PESTICIDE BOARD SUBCOMMITTEE MEETING

MINUTES OF MEETING

April 19, 2019

The Department of Agricultural Resources, 251 Causeway St, FL #5 Conference RM 1 Boston, MA

MEMBERS PRESENT

- Hotze Wijnja, Alternate Designee for Commissioner John Lebeaux
  - Department of Agricultural Resources
- Marc Nascarella, Designee for Commissioner Monica Bharel
  - Department of Public Health
- Richard Berman
  - Commercial Applicator

ALSO PRESENT:

- Susie Reed, Department of Agricultural Resources
- Dr. Hillary Sandler, UMass Cranberry Station

I. Product Registrations

a. Packet number 190416

VOTED

That the Pesticide Board Subcommittee registers the pesticide products in packet number 190416 with the exception of the following product:

1. Definite, Reg. No. 83529-105

Moved: Berman
Second: Nascarella
Approved: 3-0

STATE RESTRICTED USE MOTIONS

RESTRICTED USE AS DEFINED UNDER THE GROUNDWATER REGULATIONS

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

1. Definite, EPA Reg. No. 83529-105 containing ***Acetochlor***

may cause an unreasonable risk to man or the environment, taking into account the economic, social and environmental costs and benefits of 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 ***Acetochlor,*** from general to restricted use for groundwater concerns.

Moved: Berman
Second: Wijnja
Approved: 3-0

II. Consideration for Amendment to Special Local Need (SLN) registrations for the use of Intensity Post-Emergence Grass Herbicide (a.i. clethodim 26.4%), (SLN No. MA-170001), and Intensity ONE Post-Emergence Grass Herbicide (a.i. clethodim 12.6%), (SLN No. MA-170002) to control grass weeds in cranberries

A request for an amendment to existing Special Local Need registrations, In 2017 Pesticide Board Subcommittee registered two SLNs, Intensity Post-Emergence Grass Herbicide, and Intensity One Post-Emergence Grass Herbicide.

The request is to amend the label to allow different application timing windows.

Hilary provided information why timing is critical for the effective use of these herbicides in cranberry growing in Massachusetts.

Clethodim is the Active ingredient in Two SLN products, Intensity, and Intensity One. When these products first came on the market, had a restriction not allowing application from hook, which is when flower pod emerges and starts to hand down after elongating all the way through fruit set, which is a significant time period. Clethodim was applied at different times, unable to replicate the fusion of pedals, replication only happen during ruff neck, which is an early stage of growth. Herbicide works through absorption during that state of growth.

Move: That the Pesticide Board Subcommittee hereby grants a request for Amendment to Special Local Need (SLN) registrations for the use of Intensity Post-Emergence Grass Herbicide (a.i. clethodim 26.4%), (SLN No. MA-170001), and Intensity ONE Post-Emergence Grass Herbicide (a.i. clethodim 12.6%), (SLN No. MA-170002) to control grass weeds in cranberries

Moved: Berman
Second: Wijnja

Approved: 3-0

III. NEW ACTIVE INGREDIENTS

- Discussion of the active ingredient ***Bixafen,*** Lucento Fungicide, EPA Reg. No. 67986-1-70051

Bixafen is a new active ingredient formulated in Lucento Fungicide, EPA Reg. No. 279-3603, co-formulated with flutriafol and labeled for use on corn, soybeans and peanuts. The application rates are low in terms of amount of active ingredients per acre (<0.1 lb/A). The active ingredient belongs to class of pyrazole carboxamides. The mode of action is by succinate dehydrogenase inhibitor (SDHI), which affects the energy generation processes in fungi.

The meeting package included the registration decision the new active ingredient bixafen (USEPA, 2018). This EPA document and additional supporting documents are available at www.regulations.gov , in docket "EPA-HQ-OPP-2016-0538"

The human health toxicity profile is characterized by a low acute toxicity profile, classified in category III and IV; it is not an eye irritant or dermal sensitizer. Target organs are liver and thyroid. Neurotoxicity was limited to decreased motor activity at high doses. Developmental effects included decreased body weights of the fetus. Reproductive studies showed decreased body weight and increased liver weight, however, concerns for potential pre- and postnatal susceptibility from developmental and reproductive effects are low because of endpoints being protective of such effects.

