inhalation routes. This means that the LD_{50} for this drug via the oral route is >5000 mg/kg and the LD_{50} for this drug via the inhalation route is >2 mg/L (Office of Pesticide Programs, 2018; Pesticide Tolerance; Exemptions, Petitions, Revocations, etc.: Residues of a Pesticide Chemical in or on Various Commodities, 2022). The mechanism of action of this agent is by the Natural Defense Mechanism causing "rapid, localized cell death in plant tissue after infiltration … into the intracellular spaces of plant leaves or roots" (Pesticide Tolerance; Exemptions, Petitions, Revocations, etc.: Residues of a Pesticide Chemical in or on Various Commodities, 2022, p. 2). It degrades quickly when exposed to environmental conditions via hydrolysis and oxidation. Because of this, in addition to the low dose of application of PDHP 25279, it is unlikely that humans will be exposed to consuming it in their diet or in drinking water from pesticide run-off. Additionally, the product has been shown to be non-toxic and would not cause harm even if it was consumed dietarily or in drinking water unless consumed in extremely high doses. The use of pesticides can be beneficial in that they protect from crop loss and promote agricultural productivity (Aktar et al., 2009). Additionally, the benefits of increased availability of produce outweigh the risks of exposure to a toxicology class IV substance."

Because Plant Health Care's pesticide product contains a new active ingredient and involves the first agricultural use of this active ingredient, EPA opened a 15-day public comment period on this registration decision on February 3, 2023. EPA took this action in accordance with a policy, first implemented in October 2009, designed to provide a more meaningful opportunity for the public to

participate in major registration actions. The public comment period closed on February 18, 2023, and no comments were received.

5. Registration Decision

The PDHP 25279 database is comprised of studies and information that meet the data requirements and support the labeled uses. In considering the assessed risk to human health and the environment, EPA concludes that PDHP 25279 meets the regulatory standard under FIFRA. Therefore, EPA is granting the registration of PDHP 25279 as new active ingredient under FIFRA section 3(c)(5).

EPA is registering under FIFRA Section 3(c)(5) one end use product, PHC 25279, for use as a seed treatment, foliar spray, and pre-plant foliar/root dip on a range of agricultural crops. The end use product consists of wettable, spray-dried granules at a concentration of 1% active ingredient and is intended to manage plant diseases.

The risk assessments and label supporting this decision can be found in the associated regulatory docket (search for "EPA-HQ-OPP-2021-0394" at www.regulations.gov).

6. References

United States Environmental Protection Agency (U.S. EPA), 2020a. Human Health Risk Assessment for 3rd Generation Harpin Peptide PHC-91398. Memorandum from N. Baranova through J. Kough and M. Mendelsohn to K. Welch, dated February 4, 2020.

Unites States Environmental Protection Agency (U.S. EPA), 2020b. Environmental Risk Assessment for a FIFRA Section 3 Registration PHC-91398 End Use Product Containing the New Active Ingredient Ea Peptide 91398. Memorandum from S. Kelly through G. Sinclair and M. Mendelsohn to K. Welch, dated February 4, 2020.

United States Environmental Protection Agency (U.S. EPA), 2022. Environmental Risk Assessment for a FIFRA Section 3 Registration of PHC 25279 End Use Product. Containing the New Active Ingredient PDHP 25279; EPA File Symbols 71771-RU; PC Code 155667; Action Case No. 00149130; Submission Nos. 1062907; DP Barcodes: 1F8901; MRIDs 51113203 and 513860702. Memorandum from S. Kelly through A. Pierce and M. Mendelsohn to M. Glikes, dated November 9, 2022.

United States Environmental Protection Agency (U.S. EPA), 2023. Human Health Risk Assessment, Review of Product Characterization and Manufacturing Processes of the New End-Use Product PHC 25279 Containing the New Active Ingredient Peptide Derived from Harpin Protein (PDHP) 25279. Data was Provided in Support of a FIFRA Section 3 Registration and Establishment of a Permanent Tolerance Exemption. Memorandum from N. Ortiz through W. Striegel and M. Mendelsohn to M. Glikes, dated January 6, 2023.

