THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS

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MDAR MASSACHUSETTS DEPARTMENT OF AGRICULTURAL RESOURCES

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**PESTICIDE BOARD SUBCOMMITTEE MEETING MINUTES**

March 21, 2023

Zoom Meeting at: https://us06web.zoom.us/j/81005128274?pwd=OXRaTCtBbHNSVEZhbjhvREZuU0xJUT09
Passcode: 956306

**BOARD MEMBERS IN ATTTENDANCE**

| | |
|---|---|
| Michael Moore, DPH, Food Protection Program (Chair) | Present |
| Hotze Wijnja, Ph.D., MDAR, Designee for Commissioner Lebeaux | Present |
| Marc Nascarella, DPH, Designee for Commissioner Cooke | Present |
| Nicole Keleher, DCR, Designee for Commissioner Cooper | Absent |
| Richard Berman, Commercial Applicator | Present |

The Board did meet or exceed the minimum number (3) of members present to form a quorum and conduct business.

## A. REVIEW OF MINUTES FROM the February 21, 2023, meeting

**Motion:** that the Pesticide Board Subcommittee approves the meeting minutes for the meeting on February 21, 2023.

**Motion**: R. Berman
**Second:** H. Wijnja
**Discussion:** None
**In Favor:** M. Moore, R. Berman, M. Nascarella, H. Wijnja
**Opposed:** None
**Abstained:**

## B. PRODUCT REGISTRATIONS

**Motion:** That the Pesticide Board Subcommittee registers the pesticide products listed on the EIPAS PR March 21, 2023 Subcommittee cover sheet with the exception of the following products:

1. Sulfentrazone 4F Herbicide, EPA Reg. No. 42750-357-55467;
2. Dicamba/2,4-D DMA, EPA Reg. No. 66222-302;
3. Lalguard M52 GR, EPA Reg. No. 64137-31, and
4. Lalguard M52 OD, EPA Reg. No. 64137-33.

**Motion**: R. Berman
**Second:** M. Nascarella
**Discussion:** None
**In Favor:** M. Moore, R. Berman, M. Nascarella, H. Wijnja

**Opposed:** None
**Abstained:**

**STATE RESTRICTED USE MOTIONS**:

**Restricted Use As Defined under the Groundwater Protection Regulations**:

**Motion**: That the Pesticide Board Subcommittee has determined that the use of the following product

1. Sulfentrazone 4F Herbicide, EPA Reg. No. 42750-357-55467, containing sulfentrazone

May cause an unreasonable risk to man or the environment, when taking into account the economic, social, and environmental costs and benefits of their use. This determination is based upon the leaching potential and toxicological concern of this substance as defined in the "Protection of Groundwater Supplies from Non-Point Source Pesticide Contamination" Regulations. Therefore, the Subcommittee hereby modifies the registration classification of agricultural/commercial pesticide products containing ***sulfentrazone*** from general to restricted use for groundwater concerns.
**Motion**: R. Berman
**Second:** H. Wijnja
**Discussion:** None
**In Favor:** M. Moore, R. Berman, M. Nascarella, H. Wijnja
**Opposed:** None
**Abstained:**

2,4-Dichlorophenoxyacetic Acid (2,4-D) Motion:

**Move**: That the Pesticide Board Subcommittee has determined that the use of the following product:

1. Dicamba/2,4-D DMA, EPA Reg. No. 66222-302, containing 36 % 2,4-D;

as restricted use pursuant to the Subcommittee's decision on April 14, 1989, to register products containing 20% or more of **2,4-dichlorophenoxyacetic acid (2,4-D)** and/or its derivatives as state restricted use.

**Motion**: R. Berman
**Second:** H. Wijnja
**Discussion:** None
**In Favor:** M. Moore, R. Berman, M. Nascarella, H. Wijnja
**Opposed:** None
**Abstained:**

**C. Special Local Needs (SLN) Amendment Request:** The Pesticide Board Subcommittee will consider the request for amendment of the existing FIFRA Section 24 (c) Special Local Need registration for control of haircap moss in Cranberry (SLN No. MA-200001) to replace the current SLN under the brandname Zeus XC with Spartan 4F Herbicide (EPA Reg No 279-3220; a.i. sulfentrazone).

Wijnja briefly introduced amended Special Local Need registration. One is an amendment of an existing SLN, both are for use in cranberry growing. The amended SLN was first registered in the year 2020, for use of Zeus XC in cranberry bogs to control Haircap Moss weeds, registrant applied for amendment to replace the brand name, Zeus XC with spartan 4F Herbicide, meeting package have material to support this request, the current SLN label expires on December 31, 2024. What changing is the new product will appear on the new SLN label.

