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EPA Releases the First of Four Preliminary Risk Assessments for Insecticides Potentially Harmful to Bees

The EPA has announced a preliminary pollinator risk assessment for the neonicotinoid insecticide, imidacloprid, which shows a threat to some pollinators. EPA's assessment, prepared in collaboration with California's Department of Pesticide Regulation, indicates that imidacloprid potentially poses risk to hives when the pesticide comes in contact with certain crops that attract pollinators.

"Delivering on the President's National Pollinator Strategy means EPA is committed not only to protecting bees and reversing bee loss, but for the first time assessing the health of the colony for the neonicotinoid pesticides," said Jim Jones Assistant Administrator of the Office of Chemical Safety and Pollution Prevention. "Using science as our guide, this preliminary assessment reflects our collaboration with the State of California and Canada to assess the results of the most recent testing required by EPA."

The preliminary risk assessment identified a residue level for imidacloprid of 25 ppb, which sets a threshold above which effects on pollinator hives are likely to be seen, and at that level and below which effects are unlikely. These effects include decreases in pollinators as well as less honey produced. For example, data show that citrus and cotton may have residues of the pesticide in pollen and nectar above the threshold level. Other crops such as corn and leafy vegetables either do not produce nectar or have residues below the threshold. Additional data is being generated on these and other crops to help EPA evaluate whether imidacloprid poses a risk to hives.

The imidacloprid assessment is the first of four preliminary pollinator risk assessments for the neonicotinoid insecticides. Preliminary pollinator risk assessments for three other neonicotinoids, clothianidin, thiamethoxam, and dinotefuran, are scheduled to be released for public comment in December 2016.

A preliminary risk assessment of all ecological effects for imidacloprid, including a revised pollinator assessment and impacts on other species such as aquatic and terrestrial animals and plants will also be released in December 2016. In addition to working with California, EPA coordinated efforts with Canada's Pest Management Regulatory Agency. Canada's Imidacloprid pollinator-only assessment – also released in January – reaches the same preliminary conclusions as EPA's report.

The 60-day public comment period will begin upon publication in the Federal Register. After the comment period ends, EPA may revise the pollinator assessment based on comments received and, if necessary, take action to reduce risks from the insecticide.

In 2015, EPA proposed to prohibit the use of pesticides that are toxic to bees, including the neonicotinoids, when crops are in bloom and bees are under contract for pollination services. The Agency temporarily halted the approval of new outdoor neonicotinoid pesticide uses until new bee data is submitted and pollinator risk assessments are complete. (EPA Pesticide Program Updates, 1/28/16)

Final Rule Will Clarify and Improve the Transparency of Ingredients in Minimum Risk Pesticide Products

The Environmental Protection Agency has published a rule to clarify the substances on the minimum risk pesticide ingredient list and the way ingredients are identified on product labels. Minimum risk pesticides are a special class of pesticides that are not required to be registered with EPA because their ingredients, both active and inert, pose little to no risk to human health or the environment. The Agency is reorganizing these lists and adding specific chemical identifiers to make clearer to manufacturers, the public, and federal, state, and tribal inspectors the specific ingredients that are permitted in minimum risk pesticide products. EPA is also requiring producer contact information and the use of specific common chemical names in lists of ingredients on minimum risk pesticide product labels.

EPA's revisions to the exemption, announced in a December 28, 2015, Federal Register notice, do not alter the substance of the minimum risk pesticide ingredient lists, but more accurately describe which chemical substances can be used in pesticide products that are exempt from federal pesticide registration requirements. State enforcement agencies have expressed support for the changes.

EPA believes the industry – manufacturers of these products and businesses considering entering the market for minimum risk pesticides – will benefit from clearer guidance. Consumers will benefit from the clearer information on which chemicals the products contain.

To view the final rule, go to www.regulations.gov, Docket ID EPA-HQ-OPP-2010-0305-0047. Please see EPA's minimum risk pesticide Web pages for more information on these products that are not subject to federal registration requirements. (EPA Pesticide Program Updates, 12/29/15)

New Requirements to Address Corn Rootworm Resistance to Bt Corn

In response to signs that the corn rootworm is becoming resistant to single trait Bt products, EPA is announcing new, more protective requirements designed to delay corn rootworm resistance to genetically engineered "Bt corn." *Bacillus thuringiensis* (Bt) corn produces a Bt pesticide, long used as part of organic farming, as part of the plant itself, to address corn rootworm pests.

