Pollinator News  

March 31, 2017

Georgia Beekeeper Takes Action

You see the darnedest things driving down the street! A Georgia beekeeper Julia M., came upon a spill coming from a lawn care company truck in her neighborhood last week. “I followed the driver and he was very nice and told me that it was a normal spillage that happens when the fluid that was just pumped up just spills a little bit. This was not a “little bit” and I am very disturbed about these chemicals being dumped in my neighborhood to wash down the storm drains.” So, Julia turned on the camera on her cell phone and recorded the “little bit” of spillage from the truck. This video shows what was happening every time this truck hit a speed hump or even bump in the road. This was in the span of a few blocks.

Julia called the corporate office of the company in Atlanta and “the woman with whom I spoke didn’t seem to know where to direct my call. After a brief hold I was disconnected.” Julia sent this video to the Georgia Dept. of Agriculture. She then contacted the Pollinator Stewardship Council as to other important places to report this spill. We connected her directly to the EPA in Washington. We called our EPA contact and advised them of the incident and that an email was being sent by a Georgia beekeeper to EPA. EPA responded to Julia M. within a half hour of her email to them. The EPA contacted the corporate office in Atlanta, as the beekeeper had gotten the tag number off of the truck. The beekeeper also forwarded the video and information about the spill to her city councilman, who stated they would “cite the company, at the least.”

This Georgia beekeeper learned the importance of reporting pesticide incidents while attending the Georgia Beekeepers Conference in February. Pollinator Stewardship Council spoke at the Conference of the importance for collecting the data of pesticide related incidents, and that all of us must be the “somebody” who speaks out for our bees and the ecosystem. Spillage as shown in the video of pesticides from a truck violates the pesticide label directions. Thank you to Julia M. who reported this spill, who had the foresight (and good driving skills) to film the pesticide spill, and for taking action to call the company, to call her city councilman, and to contact Pollinator Stewardship Council so we could assist her in contacting EPA.

VIEW THE VIDEO OF THE TRUCK SPILLING PESTICIDES HERE

https://youtu.be/g6GFyQ9X7kU
Meeting with EPA

The Pollinator Stewardship Council and American Beekeeping Federation sent a letter to the new EPA Administrator, Scott Pruitt, seeking a meeting to discuss bee industry concerns. A meeting was held March 29 in Washington, D.C. at EPA headquarters. Beekeepers, Bret Adee, President of Pollinator Stewardship Council, Tim May, Vice President of American Beekeeping Federation, and Jim Garrison, President of Tennessee Beekeepers Assn, and Board member for Pollinator Stewardship Council were joined by Larissa Walker, Pollinator Program Director, Policy Analyst for Center for Food Safety. They met with Byron Brown, Deputy Chief of Policy, Wendy Cleland-Hamnet- Office of Chemical Safety & Pollution Prevention, and Richard Keigwin, Acting Director of EPA’s Office of Pesticide Programs. Meeting with policy makers and legislators can never be all inclusive, as the message would simply get lost in the myriad of issues and concerns for our pollinators. We provided these policy makers with top concerns, supported by research, and personal experience of beekeepers’ losses and struggles to maintain financially and physically sustainable beekeeping businesses.

Bee industry concerns

1- Benefit cost analysis of registered pesticides examines only the benefits to growers, forgetting the costs associated with losses to integral stakeholders in crop production. When crop production is decreased food prices increase.

2- The dual labels meant to protect honey bees and native pollinators (bumble bees, orchard bees, etc.) under a contract for pollination services and those pollinators not under a contract does not protect any pollinator. The State Pollinator Plans are not enforceable, and have no funding behind them. For many in rural America beekeeping is a sideline, supports small farm crop production, and generates income for family beekeeper farmers.

3- Fungicides, Insect Growth Regulators, tank mixes, and adjuvants are impacting the health of honey bees. None of these products are tested as to their impact upon pollinators, and none of them are labelled as impacting pollinators. Beekeepers want farmers to have all the information they need to make positive decisions for their crop, and other agricultural stakeholders near-by.