Sub-chronic and chronic studies show some thyroid effects. Results from carcinogenicity studies, it was classified as 'not likely to be carcinogenic to humans'. The Food Quality Protection Act Safety Factor (FQPA) was reduced to 1x based on the existing dataset.

Dietary risk assessment, show the acute Population Adjusted Dose for general population is less than one percent, which is below the level of concern. Occupational risk assessment based on dermal and inhalation exposure, consider baseline personal protective equipment, margin of exposure (MOE) was not of concern. Since bixafen is registered for agricultural use only there is no residential risk expected.

Environmental fate of this chemical is very persistent, moderately soluble in water and being non-volatile. While the octanol-water partitioning coefficient value may suggest potential for bio-accumulation, the rapid removal from the body indicates that it has low potential to bioaccumulate.

Degradation study shows the chemical to be very persistent with field dissipation half-life of 575 days. The bio-degradation is extremely slow. It is slightly mobile in soils. The product label contains groundwater advisory and surface water advisory language to address potential for leaching and run off.

Ecological effects studies show this chemical is highly toxic to fish, moderately toxic to aquatic invertebrates. The aquatic organism toxicity is addressed by label language to inform the applicator about this potential and minimize exposure to aquatic systems.

This chemical is non-toxic on acute basis to birds and mammals. Chronic studies showed potential for reproductive effects but exposure levels are expected to be below the level of concern.

Honey bee studies show this chemical to be practically non-toxic via contact and oral exposure.

Regarding plant, terrestrial dicots and monocot species have some sensitivity to Bixafen during early stage of development.

The overall ecological risk assessment showed risk quotient exceedances for chronic effect on fish. Risk mitigation language was required for the final registration of the label. The potential run off of this chemical is addressed by the surface water advisory on the label.

The consideration of alternatives and benefits assessment of this product points out that this product provides a new chemistry and a new tool for resistance management.

This chemical was unconditionally registered by EPA.

Regarding the Massachusetts groundwater protection regulations, it was pointed out that this chemical does not meet criteria for potential groundwater pollutant.

Move that the Pesticide Board Subcommittee approve the product registrations for the following pesticide products. These products contain the active ingredient ***Bixafen*** and have never before been registered in Massachusetts.

– Lucento Fungicide, EPA Reg. No. 67986-1-70051

Moved: Berman
Second: Nascarella
Approved: 3-0

- Discussion of the active ingredient ***Bacillus amyloliquefaciens strain F727,*** Amplitude (EPA Reg. No. 84059-28)

  The new active ingredient Bacillus amyloiquefaciens strain F727 is formulated in the product Amplitude, EPA Reg. No. 84059-28, and is labeled for use on various crops.

  This biopesticide has both fungicidal and bactericide properties to control plant diseases. It is applied to foliage through ground application and chemigation. Soil treatment is used for certain crops by drench or and soil injection, or in-furrow application before seeding.

  Mode of action is the beneficial rhizobacterium that colonizes plant root hairs to prevent establishment of fungal and bacterial diseases. It also inhibits spore inhibition and mycelial growth.

  Bacillus amyloiquefaciens strain F727 is a strain isolated from a soil in California, studies showed activities against certain bacterial and fungicidal pathogens.

  The meeting package included the registration decision the new active ingredient Bacillus amyloliquefaciens strain F727 (USEPA, 2017). This EPA document and additional supporting documents are available at www.regulations.gov, in docket "EPA-HQ-OPP-2016-0368"

  The acute toxicity studies showed no toxicity or irritation. Acute injection studies showed no evidence of toxicity or pathogenicity. Relative to occupational risk, it was concluded that repeated exposures to microbial proteins can cause allergic sensitization. Therefore handlers are required to wear a respirator.

Relative to exposure potential, EPA points out that Bacillus amyloiquefaciens strain F727 is naturally occurring organism. Regardless of the use of the product, residues may occur on produce. Drinking water exposure is not of concern. Dieaty and other non-occupational exposure is not of concern.

Ecological risk studies with birds and mammals that it is not toxic or pathogenic. Relative to aquatic organism, there is potential exposure through run off and drift, but no adverse effects are expected at the low levels that may occur.