Hillary Sandler, UMass Cranberry Station, was in attendance and provided additional information in support of this SLN amendment request. This special local need amendment is primarily an administrative process to reflect the

fact that the registrant is consolidating its product line. Relative to the special local need, sulfentrazon is the only compound that effectively controls moss, which is becoming a very significant weed issue on multiple cranberry bogs. Therefore, this product is an important tool for MA cranberry growers and this SLN would allow growers to continue using sulfentrazone for moss and some other weed control as well.

**Move:** That the Pesticide Board Subcommittee hereby approves the amendment of the existing FIFRA Section 24(c) Special Local Need registration for control of haircap moss in cranberry (SLN No. MA-200001) to replace the current SLN under the brand name Zeus XC with Spartan 4F Herbicide (EPA Reg No 279-3220).

**Motion**: R. Berman
**Second:** M. Nascarella
**Discussion:** None
**In Favor:** M. Moore, R. Berman, M. Nascarella, H. Wijnja
**Opposed:** None
**Abstained:**

**D. Special Local Needs (SLN) Registration Request: The Pesticide Board Subcommittee will consider the FIFRA Section 24(c) Special Local Needs application for the use of Cutrine Plus (EPA Reg. No. 67690-93, a.i. copper ethanolamine complex) to control algae in late water floods on MA cranberry farms**

Wijnja briefly introduced new Special Local Need registration for the use of Cutrine Plus, a copper-based product to control algae in late floods on cranberry bogs in Massachusetts. Meeting package included material to support the request of the SLN.

Hillary Sandler, UMass Cranberry Station, was in attendance and provided additional information in support of this new SLN request. The reason for this SLN request is to provide clarity regarding the labeling for the use of the product in late water floods on cranberry bogs. The section 3 product label does not provide specific language that for this use in late water floods nor does it specifically prohibit such use. UMass Cranberry Extension seeks clarity in labeling and thereby provide regulatory clarity such that this product can continue to be recommended as a control method for algae in late water floods. Late water flood (LWF) is a flood that usually goes on around mid-April for about 30 days. This is a practice that provides pest management benefits and has been used for decades by MA cranberry growers. The registrant supports the SLN registration in order to provide regulatory clarity for this use.

Nascarella inquired about the types of algae that occur in the late water floods and wondering if the LWF practice was coupled with identification of algae species. Sandler suspects that is may by hydrilla but mentioned that the registrant is going to sample several bogs and do identification of the algae species. Nascarella also asked if the berries from treated bogs were salable. Sandler indicated that there were no restrictions for the sale and human consumption of berries from treated bogs.

Nascarella asked about whether MassDEP weighed in relative to this application of a copper product to a flooded bog given that similar applications to lakes and ponds require a MassDEP permit. Sandler indicated that a temporarily flooded agricultural land, including cranberry bogs, are not considered a pond or lake and therefore are not subject to a permit from MassDEP. Nascarella raised this aspect the context of cyano bacteria blooms in surface waters are frequently occurring problem in the southeastern area of the state. Copper treatment in a water body with a cyano bacterial bloom would release toxins and could pose risks. While the situation in a cranberry bog is different from a public water body, it would still be prudent to assess the situation in cranberry bogs in terms of knowing the type algae that are present. One would want to prevent the release of cyano toxins in a flooded cranberry bog. Hillary pointed out that the planned algae identification will provide valuable data in this context. Nascarella indicated that possible collaboration with the health department could offer an additional option to identify algae and determing whether cyano bacterial blooms occur in flooded bogs. Thereby, additional protection from the cyano bacterial bloom risks.

**Move:** That the Pesticide Board Subcommittee hereby approves the FIFRA Section 24(c) Special Local Needs registration for the use of Cutrine Plus (EPA Reg. No. 67690-93, a.i. copper ethanolamine complex) to control algae in late water floods on MA cranberry farms.

**Motion**: R. Berman
**Second:** H. Wijnja
**Discussion:** None
**In Favor:** M. Moore, R. Berman, M. Nascarella, H. Wijnja
**Opposed:** None
**Abstained:**

**E. Discussion of new active ingredient *Metarhizium brunneum* strain F52, formulated in LALGUARD M52 GR (EPA Reg. No. 64137-31) and LALGUARD M52 OD (EPA Reg. No. 64137-33), and labeled for use in nurseries to control insects in ornamentals and certain vegetables, and for use on residential and institutional lawns and landscape perimeters.**

Miller gave an overview of two products, LALGUARD M52 GR (EPA Reg. No. 64137-31) and LALGUARD M52 OD (EPA Reg. No. 64137-33), both containing the same new active ingredient. This new microbial active ingredient is *Metarhizium bunneum* strain F52, referred to as Met52 here, where the *brunneum* species was formally known as a*nisopliae.*

The Met52 concentrations in these LALGUARD products have a minimum of 600 million and 2 billion colony forming units per gram, respectively. The active ingredient content ranges from 2% to 11% of the formulations, with the rest classified as trade secrets. LALGUARD M52 OD is a fluid that contains over 50% petroleum distillates. LALGUARD M52 GR is a granular product with Met52 grown on rice grains that decompose in the treated growing medium.

