

# THE COMMONWEALTH OF MASSACHUSETTS

EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS



## Department of Agricultural Resources

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### PESTICIDE BOARD SUBCOMMITTEE MEETING MINUTES

April 23, 2024

Meeting to be held via remote participation: Join Zoom Meeting at:

<https://us06web.zoom.us/j/89861136047?pwd=yzcFBZheaaOMTaHCF7Su9c78Vd3HNk.1>

Passcode: 046574

#### BOARD MEMBERS IN ATTENDANCE

Michael Moore, DPH, Food Protection Program	(Chair)	Present
Taryn LaScola, MDAR, Designee for Commissioner Randle		Present
Meg Blanchet, DPH, Designee for Commissioner Goldstein		Present
Nicole Keleher, DCR, Designee for Commissioner Arrigo		Present
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 FOR FEBRUARY 20, 2024

**Motion:** R. Berman

**Second:** N. Keleher

**Discussion:** None

**In Favor:** M. Blanchet, R. Berman, T. LaScola, N. Keleher, M. Moore

**Opposed:** None

**Abstained:** None

#### B. PRODUCT REGISTRATIONS

**Motion:** That the Pesticide Board Subcommittee registers the pesticide products listed on the EIPAS PR April 23, 2024, Subcommittee cover sheet with the exception of the following products:

- Fertilizer W/Merit 0.2%, EPA Reg. No. 101563-76-52287,
- Turonyx Ultra Ready to Spray, EPA Reg. No. 91234-296,
- 21-0-4 Fertilizer with GRUBOUT Insecticide, EPA Reg. No. 9198-236,
- TRIAD SFZ SELECT, EPA Reg. No. 89442-39-101563,
- TRIAD T, EPA Reg. No. 89442-56-101563, and
- Salibro, EPA Reg. No. 352-932.

**Moved:** R. Berman

**Second:** T. LaScola

**Discussion:** None

**In Favor:** T. LaScola, N. Keleher, R. Berman, M. Blanchet, M. Moore

**Opposed:** None

**Abstained:** None

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

- TRIAD SFZ SELECT, EPA Reg. No. 89442-39-101563, containing MCPA and 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 these 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 MCPA and sulfentrazone from general to restricted use for groundwater concerns.

**Moved:** R. Berman

**Second:** T. LaScola

**Discussion:** None

**In Favor:** T. LaScola, N. Keleher, R. Berman, M Blanchet, M. Moore

**Opposed:** None

**Abstained:** None

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

- 21-0-4 Fertilizer with GRUBOUT Insecticide, EPA Reg. No. 9198-236, containing imidacloprid,
- Turonyx Ultra Ready to Spray, EPA Reg. No. 91234-296, containing imidacloprid, and
- Fertilizer W/Merit 0.2%, EPA Reg. No. 101563-76-52287, containing imidacloprid,

may pose unreasonable adverse effects to the environment as well as to pollinators, when taking into account the economic, social, and environmental costs and benefits of their use in the Commonwealth and are thereby restricted. This is pursuant to the Subcommittee's decision on March 1, 2021, to modify the registration classification of products containing neonicotinoids, including *imidacloprid*, that have outdoor non-structural uses or outdoor non-agricultural uses on the label from general to state restricted use.

**Moved:** R. Berman

**Second:** N. Keleher

**Discussion:** None

**In Favor:** M. Moore, T. LaScola, M. Blanchet, N. Keleher, R. Berman

**Opposed:** None

**Abstained:** None

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

- TRIAD T, EPA Reg. No. 89442-56-101563, containing 2,4-D dimethylamine salt at 30.89%, be categorized 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.

This product would also be classified as State Restricted Use for groundwater concerns due to its containing MCPA and labeled for agricultural and commercial use patterns.

**Moved:** R. Berman

**Second:** N. Keleher

**Discussion:** None

**In Favor:** M. Moore, T. LaScola, M. Blanchet, N. Keleher, R. Berman

**Opposed:** None

**Abstained:** None

### **C. NEW ACTIVE INGREDIENT**

Discussion of registration approval for the product Salibro®, EPA 352-932, containing the new active ingredient fluazaindolizine, a nematicide for control of plant-parasitic nematodes in commercial agricultural establishments. Labeled crop uses include carrots, cucurbit vegetables, certain tuberous and corm vegetables, and various nonbearing crops (stone fruits, nut trees, grapes).

Miller gave an overview of the product Salibro® with new active ingredient fluazaindolizine (technical fluazaindolizine is known as Reklamel™). The active ingredient is approximately 41% of the formulation, which is a suspension concentrate for dilution with water. The mode of action is currently unknown, but it appears to function as a selective nematicide that makes contact with plant-parasitic nematodes in soil pore water.

EPA's Reduced Risk Committee approved fluazaindolizine as a reduced risk candidate for all label uses, meaning it presents a generally less or equally hazardous ecological and human health profile compared with pesticide alternatives.

