PESTICIDE BOARD SUBCOMMITTEE MEETING

MINUTES OF MEETING

September 28, 2018

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

MEMBERS PRESENT

- Michael Moore, Chairperson, Director of Food Protection Program
  - Department of Public Health
- Hotze Wijnja, Ph.D., 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

I. MINUTES

VOTED

That the Pesticide Board Subcommittee approves the summary notes for July 20, 2018 meetings.

Moved: Berman
Second: Nascarella
Approved: 3-0-1 (abstention by Moore)

That the Pesticide Board Subcommittee approves the summary notes for August 17, 2018 meetings.

Moved: Berman
Second: Wijnja
Approved: 3-0

II. PRODUCT REGISTRATIONS

a. Packet number 190908-190909

VOTED

That the Pesticide Board Subcommittee registers the pesticide products in packets numbers 190908-190809 with the exception of the following products:

1. Fearless Herbicide, EPA Reg. No. 74530-84 (SRU)
2. Antares Pro, EPA Reg. No. 82534-5-5905 (SRU)

Moved: Berman
Second: Wijnja
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. Fearless Herbicide, EPA Reg. No. 74530-84 containing ***Acetochlor***
2. Antares Pro, EPA Reg. No. 82534-5-5905 containing ***Sulfentrazone***

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,*** and ***Sulfentrazone*** from general to restricted use for groundwater concerns.

Moved: Berman
Second: Wijnja
Approved: 4-0

III. NEW ACITIVE INGREDIENTS

Discussion of the new active ingredient ***Tolpyralate*** (Shieldex 400SC Herbicide, EPA Reg. No. 71512-29-88783)

Tolpyralate is formulated in Shieldex 400 SC, EPA REG. No. 71512-29-88783, and labeled for use on corn. The product label carries the signal word ‘Caution’. The environmental hazard statement includes ground water and surface advisory language.

Shieldex 400 SC Herbicide can be applied up to 2 application per year, rate of 0.035lbs active ingredient per acre.

Tolpyralate belongs to inhibitor class of hydroxyphenylpyruvate dioxygenase (HPPD) compounds.

Product was first registered by U.S. EPA in 2017. The subcommittee meeting package included registration decision document that summarized the information EPA considered for the registration of the new active ingredient.

The toxicological information indicates a low acute toxicity profile, classified in categories III and IV; it is not an eye or skin irritant, or a dermal sensitizer. There were no adverse effects from a single exposure observed in animal studies. Therefore acute end-points were not established.

Chronic toxicity studies showed no observed neurotoxicity or developmental effects. There were immunotoxicity effects in dogs and rat studies, which showed increased incidence of tumors in the eye. Based on this, tolpyralate was classified as 'suggestive evidence of carcinogenicity to humans'. It is pointed out that the reference dose (cRfD) is protective of chronic effects.

Dietary risk assessment indicated exposures were below the level of concern for both acute and chronic exposure. Occupational risk assessment based on required personal protection equipment (PPE) was below levels of concern.

Environmental fate of this chemical shows that the parent degrades rapidly; the major break down product of tolpyralate is a compound that has also herbicidal activity, but is more stable compared to the parent. Tolpyralate is mobile and has very low binding affinity to soil and sediment. Degradates are mobile.

Ecological risk assessment information shows a low toxicity profile for fish and vertebrates, mammals and birds. It is toxic to various plants species and risks were identified for non-target plants.

A benefit of the product is that it provides a new tool that improves the ability of growers to manage herbicide-resistant weeds. Tolpyralate has fewer restrictions for grower (including rotation and tillage restrictions) compared to other HHPD products.

EPA registration required several label language statements, including language to reduce off-site migration of applied material and reduction of exposure to non-targets.

Tolpyralate does not meet the regulatory criteria for potential groundwater pollutant as specified in the regulations 333 CMR 12.00.

Move that the Pesticide Board Subcommittee approve the product registration for the following pesticide product. This product contains the active ingredient ***Tolpyralate*** and has never before been registered in Massachusetts.

