

OPP Docket EPA-HQ-OPP-2014-0818

Environmental Protection Agency Docket Center (EPA/DC)

(28221T), 1200 Pennsylvania Ave.

NW. Washington, DC 20460-0001

Dear Mr. Goodis:

The State-FIFRA Issues Research and Evaluation Group (SFIREG) would like to thank you for the opportunity to comment on EPA's Proposal to Mitigate Exposure to Bees from Acutely Toxic Pesticide Products. SFIREG commends EPA on the development of this document and feels that the approach taken by EPA is an important step in the protection of pollinators. Pollinator protection is a concern shared by all of the states represented by SFIREG. SFIREG offers the following comments, categorized as requested in the federal register notice, to improve the effectiveness of this proposal.

Label Language for Applications to Sites with Bees Present Under Contracted Services

SFIREG strongly supports the approach the Agency is taking in distinguishing different risk scenarios for situations where managed bees are used in agriculture. This approach is completely consistent with the need to manage risks from pesticides based on accurate evaluation of the risks, rather than overly broad responses to mitigate vaguely understood potential risks. We agree that the Agency has identified the exposure scenario that presents the highest risk of exposure to managed bees - use of bees placed for pollination services into blooming crops - and that the use of appropriate label language, placed in the Directions for Use section of the label, is an effective way to mitigate that risk.

As written, State Lead Agencies (SLAs) are most likely to interpret the provisions of this section of the label to:

- Prohibit the foliar application, during bloom, of acutely toxic pesticides, while managed bees are under contract and located on the site of application
- Allow non-foliar applications such as soil drench, seed treatments, through drip irrigation systems, or basal stem applications
- Allow foliar applications during bloom if managed bees are removed from the site of application
- Allow foliar applications while bees are on site but flowering is complete, if permitted by the state pollinator protection plan

Areas needing guidance for interpretation (with SFIREG recommendation for interpretation) are:

Definition of onset of bloom and completion of bloom – SLAs in some states have defined bloom period (onset to completion) using specific criteria of percent of bloom present in a crop, such as in Florida citrus where open blossoms on 10% of trees surveyed is considered onset, and 90% petal drop on surveyed trees is considered completion of bloom. This bloom period was defined in conjunction with the state land grant institution (Institute of Food and Agricultural Sciences, University of Florida). SFIREG recommends that SLAs determine similar bloom periods for specific crop situations utilizing state land grant institution resources.

Definition of site - SLAs are most likely to consider the site of application the extent of the field where the subject crop is located, up to the obvious field boundaries, such as fence rows, irrigation ditches etc. SFIREG recommends that site not be interpreted too broadly, since this will result in the inability of crop producers to adequately protect crops when needed, and would have the counter-productive effect of limiting the areas available to bee keepers for placement of their hives. Beekeepers can make arrangements with crop producers using their services to locate hives as needed for protection of their livestock. If the term “site” is interpreted too broadly, the ability of beekeepers and crop producers to work together could be impaired. We note that in the Worker Protection Standard (WPS) the term “treated area” is used, rather than “site”, and recommend the Agency consider this terminology. SLAs already routinely interpret the term “treated area”.

Declared public health emergency - The portion of the proposed language that provides for applications in the case of a declared public health emergency could be a source of confusion. SFIREG believes that the majority of states will interpret this to be a mosquito born disease outbreak, which, in practice, will not result in a foliar application to a blooming crop. If the Agency is considering other circumstances where this situation may occur, such situations should be spelled out in an interpretive guidance.

Contract - An important part of making the proposed label language effective is clearly defining the meaning of the term “under contract”. We understand that the term will include non-written, verbal contracts, and agreements to place the bees owned by one party on the property of another to provide services, and believe that SLAs will interpret the term as such. Clear communication of this to stakeholders will be an important part of implementation of this policy. A corollary of this interpretation is that managed bees owned by the crop producers themselves are not under contract, and therefore not subject to the conditions of the proposed label language. Although managed honey bees are owned by a limited number of crop producers, pollinators such as bumble bees, alfalfa leafcutting bees, and blue orchard bees are often owned by the crop producer. Crop producers should be also encouraged to protect bees that are not under contract.

