The Commonwealth of Massachusetts

Executive Office of Energy and Environmental Affairs

Department of Agricultural Resources

225 Turnpike Road, Southborough, MA 01772

www.mass.gov/agr

PESTICIDE BOARD SUBCOMMITTEE MEETING MINUTES

August 20, 2025

BOARD MEMBERS IN ATTTENDANCE

Michael Moore, DPH, Food Protection Program, (Chair)	Present
Taryn LaScola-Miner, MDAR, Designee for Commissioner Randle	Present
Meg Blanchet, DPH, Designee for Commissioner Goldstein	Present
Eric Seaborn, DCR, Designee for Commissioner LaChapelle	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. PRODUCT REGISTRATIONS

Motion: That the Pesticide Board Subcommittee registers the pesticide products listed on the EIPAS PR August 20, 2025, Subcommittee cover sheet with the exception of the following products:

1. Testament, EPA Reg. No. 7969-457-5905,
2. Ventas, EPA Reg. No. 91234-251,
3. DropTec, EPA Reg. No. 71368-138,
4. Turf King Fertilizer w/ Imi-Lambda, EPA Reg. No. 228-610-47956,
5. Hi-Yield Grub Free Zone, EPA Reg. No. 53883-256-7401,
6. ArmorTech Threesome, EPA Reg. No. 86064-5,
7. ArmorTech CLT 825 DF, EPA Reg. No. 86064-1,
8. ArmorTech CLT 720 XL, EPA Reg. No. 53883-310-86064,
9. ArmorTech CLT 720 FL, EPA Reg. No. 86064-2,
10. AgriPhage - Nut & Stone Fruit, EPA Reg. No. 67986-10,
11. AgriPhage - Fire Blight, EPA Reg. No. 67986-8, and
12. AgriPhage, EPA Reg. No. 67986-1.

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

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

1. DropTec, EPA Reg. No. 71368-138, containing mono- and dimethylamine salts of 2,4-D dichlorophenoxyacetic acid at 51.97%, and
2. ArmorTech Threesome, EPA Reg. No. 86064-5, containing dimethylamine salts of 2,4-D dichlorophenoxyacetic acid at 30.56%,

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.

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

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

1. Turf King Fertilizer w/ Imi-Lambda, EPA Reg. No. 228-610-47956, and
2. Hi-Yield Grub Free Zone, EPA Reg. No. 53883-256-7401, both 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. Blanchet, R. Berman, M. Moore, T. LaScola, E. Seaborn
Opposed: None
Abstained: None

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

1. Testament, EPA Reg. No. 7969-457-5905, containing s-dimethenamid,
2. Ventas, EPA Reg. No. 91234-251, containing acetochlor,
3. ArmorTech CLT 825 DF, EPA Reg. No. 86064-1, containing chlorothalonil,
4. ArmorTech CLT 720 XL, EPA Reg. No. 53883-310-86064, containing chlorothalonil, and
5. ArmorTech CLT 720 FL, EPA Reg. No. 86064-2, containing chlorothalonil,

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 substances 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 **acetochlor, chlorothalonil,** and **dimethenamid** from general to restricted use for groundwater concerns.

Moved: R. Berman
Second: M. Blanchet

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

B. NEW ACTIVE INGREDIENT MOTION

A registrant submitted applications for three products with new active ingredients in Massachusetts: AgriPhage, AgriPhage – Fire Blight, and AgriPhage – Nut & Stone Fruit. All three are organic, biological tools for controlling specific bacterial diseases in agricultural crops. Each contains one or more bacteriophages, which are viruses that target a narrow range of specific bacterial hosts. Much of the supporting materials, such as scientific rationales regarding bacteriophages submitted to the Environmental Protection Agency (EPA) to meet registration requirements, are the same for the active ingredients of all three products. AgriPhage contains two bacteriophages: one is active against *Xanthomonas campestris* pv. *vesicatoria* and the other is *Pseudomonas syringae* pv. *tomato*. AgriPhage – Fire Blight contains a single bacteriophage that is active against *Erwinia amylovora*. The AgriPhage – Nut & Stone Fruit active ingredients are a cocktail of four specific bacteriophage strains that are active against *Xanthomonas arboricola* pv. *pruni*, *Xanthomonas arboricola* pv. *juglandis*, *Xanthomonas arborica* pv. *corylina*, and *Pseudomonas syringae* pv. *syringae*.