Studies with various non-target insects showed no toxicity at exposure levels that could occur with the applications at the label rate levels. There is no risk expected to non-target plants.

Regarding alternatives for this new active ingredient, it was pointed out that this compound could reduce use of conventional fungicides. Other benefits include that is tolerance exempt.

It was unconditionally registered by U.S. EPA. Relative to the groundwater protection regulations (333 CMR 12.00), it was pointed out that this active ingredient does not meet the regulatory criteria for potential groundwater contaminant.

Move that the Pesticide Board Subcommittee approve the product registrations for the following pesticide products. These products contain the active ingredient **Bacillus amyloliquefaciens strain F727** and have never before been registered in Massachusetts.

– Amplitude, EPA Reg. No. 84059-28

Moved: Berman
Second: Nascarella
Approved: 3-0

- Discussion of the active ingredient **Bacteriophages of Xanthomonas campestris pv. vesicatoria (006449) & Bacteriophages of Pseudomonas syringae pv. Tomato,** in the following products AgriPhage bactericide (EPA Reg. No. 67986-1-70051), AgriPhage-Fireblight bactericide (EPA Reg. No. 67986-8-70051),AgriPhage-CMM bactericide (EPA Reg. No. 67986-6-70051).

  The new active ingredient Bacteriophages of Xanthomonas campestris pv. vesicatoria (006449) & Bacteriophages of Pseudomonas syringae pv. Tomato formulated in three different products. Agriphage Bactericide, EPA Reg. No. 67986-1-70051, labeled for use on tomatoes and Pepper, and Agriphage-Fireblight bactericide, EPA Reg. No. 67986-8-70051, labeled for use on apple and pear, and Agriphage-CMM bactericide, EPA Reg. No. 67986-6-70051 labeled for use on tomatoes. These three products are labeled to control certain bacterial diseases.

  The products provide preventive curative control of certain bacterial disease in a listed of crops. The application of these products is by ground spray to outdoor crops or foliar mist applications in greenhouses. Pre-Harvest Interval is zero days.

  The meeting package included the registration decision the new active o Bacteriophages of Xanthomonas campestris pv. vesicatoria (006449) & Bacteriophages of Pseudomonas syringae pv.

tomato (006521) Fact Sheet (USEPA, 2002). This EPA document and additional supporting documents are available at www.regulations.gov, in docket "EPA-HQ-OPP-2017-0678"

This compound is a biopesticide that is natural occurring organism that ubiquitous in nature, and similar phages are consumed on a daily bases through our diet.

Characteristics of this biopesticide include that it is common in the environment, without known negative effects on human health and non-target organisms. U.S.EPA waived most of the typical studies and reviewed available data and information of the organisms to support the registration decision.

These organisms are prevalent in nature and occur in soil, food and drinking water. These bacteriophages attack the host bacterium causing the cell wall to rupture. Available literature indicates that this compound is non-toxic and non-pathogenic. Furthermore, it is host specific to certain bacterium species. It also dissipates within days.

Based on the properties and characteristics of this biopesticide, there is no risk expected to human health from use of this material when used according to the label. Background exposure already occurs through residue, food and feed. Ecological risk is not expected given the natural occurrence and host specific target of this biopesticide.

Move that the Pesticide Board Subcommittee approve the product registrations for the following pesticide products. These products contain the active ingredient **Bacteriophages of Xanthomonas campestris pv. vesicatoria (006449) & Bacteriophages of Pseudomonas syringae pv. Tomato** and have never before been registered in Massachusetts.

- AgriPhage bactericide, EPA Reg. No. 67986-1-70051
- AgriPhage-Fireblight bactericide, EPA Reg. No. 67986-8-70051
- AgriPhage-CMM bactericide, EPA Reg. No. 67986-6-70051

Moved: Berman
Second: Wijnja
Approved: 3-0

MOTION TO ADJOURN THE MEETING

It was moved, seconded and passed unanimously.

VOTED
To adjourn the April 19, 2019 Subcommittee Meeting.

Moved: Berman
Second: Wijnja
Approved: 3-0

Meeting adjourned at 10:05 a.m.