4- Sulfoxaflor applications to crops were adjusted helping to reduce exposure of this bee toxic pesticide to pollinators. Risk assessments need to be completed on similar pesticides.
Deadline EXTENDED until April 19th: Take Action for honey labels

to TAKE ACTION go to http://pollinatorstewardship.org/?page_id=5167

The Food and Drug Administration (FDA) has issued guidance for nutrition labels. Beginning in 2018 FDA will require packaged honey to include on the nutrition label both “Total Sugars” and “Added Sugars”. However, FDA does not distinguish between the two. Labels will need to include the same amount of grams of sugar under each category e.g. “17 grams of Total Sugar” and “17 grams of Added Sugars.” Keep in mind, products sold by companies qualifying for small business exemptions are one exception to this requirement. Small business exemptions are available for products sold in small volume (fewer than 100,000 units per year) by small companies (fewer than 100 employees). This label change will not affect all beekeepers immediately. Eventually, it will create confusion across the honey industry and mislead the consumer about a natural product that is in actuality a healthier sweetener to add to food than processed white or brown sugar.

Additionally, FDA is requiring even fruit juices (with no corn syrup or sugar added) to also note on their labels “added sugar” and “total sugar.” The Citrus industry has secured an exemption. However, this label will simply be misleading to the consumer. FDA seeks to advise consumers about the “added sugar” to their diet, but this label will imply honey has “added sugars” to the honey, when it does not. Besides honey and maple syrup, and even the juice of fruit contain natural sugars, not “added sugar.”

Send in your comments concerning this confusing label FDA seeks to establish at http://pollinatorstewardship.org/?page_id=5167
EPA Administrator Pruitt Denies Petition to Ban Widely Used Pesticide

03/29/2017

WASHINGTON – March 29, 2017 “The U.S. Environmental Protection Agency (EPA) Administrator Scott Pruitt signed an order denying a petition that sought to ban chlorpyrifos, a pesticide crucial to U.S. agriculture.

“We need to provide regulatory certainty to the thousands of American farms that rely on chlorpyrifos, while still protecting human health and the environment,” said EPA Administrator Pruitt. “By reversing the previous Administration’s steps to ban one of the most widely used pesticides in the world, we are returning to using sound science in decision-making – rather than predetermined results.”

“This is a welcome decision grounded in evidence and science,” said Sheryl Kunickis, director of the Office of Pest Management Policy at the U.S. Department of Agriculture (USDA). “It means that this important pest management tool will remain available to growers, helping to ensure an abundant and affordable food supply for this nation and the world. This frees American farmers from significant trade disruptions that could have been caused by an unnecessary, unilateral revocation of chlorpyrifos tolerances in the United States. It is also great news for consumers, who will continue to have access to a full range of both domestic and imported fruits and vegetables. We thank our colleagues at EPA for their hard work.”

In October 2015, under the previous Administration, EPA proposed to revoke all food residue tolerances for chlorpyrifos, an active ingredient in insecticides. This proposal was issued in response to a petition from the Natural Resources Defense Council and Pesticide Action Network North America. The October 2015 proposal largely relied on certain epidemiological study outcomes, whose application is novel and uncertain, to reach its conclusions.

The public record lays out serious scientific concerns and substantive process gaps in the proposal. Reliable data, overwhelming in both quantity and quality, contradicts the reliance on – and misapplication of – studies to establish the end points and conclusions used to rationalize the proposal.

The USDA disagrees with the methodology used by the previous Administration. Similarly, the National Association of State Departments of Agriculture also objected to EPA’s methodology. The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Scientific Advisory Panel (SAP) also expressed concerns with regard to EPA’s previous reliance on certain data the Agency had used to support its proposal to ban the pesticide.

The FIFRA SAP is a federal advisory committee operating in accordance with the Federal Advisory Committee Act and established under the provisions of FIFRA, as amended by the Food Quality Protection Act of 1996. It provides scientific advice, information and recommendations to the EPA Administrator on pesticides and pesticide-related issues regarding the impact of regulatory decisions on health and the environment.” (from https://www.epa.gov/newsreleases/epa-administrator-pruitt-denies-petition-ban-widely-used-pesticide-0)
Additional information about this policy change can be found at:

Order Denying Petition to Revoke All Tolerances for the Pesticide Chlorpyrifos
www.epa.gov/ingredients-used-pesticide-products/order-denying-petition-revoke-all-tolerances-pesticide

Chlorpyrifos EPA Hosted Web Pages:
Chlorpyrifos Basic Information and Regulatory History: www.epa.gov/ingredients-used-pesticide-products/chlorpyrifos

Chlorpyrifos affects the nervous system

From the National Pesticide Information Center, “Chlorpyrifos affects the nervous system of people, pets, and other animals the same way it affects the target pest. Signs and symptoms can appear within minutes to hours after exposure. These effects can last for days or even weeks. During this time, the body is replacing the depleted enzymes in the nervous system so it can function normally again.”