Bacteriophages are ubiquitous viruses found in soil, water, on plants and on food materials commonly consumed by humans. EPA notes that all phages here were isolated from natural sources and have not been genetically manipulated. The mode of action is attaching to, infecting, and causing the bacterium to undergo lysis. These phages are obligate parasites of bacteria and highly host-specific.

Label: Handling precautions for AgriPhage include the signal word 'Caution', meaning a first aid section must be included on the label. The Fire Blight and Nut & Stone Fruit labels do not have signal words and therefore no first aid section is required. Nonetheless, the risk assessments of the three products are quite similar. AgriPhage has both aerial and chemigation use patterns and contains about twice the plaque-forming units as the other two, but the underlying risk profile for bacteriophages in general is the same across all three products.

Personal Protective Equipment (PPE) requirements include long-sleeved shirt and long pants, shoes plus socks and waterproof gloves, and a NIOSH-approved particulate filtering respirator.

The environmental hazards section of the labels is minimal. Users are directed to not contaminate waters with washwater or rinsate and to not directly apply to surface water areas or intertidal areas below the mean high-water mark.

The three products each have distinct crop uses, but all are both preventative and curative on leaf and fruit tissues. AgriPhage is labeled for use on tomatoes and peppers to control bacterial spot and speck, AgriPhage – Fire Blight targets fire blight on apples and pears, and AgriPhage – Nut & Stone Fruit controls bacterial spot, canker and blast.

There is some variation across these products in terms of allowed applications. Only AgriPhage, for the tomatoes and peppers, is labeled for ground, chemigation, and aerial use, with both fogging and spraying allowed in greenhouses. Labels for the Fire Blight and Nut & Stone Fruit products only allow ground applications. Rates range from 1-2 pints/acre of AgriPhage to up to 3 quarts/acre for the Nut & Stone Fruit product in the case of severe infestations. The AgriPhage and the Fire Blight products specify dilution in 50-100 gallons of water, whereas the Nut & Stone Fruit label simply requires "sufficient water to achieve thorough coverage of the crop canopy." Frequency is up to 3 times per week for AgriPhage, weekly or as needed for the Fire Blight, and maximum every three days for the Nut & Stone Fruit product.

Spray drift language contains no specific restrictions besides not applying in any way that will contact people, either directly or through drift. The AgriPhage label requires a minimum of 5 gallons water for dilution in the case of aerial applications and contains a brief Aerial Drift Reduction Information section. The Restricted Entry Interval (REI) after application is 4 hours.

Human Health: Scientific rationales were submitted in lieu of formal guideline studies to address human health risks and were found acceptable by EPA. There is no evidence of toxicity or pathogenicity associated with oral or respiratory administration of phages. Across all exposure categories, these ingredients are considered Toxicity Category IV, or lowest level of toxicity/practically non-toxic.

EPA notes that genetic analyses were performed on these active ingredients, including full genomic sequencing and confirmation of absence of genes of concern. Additional screening involving lambda integrase, host specificity, generalized transduction, and turbid plaque assays were conducted and no evidence of pathogenicity or capacity to infect non-organisms or induce toxic effects was found.
Exposure Risks: Phages are present on the surfaces of a variety of plant-based foods and throughout the environment. They are routinely consumed by humans without negative impacts. If initially present in raw water, phages are destroyed in routine water treatment facility processes. A scientific literature study of mice consuming water for a month with a concentration of a billion plaque-forming units per milliliter of similar phages showed no adverse effects on the animals. EPA granted a tolerance exemption for the active ingredients of AgriPhage.
For non-dietary exposure risks, it was noted that the formulated end products are applied at very low use rates, which would not be expected to increase levels of the microbe above natural levels for very long. Any residues are considered harmless as they are ubiquitous in the environment as well as being both UV- and temperature-sensitive. Occupational handlers are considered to have potential exposure primarily via dermal or inhalation routes. However, the absence of significant toxicity and the little exposure anticipated meant EPA decided a quantitative occupational assessment was not warranted for these active ingredients.

