

The Commonwealth of Massachusetts

Executive Office of Energy and Environmental Affairs



Department of Agricultural Resources

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www.mass.gov/agr



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Commissioner

PESTICIDE BOARD SUBCOMMITTEE MEETING MINUTES

November 25, 2025

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
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 November 25, 2025, Subcommittee cover sheet with the exception of the following products:

1. RightLine Loyalty WDG, EPA Reg. No. 95009-11-93051,
2. Sulfentrazone 39.6% SC, EPA Reg. No. 85678-104,
3. PRINCIPLE WP, EPA Reg. No. 68539-22, and
4. Obrona, EPA Reg. No. 71771-14-2935.

Moved: R. Berman

Second: T. LaScola

Discussion: None

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

Opposed: None

Abstained: None

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

1. RightLine Loyalty WDG, EPA Reg. No. 95009-11-93051, containing sulfentrazone, and
2. Sulfentrazone 39.6% SC, EPA Reg. No. 85678-104, 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 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 **sulfentrazone** from general to restricted use for groundwater concerns.

Moved: R. Berman

Second: E. Seaborn

Discussion: None

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

Opposed: None

Abstained: None

B. NEW ACTIVE INGREDIENT

Miller presented information on the new active ingredient (a.i.) Peptide Derived from Harpin Protein (PDHP) 25279, formulated in the product Obrona™ (EPA Reg. No. 71771-14-2935), a biochemical fungicide that enhances plant resistance to fungal and bacterial diseases. The product is a wettable dry granule that contains 1% active ingredient.

PDHP 25279 consists of a 28-amino acid sequence from the harpin protein Hrp W in *Erwinia amylovora*, the bacteria responsible for fire blight. The Environmental Protection Agency (EPA) notes that it is almost identical in structure and function to the already federally registered Ea peptide 91398; just three amino acids are different. PDHP is manufactured by microbial fermentation and some fermentation biosolid byproducts are also present in the end product, whereas Ea is synthesized and purified.

PDHP does not directly target pest organisms. Instead, it is a ‘plant response elicitor’, where the mode of action involves inducing innate defense mechanisms in plants. The peptide enters plant leaves and elicits the hypersensitive response, triggering rapid localized cell death in the plant tissue. The metabolic responses to this result in disease resistance as well as observed increases in growth and yield.

Handling Precautions: The Obrona signal word is ‘Caution’. PPE requirements include long-sleeved shirt, long pants, shoes, and socks, as well as a NIOSH-approved particulate filtering facepiece respirator. The restricted entry interval (REI) is 4 hours.

Uses: This product is labeled for use on a wide variety of crops: brassicas, leafy vegetables, cucurbits, cereal grains, legumes, fruiting vegetables, and roots and tubers. It is also approved for use on pome and stone fruits, tree nuts, and grapes. It also has non-crop uses on bedding plants, conifers and other trees, grasses, ornamentals, and turf.

The ‘Environmental Hazards’ section of the label is short: users are directed not to contaminate natural waters with rinsate and to not directly apply to surface waters or intertidal areas below the mean high-water mark. The spray drift management language is a brief statement assigning avoidance responsibility to the applicator and generally notes both weather and equipment can influence drift potential.

Obrona can be used as a pre-transplant foliar dip, root dip, or as a foliar application. Allowed methods are aerial, ground, and by certain types of chemigation systems. The application rate is 3 oz/product per acre at a time, with no annual limit. The label states it should be used within 3 weeks of opening and the same day as mixing.

Human Health: Toxicity studies indicate that PDHP is of low acute toxicity (Toxicity Category IV) for oral, dermal, and inhalation routes of exposure for mammals. The rat LD50 for oral exposure is >5000 mg/kg. Acute inhalation toxicity was similar for both PDHP and Ea 91398; this was used to rationalize use of Ea study data in lieu of other guideline studies. Both the primary dermal and primary eye irritation studies were

waived based on Ea results and classified as Category IV. It is not a skin sensitizer. PDHP was also compared to a database of known and putative allergenic proteins, with no sequences homologous. A digestibility study indicated that PDHP was completely digested at the 5-minute mark for pepsin (stomach enzyme) and then the 1-minute mark for subtilisin A (enzyme found in soils).