SFIREG strongly urges modification of the proposed language to provide for alternative mitigation of risks in specific crop and managed bees scenarios. Although, the proposed language would allow for application while crops are blooming if the bees were no longer “on site”, there will be scenarios where applications can be made while bees are on site and still provide for risk mitigation. The proposed label language needs to be modified to provide for flexibility in application timing and method that will allow crop producers to control pests while still protecting bees. Some of the examples of this that we are aware of are:

Blueberry production – control of the spotted wing drosophila (SWD) – Honey bees and bumble bees are introduced to pollinate blueberries. Under certain circumstances the control of SWD requires applications of insecticides during the bloom period. Blueberry producers must time these applications to periods when bees are not actively foraging (night or under some weather conditions). The language as proposed could prohibit effective control of SWD in blueberries, unless bees are frequently moved and could cause significant crop loss.

Alfalfa grown for seed - Lygus bugs feeding on blossoms, setting seed, and seedpods can reduce seed yield at harvest by 75 to 100%. Alfalfa bloom and peak bee activity coincide with Lygus bug population outbreaks. Growers need to be assured that they can balance insecticides applied for control of Lygus bugs while causing minimal harm to their bees. Mitigation efforts in the past have included applying insecticides in the late evening or early morning when bees are not foraging, and developing and registering insecticides that control Lygus with little harm to bees.

Indeterminate crops, such as strawberries and cucurbits – As acknowledged by the Agency, pest management in crops with indeterminate blooming that benefit from pollination by managed bees, such as strawberries and cucurbits, would be severely limited by the proposed language. It is imperative that alternative mitigation measures be allowed on labels for products used for pest management in these crops.

One suggestion is to provide flexibility in the proposed label language by allowing application of pesticides that are toxic to bees during bloom to crops with contracted pollinators if there is a key pest that must be controlled during bloom and the pesticide has a short RT25 (less than 8 hours). The pesticide would have to be applied when the bees are not foraging and when they would not be foraging within 8 hours (e.g. after blooms close in afternoon as is case with many cucurbits or late evening for other crops in which blooms do not close).

As part of this effort to effectively mitigate risks to managed bees, SFIREG reiterates the need to move all bee protection language from the Environmental Hazard Statement section of the label to the Directions for Use section. This policy should be incorporated into the EPA Pesticide Label Review Manual.

In addition, development of language providing for flexibility in mitigating risks to managed bees need to be added to existing neonicotinoid pollinator protection label language.

It is critical that the Agency allow variations on the proposed language in the Directions for Use between products and use scenarios. The variation in pest protection needs and pollination scenarios make it impossible to define a single set of label directions that will accomplish the goal of allowing risk mitigation to managed bees while allowing effective pest management and crop production.

In order to address the variety of situations that will arise as alternative mitigation language is considered, SFIREG offers to convene a dedicated work group to work closely with OPP to evaluate language options and make recommendations in a timely manner on language that will effectively mitigate risks to managed bees while allowing effective pest management.

The word “commercial” is misspelled in the document as “commerical”. SFIREG recommends that this word be replaced with “contracted”, to provide for beekeeping operations that provide

pollination services, but that may not meet the definition as “commercial” found in some apiary regulations, generally based on the number of hives under management.

State and Tribal Managed Pollinator Protection Plans

SFIREG strongly supports the Agency’s decision to provide states and tribes the opportunity to use the managed pollinator protection plan (MP3) process to provide alternative mitigation for risks to managed bees that are not providing pollination services under contract.

The use of State and Tribe Pollinator Protection plans will allow for the flexibility needed to protect bees through appropriate means, which likely will include Integrated Pest Management and Best Management Practices.