“Exposure to small amounts of chlorpyrifos can cause runny nose, tears, and increased saliva or drooling. People may sweat, and develop headache, nausea, and dizziness. More serious exposures can cause vomiting, abdominal muscle cramps, muscle twitching, tremors and weakness, and loss of coordination. Sometimes people develop diarrhea or blurred or darkened vision. In severe poisoning cases, exposure can lead to unconsciousness, loss of bladder and bowel control, convulsions, difficulty in breathing, and paralysis.”

“Chlorpyrifos moves to all parts of the body after exposure. Chlorpyrifos itself is not toxic, but when the body tries to break it down, it creates a toxic form. This toxic form, called chlorpyrifos oxon, binds permanently to enzymes which control the messages that travel between nerve cells. When chlorpyrifos binds to too many of the enzymes, nerves and muscles do not function correctly. The body then must make more enzymes so that normal nerve function can resume. The body can break down and excrete most of the unbound chlorpyrifos in feces and urine within a few days. Chlorpyrifos that finds its way into the nervous system may stay there much longer.”

When chlorpyrifos gets into the soil, it can take weeks to years for all of the chlorpyrifos to break down. Chlorpyrifos in the soil may be broken down by ultraviolet light and chemicals in the soil. Soil temperature and pH level may also affect how long chlorpyrifos stays in the soil. Chlorpyrifos will break down more slowly in acidic soils than in basic soils.

Once chlorpyrifos is in the soil, it sticks very strongly to soil particles. Plant roots won't usually pick it up, and it won't easily get into groundwater. Chlorpyrifos may wash into rivers or streams if erosion moves the treated soil. One of the breakdown products of chlorpyrifos, called TCP, does not bind to soil and may get into groundwater.
Most of the chlorpyrifos applied to plant leaves will evaporate, but some may remain for 10 to 14 days. Chlorpyrifos or the chemicals it breaks into may get into the atmosphere and travel long distances. Researchers found chlorpyrifos in indoor air, dust, carpets, and on children's toys in homes where products with chlorpyrifos in them had been used.

Chlorpyrifos is very toxic to many bird species such as grackles and pigeons, and it is moderately toxic to others such as mallard ducks. Mallard ducks fed chlorpyrifos laid fewer eggs and raised fewer ducklings. The eggshells were thinner than normal, and many of the young ducklings died. Of all birds, robins are most often found dead following accidents involving chlorpyrifos use.

Chlorpyrifos is also very toxic to fish and aquatic invertebrates. It may build up in the tissues of fish and other animals that eat smaller animals. This is known as bioaccumulation.

Chlorpyrifos is very toxic to bees. It can poison non-target insects for up to 24 hours after it is sprayed. Chlorpyrifos can be toxic to earthworms for up to 2 weeks after it is applied to soil.

Find more information at [http://npic.orst.edu/factsheets/chlorpgen.html](http://npic.orst.edu/factsheets/chlorpgen.html)

READ OUR RESPONSE ABOUT CHLORPYRIFOS HERE

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See us at

- **Kent Environmental Council, OH**  
  March 31, 2017

- **Harrison Cty. Beekeepers, OH**  
  April 8, 2017

- **Crop Pollination Assn., Australia**  
  May 16, 2017

- **Celebrate Ohio Pollinators Week**  
  June 17-25, 2017

- **Heartland Apiculture Society, IN**  
  July 13-15, 2017

Michigan Commercial Beekeepers Assn. Conference  
July 28, 2017

Eastern Apiculture Society, DE  
July 31- Aug. 2, 2017

Miami Valley Beekeepers, OH  
Sept. 11, 2017

Quad Cities Pollinator Conf., Iowa  
Sept. 13-14, 2017

No. Colorado Beekeepers Assn.  
Sept. 21, 2017

Tennessee Beekeepers Assn. Conf.  
Oct. 20-21, 2017
Our Outreach- March 2017

Since February, the Pollinator Stewardship Council has given seven presentations to bee keeping and community groups, participated in the Bluegrass Bee School, and was a featured speaker at the Massachusetts Beekeepers Spring meeting. Working an average of 59.21 hours per week the Program Director spoke with 235 people total at those events. Serving as a resource the Program Director provided referrals for:

