THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS

Department of Agricultural Resources
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MDAR MASSACHUSETTS DEPARTMENT OF AGRICULTURAL RESOURCES

Maura T. Healey, GOVERNOR | Kimberley Driscoll, LIEUTENANT GOVERNOR | Rebecca L. Tepper, SECRETARY | Ashley E. Randle, COMMISSIONER

FPESTICIDE BOARD SUBCOMMITTEE MEETING MINUTES

November 21, 2023
Meeting to be held via remote participation: Join Zoom Meeting at:
https://us06web.zoom.us/j/86843114982?pwd=Q3N5S0JIUXBQQXU5QVJLNW5FVlE1dz09
Passcode: 632573

BOARD MEMBERS IN ATTTENDANCE

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 FROM September 19, 2023

Motion: R. Berman
Second: N. Keleher
Discussion: None
In Favor: N. Keleher, R. Berman, M. Blanchet, T. LaScola
Opposed: None
Abstained: M. Moore

B. PRODUCT REGISTRATIONS

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

1. Omni Brand Metribuzin 4 SC, EPA Reg. No. 5905-612,
2. Notion 2 SC Flex, EPA Reg. No. 91234-328,
3. Maxforce Quantum Ant Bait, EPA Reg. No. 101563-140, and
4. Brandt Nema-Q, EPA Reg. No. 82572-1-48813.

Moved: R. Berman
Second: T. LaScola
Discussion: None
In Favor: T. LaScola, M. Blanchet, N. Keleher, R. Berman, M. Moore
Opposed: None
Abstained: None

C. STATE RESTRICTED USE MOTIONS

Restricted Use as Defined under the Groundwater Protection Regulations:

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

1. Omni Brand Metribuzin 4 SC, EPA Reg. No. 5905-612, containing metribuzin,

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 **metribuzin** from general to restricted use for groundwater concerns.

Moved: R. Berman
Second: N. Keleher
Discussion: None
In Favor: T. LaScola, M. Blanchet, N. Keleher, R. Berman, M Moore
Opposed: None
Abstained: None

Restricted Use Classification for Certain Neonicotinoids Products:

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

1. Notion 2 SC Flex, EPA Reg. No. 91234-328, containing imidacloprid, and
2. Maxforce Quantum Ant Bait, EPA Reg. No. 101563-140, 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: T. LaScola
Discussion: None
In Favor: M. Moore, T. LaScola, M. Blanchet, N. Keleher, R. Berman,
Opposed: None
Abstained: None

D. Reevaluation of Registration Classification: of the product EH-1658 Herbicide, EPA Reg. No. 2217-1078, containing the active ingredient Sulfentrazone, as state-restricted use during the meeting on October 16, 2023.

Wijnja explained the reason for reclassifying EH-1658 Herbicide, EPA Reg. No. 2217-1078, from state restricted use to general use. EH-1658 Herbicide is only labeled for use on residential lawn; therefore it is not considered a product with a wide-area use pattern. The standing policy for the state-restricted use classification of products containing an active ingredient that is on the MA Groundwater Protection List is based on consideration of the use pattern. Only products with a wide-area use pattern, such as agriculture and golf course turf, are state restricted.

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

1. EH-1658 Herbicide, EPA Reg. No. 2217-1078, containing sulfentrazone,

which was classified as state restricted use at the previous October 17, 2023, meeting, be reclassified as general use on the grounds that its label uses are residential rather than commercial/agricultural. Only products containing active ingredients on the Massachusetts groundwater protection list, including **sulfentrazone**, with wide-area commercial and agricultural use patterns are state restricted.

Moved: R. Berman
Second: T. LaScola
Discussion: None
In Favor: M. Moore, T. LaScola, M. Blanchet, N. Keleher, R. Berman
Opposed: None
Abstained: None

E. SPECIAL LOCAL NEEDS REGISTRATIONS, [SLN-24(c)]

Special Local Needs (SLN) Renewal Request: for renewal of the existing FIFRA Section 24(c) Special Local Need registration (SLN No. MA-170002) for the use of Intensity One herbicide (EPA Reg. No. 34704-976) for weed control in cranberry.

