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

January 19, 2021

Meeting conducted remotely via Zoom meeting platform

MEMBERS PRESENT

Michael Moore, DPH, Food Protection Program (Chair)	Present
Taryn LaScola-Miner, MDAR, Designee for Commissioner Lebeaux	Present
Marc Nascarella, DPH, Designee for Commissioner Bharel, MD	Present
Nicole Keleher, DCR, Designee for Commissioner Montgomery	Present
Richard Berman, Commercial Applicator	Present

ALSO PRESENT:

Susie Reed, Department of Agricultural Resources

Hotze Wijnja, Ph.D., Department of Agricultural Resources

A. PRODUCT REGISTRATIONS

The initial motion to register the products listed on the EIPAS PR January 19, 2021 cover sheet was amended based on a written comment from Clint Richmond, who on behave of the Massachusetts Sierra Club, stated to oppose the approval of the product listed as Lambda Cyhalothrin 12.7% EC (EPA Reg. No. 4275-373) given that the active ingredient has a perfluorinated functional group (-CF3). With reference to the recent discovery of PFAS in Anvil insecticide and the Commonwealth's leadership on PFAS, the Sierra Club opposes the approval of additional fluorinated pesticides and cleaning agents such as Lambda Cyhalothrin.

After some consideration later in meeting, Moore proposed to postpone the action on the product registration of the product listed as Lambda Cyhalothrin 12.7% EC to a future meeting to allow staff to look further into the aspect of fluorinated pesticides. Berman stated that this was justified in the context the recent new on PFAS residues in the Anvil insecticide product. LaScola asked about a bifenthrin product and was brought up by Richmond. The bifenthrin product was registered but can be addressed as part of a discussion on fluorinated pesticides at a future meeting.

Motion: That the Pesticide Board Subcommittee registers the pesticide products listed on the EIPAS PR January 19, 2021 Subcommittee cover sheet with the exception of the following products:

- Tough 5EC Herbicide, EPA Reg. No. 91746-5;
- Acora Insecticide, EPA Reg. No. 91234-62-92735;
- Metribuzin 4L EPA Reg. No. 42750-361; and
- Lambda-Cyhalothrin (EPA Reg. No. 4275-373)

Moved: Berman
Second: Keleher
Approved: 5-0

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

- Acora Insecticide, EPA Reg. No. 91234-62-92735, containing methoxyfenozide, and
- Metribuzin 4L EPA Reg. No. 42750-361, containing metribuzin

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 ***methoxyfenozide*** *and* ***metribuzin*** from general to restricted use for groundwater concerns.

Moved: Berman
Second: Keleher
Approved: 5-0

C. SECTION 18 EMERGENCY EXEMPTION REQUEST

The Pesticide Board Subcommittee considered the Recertification Request for Pronamide (Kerb SC, 35.6% a.i., EPA 62719-578) in the 2021 Use Season for the Control of Dodder in Cranberries. Supporting materials were included in the meeting packet. Wijnja introduced the request and noted that this is a repeat request, the same Section 18 exemption was granted by U.S. EPA for the 2019 and 2020 growing seasons. The information indicates that emergency conditions still exist. The process at EPA to add the use on cranberries to the Kerb SC label is ongoing. It was noted that there was Dr. Hillary Sandler from UMass Cranberry Station provided additional information to support this request. Sandler pointed out that dodder weed in cranberry bogs continues to be a problem for certain growers. Where infestations are significant, growers have been able to control dodder and limit its seed production which improves control in subsequent years. It was also pointed out that the restriction for pronamide residues in cranberry for export to the European Union, local cranberry handlers request growers to not use Kerb Herbicide or agree to receive a lower price for fruit. This results in Kerb Herbicide only used by certain growers that deal with significant dodder infestations. Sandler pointed out that the all the conditions described in the 2019 and 2020 request still exist. The only change in this year's request is the start date that was changed from May 1st to 15th of April. This will allow timely application of a warm spring. LaScola asked what additional information was requested by EPA to support a full registration. Sandler indicated that these were studies related to refine human health risk assessments.