GROUP **BM 02** FUNGICIDE

FUNGICIDE

OBRONA™

A Biochemical Pesticide • Wettable Dry Granule

Enhances plant's resistance to fungal and bacterial diseases

ACTIVE INGREDIENT:

PDHP 25279	1.0%
OTHER INGREDIENTS:	99.0%
Total:	100.0%

EPA Reg. No. 71771-14-2935

EPA Est. No. 88746-GA-1

KEEP OUT OF REACH OF CHILDREN

CAUTION / PRECAUCIÓN

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail.)

Read the entire label before using this product. Read Conditions of Sale and Limitation of Warranty and Liability before buying or using. If terms are not acceptable, return at once unopened.

See inside booklet for complete Precautionary Statements and Directions for Use.

WILBUR-ELLIS.

Manufactured for:
WILBUR-ELLIS COMPANY LLC
2903 S. Cedar Ave., Fresno, CA 93725 • (559) 442-1220
2024-0227

0 71070 02557 6

NET WEIGHT: 5 lb

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if inhaled. Avoid breathing dust or spray mist. Remove and wash contaminated clothing before reuse.

FIRST AID	
If inhaled	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.

HOT LINE NUMBER: Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency medical treatment information, call the National Pesticide Information Center at 1-800-858-7378, 6:30 AM to 4:30 PM Pacific Time, seven days a week. During other times, call the poison control center at 1-800-222-1222.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Wear a minimum of a NIOSH-approved particulate filtering facepiece respirator with any N*, R, or P filter; OR a NIOSH-approved elastomeric particulate respirator with any N, R, or P filter; OR a NIOSH-approved powered air-purifying respirator with an HE filter. (Repeated exposures to high concentrations of microbial proteins can cause allergic sensitization.)

Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions exist for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

- Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Users should remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

For terrestrial uses: Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash waters or rinsate.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), restricted-entry interval and notification to workers. The requirements in this box apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours.

Exception: If the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls
- Waterproof gloves, and
- Shoes plus socks.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Keep unprotected persons out of treated areas until sprays have dried.

PRODUCT INFORMATION

OBRONA is a plant response-elicitor peptide based on a naturally occurring harpin protein. This product reduces the incidence and severity of plant disease by eliciting the plant's own natural defense system, referred to as systemic acquired resistance (SAR). OBRONA has no direct effect on plant disease pathogens. Early applications prior to disease infection can delay or reduce disease severity resulting in improved fungicide activity. This product is most effective when combined with fungicide programs having alternative modes of action. The plants' enhanced defense system due to the application of OBRONA adds to fungicide programs, leading to improved overall disease control.

Sites: Use OBRONA for greenhouse, shadehouse, nursery, and field production of all plants listed on this label.

Coverage: Use spray volume adequate to obtain coverage without runoff. Uniform or full leaf coverage is helpful but is not required.

Days to Harvest: This product can be applied up to the day of harvest.

RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, this product contains a Group BM 02 fungicide/bactericide. Any fungal/bacterial population may contain individuals naturally resistant to OBRONA and other Group BM 02 fungicides/bactericides. A gradual or total loss of pest control may occur over time if these fungicides/bactericides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay fungicide resistance, take one or more of the following steps:

- Rotate the use of this product or other Group BM 02 fungicides/bactericides within a growing season sequence with different groups that control the same pathogens.
- Use tank mixtures with fungicides/bactericides from a different group that are equally effective on the target pest when such use is permitted. Use at least the minimum application rate as labeled by the manufacturer.
- Adopt an integrated disease management program for fungicide/bactericide use that includes scouting, uses historical information related to pesticide use, and crop rotation, and which considers host plant resistance, impact of environmental conditions on disease development, disease thresholds, as well as cultural, biological and other chemical control practices.
- Where possible, make use of predictive disease models to effectively time fungicide/bactericide applications. Note that using predictive models alone is not sufficient to manage resistance.
- Monitor treated fungal/bacterial populations for resistance development.
- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance-management and/or IPM recommendations for specific crops and pathogens.
- For further information or to report suspected resistance contact Wilbur-Ellis Company LLC at (720) 306-6340. You can also contact your pesticide distributor or university extension specialist to report resistance.

