

August 2015: ESA Subject Matter Expert (SME) Report-

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USEPA's 21st Century Toxicology/New Integrated Testing Strategies Workgroup Meeting, 2015. Attend the meeting, represent ESA as subject matter expert.

Committee Meeting with Debbie Stabenow (Ranking Member: US Senate Agriculture Committee) Vis Biopesticide needs, the growing role of USEPA's struggle to deliver timely pesticide alternatives in the wake of the Agency's critical cancelations of effective pesticides used in US IPM Programs. Fostered a discussion on the role of Biopesticides in agriculture today. Fielded questions and directed Stabenow staff to specific federal and private sector experts, contacts in the ESA, USEPA and USDA. Field questions vis USEPA's efforts to fast-track Biopesticide registrations. April, 2014. Communicate ESA's efforts to inform Federal Agencies of pest management needs given the dramatic pesticide policy transition over the past 7 years.

14th ANNUAL NAPPC INTERNATIONAL CONFERENCE: October 21-23, 2014. Actions to stem pollinator declines were the focus of the 14th Annual North American Pollinator Protection Campaign (NAPPC) International Conference in Washington, DC on October 21-23. Attended by leading Administration officials (USDA and USEPA) and key stakeholders.

2015 Great Lakes Fruit Growers Meeting (Traverse City, MI): November 13-15. Presented three presentations: Current EPA and USDA Programs and Management, Pesticides and Bees as well as Current Pesticide and Resistance Issues in Agriculture.

ESA Portland, OR Meeting- Nov. 16-20, 2014. Moderator, Summit, Posters, Various Meetings, etc.

Upper Midwest Spotted Winged Drosophila Summit (MI State Univ.), Traverse City, MI November 24-25, 2014. Presentations, Posters, Task-Meetings and Committee Reports.

Great Lakes Fruit, Vegetable and Farm Market Summit. December 8-11, 2014. Meetings with Tree Fruit, Brambles, Row Crop and Vegetable state Committees. Presented USEPA's latest registrations, biopesticides update and resistance management tactics. Chaired meetings, presented 4 talks, and 4 posters. Two of the Posters and one of the Talks addressed USEPA and USDA changes derived from SME travel to USEPA in Wash. DC over the previous year.

Late 2014 & early 2015 Pesticide Program Dialogue Committee (PPDC) meetings in Washington, DC. Issues: Conditional Registration Tracking System, School IPM-

Expanding Adoption, 21st Century Toxicology, Pollinator Protection, and Endangered Species were addressed. Among the most important updates presented by the USEPA was the **Conditional Registration Tracking System**: which is undergoing a complete rebuilding of USEPA's IT processes designed to make the Agency more assessable. In addition, the Agency is launching a Conditional Pesticide Registration website (<http://www2.epa.gov/pesticide-registration/conditional-pesticide-registration>). The SME's are reviewing this verbiage and returning suggestions to the Agency. The website will monitor and publish data submission and registration processes and approval which should significantly improve pesticide use conformation to Agency decisions. The site also provides a process to check all the data required for conditions of registration and a monitoring mechanism so that those interested can track submission and decision progress.

The Agency and contractors presented another very encouraging presentation on the adoption of **School IPM Programming**. Over the last number of years the Agency has supported a concerted effort to develop, document and educate K-12 schools across the US to adopt IPM strategies, tactics and tools to improve school structural and grounds pest management to reduce student exposure and risks (school.ipm@epa.gov). If you are not aware of this effort please take the time to witness the amazing growth and transformations this IPM programming is effecting across the US.

Since 2010 the Office of Pesticide Programs has endeavored to accelerate its science-based evaluation and registration of new active pest management materials by basing decisions upon sound science while meeting the US's risk management standards. This effort is known as **Toxicity Testing in the 21st Century** which is part of an international effort to base pesticide registration processes upon sound science. The Agency has engaged various US and global science sectors in a process of jointly developing the science to reduce *in vivo* animal testing, increasing the Agency's registration throughput while reducing pesticide exposure risks across the US. Details can be found on line (<http://www.epa.gov/opp00001/science/testing-assessment.html>). A part of this effort is the EPA's Endocrine Disruption Screening Process which is under the 1996 Federal Food, Drug and Cosmetic Act (Sect. 408p). Essentially this effort supports the development of valid *in vitro* means to assess the array of endocrine disrupting chemistry impacts on humans, animals and the environment. It also includes assessment of these chemistries in food, water and the atmosphere. The program includes estrogen, androgen and thyroid pathways and an immense array of analytical systems that require examination and refitting to accomplish the Agency's goals. The Agency continues to work on the following issues and this report is similar to previous reports, but the Agency's approach has not changed other than a cursory update of progress.

