

THE COMMONWEALTH OF MASSACHUSETTS

EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS



Department of Agricultural Resources

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PESTICIDE BOARD SUBCOMMITTEE MEETING MINUTES

September 20, 2022

Zoom Meeting at: <https://us06web.zoom.us/j/81005128274?pwd=OXRaTctBbHNSVEZhbjhvREZuU0xJUT09>

Passcode: 956306

BOARD MEMBERS IN ATTENDANCE

Michael Moore, DPH, Food Protection Program (Chair)	Present
Taryn LaScola-Miner, MDAR, Designee for Commissioner Lebeaux	Present
Marc Nascarella, DPH, Designee for Commissioner Cooke	Present
Nicole Keleher, DCR, Designee for Commissioner Cooper	Absent
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.

B. REVIEW OF MINUTES FROM the July 19, 2022, meeting

Motion: that the Pesticide Board Subcommittee approves the summary notes for the July 19, 2022, meeting.

Moved: R. Berman

Second: T. LaScola-Miner

Discussion: None

In Favor: M. Moore, R. Berman, T. LaScola-Miner

Opposed: None

Abstained: M. Nascarella

C. PRODUCT REGISTRATIONS

Motion: That the Pesticide Board Subcommittee registers the pesticide products listed on the EIPAS PR September 20, 2022 Subcommittee cover sheet with the exception of the following products:

1. Testify Herbicide, EPA Reg. No. 7969-279-1381;
2. FortiTRI Herbicide, EPA Reg. No. 7969-457-34704;
3. On Deck Icon, EPA Reg. No. 5905-643; containing 2,4-D at 24.16%; and
4. ZORDA™ WG Biological Fungicide, EPA Reg. No. 73049-522.

Moved: R. Berman
Second: M. Nascarella
Discussion: None
In Favor: M. Moore, M. Nascarella, R. Berman, T. LaScola-Miner
Opposed: None
Abstained: None

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 products

1. Testify Herbicide, EPA Reg. No. 7969-279-1381; containing dimethenamide-P; and
2. FortiTRI Herbicide, EPA Reg. No. 7969-457-34704; containing dimethenamide-P

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 ***Dimethenamid-P*** from general to restricted use for groundwater concerns.

Moved: R. Berman
Second: M. Nascarella
Discussion: None
In Favor: M. Moore, M. Nascarella, R. Berman, T. LaScola-Miner
Opposed: None
Abstained: None

2,4-DICHLOROPHENOXYACETIC ACID (2,4-D) MOTION:

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

1. On Deck Icon, EPA Reg. No. 5905-643; containing 2,4-D at 24.16%

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: M. Nascarella
Discussion: None
In Favor: M. Moore, M. Nascarella, R. Berman, T. LaScola-Miner
Opposed: None
Abstained: None

D. Discussion of New Active Ingredient *Bacillus amyloliquefaciens* strain PTA-4838, formulated in ZORDA™ WG Biological Fungicide, EPA Reg. No. 73049-522, a broad-spectrum biological fungicide/bactericide labeled for use on various crops, including vegetables, fruit, cereal grains and oilseeds. (Vote Required)

S. Miller provided information about Zorda™ WG Biological Fungicide, EPA Reg. No. 73049-522, which contains the new active ingredient *Bacillus amyloliquefaciens* strain PTA-4838 for use on various crops, including vegetables, fruit, cereal grains, and oilseeds.

The product concentration is at minimum 1.65×10^{10} colony forming units per gram of dried technical powder. By weight the active ingredient is approximately 75% of the formulation; the other 25% is classified as a trade secret. This is a gram-positive spore-forming bacterial species ubiquitous in air, soil, water, and on plants. Currently Massachusetts has five approved *Bacillus amyloliquefaciens* strains registered as biopesticide ingredients.

There are several modes of action for this strain. PTA-4838 produces enzymes with pesticidal functions against some pathogens and fungi, and it is also a plant growth regulator.

The primary health concern is exposure that can result in allergic sensitivities. There is label language that requires handlers wear personal protective equipment in the form of skin covering, including waterproof gloves, and specified NIOSH-approved particulate or air-purifying respirators. The Restricted Entry Interval (REI) into treated areas is 12 hours. The product should not be directly applied to water or in areas where surface waters are present.

Zorda™ is labeled for foliar spray use on a wide variety of vegetable, grain, and fruit crops, as well as for use on tobacco, hops, and hemp. Each has a label application rate of 2-3 pounds per acre, and the product can be applied with water or as a tank mix with other compatible products permitted by those labels. Note that it cannot be used on crops in flooded fields.

Human health risk assessment: An oral toxicity/pathogenicity study with laboratory rats indicated no adverse effects from strain PTA-4838 when administered at a dose of approximately 4×10^8 colony forming units per rat. A separate acute intravenous injection study was also submitted by the registrant; it also showed that the active ingredient was nontoxic and not infective to rats at a dose of 10^8 colony forming units per animal.

Acute toxicity data for end-used products that are similar to Zorda resulted in its classification by EPA as Toxicity Category IV for oral toxicity and eye irritation, and Toxicity Category III for dermal toxicity, inhalation toxicity, and dermal irritation.

The available data show no observed adverse risk effects for strain PTA-4838. There were no points of departure identified for conducting a quantitative aggregate risk assessment. Instead, it was qualitatively determined there are no unreasonable adverse risks for the US population in general, including infants and children, that would result from the use of this strain as a pesticide when label instructions are followed.

The strain is already present in the environment and EPA notes that crop residues resulting from treatment will be at a much lower concentration than humans already consume of related *Bacillus subtilis* strains in fermented foods. It is also noted that this bacterium used to be classified as a subspecies of *Bacillus subtilis*.

Ecological testing of strain PTA-4838 on non-target organisms did not extend beyond the Tier I level. An avian oral toxicity study showed the LD₅₀ of oral exposure for quail was greater than the maximum hazardous dose of almost 10¹⁰ colony forming units/mL/day. Adverse effects on avian species are not expected at field application rates, though some exposure may occur. Neither toxicity nor infectiveness effects were observed in rats. Studies on non-target insects indicated that there were no effects on honey bees and ladybird beetles. However, parasitic wasps seem to be a slightly more sensitive organism.

Aquatic organisms: The highest dose tested was a million colony forming units per milliliter for rainbow trout and there were no visible effects or signs of infection seen in the fish organs. *Daphnia magna* (aqueous invertebrate) showed no significant mobility effects at 10⁵ cfu/mL. Estimated environmental concentrations at the proposed rates are ~10⁴ cfu/mL. Marine organism studies on grass shrimp and inland silversides showed no effects at exposures of 10⁶ and 10⁷ cfu/mL, respectively. Exposure to non-target plants is expected with foliar sprays; however, this is not a known plant pathogen.

The strain 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 ZORDA™ WG Biological Fungicide, EPA Reg. No. 73049-522, containing the new active ingredient *Bacillus amyloliquefaciens strain PTA-4838* and has never before been registered in Massachusetts.

Moved: R. Berman

Second: M. Nascarella

Discussion: None

In Favor: M. Moore, M. Nascarella, R. Berman, T. LaScola-Miner

Opposed: None

Abstained: None

E. NEW BUSINESS

No new business reported.

ADJOURN

Motion: To adjourn the September 20, 2022, Subcommittee Meeting.

Moved: R. Berman

Second: M. Nascarella

Discussion: None

In Favor: M. Moore, M. Nascarella, R. Berman, T. LaScola-Miner

Opposed: None

Abstained: None