USE PRECAUTIONS

Use Promptly: Use product on the same day it is mixed with water and use opened packages within 3 weeks. Carefully reseal opened packages to minimize exposure to air and moisture.

TANK MIXING

Use in Mixtures: OBRONA is believed to be compatible with most other labeled pesticides, such as post-emergence herbicides, insecticides, acaricides, and fungicides, as well as most foliar nutritional products. To determine the physical compatibility of this product with other products, use a jar test. Using a quart jar, add the proportionate amounts of the products to approximately one quart of water with agitation. Add dry flowables first, then flowables, and then emulsifiable concentrates last. After thorough mixing, allow this mixture to stand for 5 minutes. If the combination remains mixed or can be readily remixed, it is physically compatible. Once compatibility has been proven, use the same procedure for adding products to the spray tank. If OBRONA cannot be put in the tank first, before adding it to the tank, slurry the product in a small amount of clean water and add the slurry to the tank. Do not mix this product with any other product containing a label prohibition against such mixing. When tank mixing this product with any other approved pesticide, always read and follow all use directions, restrictions, and precautions of both OBRONA and the tank mix partner(s). The resulting tank mix must be used in accordance with the most restrictive label limitations and precautions. Do not exceed label dosage rates.

Glyphosate Herbicides: When tank mixing OBRONA with glyphosate for application on crops designated Roundup Ready®, only use formulations of glyphosate herbicide that are fully labeled for use on Roundup Ready® crops. Never spray this mixture on crops that are not designated Roundup Ready® as severe injury or death of the crop can occur. Some glyphosate formulations allow for the addition of surfactants. Please refer to the surfactant recommendations from the manufacturer.

Precautions: Do not use this product in tank mixes or water below pH 5 or above pH 10. Do not mix this product with pyrophosphates, phosphoric acid, or other strong oxidizers.

Surfactants: Use only non-ionic adjuvants approved for use on growing crops.

DILUTION WATER QUALITY: If dilution water is high in total mineral content, salinity, suspended solids and/or exhibits any other factors that reduce the solubility of this product, then first dissolve OBRONA in an appropriate volume of "clean water" such as municipal tap water. Pour the dissolved OBRONA solution into the dilution water for the spray (see step 1 of "Mixing Instructions").

DILUTION WATER QUANTITY: If 1 ounce of OBRONA is diluted in more than 35 gallons of chlorinated water (e.g., municipal water), add a labeled water treatment product such as sodium sulfite, sodium bisulfite, or sodium metabisulfite to remove excess chlorine before adding this product. Consult your Wilbur-Ellis Company representative if you need further directions on water treatment.

RAIN: Do not apply during rain. Reapplication is not necessary if the spray has dried before rain begins.

STRESSED PLANTS: Plants must be actively growing at the time of foliar applications. Applications made to plants that are stressed by extreme heat, cold, moisture, or nutrient deficiency can be less effective.

SPRAY DRIFT: Avoiding spray drift at the application site is the responsibility of the applicator. The interactions of many equipment- and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering these factors when making decisions.

MIXING INSTRUCTIONS

Step 1. Fill at least one-half of the mix tank with clean water. Provide gentle agitation.

Step 2. If 1 ounce of OBRONA is diluted in more than 35 gallons of chlorinated water, add a labeled dechlorination water treatment product (such as sodium sulfite, sodium bisulfite, or sodium metabisulfite) and continue gentle agitation (see Use Precautions on "Dilution Water Quantity").

Step 3. If dilution water quality is suspect, dissolve OBRONA in clean water before adding to the mix tank (see Use Precautions on "Dilution Water Quality"). Add the required amount of this product. Agitate until dissolved and avoid excessive foaming.

Step 4. If tank mixing, add other materials to the mix tank. Add remaining water to mix tank.

Step 5. Continue gentle agitation and apply promptly.

APPLICATION INSTRUCTIONS

Apply OBRONA as a pre-transplant foliar dip, root dip, or as a foliar application.