From the ESA's perspective, certainly one of the most interesting and important subjects undertaken by EPA's PPDC is the **Pollinator Protection Subcommittee to the PPDC**. This subcommittee is the largest of all advisory bodies under PPDC's mandate. Hardly a day goes by when the USEPA is not mentioned in the US media where bee decline is concerned, therefore even highly placed Agency administrators staff attend these meetings at times. But, to date there are no 'smoking guns' but rather a breadth of issues ranging from nutrition through virus and pesticides. A recent count of potential factors affecting honey bee decline reached fourteen! Obviously some are more important than others and insecticides in particular and pesticides in general are under scrutiny by the Agency where bees are concerned. Thus the PPDC Pollinator Protection Working Group has a number of subgroups which attempt to parse the complexity of decline into small pieces that can be analyzed. The Pesticide Labels subgroup for instance has been working to get a harmonized and protective language for pesticide users. EPA has compiled all existing residual toxicity data into a database which will be publically available in 2015. The Workgroup has also made significant headway on the implementation and communication of Best Management Practices which will be posted on the Agency's web page soon. New applicator training information will soon be required for all new and renewing pesticide users. Several training modules and materials are already in trial settings across the US. Essentially, as these resources are completed they will be posted on the USEPA web page. A final, and very significant, addition to the Workgroups efforts is the **Recommendation for More Uniform and Transparent Bee Kill Investigations**. Additional subsectors of the Pollinator Workgroup are addressing seed treatment and non-bee impacts and protection.

Probably one of the most significant discussions the PPDC organizers prepared was a joint Fisheries and Wildlife Service (Paul Souza) and EPA-OPP (Don Brady) report on the joint Services **Endangered Species Act (ESA)** program status. Most of the presentation and discussion focused on two aspects of the Act's mandate: 1) Endangered Species (ES) Habitat Maps and 2) impinging Pesticide Applications. Currently the Fisheries and Wildlife Service has over 1500 ES range maps which were previously difficult to access and interpret by the USEPA as it sought to restrict Pesticide Application areas near ES habitats as mandated by the ESA. Apparently, the Service and Agency experienced difficulty in exchanging these mandated resources aimed at deriving specific ES protection maps that could be legally enforced where off-target pesticide applications were concerned. At the outset, the Service did not have sufficiently detailed ES maps, and therefore the EPA could not derive sufficiently accurate pesticide spray restriction areas on maps that applicators could use. Yet, the National Agriculture Statistics Service (NASS) does have land use maps of sufficient precision to guide pesticide applications even with sub-acre precision. These Crop Land Data Layer maps together with the Senses of Agriculture data and Services improving

ES maps may now begin to provide the precision necessary for the Services and USEPA to begin to follow through on the mandated regulation under the ESA of pesticides near suspected endangered species habitat. This is a clear 'step forward' in begging a new era of Government cooperation and perhaps progress in protecting and preserving ES and their critical habitats.

Key Summary Issues Discussed for the ESA and other Society SME's in 2015 (continuing into 2016): Phone Call-In.- Currently the SME's from the ESA, Plant Pathologists and the Weed Science Society of America (WSSA) have convened on-line and are planning two or three additional trips to the USEPA in late 2015 and an planned trip in 2016. Our next return to USEPA will be to follow-up upon the **Insecticide and Weed Resistance Action Committees** (IRAC and FRAC) communications with both the USEPA and USDA regarding the EPA's **planning session with the Office of Pesticide Programs (OPP)**. These developments are crucial because Office of Pesticide Programs is currently more open to expert input on bee decline, biopesticides and retention of older pesticide materials to facilitate transition to Agency-delayed registration of alternative materials sufficient to manage key pests in US agriculture.

March through April Comment Period: USEPA- Corn Rootworm Resistance Issues: (SME Invited to Participate)- EPA invited comment, and the SME helped the EPA acquire key ESA researchers to participate by submitting names, addresses and emails to the Agency.