Wijnja briefly introduced Special Local Need registration renewal request for the use of Intensity One herbicide (EPA Reg. No. 34704-976) containing the active ingredien*t Clethodim* for weed control in cranberry. This SLN was first registered by the Subcommittee in 2017 to allow chemigation on cranberry in MA. Chemigation is an important aspect of modern cranberry growing operations in MA. The SLN was amended in 2019 to adjust the time window for application to make it more suitable for cranberry growing in MA. The current SLN label expires at the end of the year, which provides an opportunity to

evaluate whether the SLN still exists and renewal of the SLN label is needed.

Hilary Sandler, UMass Cranberry Station, was in attendance and provided additional information in support of this SLN request. Intensity one continues to be a very important tool for cranberry growers for managing a lot of the perennial grass weeds. The SLN label allows application by chemigation which is the primary way many of the growers apply their pesticides. Making the change in adjusting application window helps with buds that are just emerging and this herbicide is most effective when you can apply it when grass is about 6 to 8 inches tall or before they flower. Both amendments to the Section 3 by this SLN continue to provide cranberry grower with a very important tool in controlling grasses on cranberry bogs.

Move: That the Pesticide Board Subcommittee hereby approves the renewal of the existing FIFRA Section 24(c) Special Local Need registration (SLN No. MA-170002) for the use of Intensity One herbicide (EPA Reg. No. 34704-976) for weed control in cranberry.

Moved: R. Berman
Second: T. LaScola
Discussion: None
In Favor: M. Moore, T. LaScola, M. Blanchet, N. Keleher, R. Berman
Opposed: None
Abstained: None

F. NEW ACTIVE INGREDIENT

Discussion of registration approval for the following product containing the new active ingredient saponins of *Quillaja saponaria*, formulated in Brandt® Nema-Q® (EPA Reg. No. 82572-1-48813), and labeled for control of plant parasitic nematodes in vineyards, orchards, field crops, turf, and ornamentals.

Miller gave an overview of product Brandt Nema-Q, a bio-pesticide that targets plant parasitic nematodes. The new active ingredient saponins of *Quillaja saponaria* is 8.6% of the water-soluble liquid formulation.

Saponins of *Quillaja saponaria* are extracted from the log and bark of the soapbark tree, which is native to western South America. The compound belongs to a group of naturally occurring glycosides that form soap-like foams in aqueous solutions. The first pesticide product containing saponins of *Quillaja sapaonaria* as an active ingredient was registered by EPA in 2007. However, EPA notes that Quillaja saponins are currently also used as emulsifiers, flavoring agents, and foaming agents in foods, soft drinks, and beer.

The Nema-Q label signal word is 'Warning' due to risks of eye damage and/or irritation. Baseline personal protective equipment (PPE) is required that fully covers skin as well as chemical-resistant waterproof gloves and protective eyewear. Agricultural workers are prohibited from entering areas without protective clothing during the Restricted Entry Interval (REI) of 24 hours unless the product is soil injected or soil incorporated and there will be no worker contact.

Environmental protection language is standard for water, with no direct applications allowed to water or intertidal areas below the mean high-water mark. There is also language directing avoiding application within 24

hours of rainfall in wet climates to prevent movement of the product beyond the targeted root zone. Drift language exists but does not specify prohibitive wind speeds.

Nema-Q is labeled for use on vineyards, orchards, field crops, turf, and ornamentals. The most relevant crops in Massachusetts would likely be bush and caneberries, strawberries, pome and stone fruits, grapes, a number of vegetables, flowers, woody ornamentals, and turfgrass (including ornamental lawns, sod farms, and golf courses). Application methods allowed by the label are ground spray, shank injection, and chemigation. Rates vary depending on the crop, but the maximum allowed concentration in applied water solutions is 10,000 ppm.

