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

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PESTICIDE BOARD SUBCOMMITTEE MEETING MINUTES

April 15, 2025

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 FOR March 18, 2025

Motion: R. Berman

Second: M. Blanchet

Discussion: None

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

Opposed: None

Abstained: N. Keleher

B. PRODUCT REGISTRATIONS

Motion: That the Pesticide Board Subcommittee registers the pesticide products listed on the EIPAS PR April 15, 2025, Subcommittee cover sheet with the exception of the following products:

- TCS GrowStar Allectus 0.225 G Insecticide Plus Turf Fertilizer (EPA Reg. No. 101563-105-82757)

- TCS GrowStar Merit 0.2 Insecticide Plus Turf Fertilizer (EPA Reg. No. 101563-76-82757)
- Entrapment SP (EPA Reg. No. 92988-2)

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

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

- TCS GrowStar Allectus 0.225 G Insecticide Plus Turf Fertilizer (EPA Reg. No. 101563-105-82757) containing imidacloprid
- TCS GrowStar Merit 0.2 Insecticide Plus Turf Fertilizer (EPA Reg. No. 101563-76-82757) 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. Blanchet, R. Berman, T. LaScola, M. Moore, N. Keleher
Opposed: None
Abstained: None

C. NEW ACTIVE INGREDIENT MOTION

Miller presented information on the new active ingredient (AI) x*anthan gum*, formulated in the product Entrapment SP, EPA Reg. No. 92988-2, for control of pests including aphids, mites, psyllids, scales, thrips, leafhoppers, and whiteflies on ornamental plants, turf, and agricultural crops.

Xanthan gum is a broad spectrum, non-systemic biological insecticide. The label references 'Rhexalloid Technology'. Rhexalloid is a trademark name for the technical grade active ingredient, which is 100% xanthan gum and registered by EPA for formulation in end-use products.

This AI is a naturally-occurring, high molecular weight polysaccharide that is produced by most bacteria of the *Xanthomonas* genus. It is already approved for use as a food additive and an inert ingredient in pesticidal formulations. As a pesticide, its hydrocolloid structure causes its molecules to both bind to water and each other, creating a sticky film. The mode of action requires physical contact with the target. The product entraps or engulfs insects, killing by suffocation, immobilization, and/or exhaustion. This is primarily effective against insects less than 4 mm in size. The Entrapment SP end-product is in the form of a liquid concentrate with 0.15% xanthan gum that is diluted in water and then applied as a spray. It is also listed for organic use.

Handling precautions for this product are minimal. No signal words or first aid section are required on the label. The PPE required are baseline: long sleeve shirts, long pants, shoes, and socks. Agricultural uses also require chemically resistant gloves and a restricted entry interval of 4 hours.

Entrapment SP is labeled for indoor and outdoor use on golf courses, in greenhouses, on turf and ornamentals, and a wide range of vegetable and fruit crops, including cereals, berries, and pome and stone fruits.

The 'Environmental Hazards' section of the label directs users not to contaminate waters with wash water or rinsate and to not directly apply to surface waters or intertidal areas below the mean high-water mark.

Entrapment SP can be applied using standard application equipment that includes ground, air blast, backpack, and aerial spray methods. Application rates are 8 to 64 fluid oz product per 100 gallons of spray, with a maximum of 1000 gallons of spray solution/acre. Directions recommend application at the first sign of infestation and to reapply every 7 to 10 days as needed. The target pest must come into contact with the formulation before it dries for it to be effective.

The label drift management section has several restrictions beyond the basic requirement not to generate drift outside the application area. Ground boom nozzle height has a 4- foot maximum above the crop canopy and 15 mph wind speed upper limit. Airblasts must be directed and only used when wind speeds are 3-10 mph at the application site. For aerial applications, there are the boom width restrictions. If within a larger no-spray zone, release height is capped at 10 feet above the crop canopy unless there are pilot safety concerns. Nozzles and spray pressures should minimize the production of spray drops that are less than 105 microns in diameter.
Toxicity studies show xanthan gum to have low acute toxicity (Toxicity Category IV, or practically non-toxic) for oral exposure, with the rat LD50 exceeding 5000 mg/ kg bw. The acute dermal toxicity requirements were waved based on Category IV acute oral toxicity and EPA guidance. Acute

inhalation toxicity could not be measured because the active ingredient could not be aerosolized at typical study/user conditions. It is minimally irritating to the eye and only slightly irritating to the skin (both Category IV). It is not a skin sensitizer.

Subchronic and chronic rat and dog studies indicated the no-observable-adverse-effect-level (NOAEL) is equal to or greater than the recommended limit dose of 1,000 mg/kg/day. The lowest-observable-adverse-effect-level (LOAEL) was twice that and induced minor toxicity effects in the form of reduced body weight, as well as lowered serum cholesterol, red blood cell count, hemoglobin concentrations, and changed bowl function. No toxicity was observed at dose levels relevant for human health risk assessment.
Xanthan gum is a large molecular non-starch polysaccharide that has negligible absorption, distribution, and metabolism in the body.

Developmental toxicity studies observed no treatment-related effects for parental, reproductive, and developmental outcomes at the highest dose tested (500 mg/kg/day). No carcinogenic effects were observed in the highest dose tested (1000 mg/kg/day). EPA also notes an assessment conducted by the European Food Safety Authority concluded that there is no dietary risk of concern with respect to genotoxicity for xanthan gum, based on toxicity data and its negligible absorption.

Food and drinking water exposures are possible since the product can be applied to crops. However, xanthan gum is commonly consumed as an FDA-approved food additive.
A qualitative, rather than quantitative, risk assessment for xanthan gum was conducted because no endpoints were indicated in the submitted toxicological data or the scientific literature.