EPA considered subchronic and developmental toxicity data requirements satisfied with submitted scientific rationales that Ea data showed no impacts. There are no indications of genotoxicity in the *in vitro* bacterial and mammalian cell assays for Ea and no hypersensitivity incidents were reported.

Only a qualitative dietary assessment was conducted due to negligible toxicological and exposure concerns. No dietary risks of concern were found. EPA determined that Ea's tolerance exemption could not extend to PDHP since there were slight differences in their structures. However, a separate review by EPA resulted in the agency establishing a tolerance exemption specifically for residues of PDHP 25279 in or on all food commodities. Rapid degradation in the environment and in simulated gastric fluids indicate negligible risk for accumulation in groundwater or risk to humans via ingestion.

A residential exposure assessment was not conducted due to the lack of residential uses. The main potential route of non-occupational exposure is dermal, via handling of plants, but the low toxicity of harpin peptides and lack of sensitization evidence make this of no concern. Overall, there are no dietary or other exposure concerns for any subgroup of the US population. Occupational exposure could be via inhalation, dermal, or eye, but studies show PDHP to be non-toxic for these routes. As a precaution, respiratory PPE is required since repeated exposures to microbial proteins might cause allergic sensitization over time.

Environmental Risk: Toxicity studies for ecological risk assessments show a general lack of effects from harpin proteins to birds, mammals, terrestrial insects, fish, aquatic invertebrates, and plants. PDHP is categorized as 'practically non-toxic' to all these organism groups. Bridging studies and rationales were used to satisfy environmental data requirements.

Terrestrial exposure is most likely via foliar spray applications. This would be limited by the low application rates and rapid degradation in the environment. It is possible for terrestrial organisms to potentially consume treated vegetation or fruit or to have contact exposure, though the low toxicity makes expected minimal exposure not of concern. No adverse effects were seen either in birds or mammals at maximum study doses. In the case of bees, the highest doses exceeded likely exposure by 30-60x and no effects were observed.

Drift is considered the only route of exposure for aquatic environments since rapid degradation results in negligible exposure via runoff. Marine environment exposure is considered less likely than for freshwater and cited studies are only for freshwater organisms. EPA also conducted literature searches and found no evidence of adverse effects to non-target organisms.

Endangered Species Act: EPA made a 'no effect' finding for direct and indirect effects to all listed species and their designated critical habitats from label uses of PDHP. Consultation with the Services was deemed not required.

Fate/Transport: PDHP is highly water-soluble and readily degrades in water with oxidizing compounds. Peptides and amino acids degrade quickly in soil, on the order of hours to a few days at most. On plant surfaces, degradation times range from seconds to several days, with photodegradation thought to be a significant process.

Groundwater Protection: PDHP 25279 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 Obrona, EPA Reg. No. 71771-14-2935, containing the new active ingredient PDHP 25279, which has never before been registered in Massachusetts.

Moved: R. Berman

Second: M. Blanchet

Discussion: None

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

Opposed: None

Abstained: None

2. Miller presented information on the new a.i. *Beauveria bassiana* strain BW149, formulated in the product Principle WP, EPA Reg. No. 68539-22, a contact microbial insecticide and miticide labeled for use on a variety of crops (including vegetable, fruit, grain) as well as on trees, ornamentals, and turfgrass. Principle WP has a minimum of 10 billion colony-forming units (cfu)/gram, which is 21% of the formulation by weight. The product powder is mixed with water to generate a suspension for spraying. It is an OMRI-listed product and therefore a potential tool for certified organic growers.

BW149 is a fungus pathogenic to insects that occurs naturally in soils. Spores attach to the surface of the host and then penetrate the cuticle, resulting in mycosis - desiccation and then death of the host. EPA notes that BW149 is genetically similar to the *Beauveria bassiana* strain GHA, an active ingredient approved in Massachusetts and present in 11 products currently registered in the state. BW149 was discovered and isolated from a GHA end product.

