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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GOVERNOR	LIEUTENANT GOVERNOR	SECRETARY	COMMISSIONER

PESTICIDE BOARD SUBCOMMITTEE MEETING MINUTES

October 17, 2023
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 THE August 15, 2023, meeting

Motion: that the Pesticide Board Subcommittee approves the meeting minutes for the meeting on August 15, 2023.

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

B. PRODUCT REGISTRATIONS

Motion: That the Pesticide Board Subcommittee registers the pesticide products listed on the EIPAS PR October 17, 2023, Subcommittee cover sheet with the exception of the following products:

1. Range Star, EPA Reg. No. 42750-55,
2. Coyote Herbicide, EPA Reg. No. 70506-338,
3. Strike 3, EPA Reg. No. 102472-1,
4. EH-1658 Herbicide, EPA Reg. No. 2217-1078, and
5. Miller 2361, EPA Reg. No. 90930-8.

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

1. Range Star, EPA Reg. No. 42750-55, containing 2,4-D dimethylamine salt at 35.7%, and
2. Strike 3, EPA Reg. No. 102472-1, containing 2,4-D dimethylamine salt at 30.56%

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

B. NEW ACTIVE INGREDIENT

Discussion of registration approval for the products Arise® and Soline™ (EPA Reg. No. 90930-8) containing the new active ingredient homobrassinolide. The formulation is labeled as a plant growth regulator and hormonal supplement to promote growth in a wide range of crops, including field crops such as corn, soybeans, and potatoes, certain vegetables, strawberries, and fruit trees, as well as in ornamentals and turf.

Miller provided information on homobrassinolide, a new active ingredient in the formulation known by the names 'Miller 2361', Arise®, and Soline™. The registrant supplied the latter two labels for approval, which address different use patterns. Homobrassinolide constitutes 0.0025% of the formulation by weight. Two other active ingredients are present, indole-3-butyric acid and gibberellic acid GA3 (both <0.01%), which have already been registered in Massachusetts. The vast majority of the flowable product – almost 99.98% – is inert liquid considered confidential business information but non-hazardous. As such, inert substance identities were not required to be disclosed on the Safety Data Sheets.

Homobrassinolide is a synthesized homologue of brassinolide, a naturally occurring brassinosteroid. Brassinosteroids are a class of polyhydroxysteroids ubiquitous in plants that can improve crop quality and yields. Concentrations of brassinolide in plants tend to be highest in materials like pollen. The first pesticide product containing homobrassinolide as an active ingredient was registered by EPA in 2010; currently there are five registered products in the US listing it as an active ingredient.

The Arise®, and Soline™ label signal word is 'Caution'. Baseline PPE are required (long sleeve shirts, long pants, shoes, and socks) as well as protective eye wear. For uses covered by the Worker Protection Standard, waterproof gloves are also required and the Restricted Entry Interval (REI) is four hours after treatment. Non-agricultural use directions state to keep children and pets out of treated areas until sprays have dried. Application to surface waters and intertidal areas below the mean high watermark is prohibited. Label language also addresses chemigation practices to prevent public water system contamination.

Potential uses of homobrassinolide in the US include all agronomic and horticultural crops such as agricultural corps, greenhouse food uses, and non-food uses as well as aquatic food and non-food crops. However, Arise® is only labeled for use on field crops like corn, beans, peas, potatoes, sunflower, and seed production, as well as wheat, rye, barley, and oats. Application rates vary for different crops, but generally range from 1 to 16 fl. oz per acre.

Soline™ is labeled for use on several vegetable crops as well as fruit trees and ornamentals. The use settings are agricultural, nursery greenhouse, turf, and landscaping. The highest use rate permitted is a maximum of 32 oz/acre on trees. Cranberry, evergreen, and maple uses are all included under the Soline™ label, but under 'nonbearing use'. There are also seed treatment directions on both labels - applications may be made to seeds up to six months prior to planting but treated seed should not be stored beyond that time. Any excess seed must be buried away from streams and bodies of water. Commercial processors have additional dye and label requirements.

The EPA human health risk assessment classifies homobrassinolide as Toxicity Category IV (lowest level of concern) for acute oral, inhalation, and primary dermal irritation. It is Toxicity Category III for acute dermal toxicity and primary eye irritation, and the label handling requirement of protective eyewear is intended to mitigate this hazard.

Toxicity to mammals, based on rat studies, is in the slight to practically non-toxic range (LD 50 >1000 to 5000 mg/kg, depending on the study). No toxicological endpoints were identified and therefore a dose response assessment was not conducted. Dietary and drinking water exposure to residues of homobrassinolide are expected to be minimal since applied levels will be very low and plants rapidly metabolize this molecule. The Biopesticide Registration Action Document (BRAD) points out that "...brassinosteroids are present in all plants, resulting in ubiquitous exposure to humans and other organisms through the food chain without causing harm." For these reasons, in 2010 EPA issued an exemption from the requirement of a food tolerance for homobrassinolide residues.

No indoor residential school or day care uses are currently approved for products containing homobrassinolide, so no residential exposure or risk assessments were required for EPA registration. No non-occupational risks of

concern were identified due to its low toxicity profile. EPA does not expect any cumulative or incremental effects from exposure to residues when used as directed on the label and in accordance with good agricultural practices. EPA also noted that since concentrations of homobrassinolide in the label application rates are very low, handler exposure is expected to be only to minute levels. The PPE label requirements to avoid skin and eye contact as well as the REI are considered sufficiently protective by EPA.

Environmental risks are not expected to be of concern due to the natural ubiquity of plant growth regulators and because homobrassinolide is rapidly metabolized by crop plants under the proposed conditions of use. The label application rates are low and therefore EPA deemed it unlikely that concentrations would exceed general levels typically found in plants. Its rapid metabolization makes it unlikely to persist in the environment. Its solubility in water is relatively low and it binds moderately to soil, resulting in low mobility.

Avian studies were waived based on the rationale that avian species are regularly environmentally exposed to brassinosteroids since they are found in all plants. The label applications by spray rather than granule further reduce potential foraging exposure. No toxic effects have been identified for non-target birds, plants, or soil organisms such as earthworms. Rapid metabolization by crops also makes it unlikely that honeybees and other pollinators feeding on nectar or pollen would consume enough to cause adverse effects.

Aquatic invertebrate studies on *Daphnia magn*a found that the EC50 was about 8.9 mg/L, which classifies it as moderately toxic for those organisms. Freshwater fish studied were less affected. EPA determined that the label used patterns were highly unlikely to expose aquatic organisms to potentially toxic levels of homobrassinolide by runoff or movement through the soil. In sum, there would be no unreasonable adverse effects to the environment expected from use of homobrassinolide when label instructions for these products are followed.

'Miller 2361', EPA Reg. No. 90930-8, 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 'Miller 2361', EPA Reg. No. 90930-8, also known by the product names Arise® and Solina™, containing the new active ingredient homobrassinolide, which has never before been registered in Massachusetts.

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

C. NEW BUSINESS

No new business reported.

ADJOURN
Motion: To adjourn the Oct 17, 2023, Subcommittee Meeting.

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