Additional discussion was related to a comment from Clint Richmond, submitted by email, stating that the Sierra Club opposes the renewal of this Section 18 exemption for reasons related to (a) carcinogenicity concerns based on the inclusion of pronamide on California's Prop 65 list, (b) aquatic risks, and (c) the fact

that the European Union has much stricter standards for pronamide and does not allow imports of cranberries treated with pronamide products. Sandler clarified that the European stricter standard is based on a conservative approach in the situation where no maximum residue level (MRL) in cranberries has been established. The default residue limit is so low that treated cranberries cannot be imported. Once a full registration on cranberry is in place, the process of establishing a MRL can start and the EU may evaluate the import of cranberries based on newly established MRL value. Wijnja also pointed out that EPA updated the carcinogenicity classification to 'not likely to be carcinogenic to humans'. Wijnja also noted that this aspect has been addressed in discussions of previous requests for this Section 18. Berman inquired about the amount of product used under this emergency exemption. Sandler indicated that there is relatively small number of growers, about 5 to 10, to address heavy infestations. Wijnja indicated that number is reflective of the number of use reports received by the Department. The total amount of product will be included in the final report that is submitted to EPA.

Motion: That due to the lack of currently registered pesticide products for the control of the emergency pest problem, the Pesticide Board Subcommittee approves of a FIFRA section 18 Emergency exemption petition for the use of Kerb SC, EPA Reg. No 62719-578, containing the active ingredient ***pronamide*** for the control of weed pest dodder in cranberries.

This motion also takes into account the following data provided by the Department, the University of Massachusetts Cooperative Extension, and product registrant:

- Application from the Department and/or the University of Massachusetts Cooperative Extension;
- Registrant's letter of support;
- Proposed supplemental labeling;
- And any other data or conditions as included.

Moved: Berman
Second: LaScola
Approved: 5-0

D. EXPERIMENTAL USE PERMIT (EUP) APPLICATION

EUP for the use of 1-aminocyclopropane carboxylic acid (ACC) as a plant growth regulator (used as a thinning agent) on apple and stone fruit.

The Department received an application for an Experimental Use Permit (EUP) application from Valent USA. The application materials were included in the meeting packet. Wijnja summarized the information. The product VBC-30445 contains the active ingredient 1-aminocyclopropane-carboxylic acid (ACC), which is a naturally occurring non-protein amino acid and a precursor in the production of ethylene in plants. Ethylene affects plant processes such as flower development, fruit set, fruit maturation, fruit ripening, and fruit abscission. The purpose of the VBC-30445 application is thinning of apple fruit and stone fruit flower thinning. The objective of the EUP project is to verify the efficacy and crop tolerance of the test product under commercial production methods in various states across the US. EPA's EUP permit is effective to July 1, 2023.

The EUP would allow for the use of this product on apple trees in a number of commercial orchards in Massachusetts. The proposed project plan includes participation of 9 apple orchards in MA. A list of participating orchards can be found in the application materials. The total maximum acreage in MA is 50 acres. Based on the maximum application rate, the maximum amount of product involved would be 18 gallons. The applications would be conducted mainly from February through May, depending on the crop specifics and local conditions.
The testing will be coordinated and supervised by Valent personnel and a UMass Extension Fruit Specialist. Trial coordinator from Valent for the testing in MA is Gregory Clarke, who is based in PA. Jon Clements, a fruit specialist with UMass Extension, is involved as the local coordinator and supervisor. Clements maintains a certification in Research and Demonstration (Category 49).

Supporting documents in the meeting packet included the Massachusetts Application for an Experimental Use Permit, EUP label and SDS, Federal EUP document, administrative document for proposed experimental program, list of potential trial participants in MA, document related to establishment of a temporary tolerances for residues of 1-Aminocyclopropane-1-carboxylic Acid (ACC), and Massachusetts EUP regulations (333 CMR 7.00).

Greg Clarke stated the support from Valent in the proposed trials and will assist with the monitoring of the results. Moore inquired about what would be monitored as part of this project. Clarke stated that the efficiency of fruit thinning, impact on fruit set, and the quality and quantity of fruit will be assessed. The goal of the work is to evaluate the efficacy of the product, which has been determined in a research setting, in commercial growing operations.