Handling Precautions: The Principal WP label signal word is 'Caution'. Handlers are required to wear baseline PPE as well as waterproof gloves and protective eyewear. Mixers, loaders, and applicators must also wear specified NIOSH-approved particulate air-purifying respirators to prevent potential allergic sensitization. The restricted entry interval for agricultural workers is 4 hours.

The product has several listed environmental hazards. It is potentially pathogenic to bees and users are directed to avoid spraying around beehives. Application to blooming plants while bees are foraging is prohibited. It may also be toxic to fish. The label prohibits drift onto people and animals as well as a wide range of areas, including recreational spaces, aquatic habitats, woodlands, and buildings occupied by humans even intermittently. Label language also includes the standard prohibitions against direct applications to water, areas where surface water is present, or to intertidal areas below the mean high-water mark.

Uses: Principle WP is labeled for use on various vegetables, fruits (stone, pome, berry and other small fruits like cranberry - except flooded fields), trees, grains, ornamentals, turf, hemp, tobacco, and edible fungi. It can be applied as a foliar spray or dip for plants, either as cuttings or with roots attached. Allowed methods of spray are aerial or ground applications but not by chemigation for this particular product. Ultra-low volume sprays are permitted except via thermal pulse foggers.

To mitigate potential environmental hazards, label drift management language restricts aerial application to within 10 feet above the crop canopy, advises larger droplets when conditions are hot and dry, requires avoiding temperature inversions, and limits application to when wind speeds are between 2 and 10 miles/hr. Buffers are required to protect non-target invertebrates and bees, with exact distances dependent on the application height and droplet size. The maximum application rate is 2 lbs/100 gallons of spray with no limits on amount of product or number of applications in a season. The pre-harvest interval (PHI) is zero days, meaning it can be used right up to the day of harvest.

Human Health: The EPA human health risk assessment is based on studies using the technical grade active ingredient (TGAi) and two end products. The BW149 WP product is rated as Toxicity Category III for acute eye irritation but IV for all other exposure pathways. It is not considered a contact sensitizer based on the results of the dermal sensitization study, though a different end product did find some sensitization. No hypersensitivity effects to the technical AI were reported. The registrant met the acute pulmonary toxicity/pathogenicity and injection study requirements with the scientific rationale that studies on the similar strain GHA, both at 10^8 and 10^7 cfu levels, respectively, found it to not be infective or pathogenic. No toxicological endpoints were identified and therefore a quantitative exposure assessment was not required.

There are no dietary exposure concerns since *B. bassiana* is both naturally occurring and found widely throughout the natural environment. It is easily removed from food services. No quantitative dietary or water risk assessments were required regarding human consumption. EPA established an exemption from the requirement of a tolerance for residues of BW149 in or on all food commodities. There is the possibility of non-occupation exposure from spray drift. However, concentrations would be expected to be below levels causing any effects. The a.i. is known to degrade quickly in sunlight and above 37° C, also minimizing exposure. Occupational exposure is not expected to exceed any toxicity thresholds when label PPE use is followed. In summary, EPA anticipates no unreasonable adverse effect to humans.

Environmental Risk: The EPA ecological risk assessment accepted the registrant scientific rationale of using GHA strain studies to meet Tier 1 guideline study requirements. Although birds and wild mammals might experience contact during application by touching treated services or consuming exposed food items, no effects are expected for those organisms. Likewise, adverse effects in plants are not anticipated since BW149 is not taxonomically related to any known plant pathogens and *B. bassiana* already lives in plant tissues without causing harm or disease.

For honey bees, the 7-day LD50 observed for strain GHA was calculated to be about 10 times less than the estimated environmental concentration that will result from direct application of this product. A number of factors can impact actual exposure and since there was no maximum application frequency dictated by the label, EPA chose 5 times for risk assessment calculations. Because honey bee and other non-target insect studies showed some pathogenicity, EPA determined that adverse effects to bees and some other non-target insects would be anticipated. Mitigation language and buffer distances were developed using AgDRIFT modeling to calculate likely extent of off-target exposures.

