

Report of ESA SME EPA Liaison; June-July 2019
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1. Update on National Stakeholder Team for Pesticide Safety Education Program

The National Stakeholder Team was formed in October 2012 to strengthen and support the 50 state land-grant university Pesticide Safety Education Programs (PSEP). These programs play vital roles in educating pesticide applicators and other audiences. Meetings are held via conference call approximately every 3-4 months. Typically at these meetings, PSEP principals, who are mostly at land grant universities, provide narrative reports on progress in running their programs. These discussions include funding sources, personnel devoted to the PSEP in the States, work products, etc. The Team maintains a website of resources that are available to pesticide safety educators that can be freely used in their training workshops.

A request for proposals was scheduled to be released on July 15, 2019 with proposals for funding the consensus priority resource development projects due on September 2, 2019. The mechanism for funding involves putting out a call for resources for 11 identified areas of need. If funding is available, than those proposing to work on a resource need will be considered on a competitive basis. The priority areas of resource needs listed include (although not all will have received a commitment for funds) include:

- Factual information covering key issues and facts associated with glyphosate;
- Online and classroom/offline training resource for private pesticide applicators;
- Understanding and preventing cross contamination of home and work spaces;
- In depth discussion on glove types, selection and use;
- Fumigation of stored grain, tape and seal for structures, and/or soil fumigation;
- Certification manual for aquatic pest control;
- Right-of-Way certification manual;
- Resource bank of private applicator information topics;
- Catalog of free open source quality images and graphics;
- Series of free open source short videos (with scripts);
- Short pesticide safety education?PSEP promotional video

2. FIFRA Scientific Advisory Panel (SAP) meeting with additional ESA member experts

On June 11-14, a meeting of the FIFRA SAP convened a meeting at EPA OPP headquarters to provide independent scientific advice to the EPA on proposed guidelines for “Efficacy Testing of Topically Applied Pesticides used Against Certain Ectoparasitic Pests on Pets” (OCSP 810.3300). EPA periodically convenes SAP meetings such as the aforementioned with invited experts, and these meetings can be attended via web access in addition to in person.

For the “Efficacy Testing” meeting, EPA provided a draft update of the 1998 Guidelines (titled “Treatments to Control Pests of Humans and Pets). The new draft guidelines were retitled “Treatments Topically Applied to Pests to Control Certain Invertebrate Ectoparasitic Pests”. The proposed guidelines apply to products “in any topically applied formulation, such as a spray, spot-on, collar, shampoo, or dust, if intended to be directly applied to pets for a pesticidal purpose such as to kill, repel, or control ticks, fleas, mosquitoes, and biting flies”; do not apply “to those products exempt from FIFRA Registration under 40 CFR 152.25, products applied to humans or livestock, or product performance testing described in other agency guidelines”; and, in addition to guidance for testing efficacy against fleas, ticks, mosquitoes, and biting flies, the proposed guideline “also includes testing methods for evaluating efficacy under simulated environmental conditions.”

ESA members invited to the panel meeting as experts for review of the revised draft guidelines included:

- Arthur Appel (Dept of Entomology & Plant Pathology, Auburn University)

- Jerome Hogsette (USDA-Center fo Medical, Agricultural and Veterinary Entomology, Gainesville),
- Weste Osbrink (USDA, Knippling-Bushland Livestock Insect Research Lab, Kerrville, TX),
- Michael Rust (Dept of Entomology, University of California-Riverside),
- Jeff Scott (Dept of Entomology, Cornell Univ).

To obtain some insight into the discussions at the panel meeting, I interviewed Jeff Scott. One insight developed from this discussion concerned public comments submitted by PETA (People for the Ethical Treatment of Animals) and the Humane Society. Both groups desired to see less use (or perhaps none) of animals for testing and supported use of artificial membrane systems with simulated blood. However, this technique did not seem to have support among the panel members owing to issues related to the biology of the ectoparasites and whether they would respond to pesticide treatments similarly as when on an animal body.

Pertinent information about the panel and documents provided by EPA along with public comments can be found at URL <https://www.regulations.gov/docket?D=EPA-HQ-OPP-2019-0161> (EPA-HQ-OPP-2019-0161).

3. Regulatory Actions by EPA

EPA approved the unconditional registration of sulfoxaflor on July 12, 2019 with removal of some restrictions that were in place during the emergency use period and an expansion of crops where the insecticide can be used (<https://www.epa.gov/ingredients-used-pesticide-products/decision-register-new-uses-insecticide-sulfoxaflor>).

This decision raised the ire of advocacy groups, making the newspaper headlines with claims that this was a “bee killing” neonicotinoid insecticide. However, reports of potential adverse effects and linking the decision to the current administration seem based on lack of reading of EPA’s registration decision document, failure to have read the primary scientific literature about sulfoxaflor, and a lack of understanding of how small changes in structure can greatly alter the potency of a compound in targeted physiological systems. In fact, sulfoxaflor is a sulfoxime insecticide (not a neonicotinoid). It does act as an agonist of the nicotinic acetylcholine receptor but binds to a different location on the receptor than the neonicotinoids. For the latter reason, testing has shown that neonicotinoid resistant insects are still susceptible to sulfoxaflor. Furthermore, sulfoxaflor degrades nearly completely in soil to a metabolite that has no bee toxicity concerns. EPA both a Tier 1 and Tier 2 risk assessment, wherein the latter involves analysis of semi-field studies. EPA concluded no concern to honey bee colony health. Sulfoxaflor will be applied as a spray rather than as a seed applied systemic.

4. Regulatory Actions by EPA

On July 18th EPA publicly stated the agency’s decision not to cancel the registration of chlorpyrifos containing products (i.e., via revoking of residue tolerances). Again, the major news outlet headlines and stories tied this decision to the current administration policy that seemingly favors corporate interests over human health. However, if one examines the food residue data and the pesticide use statistics available from the EPA (through 2012) or those available by searching the database managed by the USDA National Agricultural Statistics Service), use of chlorpyrifos is historically low and residues show up in few commodities. When residues are found in food, few samples of the hundreds tested in the USDA Pesticide Data Program will have detectable chlorpyrifos residues. EPA stated it will reconsider the registration and make another decision in 2022 after analysis of more data. EPA stated on the their website for chlorpyrifos, “As a part of the ongoing registration review, we will continue to review the science addressing neurodevelopmental effects of chlorpyrifos.”

The docket for chlorpyrifos regulatory decisions and science documents can be linked at URL <https://www.regulations.gov/docket?D=EPA-HQ-OPP-2008-0850>.