Clements stated that he reached out to a number of apple growers across the state for potential participation in the project. Additional assessments of each growing operation will be done as part of the final program and design of the work. It is expected that there will be relatively small area (1-2 acres) in each operation where the product will be used. Additional questions and discussion address the need for fruit thinning in commercial fruit growing, the participation of various growers in various other states. The sign posting requirement in the context of the state EUP permit was elaborated on. It was determined that the final language in the motion that was moved should refer to the sign posting in accordance with applicable regulations in 333 CMR.

Motion: To approve the EUP
Moved: Berman
Second: LaScola
Approved: 5-0

E. NEW ACITIVE INGREDIENT

Pyridate formulated in Tough 5EC Herbicide (EPA Reg. No. 91746-5) and labeled for the postemergence control of annual broadleaf weeds in field corn, chickpea (Garbanzo beans), and mint.

The meeting packet included the product label & SDS, and EPA's document entitled "Memorandum Supporting Decision to Approve Registration for the New Active Ingredient, Pyridate (USEPA, 2020). This EPA

document and additional supporting documents are available at www.regulations.gov, in docket “EPA-HQ-OPP- 2017-0432”

Wijnja summarized the information at the meeting. Pyridate is classified as having low acute toxicity (Category III and IV). It is slightly irritating to the skin (Toxicity Category III) and is positive for dermal sensitization. The nervous system is the toxicological target in studies where pyridate was administered via gavage or capsules and were resolved in less than 24 hours. No evidence of neurotoxicity was observed following subchronic or chronic dietary exposure or in the dermal exposure. There was no evidence of increased susceptibility to the fetus or offspring in the available developmental and reproduction toxicity studies.

Dietary risk was determined to be below the level of concern. No residential exposure is expected based on the use pattern. Pyridate was classified as “not likely to be carcinogenic to humans;” therefore, a cancer dietary assessment was not performed.
All occupational handler scenarios for the registered uses resulted in inhalation risk estimates that are greater than the LOC of 100 and not of concern, with the lowest MOE at 2,900 for mixer/loaders/applicators for mechanically-pressurized handgun applications to typical acreage field crops. A dermal endpoint was not selected for dermal exposure; therefore, a quantitative dermal assessment is not required. Occupational post-application short- and intermediate-term exposures may occur from the pyridate applications to labeled crops but were found to be were not of concern (MOEs 2,900-97,000, with LOC ≤ 100). Under the registered uses, the label required occupational personal protective equipment (PPE) is adequate and not of concern The 12-hour REI listed on the labels is considered protective of post-application exposure.

Environmental fate of the compound is characterized by moderate water solubility and not volatile, immobile in soil and not persistent. Pyridate dissipates in the environment mainly through aqueous photolysis, (half-life of 7.2 days at pH 7.3) which may occur in clear shallow water, aerobic soil metabolism (half-life of 5.77 days), anaerobic soil metabolism (halflifeless than 1 day), aerobic aquatic metabolism (half-life of 1.34 and 2.14 days), and anaerobic aquatic metabolism (half-life of 0.808 and 0.822 days). Under field conditions, pyridate dissipated with a half-life of 3.81 to 8.99 days, mainly attributed to transformation to pyridafol. Residues of pyridate and its transformation product pyridafol did not leach below the 15-30 cm soil depth at four terrestrial field dissipation study sites.

Pyridafol is also a pyridazine herbicide and is considered to have the same mode of action as the parent. The degradate was generally less toxic to animals, represented in the data by fish and aquatic invertebrates; however, aquatic non-vascular plants showed similar sensitivity to pyridafol as to parent. Therefore, for animals only the pyridate parent was assessed. In the aquatic and terrestrial plant assessment, pyridafol was considered to be a residue of concern along with the parent due to its structural similarity to the parent molecule, as well as their similar toxicity to algae.