Pre-Plant Dip: Apply this product as a pre-plant foliar dip or root dip to vegetable crops (e.g., cucurbit and cole vegetables), ornamentals, tobacco, and small fruit crops at the rate of 1-3 oz per 100 gallons of water immediately prior to transplanting. Wash transplants to remove excess soil prior to dipping. Completely immerse planting stock in solution. Dip, soak, or expose plants for a minimum of 2 to 5 minutes. DO NOT reuse dip solution. Dispose of dip solution according to local restrictions. Plant treated plants as quickly as possible. For continued crop management, follow with foliar applications of this product as specified in the tables that follow.

Foliar Application: Apply this product as a greenhouse or field application using conventional ground or aerial equipment. Use this product as part of an integrated pest management (IPM) program to assist disease management.

Application via Sprinkler or Drip (Trickle) Chemigation Systems: Apply this product only through sprinkler (including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move) and drip (trickle) irrigation systems. Do not apply this product through any other type of irrigation system. Crop injury and lack of effectiveness can result from non-uniform distribution of treated water. If you have questions about your system's calibration, you should contact State Extension Service

Specialists, equipment manufacturers or other experts. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Sprinkler Chemigation System Requirements: The system must contain a functional check valve, vacuum relief valve and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back-flow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch that will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. Do not apply when wind speed favors drift beyond the area intended for treatment. Apply product continuously for the duration of the water application.

Drip (Trickle) Chemigation System Requirements: The system must contain a functional check valve, vacuum relief valve and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back-flow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch that will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. Apply product continuously for the duration of the water application.

CROPS AND APPLICATION RATES

Use the following tables to make decisions on application rates and timing. Follow applicable specifications for your crop.

BERRIES AND SMALL FRUIT			
CROP	**RATE** (Oz/Acre)	**DILUTION** (Gal/Acre)	**TIMING**
BERRIES AND SMALL FRUIT All Types	1-3	10-200 by ground 2-50 by air	Begin applications when plants are established or 14 days after full leaf emergence. Repeat at 21- to 28-day intervals as needed. For fall-transplanted strawberries, resume applications in spring.

FIELD CROPS			
CROP	**RATE** (Oz/Acre)	**DILUTION** (Gal/Acre)	**TIMING**
CEREAL GRAINS All crops	0.5-3	5-200 by ground 2-50 by air	Winter Wheat: Apply beginning at new growth and at flag leaf. Spring Wheat: Apply at 3-5 leaf and flag leaf.
CORN (Grain, Silage, Seed or Pop)			Apply at V-3 to V-6 stage and / or V-T stage.
COTTON			Apply at first true leaf, first bloom, and 21 days after first bloom to boost overall growth and production. For suppression of pests, begin applications prior to infestation and repeat at 21-day intervals.
FORAGE CROPS (Grass, Hay, Nongrass)			Apply at 21- to 28-day intervals, beginning after new growth commences and at cutting. For newly seeded crops, begin at first true leaf.
OILSEED CROPS All crops (i.e. Canola, Sunflower)			For canola, apply at bolting and 20% flower. For sunflower, apply the first application between stage V-6 to V-8 and repeat when the terminal bud forms (R1 stage).
SOYBEAN			Begin applications at first bloom followed by a second application 21 to 28 days after the first application.
SUGAR BEETS			Apply the first application prior to disease infection, then repeat applications in combination with the normal fungicide program.
SUGARCANE			Apply after new growth commences. Repeat at 28- to 35-day intervals as needed.

GRASSES GROWN FOR SEED			
CROP	**RATE** (Oz/Acre)	**DILUTION** (Gal/Acre)	**TIMING**
FORAGE GRASSES **TURF GRASSES**	0.5-3	10-200 by ground 2-50 by air	Apply at 21-day intervals, beginning 14 days after full emergence.

SPECIALTY CROPS			
CROP	**RATE** (Oz/Acre)	**DILUTION** (Gal/Acre)	**TIMING**
ALOE **BANANA** **COFFEE** **FIGS** **HERBS** (All Types) **MANGO** **MINT** Peppermint Spearmint **PAPAYA** **PINEAPPLE**	1-3	10-200 by ground 2-50 by air	Apply at 21- to 28-day intervals, beginning 7 days after new growth/new spring growth is initiated.