- Georgia Bee Kill report “how to” information to Beekeeper
- support letter to Wisconsin Children’s Museum
- talk with Georgia beekeeper-license plates to support bees
- seek info from MD, LA, VA on their license plates-refer them to Georgia beekeeper
- collect bee kill incident report for California
- talk with beekeeper and advocate about pollinator legislation
- contact CO state beekeepers about a media article
- Indiana beekeeper- habitat referral given
- Calif. beekeeper- glyphosate research info. provided
- Texas Beekeepers- SB 1172 information
- bee sample information criteria to a beekeeper
- talk with beekeeper re: Calif. Pollinator Bill: gave referrals
- mulch and pesticides information provided to PA beekeeper
- Pollinator Protection Plan information to VA beekeeper
- Connect GA beekeeper with EPA concerning pesticide spill (see video at https://youtu.be/g6GFyQ9X7kU)

Research

An Inert Pesticide Adjuvant Synergizes Viral Pathogenicity and Mortality in Honey Bee Larvae

Julia D. Fine, Diana L. Cox-Foster & Christopher A. Mullin

Honey bees are highly valued for their pollination services in agricultural settings, and recent declines in managed populations have caused concern. Colony losses following a major pollination event in the United States, almond pollination, have been characterized by brood mortality with specific symptoms, followed by eventual colony loss weeks later. In this study, we demonstrate that these symptoms can be produced by chronically exposing brood to both an organosilicone surfactant adjuvant (OSS) commonly
used on many agricultural crops including wine grapes, tree nuts and tree fruits and exogenous viral pathogens by simulating a horizontal transmission event. Observed synergistic mortality occurred during the larval-pupal molt. Using q-PCR techniques to measure gene expression and viral levels in larvae taken prior to observed mortality at metamorphosis, we found that exposure to OSS and exogenous virus resulted in significantly heightened Black Queen Cell Virus (BQCV) titers and lower expression of a Toll 7-like-receptor associated with autophagic viral defense (AmToll). These results demonstrate that organosilicone spray adjuvants that are considered biologically inert potentiate viral pathogenicity in honey bee larvae, and guidelines for OSS use may be warranted.

READ MORE  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5238421/

How to Eat a Plant: Phytochemical Detoxification in Bees vs. Butterflies
Dr. May Berenbaum, University of Illinois

Dr. Berenbaum will re-present her award presentation as the 2016 Sterling B. Hendricks Lectureship Awardee. Dr. Berenbaum is an entomologist whose research has focused on the chemical mechanisms underlying interactions between insects and their host plants. Insects produce a wide variety of chemical compounds for combating predators, detoxifying poisonous substances, securing and preserving food, and otherwise exerting control over their environment. Along with her path-breaking scientific discoveries, Dr. Berenbaum has had a major impact on the environmental sciences through her public engagement. With her commitment to making complicated scientific subjects, especially entomology, accessible for the public, she has become one of the leading public authoritative sources for information on insects in the country.


Commercial management, mass breeding, transport and trade in pollinators outside their original ranges have resulted in new invasions, transmission of pathogens and parasites and regional extinctions of native pollinator species.

www.pollinatorstewardship.org

Read more at
http://www.ipbes.net/sites/default/files/downloads/pdf/spm_deliverable_3a_pollination_20161124.pdf
Honey Bees Continue to Face Serious Challenges

By Julie Shapiro

The Honey Bee Health Coalition is a broad coalition of more than 40 North American companies and organizations — including beekeepers, farmers, researchers, conservation organizations, agribusinesses and government agencies — developing and implementing science-based strategies to support honey bee health.

The Coalition’s charter borrows from Keystone’s work with numerous coalitions, including a dedication to science-based decision making and deliberation. The charter underscores the Coalition’s commitment to represent all of its members, which range from small associations to large companies working in beekeeping, agriculture, farming, and conservation. The Coalition’s charter is emphatic that members’ voices are not weighted based on their financial contributions to support its work; rather, the Coalition values each member for their substantive input and collaborative steps to support honey bee health. Regardless of level of financial or in-kind support, each member organization has an equal voice in the Coalition’s consensus-based decision-making process. It is through this consensus process that members identify priorities and initiatives to work on together.