1. Shieldex 400SC Herbicide, EPA Reg. No. 71512-29-88783

Moved: Berman
Second: Wijnja
Approved: 4-0

Discussion of the new active ingredient ***Lactofen*** (Mongoose Herbicide, EPA Reg. No. 3470-1119)

Mongoose Herbicide, EPA Reg. No. 3470-1119, label for use on soybeans, cotton, peanuts, conifer seedlings, conifer nurseries, and kenaf.

The product label carries the signal word 'Danger' associated with the corrosive nature of the formulation that may cause skin burns and eye damage and can be harmful when swallowed. In addition, tumors were observed in laboratory animal studies. The environmental hazard statement includes groundwater advisory statement.

Lactofen is a contact herbicide belonging to the class of light-dependent peroxidizing herbicide. The mode-of-action inhibits the chlorophyll biosynthesis.

This active ingredient was first registered by U.S. EPA in 1987. The meeting packet included the Interim Registration Review Decision for Lactofen, which was issued in 2014. Wijnja summarized the information provided in this document.

EPA determined that the dietary exposure was below the established level of concern; there is no residential use of this herbicide and therefore an aggregate exposure was not required. Occupational exposure assessment indicates exposure levels are below levels of concern. No reassessment of food tolerances was necessary.

The hazard profile of lactofen indicates low acute toxicity by oral, dermal and inhalation exposure. Chronic toxicity studies indicated that kidneys and liver are target organs. Based on the observation of liver adenomas and carcinomas in mice and increased incidents of precursors of liver tumors in rats, lactofen has been classified as 'probable human carcinogen'. Developmental effects in a rat study showed adverse effects (excess salivation, lethargy, decreased body weight) to the developing fetus while also eliciting signs of toxicity in the parents.

Sodium acifluorfen are degradate of lactofen found in water and is of concern for chronic risks. Sodium acifluorfen is also registered as an herbicide. It has a similar toxicity profile as the parent, including being classified as a 'probable human carcinogen'.

Environmental fate of lactofen is characterized by low water solubility, rapid degradation and being slightly too hardly mobile. The degradate acifluorfen is more persistent and mobile and therefore of concern for leaching and runoff.

EPA has no concerns for the exposure with lactofen, but did identify concerns for human health effects for the degradate acifluorfen due to potential exposure in water. Wijnja pointed out that acifluorfen is registered in Massachusetts and classified as a state-restricted use chemical.

The ecological risk assessment indicates a low acute toxicity profile. Potential for chronic risks were identified for fish, mammals and aquatic plants. For birds, exposure to degradate was of concern. Low toxicity was identified for invertebrates.

EPA determined that there are potential ecological risks to certain taxa; however, it is also pointed that there are several uncertainties in the risk assessments. EPA considers multiple lines of evidence when making risk management decisions. These are described in detail in the interim decision document.

The agency intends to require additional data, non-guideline studies related to foliar dissipation of this chemical, accurately determined half-life of lactofen and refined risk estimates. These assessments are on-going as part of finalizing the registration review of this chemical.

Lactofen does not meet the regulatory criteria for potential groundwater pollutant as specified 333 CMR 12.00.

Wijnja pointed out that the product's safety data sheet (SDS) did not provide any toxicological information. The Subcommittee concluded that the safety data sheet information is not reflecting the toxicity information that is available in EPA registration review documents. It was suggested that staff contact the registrant for additional information.

Move: motion to table Mongoose Herbicide, EPA Reg. No. 3470-1119, for incomplete information on the SDS regarding toxicological effects.

IV. Discussion of Pesticide Product Registration Approval Process

As a follow-up from last month's discussion on pesticide approval process, Wijnja shared a written statement from Taryn LaScola regarding the possibility to have staff approve routine product registrations that do not require further review by the Subcommittee. The written statement showed the text from Chapter132B, Massachusetts Pesticide Control Act, Section 3A.

The Subcommittee decided to continue the discussion at a future meeting.

MOTION TO ADJOURN THE MEETING

It was moved, seconded and passed unanimously.
VOTED
To adjourn the September 28, 2018 Subcommittee Meeting.

Moved: Berman
Second: Nascarella
Approved: 4-0
Meeting adjourned at 10:00 a.m.