April 16, 2015: Bee-Issues Conference Call-In (ESA's SME Invited to Participate): Three US key Bee Associations- were assembled by Bret Adey to Address Long-term Pollinator decline. Essentially, the National Beekeeping organizations and the National Honey Bee Advisory Board have joined forces to protect bee keepers and "the US food supply in an appeal against the USEPA for its approval of the highly bee-toxic pesticides". These organizations are worried about fourth generation neonicotinoids. The fear is that more neonicotinoids will lead to more colony collapse disorder (CCD), resulting in widespread bee deaths. The SME's role as for the ESA was to participate where invited and provide both input and connection to scientists in the ESA that could more directly address this groups issues. (see: <http://naturalsociety.com/bee-keepers-unite-against-epa-fda-approval-sulfoxaflor/#ixzz3hmcY5Yxt>).

April / May, 2015: ESA-OPP Invited Smart Label Call-In- ESA's SME participated in the call-in and commented upon the site-pest-action processes of XML software and subsequent action-site-pest record keeping processes. The Agency's approach seems to be logical and appropriate. Furthermore, such a documentation process should be very helpful in a number of ways: resistance evolution, pest movement, grower's recognition of key label elements in a straightforward mode.

Attend the USEPA: Pesticide Program Dialogue Committee Advisory Meeting in WA, DC May 14-15, 2015. Highlights of the meeting: 1-For the first time in almost 3 years the Agency addressed the Endangered Spp. Act and the Agency's strategies and tactics to address the Agency's responsibilities. 2) Key issues of proximity (pesticides), drift and other transport routes was discussed (since 2013)! The Agency is again reviewing the data demands necessary for addressing spatial issues and will seek future assistance in this effort (I presume through systems similar to CDMS services). The Agency is also reaching out, under the Endangered Species Act, to seek expanded assistance in other Services and Agencies. Again, this was an encouraging step for someone like me, who has labored for almost 18 years on these issues! Finally, the USEPA is again moving ahead... Certainly issues of proximity, drift, water transport, and ever improving pesticide delivery could actually lead to effective ESA enforcement!

Submitted comments to USEPA's **Public Health Workgroup (Pesticide Program Dialogue Committee subgroup)** is also moving ahead with other agencies and services including the CDC, NIFIES, NPS, USEPA Office of Water, etc. As reported earlier, this government effort is encouraging, but the USEPA has a tall mountain to climb if meaningful changes will actually be implemented in the near future.

Pollinator Protection (see earlier comments under PPDC) working group is moving ahead slowly. This EPA Committee is debating enforcement actions, seed treatments implications together with treated seed exemptions, State vs Federal responsibilities, development and measures of ecological diversity measures, actual benefits measure implementation of specific management practices (the US Government Agencies and Services are still engaging these issues with some promising movement ahead...USEPA and the Services have recently re-engaged in dialogue). Finally, adapting responsible public policy within the Right-to-Farm movement is still a challenging front given the Endangered Species Act and emerging pesticide policy for the USDA, USEPA and the Services. There remains an array of issues and policy promulgation through tangled political processes before pollinator protection policies actually can be measured and evaluated in a scientific sense.

Other Important, Ongoing or Emergent Issues:

Smart Labels: see previous comments and visit USEPA's web page.

Glyphosate Work Group reports: see the USEPA's published on-line Records.

Comparative Efficacy Claims: This is a growing arena in the Agency, and it will afford an opportunity for those in the ESA who have been working on Resistance Terms to weigh into the process. The USEPA will expect that Societies like the ESA will be key input sources in the future.

School IPM: Is growing nationally, and the USEPA's support has dramatically expanded this program's impacts. One should expect broader adoption and significantly improved School IPM Education penetration in the coming years as a result of USEPA's efforts to make School IPM a 'national concern' thanks to a litany of entomologist's efforts to raise this issue to the USEPA! The progress is measurable and impressive!

The USEPA's Endocrine Disruption Program: Will be a focus of the next PPDC meeting in late 2015.

Pseudo-Legal Cannabis: The USEPA may take this issue on as they have initiated an input process to the public. For USEPA Docket Identification please see the Agency's post using EPA-HQ-OA-2011-0157.

Bedbugs: An ever recycling issue, USEPA is revisiting this issue with a number of media statements for public warning and education.

The Worker Protection Standard: EPA will present an update of the Agency's progress at the next PPDC meeting in September, 2015.