SFIREG has developed guidance for state Pollinator Protection Plans and encourages states to use this guidance for the development of their own plans, which can incorporate the unique resources of the state. MP3s can include measures that mitigate risk to non-commercial beekeepers, native bees, and other pollinators, at the discretion of and according to the interests of the stakeholders in each state or tribe. MP3s can be crafted to improve risk reduction for beekeepers in urban and suburban settings.

SFIREG is also working with the Agency to propose and refine a set of metrics for evaluating the effectiveness of MP3s in mitigating risks to pollinators. As these are developed and implemented, we will work with the Agency to refine risk mitigation.

Uncertainties

SFIREG acknowledges the Agency’s concerns about risks associated with pesticides that are not acutely toxic when applied foliarly, or that may result in impairment of managed bee productivity or health through currently undocumented means. Clearly documented adverse effect to bees caused by insecticides that are toxic to honey bee larvae (such as novaluron or spiroticlofen) or by insecticides that are toxic to bumble bees when applied systemically to linden trees (such as nitroguanidine neonicotinoids) should also be addressed in the Directions for Use. However, identification and mitigation of risks to managed bees that are not as well documented or understood (such as potential synergistic or sublethal effects) is best accomplished using the existing infrastructure of agricultural research, extension, regulatory services, and non-regulatory support services provided by crop producers, suppliers, registrants, universities and other members of the agricultural community. Identification, documentation, and development of mitigation through Directions for Use is a cumbersome and time consuming process that is unlikely to adequately respond to developing situations in time to effectively reduce risks.

Communication and cooperation between beekeepers and crop producers is the most effective and timely method of addressing emerging risks as they become apparent. The MP3 process is predicated on developing and strengthening such communication and cooperation. SFIREG reiterates our support for this process and applauds the Agency for its support of the MP3 development in States and Tribes.

Additional Comments

SFIREG has identified several pesticide active ingredients listed in Appendix A that do not appear to meet the criterion for being acutely toxic to bees.

The acute toxicity data on honey bees (*Apis mellifera*) from the USDA NRCS Windows Pesticide Screening Tool (WIN-PST 3.1) indicates 48-hour LD50s well above 11 µg a.i./bee for amitraz (100 µg a.i./bee), bensulide (24 µg a.i./bee), and diuron (145 µg a.i./bee). In fact, amitraz is the active ingredient in Apivar (EPA Reg. No. 87243-1), an in-hive treatment for Varroa mites.

The acute toxicity data for metaflumizone indicates that it is practically non-toxic to bees with an LD50 of >106 µg a.i./bee and a NOEL of 25 µg a.i./bee (Active Ingredient: Metaflumizone California Dept. of Pesticide Regulation, Public Report 2008-1, January 2008, Tracking ID No.215646).

For cyantraniliprole, the acute toxicity test on bees was not definitive, in that the high dose was only 0.1 µg a.i./bee.

Although SFIREG understands the need for a conservative approach to risk assessment, especially for Tier 1 evaluation, we support the submission of definitive acute toxicity tests according to OCSPP 850.3020 guidelines in lieu of categorizing pesticide active ingredients as acutely toxic due to lack of complete data. It is our understanding that acceptable acute toxicity tests include either a test at the limit dose of 25 µg a.i./bee for 48 hours or a definitive test at least 48 hours up to 96 hours if mortality increases by 10% between 24 and 48 hours. The unnecessary inclusion of the proposed label language to these active ingredients, if not in fact acutely toxic to bees, may place an unnecessary burden on producers.

SFIREG looks forward to working with USEPA on the development of this proposal and the protection of managed and native bees. If you would like to discuss these comments further, please contact Cary Giguere, SFIREG Chair, at 802-828-6531 or cary.giguere@vermont.gov

Sincerely,



Cary Giguere

Full-SFIREG-Chairperson