The Coalition’s members might not agree on everything — in fact, they may disagree on particular issues — but they understand that investing in areas of agreement can yield tremendous progress and support honey bee and pollinator health.

There is no one factor behind the challenges honey bees are facing, and there is no silver bullet to reversing colony health declines. That’s why the Coalition has developed a series of resources and initiatives aimed at improving honey bee health.

Honey bees — and broad swaths of North America’s agriculture and food production — continue to face serious challenges. The Coalition is committed to continuing to collaboratively work toward its goals to:

- Improve and sustain honey bee health at all levels of beekeeping;
- Identify and implement novel solutions to major honey bee health challenges;
- Enhance effective communications and collaboration among diverse private sector, public sector, academic, and NGO stakeholders with interests related to beekeeping, pollination, and agriculture production; and,
- Utilize sound science and evidence for decision making.

The Pollinator Stewardship Council has been an essential member of the Coalition. Its work and support for working with the Coalition’s diverse members have both helped us achieve great things since 2014. We look forward to continuing to partner with you and your members to promote honey bee health. To learn more about the Coalition visit honeybeehealthcoalition.org

Shapiro is the facilitator of the Honey Bee Health Coalition and a senior policy director at the Keystone Policy Center, a nationally recognized nonprofit working to find collaborative, actionable solutions to public policy challenges. Keystone operates under a statement of independence to serve all of its project participants.
We are a member of the Honey Bee Health Coalition


HBHC Varroa videos:

Varroa mite PSA - https://www.youtube.com/watch?v=p4titRjZuOQ
Video 1 - IPM - https://youtu.be/aFILPZ5KbgU
Video 2 & 3 - Sampling methods - https://youtu.be/IgPfT9FQxLc
Video 4 - Essential oils - https://youtu.be/fsm0RurGz10
Video 5 - Using Apivar - https://youtu.be/pCq_Pu1iFeo
Video 6 - Using Apistan or Checkmite+ - https://www.youtube.com/watch?v=nsbY1nuUReY
Video 7 - Formic acid - https://www.youtube.com/watch?v=6PK5BTjexSs
Video 8 - Using HopGuard - https://www.youtube.com/watch?v=rOlafuIBBf0&t=8s
Video 9 - Using Oxalic Acid - https://www.youtube.com/watch?v=Sp-9eD3Sgww
Video 10 - Using sanitation, screen bottoms - https://www.youtube.com/watch?v=U7Axy5JVDC
Video 11 - Using drone brood removal - https://www.youtube.com/watch?v=j17ASztxEgs
Video 12 - Using requeening - https://www.youtube.com/watch?v=GnPBIStvC60

Tools for Varroa Management http://honeybeehealthcoalition.org/varroa/
Quick Guide to Reporting A Bee Kill http://pollinatorstewardship.org/?page_id=3292
Beekeeper Guide http://honeybeehealthcoalition.org/tools-and-resources/#hm
Grower Guide http://honeybeehealthcoalition.org/tools-and-resources/#hm
The Bee Understanding Project: View the first film at this link https://vimeo.com/149238870
Seeds for spring flowers for honey bees!

Pollinator Stewardship Council has partnered with Ohio Prairie Nursery in support of pollinator habitat. You can get native seeds for eastern U.S. planting zones here. Select “Support our Cause” (http://www.ohioprairienursery.com/?ref=pollsteco) to view featured seed selections to benefit pollinators. A portion of sales generated from our website will help support our work.

Seeds for honey bees WEST of the Mississippi

To increase plant biodiversity, improve gardens yields, and make a positive difference for the future, plant for pollinators WEST of the Mississippi with bbbsseed. The Plant for Pollinators Project, developed by bbbsseed, offers a discount on their pollinator mixes. Go to their website, find and enter the discount code, and Plant For Pollinators! https://www.bbbseed.com/articles/plant-for-pollinators-project/

Betterbee Has Seeds for Pollinator Habitat

Betterbee was at the Massachusetts Beekeepers Assn. Spring Meeting offering a variety of seed mixes for beekeepers to plant. You can find seven seed mix varieties at their website http://www.betterbee.com/pc_combined_results.asp?tab=product&search_prod=((searchlike~p.sku~seeds|Or|searchlike~p.nm~seeds|Or|searchlike~p.search_terms~seeds|Or|searchlike~p.searchfield7~seeds)|Or|searchlike~p.child_rollup_search_terms~seeds|Or|searchlike~p.search_terms~seeds)&search_keyword=seeds

Planting forage for our bees is important; and beekeepers can lead by example!