TREES AND VINES			
CROP	**RATE** (Oz/Acre)	**DILUTION** (Gal/Acre)	**TIMING**
AVOCADO	1-3	10-200 by ground 2-50 by air	Apply at 21- to 35-day intervals, beginning before bloom initiation.
CITRUS			For tree establishment: Apply on 21-day schedule during active growth. For fruit set and sizing: Apply at First Flush, Petal Fall and 30 days later or with 1st Summer Oil application. For retention and color: Apply at 30 and 15 days before harvest.
POME FRUIT Apple Pear			Apply at pink bud, petal fall, 30 and 7 days prior to harvest.
STONE FRUIT			Apply 2 pre-bloom sprays, once at new growth and again 7-10 days later. Follow with post-bloom sprays at 21-day intervals.
TREE NUTS Almonds Walnuts			Almonds: Apply at pink bud, early leaf out, after pit hardening, hull split and post-harvest. Walnuts: Apply at leaf out, after flowering, at shell and kernel development (approx. 30-45 days after flowering), 21-28 days after kernel development and post-harvest.
TREES Broadleaf Conifer			Apply after complete emergence.
VINE CROPS Grapes (Juice, Raisin, Table, Wine) Hops Kiwifruit			Grapes: Apply at pre-bloom, post bloom, berry touch and veraison. Under moderate to heavy disease pressure, optimal results can be obtained by alternating or tank mixing with other products. Hops: Apply at 21- to 28-day intervals, beginning when new shoot growth is present.

TOBACCO			
CROP	**RATE** (Oz/Acre)	**DILUTION** (Gal/Acre)	**TIMING**
TOBACCO All Types	0.5-3	10-200 by ground 2-50 by air	Apply at 14-day intervals, beginning 7 days after transplanting through harvest.

VEGETABLE AND OTHER CROPS			
CROP	**RATE** (Oz/Acre)	**DILUTION** (Gal/Acre)	**TIMING**
PERENNIAL VEGETABLES Asparagus Globe Artichoke	1-3	10-200 by ground 2-50 by air	Apply as a foliar spray at 21- to 28-day intervals, beginning at new growth.
POTATO			Apply at tuber initiation. Repeat applications as needed every 21-28 days.
POTATO Seed production			Apply at first hook and repeat applications as needed every 21-28 days.
OTHER ROOT AND TUBER VEGETABLES All crops			Apply at 21- to 28-day intervals, beginning at new growth.
OTHER VEGETABLES (Bulb, Cole, Cucurbit, Fruiting, Leafy, Legume) All crops			Begin applications at first new growth and repeat at 21- to 28-day intervals.
SWEET CORN (Fresh or Seed)	0.5-3		Apply at V-3 to V-6 stage and / or V-T stage.

TURF AND ORNAMENTALS			
CROP	**RATE** (Oz/Acre)	**DILUTION** (Gal/Acre)	**TIMING**
ORNAMENTALS	1-3	10-200 by ground 2-50 by air	Apply at 14- to 21-day intervals, beginning 7 days after transplant and/or potting/repotting or once plants have initiated bud/leaf or fully leafed out. For roses, begin applications 7 days after grafted cuttings are planted and continuing at 14- to 21-day intervals.
TURF GRASSES All Types Golf Courses Sod Farms	0.5-3		Begin applications when plants are established or 14 days after full emergence. Repeat at 28- to 35-day intervals.

GREENHOUSE AND TRANSPLANT APPLICATIONS		
USE SITE & CROP	**RATE**	**TIMING**
Greenhouse Any Crop Listed Elsewhere on This Label	1-3 oz per 100 gal water	Apply overhead applications after seedling emergence. Repeat every 14-21 days.
Transplant Any Crop Listed Elsewhere on This Label		Apply 5-7 days before transplanting. Can also be applied as a plant drench at transplanting.

PRE-HARVEST APPLICATIONS FOR POST-HARVEST BENEFITS			
CROP	**RATE** (Oz/Acre)	**DILUTION** (Gal/Acre)	**TIMING**
Any Crop Listed Elsewhere on This Label	1-3	20-200 by ground 2-50 by air	Apply 1-14 days before harvest. If no previous applications of OBRONA have been made, use higher rates.