Environmental risks: Acute toxicity testing indicates xanthan gum is practically non-toxic to mammals, birds, and terrestrial insects. Any product deposited on the ground is expected to be quickly absorbed by the soil and therefore would not be available to trap invertebrates, with no effects on soil and ground-dwelling invertebrates or their nests.

Scientific rationales were submitted to address avian dietary and non-target plant toxicity data requirements. The rationale for the avian dietary requirement waiver states that xanthan gum has a non-toxic physical mode action, there is no evidence of significant bioaccumulation potential, and it has a history of safe use as a pesticide inert ingredient already. It has been safely used in avian vaccines and feed items, indicating that dietary toxicity would be highly unlikely.

Multiple field trials with xanthan gum end products indicated minimal phytotoxicity in tested crop plants.

Xanthan gum is practically non-toxic to fish and aquatic invertebrates with LC50 values ranging from 420 to 2200 mg/L and 700 to 980 mg/L, respectively. The available toxicity endpoints for aquatic animals are at least three orders of magnitude above a worst-case scenario EEC of 0.051 mg a.i./L. EPA notes that any impacts of direct application would be negated due to the dilution of xanthan gum beyond its range of effectiveness. It is also noted that xanthan gum must adhere an invertebrate to a surface in order to be effective, which is not possible in aquatic environments. Therefore, xanthan gum is not expected to impact aquatic taxa.
The Endangered Species Act (ESA) assessment conducted by EPA determined that for the approximately 1700 listed species as of December 2023, xanthan gum was either to have No Effect or was categorized as Not Likely to Adversely Affect. The same was true for designated critical habitats. The ecological risk assessment finds risk could not be precluded for terrestrial invertebrates, but risk is expected to be limited to those smaller than 4 mm (including young life stages) in treated areas within 6 hours after application.
There is no fate or transport data included in the registration docket due to the low toxicity and the natural occurrence of this active ingredient. Overall, EPA concluded that there is a reasonable certainty of no harm from xanthan gum residues and its use will not cause unreasonable adverse effects to human health or the environment.

Groundwater Protection: Xanthan gum does not meet the criteria for being classified as a potential groundwater contaminant in Massachusetts.

Motion: that the Pesticide Board Subcommittee approve the product registration for Entrapment SP (EPA Reg. No. 92988-2) containing the new active ingredient **xanthan gum**, which has never before been registered in Massachusetts.

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

D. <u>PESTICIDE PROGRAM UPDATES</u>

Rodenticide Scientific Review: Overview of Draft Phase 1 Report: Clifton Dassuncao, Epidemiologist/Toxicologist with Eastern Research Group (ERG), was in attendance to provide an introduction and overview of the draft Phase 1 report of the Anticoagulant Rodenticides Scientific

Review. The report was shared with the Subcommittee for review and will be posted on the Subcommittee webpage (Massachusetts Pesticide Board Subcommittee | Mass.gov). This scientific review is conducted by ERG under contract with MDAR following a request for proposals and with the goal to assess the human health and ecological effects of anticoagulant rodenticides and their potential alternatives. The review is conducted in three phases, and this report completes Phase 1 which describes the sources and methods that will be used to conduct the scientific review in Phase 2. Dassuncao reviewed the contents and sections of the report. Moore asked about how long the public comment period will be. LaScola indicated that the plan is to make the report available on the Subcommittee webpage and that the public will have two weeks to submit comments by email. Interested parties and stakeholders will be notified of the public comment period. Comments received will be shared with ERG and will also be available to the Subcommittee for the individual review that will be conducted following the completion of the scientific review.

Berman had prepared a list of concerns about the draft report and shared these during the meeting. His observations and comments were as follows:

- Section 4.0 Lists of "key stakeholders to be consulted" by ERG a part of the broader scientific review. Section 4.0 fails to include a large group with vested interests in the review. Of the 24 listed Selected Non-government Organizations there's no food related organizations with a vested interest. No retail food, or food service organizations are represented. The closest somewhat related food organization I noted is the Massachusetts Farm Bureau.
- DAR has done outreach with various organizations looking for evidence of negative consequences of the use of rodenticides, especially the SGARs. I could be wrong, but nowhere in the Draft Phase 1 report are the results of these efforts included for reporting. This should be listed as something ERG will include in the final Phase 1 Report.
- Section 2.4 "Use Restrictions in Other States": The list of review items to be identified in this section should also include the consequences of those actions, both positive and negative. This kind of information could help the SC make a final decision.
- Another missing piece of the review, and should be included, are unintended consequences from the labeled, correct use of the rodenticides. FIFRA Section 6(a)(2) requires pesticide registrants report information concerning unreasonable adverse effects of their products to EPA. This information should explicitly be listed in the Phase 1 Report as being included for review.
- Back to Section 4.0, "Key Stakeholders to Consult", stakeholders will be sent an invitation to complete a short online survey about the anticoagulant rodenticides. I would like to see the survey before being sent out.

- What is more important about this project is it is being rushed for artificial, non-technical reasons. More time is needed to allow a proper review. The need to finish the multi-step process needs time. There is no urgent need to rush this. ERG recognized that because of the limited resources allocated for this review they will be limited with follow-up reviews with stakeholders, as will their effort to conduct comprehensive searches of assessments and peer-reviewed literature for every alternative to anticoagulant uses.

Moore indicated that he will share information about contacts of food-related organizations. LaScola also pointed out that the Subcommittee has the opportunity as part the individual review to request additional information that for one reason or another was not available or included in the ERG's Scientific Review.

E. NEW BUSINESS

There was no new business

F. ADJOURN

Motion: To adjourn the April 15, 2025, Subcommittee Meeting.

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