Met52 is a fungus that is pathogenic to certain insects, mites, and ticks. It found naturally in soil, river sediments, and as a saprophyte on organic detritus. Most of the known insect hosts are from the weevil and click beetle families. Met52 works by its spores attaching to surface of insect. After germination, it moves inside the insect and causes death in 3 to 7 days. The mode of action classification for this new active ingredient is UNF ('Fungal agents of unknown or uncertain mode of action').

Handling requirements for both products are standard for microbial ingredients. Label language requires handlers wear Personal Protective Equipment (PPE) in the form of skin covering, which includes waterproof gloves and NIOSH-approved particulate air purifying respirators. The OD product label specifies gloves be barrier laminate, nitrile, or Viton. The Restricted Entry Interval (REI) into treated areas is 4 hours for the fluid OD product and 12 hours for the GR unless incorporated into the soil where there will be no contact with any treated material. In that case, the REI for both products is zero. The labels state these products are only for terrestrial use and should not be applied directly to water or in areas where surface water is present. The OD product can be applied as a spray, so applicators are advised to use it in calm weather and not within 24 hours of precipitation to prevent runoff.

The granular GR product is labeled for use as a nursery plant mix to target insect pest larvae and pupae, particularly wireworms, for a limited number of food crops. These include onion, celery, lettuce, spinach, peppers, and tomatoes. It also has allowed uses on fruit crops relevant in Massachusetts: grape, strawberry, cranberry, raspberry, and blackberry. Other nursery plant types with permitted use are ornamental shrubs, vines, trees, grasses, and bedding plants. All soil mix label application rates are 1.5 to 3 pounds per cubic yard of soil. In the case of turf, the target pest is ticks with broadcast application rates of 1 to 3 pounds per 1000 cubic feet of area. The OD product can be applied as a foliar application or a soil drench. Label language specifically prohibits use on flooded cranberry fields.

Human health risk assessment: The mammalian acute oral exposure study submitted to EPA resulted in classification as Toxicity Category IV (the lowest category, or 'practically nontoxic'). This was based on a rat study where the LD50 for a Met52-containing oil was higher than 5000 mg Met52 per kilogram body weight. Met52 is

Category III for acute pulmonary toxicity/pathogenicity as well as for acute dermal irritation and acute eye irritation studies. The acute inhalation study and primary dermal studies were waived due to the low potential exposure from the proposed uses of strain F52 as a pesticide and previous study findings already mentioned.

Due to the low toxicological concern associated with Met52, EPA established a tolerance exemption for residues on food. EPA has concluded that non-occupational and residential exposure to human adults, children, and infants is not likely to be greater than what already exists from the naturally occurring microbe when the pesticide is used according to label instructions.

Environmental Risk: Met52 is classified as practically nontoxic to mammals. An avian oral toxicity study showed the LD50 for quail was greater than the maximum dose of 350 million colony forming units per gram body weight per day. Met52 is not harmful to earthworms or beneficial insects such as lady beetles, green lacewings, parasitic wasps, and honey bees at the highest dose tested. However, until risks to endangered non-target insects are assessed, outdoor applications are limited to agricultural areas as well as turf spaces that are residential and institutional in urban and suburban settings only. Exposure to non-target plants is expected with foliar sprays and may cause drift. However, Met52 is not a known plant pathogen and adverse effects to nontarget plants have not been reported.

Laboratory studies observed some toxicity and pathogenicity to immature aquatic vertebrate and invertebrate species. EPA will require additional hazard assessments prior to any registration for aquatic applications or any use with additional freshwater fish exposure.

EPA notes that Met52 is found to have lower toxicity potential than common alternative insecticides (carbamates and pyrethrins) for its proposed uses.

*Metarhizium brunneum* str. F52 does not meet the criteria for being classified as a potential groundwater contaminant in Massachusetts.

**Move:** that the Pesticide Board Subcommittee approve the product registrations for LALGUARD M52 GR, EPA Reg. No. 64137-31, and LALGUARD M52 OD, EPA Reg. No. 64137-33, containing the new active ingredient *Metarhizium brunneum* (formerly *Metarhizium anisopliae*) strain F52, which has never before been registered in Massachusetts.

**Motion**: R. Berman
**Second:** M. Nascarella
**Discussion:** None
**In Favor:** M. Moore, R. Berman, M. Nascarella, H. Wijnja
**Opposed:** None
**Abstained:**

**NEW BUSINESS**

No new business reported.

**ADJOURN**
**Motion**: To adjourn the March 21, 2023, Subcommittee Meeting.
Moved: M. Nascarella
Second: R. Berman
Discussion: None
In Favor: M. Moore, H. Wijnja, R. Berman, M. Nascarella
Opposed: None
Abstained: None