FOLIAR NUTRIENT APPLICATIONS			
CROP	**RATE** (Oz/Acre)	**DILUTION** (Gal/Acre)	**TIMING**
Any Crop Listed Elsewhere on This Label	1-3	5-200 by ground 2-50 by air	Apply with foliar fertilizer applications at a rate of 1 oz OBRONA per 5 lb foliar fertilizer.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: Keep product away from exposure to air, sunlight, moisture, or heat. Do not store in temperatures over 110°F for more than 7 days. Use product within 3 weeks of opening and the same day as mixing.

Pesticide Disposal: Wastes resulting from use of this product must be disposed of on site or at an approved waste disposal facility.

Container Handling: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Conditions of Sale and Limitation of Warranty and Liability:

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using the product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

ALL STATEMENTS MADE HEREIN ARE SUBJECT TO APPLICABLE LAW, AND TO THE EXTENT THERE IS ANY INCONSISTENCY OR CONTENTION, APPLICABLE LAW SHALL GOVERN.

The Directions for Use of the product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of many different factors including, without limitation, manner of use or application, weather, combination with other products, or crop conditions. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Manufacturer and Seller harmless from any claims relating to such factors.

Seller warrants that this product conforms to the chemical description on the label. EXCEPT FOR THIS WARRANTY, THE PRODUCT IS FURNISHED "AS-IS", AND NEITHER SELLER NOR MANUFACTURER MAKES ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, WITH RESPECT TO THE SELECTION, PURCHASE OR USE OF THIS PRODUCT; SELLER AND MANUFACTURER SPECIFICALLY DISCLAIM ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE BEYOND WHAT IS STATED ON THE LABEL. Buyer and User accept all risks arising from any use of this product, including without limitation, uses contrary to label instructions, or under conditions not reasonably foreseeable to (or beyond the control of) Seller or Manufacturer.

Neither Manufacturer nor Seller shall be liable for any incidental, consequential or special damages resulting from the use or handling of this product. THE EXCLUSIVE REMEDY OF THE BUYER OR USER, AND THE EXCLUSIVE LIABILITY OF MANUFACTURER AND SELLER, FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THIS PRODUCT, OR, AT THE ELECTION OF MANUFACTURER OR SELLER, THE REPLACEMENT OF THE PRODUCT.

These Conditions of Sale and Limitation of Warranty and Liability shall be interpreted, unless otherwise required by the law of the state of purchase, in accordance with the laws of the State of California, excluding its conflicts of laws rules, and may not be amended by any oral or written agreement.

PHC: 20230406
2024-0227

WILBUR-ELLIS.

Manufactured for:
WILBUR-ELLIS COMPANY LLC
2903 S. Cedar Ave., Fresno, CA 93725 • (559) 442-1220

GROUP **BM 02** FUNGICIDE

FUNGICIDE

OBRONA™

ACTIVE INGREDIENT:

PDHP 25279	1.0%
OTHER INGREDIENTS:	99.0%
Total:	100.0%

EPA Reg. No. 71771-14-2935

EPA Est. No. 88746-GA-1

KEEP OUT OF REACH OF CHILDREN

CAUTION / PRECAUCIÓN

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail.)

Read the entire label before using this product. Read Conditions of Sale and Limitation of Warranty and Liability before buying or using. If terms are not acceptable, return at once unopened.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if inhaled. Avoid breathing dust or spray mist. Remove and wash contaminated clothing before reuse.

FIRST AID

If inhaled	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.

HOT LINE NUMBER: Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency medical treatment information, call the National Pesticide Information Center at 1-800-858-7378, 6:30 AM to 4:30 PM Pacific Time, seven days a week. During other times, call the poison control center at 1-800-222-1222.

ENVIRONMENTAL HAZARDS

For terrestrial uses: Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash waters or rinsate.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: Keep product away from exposure to air, sunlight, moisture, or heat. Do not store in temperatures over 110°F for more than 7 days. Use product within 3 weeks of opening and the same day as mixing.

Pesticide Disposal: Wastes resulting from use of this product must be disposed of on site or at an approved waste disposal facility.