### Handling Precautions

The label signal word is 'Caution'. Baseline PPE required consists of long-sleeved shirt, long pants, shoes, socks, and chemical-resistant waterproof gloves. The restricted entry interval (REI) is 12 hours after treatment, though early entry is permitted if PPE is worn.

Salibro® is labeled for agricultural use only for carrots, cucurbit vegetables, fruiting vegetables, non-bearing citrus fruit, non-bearing stone fruit, non-bearing tree nut, and non-bearing small vine climbing fruit crops. The maximum annual application rate is generally up to 2 pounds/acre for vegetables and 4 pounds/acre for vines and trees. All applications must be made to the soil and incorporated immediately after application to a depth of at least 2 inches by mechanical means or water.

The label requires a 25-foot in-field downwind buffer from any non-target area when applying via broadcast spray and no overhead chemigation or aerial applications are allowed. Chemigation is permitted by ground or under the canopy. It is also not for use in greenhouses or hydroponic systems. There are no registered residential or homeowner uses.

### Human Health

The human health risk assessments included submitted data on fluazaindolizine and metabolites most relevant to human health. Salibro® as an end-product has a moderate acute toxicity profile (Toxicity Category III for acute oral toxicity. It is classified as having low acute toxicity (IV) for acute dermal toxicity, acute inhalation toxicity, primary eye irritation and primary dermal irritation. It is not a dermal sensitizer.

The target organs identified in mammalian studies were the urinary tract, liver, and gallbladder, as well the system involving blood cells, which was observed in dogs. There was no evidence of increased *in utero* susceptibility in developmental studies. However, a rat reproductive toxicity study indicated increased quantitative susceptibility based on urinary tract tissue lesions in F2 generation weanlings at a *lower* dose than doses resulting in toxicity in parental animals. Because this effect was the most sensitive identified in the database, it was used as the endpoint of concern for assessing chronic dietary and short-to-intermediate-term occupational inhalation exposure.

The dietary exposure estimate for the general US population is 32% of the chronic population adjusted dose ('cPAD'). Infants had the highest exposure estimate at 82% of the cPAD. Drinking water is the primary contributor to the dietary exposure risk estimates. This assessment included conservative modeled drinking water concentrations for groundwater that included all residues of concern and a 3x relative toxicity factor for metabolite INVM862. Overall risk estimates for all population groups are below the EPA Health Effects Division's level of concern. No neurotoxicity was observed and fluazaindolizine was determined 'Not likely to be carcinogenic to humans', so a quantitative cancer risk assessment was not required.

Salibro® is not labeled for residential use, so a residential exposure and risk assessment was not conducted. The aggregate risk was taken to be the chronic dietary estimate.

#### Environmental risk assessments and fate/transport properties

Fluazaindolizine and all its major degradates are moderately mobile to mobile in the environment. It is readily soluble in water and several degradates are highly so. They are not individually persistent in terrestrial and aquatic environments but since the degradates are also Residues of Concern, the multiple degradation structures along the various degradation pathways collectively make them more persistent when considered as a group.

For ecotoxicity, fluazaindolizine ranges from practically non-toxic to slightly toxic to aquatic invertebrates when exposure is acute. A chronic toxicity study on freshwater invertebrates showed effects in terms of birth rate, number of offspring, and dry weight. It is practically non-toxic to fish on an acute exposure basis. No effects were observed in chronic freshwater fish toxicity studies. However, EPA will require a chronic mysid study for any future product with use patterns showing greater potential exposure to estuary/marine systems.

Fluazaindolizine is practically non-toxic to birds on an acute oral basis and practically non-toxic to slightly toxic on a sub-acute dietary basis. The most sensitive endpoint for chronic effects to birds was reproduction in a 24-week mallard duck study, where a 9% reduction in live embryos was observed at higher doses. The no-effect level was 319 mg/kg body weight.

On an acute oral basis, fluazaindolizine is classified as slightly toxic to mammals. The lowest observed effect concentration was the 120 milligram-level and showed effects on reproduction in the form of increased late miscarriage in mothers.

Honey bee studies indicate that fluazaindolizine is practically non-toxic, both in acute oral and contact exposure. In chronic oral adults and larval bee studies, the most sensitive endpoints were food consumption and adult emergence. Fluazaindolizine has low toxicity to earthworms and other terrestrial invertebrates in soils, though some degradates have higher toxicity than the parent compound.

Fluazaindolizine toxicity to vascular aquatic plants is low - the No Observed Adverse Effect level in a duckweed study was 4800 micrograms/liter and 585 micrograms/liter for algae on the basis of yield. Toxicity to terrestrial plants is also low. Monocots show more sensitive than dicots, but studies using the technical end product showed no effects on emergence or vegetative vigor.