Human health risks associated with saponins of *Quillaja saponaria* are low. The chemical is categorized as Toxicity Category III for acute oral and acute dermal toxicity, and Toxicity Category IV (lowest level, or practically non-toxic) for acute inhalation toxicity and primary dermal irritation. It is not a dermal sensitizer. It is classified as Category I (the highest level of concern) for primary eye irritation and is considered at least a moderate eye irritant, though it was not found to be corrosive.

Scientific rationales were considered sufficient for EPA to grant waivers from mutagenicity, developmental toxicity, and immunotoxicity testing requirements. These were based on humans already being regularly exposed to Quillaja saponins via their uses as FDA-approved flavoring agents and food additives and the lack of observed adverse effects. The active ingredient is not a mutagen or related to any known classes of mutagens. Scientific literature studies indicate Quillaja saponins are not carcinogenic in mice or rats fed up to 2200 mg/kg in the diet.

EPA issued a food tolerance exemption in 2007 based on the very low risk associated with aggregate exposure to residues of this ingredient. EPA has not deemed saponins of *Quillaja saponaria* likely to produce any effect in humans similar to that of a naturally occurring estrogenic substance. It will determine in the future whether it can exempt this ingredient from the requirements of the Endocrine Disruption Screening Program. Its Incident Data System, which contains information dating back to the 1970s, as of 2019 revealed no human incidents associated with this active ingredient. EPA's aggregate exposure risk assessment considered oral, dermal, and inhalation routes and the total risk was found to be negligible. It was determined there is reasonable certainty that no harm to the US population will result from aggregate exposure to residues of saponins of *Quillaja saponaria*.

For environmental hazards, EPA has determined that these saponins are practically non-toxic to birds. The avian chronic dietary lowest observed adverse effect level (LOAEL) was 9000 ppm and the no effects level (NOAEL) was 3000 ppm. The mammalian NOAEL from rat studies is greater than the highest doses used in the studies (2500-3000 mg/kg/day), and no subchronic dietary toxicity is expected.

Two published scientific literature studies of Quillaja saponins in fish diets showed reductions in egg production and higher proportions of males hatching, which may suggest potential teratogenic and/or endocrine effects in fish at high concentrations (i.e. >150 ppm, since the studies themselves were in the 300-700 ppm range) for periods of at least 14 weeks. These lab condition findings have not been replicated. EPA has modeled surface water concentrations resulting from applications and found projected levels to be well below those associated with potential effects on fish. A non-guideline study of shrimp observed significant reductions in growth, feeding, and molting frequency, indicating potential adverse effects on aquatic invertebrates at concentrations of greater than half a ppm if the chronic exposure lasts at least 36 days.

Effects on insects are expected to be minimal since the *Quillaja saponaria* tree beneficially hosts large numbers of insects. However, a lab study on a larval mosquito species observed a 24-hr LC50 of 58 ppm, indicating there could be slight toxicity for aquatic invertebrates. EPA notes that the rapid degradation of this molecule in the environment makes it unlikely that terrestrial applications would affect aquatic species.

No plant toxicity was observed in any of the product efficacy trials conducted by the registrant and EPA notes that saponins are widespread in plants. Overall, EPA finds no concern for non-target organisms when products with this ingredient are applied according to label directions.

Saponins of *Quillaja saponaria* also does not meet the criteria for being classified as a potential groundwater contaminant in Massachusetts.

Move: that the Pesticide Board Subcommittee approve the product registration for Brandt® Nema-Q®, EPA Reg. No. 82572-1-48813, containing the new active ingredient saponins of *Quillaja saponaria*, which has never before been registered in Massachusetts.

G. NEW BUSINESS

There was no new business brought forward.

ADJOURN

Motion: To adjourn the November 21, 2023, Subcommittee Meeting.
Moved: R. Berman
Second: T. LaScola
In Favor: M. Moore, T. LaScola, M. Blanchet, N. Keleher, R. Berman
Opposed: None