Aquatic environment exposure might result from drift or runoff. However, studies found no treatment-related fatalities in fathead minnow or *Daphnia magna* at the highest concentrations tested. It is also not expected to proliferate in aquatic habitats and any concentrations resulting from off-target transport would be low. Transport to marine/estuarine environments is unlikely and therefore studies on marine organisms were not required.

Endangered Species Act: EPA determined that since no effects from other *B. bassiana* strains have been found and no incidents have been reported, compliance with the ESA will be satisfied by the existing label mitigation measures to prevent non-target organism exposure. However, if future evidence indicates that additional mitigation measures are necessary, EPA will notify the registrant of the required changes.

Fate/Transport: Research from the scientific literature has found *B. bassiana* to be sensitive to environmental conditions. It has a narrow temperature range of 23-28° C and humidity range of 92-100% for germination. It is also rapidly inactivated when exposed to sunlight.

Groundwater Protection: *Beauveria bassiana* strain BW149 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 Principle WP, EPA Reg. No. 68539-22, containing the new active ingredient *Beauveria bassiana* strain BW149, which has never before been registered in Massachusetts.

Moved: R. Berman

Second: M. Blanchet

Discussion: None

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

Opposed: None

Abstained: None

C. RODENTICIDE SCIENTIFIC REVIEW

LaScola stated what the next steps are for the Rodenticide Individual Review now that the scientific review has been completed. The next step will be that the information packet for the individual review will be prepared, which will include the scientific review and additional information that MDAR has collected. The additional information will include a summary of 3rd party lab results from wildlife poisoning case reports and a summary of rodenticide-related enforcement cases. LaScola also reminded the Subcommittee that they can request additional information upon reviewing the scientific report.

Seaborn asked clarification on the current status of rodenticides in Massachusetts. LaScola stated that rodenticides are classified as general use products. She also pointed out that at the federal level, the registration review of rodenticides is continuing, including the assessments for endangered species. Upon completing these assessments, EPA plans to issue amended interim and final decisions that are expected to include risk mitigation and label changes. In other states, there are various levels of restrictions for rodenticides, and legislative efforts relative to rodenticides are also ongoing in several states. Seaborn asked what the options the Subcommittee would be voting on upon completing the individual review. LaScola indicated that the options would be either changing rodenticide registrations from general to state-restricted use or canceling the registrations of rodenticides. As an example, she referred to the action that was taken relative to the neonicotinoids, where products with certain use patterns were restricted by reclassifying them from general to state-restricted use.

Berman asked if the info package would be available prior to next meeting in December. LaScola indicated that it is not feasible to have that ready for the next meeting. Blanchet asked about the timeline for providing MDAR with feedback regarding additional information needs. LaScola indicated that it would be appreciated if that could be done ASAP.

Moore brought up the aspect of timely notification and sharing of meeting materials, particularly related to agenda topics that require substantial review and evaluation, in order to provide Subcommittee members with sufficient time to prepare for informed deliberation and voting. This is particularly relevant for members who need to interact with their staff and commissioners. Moore mentioned the relevance of this in the context of the schedule of upcoming meetings where several complicated topics will be discussed.

Upon sharing ideas and information, Burgess from MDAR legal suggested having a discussion on this at the next meeting. The discussion should address the process and procedures for meeting specifically related to voting on big topics and how this will be done moving forward. The goal should be to come up with an approach that works for Subcommittee procedures, is in compliance with open meeting law, and administratively feasible for support by MDAR. The Subcommittee members agreed on this approach.

E. NEW BUSINESS

There was no new business brought forward.

F. ADJOURN

Motion: To adjourn November 25, 2025, Subcommittee Meeting.

Moved: M. Moore

Second: M. Blanchet

Discussion: None

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

Opposed: None

Abstained: None

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