Container Handling: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

See attached booklet for Directions for Use.

WILBUR-ELLIS.

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2024-0227

NET WEIGHT: 5 lb

11d

EPA Announces Changes to Pesticide Data Submission Process to Increase Efficiency and Reduce Burden

Released on April 3, 2025

The U.S. Environmental Protection Agency (EPA) is announcing improvements to simplify the process for companies submitting data to the agency as part of a pesticide registration package. This improvement will also make the agency's processing of this information more efficient. Streamlining this process, while partnering with industry to safeguard human health and the environment, reduces burden for both companies and EPA, supporting Administrator Zeldin's Pillar Three of Powering the Great American Comeback initiative to advance permitting reform, cooperative federalism, and cross-agency partnership.

Companies are required to submit a document called a "data matrix" form when their pesticide registration packages contain cited data from outside sources. Currently, companies must submit two versions of the data matrix form (in either paper or electronic format): one for internal agency use and one with reference data redacted for public use. However, in the interest of reducing burden, and since no information on the form is Confidential Business Information, the agency determined that there is no need for a redacted version and is now only asking for one unredacted version of the form to be used for both internal and public use. Additionally, EPA will no longer accept paper submissions of this form and will only accept this information via a web-based portal.

Further detailed instructions for how to complete and submit the revised forms will be available in the updated Pesticide Registration Manual.

Read EPA's Revised Procedures for Pesticide Registration Data <https://epa.gov/pesticide-registration/prn-2025-1-revised-procedures-citing-data-support-pesticide-registrations>

Last updated on April 3, 2025

11e

EPA Announces Multiple Actions to Protect Endangered Species from Insecticide Carbaryl

Released on April 9, 2025

Today, the U.S. Environmental Protection Agency (EPA) is announcing that it has approved labels that implement measures required by the National Marine Fisheries Service (NMFS) final biological opinion and is providing to the public the U.S. Fish and Wildlife Service (FWS) final biological opinion on carbaryl.

Carbaryl is an insecticide used on a variety of crops, including field vegetables and orchard crops, in professional turf management, professional ornamental production, and in residential lawn and garden markets.

EPA's 2021 biological evaluation for carbaryl determined that use of the pesticide according to label instructions was "likely to adversely affect" at least one animal or plant for 1,640 listed species and 736 designated critical habitats. EPA initiated formal consultation with NMFS and FWS (the Services) and, in response, both Services developed biological opinions for carbaryl.

The NMFS and FWS biological opinions were issued after completing consultation with EPA on the registration review of carbaryl and the effects of the insecticide on federally threatened or endangered (listed) species and their designated critical habitats.

National Marine Fisheries Service Biological Opinion Implementation

During consultation with NMFS, carbaryl registrants agreed to amend their product labels and registrations to include mitigations that would avoid potential jeopardy or adverse modification to the listed species and critical habitats identified in the NMFS biological opinion.

The newly approved labels for carbaryl products will now:

- Include mitigations which would reduce runoff and spray drift from treated areas into species' habitats,
- Describe how to report any ecological incidents associated with carbaryl applications,
- Include application prohibitions, restrictions, and rate reductions, and
- Direct the user to the Endangered Species Protection Bulletins using the Bulletins Live! Two (BLT) website to identify additional carbaryl mitigations in geographically-located areas.

Fish and Wildlife Service Final Biological Opinion

FWS determined in its draft biological opinion that use of carbaryl was likely to jeopardize 78 listed species and adversely modify 14 critical habitats when used as currently registered. After the draft BiOp was issued, EPA worked with FWS and carbaryl registrants to identify additional mitigation measures to reduce exposure to listed species and avoid the above-mentioned jeopardy. With the release of the final FWS biological opinion, EPA will work with the registrants to implement the measures described in the final biological opinion.

As stated in the FWS final biological opinion, EPA will request that carbaryl registrants submit amended labels to EPA reflecting the mitigations identified by the final biological opinion and by the registration review Interim Decision (ID) within 60 days of the issuance of the carbaryl ID. The carbaryl ID is currently scheduled for completion in late 2025.

Last updated on April 9, 2025