Environmental Risks: EPA waived all Tier 1 ecological data testing requirements, or guideline studies, for these bacteriophages on the basis of submitted scientific rationales in each organism and exposure category. Based on this information, adverse effects to nontarget organisms are not anticipated.

Organism terrestrial exposure would most likely occur from spray drift, drainage water, or if animals came into contact with or consumed treated foliage. For terrestrial animals and plants, no hazards were identified from literature studies because of the narrow host range of bacteriophages. Bacteriophages do not persist if the host bacteria are not present, so any contact or oral exposures from application or touching treated surfaces are expected to be minimal. Literature studies on intentional exposure of poultry and honey bee larvae were cited as further evidence that exposure to bacteriophages in general is not likely to result in adverse effects. Terrestrial plants naturally have soil and above-ground surface contact with bacteriophages without negative impacts.

Aquatic animals and plants include both freshwater and estuarine/marine fish and invertebrates. These three products have no direct applications to aquatic environments, so any exposure would be the result of drift or intense runoff immediately following application. However, bacteriophages in general are abundant in aquatic environments and any addition from an application is expected to not result in any appreciable increase relative to natural levels. Due to limited mobility in soil and rapid degradation, EPA has determined groundwater contamination to be highly unlikely. The phages decompose when hosts are no longer available.
Endangered Species: EPA has made a “No Effect” finding for direct and indirect effects to listed Endangered Species and their designated critical habitats from label uses of the AgriPhage product bacteriophages. Because of the negligible risk, consultation with the Services (US Fish & Wildlife and National Marine Fisheries) was not triggered.

Groundwater Protection: these bacteriophages do not meet the criteria for classification as a potential groundwater contaminant in Massachusetts.

Move: that the Pesticide Board Subcommittee approves the product registrations for:

1. AgriPhage, EPA Reg. No. 67986-1, containing the new active ingredient 'Bacteriophage active against *Xanthomonas campestris pv. vesicatoria* and *Pseudomonas syringae pv. tomato*',
2. AgriPhage - Fire Blight, EPA Reg. No. 67986-8, containing the new active ingredient 'Bacteriophage active against *Erwinia amylovora*', and
3. AgriPhage - Nut & Stone Fruit, EPA Reg. No. 67986-10, containing the new active ingredients 'Bacteriophages active against *Xanthomonas arboricola* pv. *pruni*, *Xanthomonas arboricola* pv. *juglandis*, *Xanthomonas arboricola* pv. *corylina*, and *Pseudomonas syringae* pv. *syringae*',

which have never before been registered in Massachusetts.

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

C. <u>RODENTICIDE SCIENTIFIC REVIEW</u>:

Clifton Dassuncao from the Eastern Research Group, Inc. provided an overview of the Anticoagulant Rodenticide Scientific Review Draft Phase 2 Report. The draft report was shared with the Subcommittee prior to the meeting and Dassuncao was attending to provide a walk-through of the report and an opportunity for Subcommittee members to ask questions.

The executive summary highlights the overall findings of the report and a summary of key points. The report overall includes scientific information on human health risks, environmental effects and alternatives to anticoagulant rodenticides, and highlights data gaps that were assessed as important to note.

The introduction explains why the report was prepared, outlines a scope of the review, and the phased approach that was used to produce this report, with this being the Phase 2 report. The actual process that was used is laid out in more detail in the Phase 1 report that was shared and posted online earlier this year and included reviewing published resources, interviewing state officials, and sending out a survey to interested parties. ERG also incorporated any feedback received on content from the public comment process during the Phase 1 report.

The 'Background' section provides information and context on the anticoagulant rodenticides, including their mechanisms of action, chemical groupings, and product formulations. It also provides a detailed summary of the federal regulatory actions up to this point as well as Massachusetts specific usage data from 2022 and 2023. It also provides a summary of other state-level restrictions across the country based on information from interviews with other state-program representatives.