Pollinator Stewardship Council
1624 Idlewood Ave., Akron, OH 44313
832-727-9492 www.pollinatorstewardship.org

We are also on facebook

A COPY OF THE OFFICIAL REGISTRATION AND FINANCIAL INFORMATION MAY BE OBTAINED FROM THE APPLICABLE REGULATORY DEPARTMENT/ DIVISION WITHIN EACH STATE (LISTED BELOW) BY CALLING TOLL-FREE WITHIN THE STATE. REGISTRATION DOES NOT IMPLY ENDORSEMENT, APPROVAL, OR RECOMMENDATION BY THE STATE. For more information go to http://pollinatorstewardship.org/?page_id=5048
We are member supported! The Pollinator Stewardship Council is a nonprofit organization; donations are tax deductible.

Butterfly Pavilion
https://www.butterflies.org/

A.H. Meyer & Sons, Inc.
http://www.ahmeyerandsons.com/

People and Pollinators Action Network
http://www.peopleandpollinators.org/

Seib’s Hoosier Honey
http://www.seibshoosierhoney.com/

Strachan Apiaries
https://www.strachanbees.com/

Sunshine Apiary, Inc.
https://www.facebook.com/sunshineapiary

Tennessee Beekeepers Assn.
http://www.tnbeekers.org/

Empire State Honey Producers Assn.
http://www.eshpna.org/

Smith Farm Pure Honey
www.smithfarmpurehoney.com/

Randy Oliver
http://scientificbeekeeping.com/

Browning’s Honey Co., Inc.
http://www.browninghoney.com/

Wilson County Beekeepers Assn.
http://wilsoncountybeekeepers.org/

Hackenberg Apiaries
http://hackenbergapiaries.org/

Nashville Area Beekeepers Assn.
http://nashbee.org/

Delta Bee Club
http://www.deltabeeclub.org/

Colorado State Beekeepers Assn.
http://coloradobeekers.org/

Heartland Apicultural Society
http://www.heartlandbees.org/

Portage County Beekeepers
http://www.portagecountybeekeepers.com/

Bee Culture
http://www.beeculture.com/

Beekeepers of Middle Tennessee
http://bomtn.org/

WILSON COUNTY BEEKEEPERS
The Wilson County Beekeepers Association of Middle Tennessee

Miksa Honey Farms
Queens & Queen Cells (Florida)

Browning’s Honey

Butterfly Pavilion

Hackenberg Apiaries
Old Mill Honey Co.
Foothill Honey Farms
Wind River Honey Co.
Miksa Honey Farms
California-Minnesota Honey Farms
Rick Smith
Bob McDonell
Samuel Hall
Headwaters Farm
Hiatt Honey, LLC
South Dakota Beekeepers Assn.
Bret Adee
Red-Headed Honey

Indian Run Apiary
California Apiaries, LLC
Sunrise Feed & Supply
http://sunrisefeed.com/

Kentucky State Beekeepers Association
http://www.ksbabekeeping.org/
Geauga County Beekeepers
http://www.geaugacountybeekpekers.org/
Nature's Own Designs Apiary Products
http://nodglobal.com/
Essex County Beekeepers’ Assn.
http://www.essexcountybeekpekers.org/index.shtml

Los Angeles County Beekeepers Assn.
http://www.losangelescountybeekpekers.com/
Pennsylvania State Beekeepers Assn.
http://www.pastatebeekpekers.org/
Beekeepers Working for Beekeepers

The Board and Program Director are all beekeepers. We work to:

- Raise awareness about the adverse impact of pesticides on pollinators critical to the supply of food and the ecosystem.
- Provide advocacy, guidance, and tools to document the detrimental effect of pesticides on pollinators.
- Affect regulatory processes of pesticide risk assessment, label, and enforcement.