#### Endangered Species Act

The Salibro label has, under 'Directions For Use', a section called 'ENDANGERED AND THREATENED SPECIES PROTECTION REQUIREMENTS'. It requires users to first obtain any applicable Endangered Species Protection Bulletins ('Bulletins') within six months prior to or on the day of application. Users are directed to the 'Bulletins Live! Two (BLT)' website and are required to follow all directions and restrictions relevant to the area of application.

No direct effects of fluazaindolizine are expected from label use to ESA-listed fish, aquatic invertebrates, and aquatic plants. A 'No Effect' determination has been made for any listed species or designated critical habitat that does not rely on terrestrial taxa. Label use exposure to non-target terrestrial organisms may result in adverse effects in terms of survival, growth, and reproduction. For non-listed mammalian species, there is potential risk from exposure from parent fluazaindolizine and from the degradate IN-F4106. There is also potential for risk to soil-dwelling invertebrates, but not honey bees. Off-field risk for honey bees exist in the case of broadcast applications, but on-field risks are not anticipated since attractive forage will not be present at the time of application.

#### Groundwater Protection

Pesticide active ingredients that could potentially impact groundwater are placed on the Massachusetts Groundwater Protection list based on their chemical characteristics AND toxicological profiles. Current data indicate that fluazaindolizine meets all of the three criteria for leaching potential, as specified in state

regulations 333 CMR 12.00. However, it is not categorized as a pesticide of Toxicological Concern because it does not have an established lifetime Maximum Contaminant Level (MCL) of less than 20 ppb. It also is not a known or probable human carcinogen.

Therefore, it does not meet the definition of a potential groundwater contaminant in the state of Massachusetts at this time and its proposed use class is 'General Use'.

**Motion:** That the Pesticide Board Subcommittee approve the registration for Salibro, EPA Reg. No. 352-932, containing the new active ingredient fluazaindolizine, which has never before been registered in Massachusetts.

**Moved:** Berman

**Second:** LaScola

**Discussion:** Keleher highlights label groundwater protection language and poses the question as to whether the subcommittee should consider this active ingredient a candidate for the state groundwater protection list despite not meeting the regulatory criteria for automatic list inclusion. Additional discussion by the subcommittee brought up comments and questions related to the current approach and criteria for evaluation of pesticide active ingredients for the groundwater protection list, and the notion that a review and discussion of this approach and criteria is needed. To facilitate this, the Subcommittee would need to consider an overview of the topic and supporting information, including further clarification of the criteria and related technical terms. It was also suggested that it would be helpful to have an overview of the mitigation language that EPA uses on labels to address groundwater concerns.

The subcommittee opts to hold the approval motion in abeyance (tabled to be taken up again at the July 2024 meeting), returning the question of whether this active ingredient should be a candidate for the state groundwater protection list to staff for further review. LaScola proposes amendment of the motion language and Berman formally offers the amended motion:

Motion: Prior to approving the registration for Salibro, EPA Reg. No. 352-932, containing the new active ingredient fluazaindolizine, which has never before been registered in Massachusetts, the Pesticide Board Subcommittee asks MDAR staff to provide further information relative to the groundwater protection criteria.

**Moved:** Berman

**Second:** N. Keleher

**Discussion:** None

**In Favor:** M. Blanchet, T. LaScola, N. Keleher, R. Berman, M. Moore

**Opposed:** None

**Abstained:** None

#### **D. EPA ANNOUNCEMENT ON IMPLEMENTATION OF MITIGATION MEASURES FOR INSECTICIDES CHLORPYRIFOS, DIAZINON, AND MALATHION TO PROTECT ENDANGERED SPECIES**

Staff will inform the Subcommittee on this recent announcement.

Wijnja provided a summary of the EPA announcement on implementation measures to protect federally threatened or endangered (listed) species and their designated critical habitats from the effects of the insecticides chlorpyrifos, diazinon, and malathion. The measures include changes to pesticide labeling requirements and issuing of Endangered Species Protection Bulletins that set geographically specific limitations on pesticide use. Under the Endangered Species Act, EPA is responsible for ensuring that its actions – including many pesticide registration actions -- do not jeopardize listed species or destroy or adversely modify their critical habitats. The process for these assessments includes consultation with National Marine Fisheries Service (NMFS) and/or the U.S. Fish and Wildlife Service. Product labels will be updated to include measures that reduce runoff and spray drift from treated areas into species habitat. EPA is committed to issuing Endangered Species Protection Bulletins, available on the Bulletins Live! Two

website, which set forth geographically specific pesticide use limitations that would protect listed species and their critical habitats. Wijnja also showed some slides to illustrate examples of areas where the Bulletins provide limitations on the use of products.

**E. NEW BUSINESS**

There was no new business brought forward.

**F. ADJOURN**

Motion: To adjourn the April 23, 2024, Subcommittee Meeting.

**Moved:** R. Berman

**Second:** T. LaScola

**In Favor:** M. Blanchet, T. LaScola, N. Keleher, R. Berman, M. Moore

**Opposed:** None