The sections on human health effects and environmental/ecological effects of anticoagulant rodenticides both follows similar structure where first information from EPA assessments are summarized followed by information from reviews by other government agencies and international bodies, and information from the peer-reviewed scientific literature.

In the human health effects section, the information tends to focus on poisoning, especially children, as that

was one of the main concerns for EPA as well as the main topic appearing in the literature review, but other topics that were identified in peer-reviewed articles were also included. The literature review was limited to more recent literature just from a practical standpoint, because a lot of the EPA assessments have already summarized the older literature.

The environmental effect section, following the similar structure, summarizes EPA assessments, international assessments, followed by information from peer-reviewed studies, also includes a separate subsection on specific considerations for threaten and endangered species in Massachusetts, which pulls from both EPA assessments as well as the Massachusetts endangered species lists. Overall, the section presents data on the relative toxicity across the different individual anticoagulants. It presents a lot of data on exposures to non-target wildlife with a focus on any data specific to Massachusetts. It also describes toxicological data and sublethal effects that may be caused from those secondary exposures.

The final section presents a list of alternatives to anticoagulant rodenticide including chemical alternatives, a chemical-physical-biological approach, and integrated pest management approach.

Regarding the next steps for this report, Dassuncao stated that it will be posted online soon after this meeting and be available for public comment.
Following this presentation, Moore opened it up for questions by Subcommittee members.

Berman asked how it was determined which states to contact. Dassuncao indicated that there were two sources that informed this: one was a survey sent out by MDAR to states through the national organization of pesticide control officials (AAPCO) in an effort to collect information on what other states' efforts are relative to rodenticides. From the survey results, ERG identified the states that had regulatory action or specific information that would be helpful for ERG's review. Separately, ERG reached out to all New England states. The states that are included in the report were the ones that were found to be most useful for the review.

Berman also noted that the information on quantities of rodenticides used in the report does not reflect retail sales. Berman acknowledged it is a difficult figure to come up with, but it should be made clear that the figures for quantities used are not complete usage.

Berman also asked about the response rate to the survey of interested parties and whether the number of 35 out of 80 is considered a reasonable response. Dassuncao indicated that it was considered a good response. He also pointed out that the survey was focused on specific aspects, including information on use data sources and use data gaps. With the responses received, ERG did not receive much new information related to these aspects that were already identified.

LaScola reiterated what the plan is for the public comment process on this draft report. After this meeting, it will be posted on the Subcommittee webpage and will be open for public comment for one month. MDAR will notify stakeholders and interested parties about this public comment period. The comments will be compiled and shared with ERG. All comments will also be included in the package of information that will be provided to the Subcommittee for the individual review. Once the comments have been received and shared with ERG, the report will be finalized. At that point, the scientific review will be closed.

LaScola pointed out that the scientific review will be a portion of the larger individual review to be conducted by the Subcommittee. The Subcommittee can request additional information if that is deemed necessary. MDAR is already compiling information received by the enforcement team over the last few years that will be included with the information for the individual review. Once the individual review packet is prepared, it will be forwarded to the Subcommittee for review. LaScola also recommended having one more public comment period through a live meeting opportunity where verbal and written comments can be presented and submitted.

Berman asked about the mechanism for submitting comments. LaScola indicated that comments can be submitted by email to her or by hardcopy via regular mail. MDAR will compile all comments and will share them with ERG.

Moore asked about the use of hyperlinks in the table of contents where chapter and section heading were hyperlinked, as was done in the Phase 1 report, to facilitate navigation through the report. Dassuncao indicated that ERG would look into that.

D. NEW BUSINESS
No new business was brought forward.

E. ADJOURN
Motion: To adjourn the August 20, 2025, Subcommittee Meeting.
Moved: M. Moore
Second: T. LaScola
Discussion: None
In Favor: M. Blanchet, R. Berman, M. Moore, E. Seaborn, T. LaScola
Opposed: None
Abstained: None

"Any documents referenced in these minutes may be obtained through a Public Records Request. To make a request, please go to AGR Public Records Requests \| Mass.gov."