Based on risk assessment estimates for the registered uses and rates, there were no RQs exceeding the LOC for aquatic invertebrates, fish, or birds. Pyridate formulations can be very highly toxic to aquatic invertebrates on an acute exposure basis, however, the potential for acute or chronic adverse effects on invertebrates from water column exposure is considered low for the registered uses. Fish acute toxicity endpoints for pyridate tended to be above the solubility limit. At the labelled application rates, there are no acute or chronic risk

LOC exceedances for fish. Freshwater fish toxicity data were used as surrogates for estuarine/marine fish and the risk conclusions are the same as freshwater fish because the anticipated exposures are also similar. Pyridate is slightly toxic to birds on an acute oral exposure basis, but practically non-toxic to birds on a sub-acute dietary exposure basis. For acute exposures for birds, both dietary and dose-based RQs (<0.01- 0.28) are below the acute risk LOC (0.5). Chronic RQ values (0.02-0.38) are also below the chronic risk LOC (1). Pyridate is practically non-toxic to mammals on an acute oral exposure basis. The mammalian chronic risk LOC (1) is exceeded for all uses at the maximum application rate of 0.94 lb ai/A for all size classes of mammals consuming plants (RQs up to 9.1) and arthropods (RQs up to 3.5), but not mammals consuming fruits, pods, and seeds. These risk estimates were based on very conservative screening-level assumptions, such as assuming that a mammal would forage for food exclusively on a pyridate treated field.

There were no acute risk LOC exceedances for bees, but there were chronic risk exceedances for bees assuming screening level exposures. The estimated RQs exceed the chronic risk LOC for adult bees. However, these LOC exceedances were based on exposure to active pyridate through pollen and nectar, which is not likely to occur. First, pyridate is a contact herbicide and does not have systemic activity that could lead to residues in the pollen when the plant flowers. Instead, pyridate is absorbed rapidly by plant leaves. It does not offer any residual weed control, which further suggests that, even if it was to translocate to pollen and nectar, it would unlikely be in an active form and therefore not impact foragers. In addition, several of the registered uses do not rely on bees for pollination. For those uses that are considered to be typically pollinator-attractive, including Brassica head and stem vegetables, cabbage, chickpea (garbanzo bean), collards, field corn, mint, and peanuts, not all the crop area would attract bee pollinators as the crops are not likely to be blooming during pyridate applications. The labeled crops make up a small area of US grown crops. As expected from this compound with an herbicidal mode of action, there is potential risk to certain plants. Label language addresses this risk.

The benefits of this new herbicide include that it has value for use in specialty crops specific crops as listed on the label. Pyridate may control some difficult to control and economically important weeds such as redroot pigweed and Palmer amaranth.

EPA required label language to address off-site movement, including language addressing surface runoff and spray drift control.

The compound does not meet the criteria for potential groundwater contaminant as specified in the regulations 333 CMR 12.00.

Motion: that the Pesticide Board Subcommittee approve the product registration for Tough 5EC Herbicide (EPA Reg. No. 91746-5). This product contains the active ingredient Pyridate and has never before been registered in Massachusetts.

Moved: Berman
Second: LaScola
Approved: 5-0

F. NEW BUSINESS

LaScola provided an update on the plan for the discussion of the special review of the neonicotinoids at the upcoming meeting in February. The Subcommittee will be provided with the information and documents, including the IEc literature review, EPA registration review information, the MDAR review on neonicotinoids, and documents related to the public hearing. The Subcommittee further discussed the anticipate process that may take place at the meeting, including the legislative language related to this special review.

LaScola also updated the Subcommittee regarding the receipt of several Section 18 requests for antimicrobial products for use to address the COVID pandemic. Some Section 18s have been granted by EPA in certain states. Staff is reviewing the requests and will prepare information to be considered by the Subcommittee at a future meeting. Additional discussion followed to further clarify the unique nature of these requests in the context of the number of registered products identified by EPA (so-called List N products) and the fact that these requests come from manufactures of products seeking Section 18 exemption without direct support from local user groups.

Berman inquired about the status of the glyphosate special review. LaScola stated that staff is developing a monitoring study on glyphosate occurrence in drinking water sources. The plan is to start sample collection during the upcoming season.

G. ADJOURN THE MEETING

Motion: To adjourn the January 19, 2021 Subcommittee Meeting.
Moved: Berman
Second: LaScola
Approved: 5-0

Meeting adjourned at 10:35 a.m.