When EPA registered Bt corn, EPA ensured that mid-course corrections could be made if additional restrictions on the use of the pesticide were needed to address evolving issues. For example, these corrections could include requirements for additional measures or use restrictions if a specific Bt pesticide begins to lose its effectiveness to kill the corn rootworm. EPA is adding additional requirements to delay pests from becoming resistant.

These actions will ensure that farmers have safe, effective tools for years to come to control one of the most troublesome pests confronting the nation's corn growers. Use of Plant Incorporated Protectants (PIPs), including Bt corn, is one of the safest methods of insect control. If used

properly, PIP crops greatly reduce the need for conventional pesticides and the risks they may pose to human health and the environment. For these methods to continue to be available, it is essential that they remain effective.

Based in part on an independent science peer review, a letter to the EPA from corn rootworm experts, and public comments to EPA's docket, measures include:

- Proactive Integrated Pest Management (IPM), including the rotation of fields to non-Bt corn crops every few years and other changes will greatly reduce resistant corn rootworm populations
- Proactive early warning efforts will more aggressively and expeditiously detect and address potential problem fields. Companies are required to investigate reports of damage and notify affected companies, neighbors, extension specialists, and crop consultants in areas where populations are found to be resistant.
- Limitations on specific Bt products on problem and perhaps adjoining fields (depending on the severity of problem) when resistance has been detected. This could include changes in the way farmers use Bt corn, changes in the varieties they choose and other measures. More information about the new requirements can be found at www.epa.gov/regulation-biotechnology-under-tsca-and-fifra/framework-delay-corn-rootworm-resistance

EPA's docket for general information on insect resistance management can be found at www.regulations.gov under docket number EPA-HQ-OPP-2011-0922. (EPA Pesticide Program Updates, 2/18/16)

Florida Pesticide Residue Violations (October 2014 to January 2016)

Only 1.62% of Florida samples tested was adulterated. (15 / 925)

The Florida Department of Agriculture and Consumer Services, Chemical Residue Laboratories, conducts pesticide residue testing of fresh fruits and vegetables with a focus on Florida-grown products. The table below lists Florida grown commodities found adulterated. Only a small fraction of all samples tested were violative and those found were at very low levels. Our labs conduct follow-up investigations to identify and verify the source of the contaminated crop and remove it from distribution. The Division of Agricultural Environmental Services conducts misuse investigations to assist in correcting any pesticide misuse problems.

Sell the Roots but not the Tops?
An increasing variety of leafy greens are becoming popular for salads and garnishes. Some pesticide formulations are labeled for use on Root and Tuber Crops for the roots only. The leaves of the root crop may not be labeled for use; may not have a tolerance and therefore cannot be

sold for consumption. The Florida Fruit and Vegetable Association and the Department are working with registrants and the Environmental Protection Agency to establish tolerances where possible.

Careful application of pesticides according to label directions will avoid violations. Tolerances can be found on the web at http://www.ecfr.gov in 40 CRF 180. We hope that, by posting these findings, additional misuse may be avoided.

Violations in Florida Grown Commodities

DATE REPORTED	COMMODITY	ANALYTE	FOUND (ppm)	TOLERANCE (ppm)
6/3/2015	ARUGULA	CARBARYL	1.1	0
2/24/2015	*BEANS-SNAP, SUCCULENT	DINOTEFURAN	0.064	0
2/24/2015	BEANS-SNAP, SUCCULENT	FIPRONIL	0.047	0
2/24/2015	CABBAGE-CHINESE, BOK CHOY	CHLOROTHALONIL	0.26	0
4/30/2015	CILANTRO	PROPAMOCARB HCL	0.69	0
10/28/2014	CUCUMBERS	METHOMYL	0.41	0.2
10/9/2015	GUAVAS	CHLORPYRIFOS	0.45	0.1
8/14/2015	PEAS, SUCCULENT	ENDOSULFAN TOTAL	0.333	0
8/20/2015	PEAS, SUCCULENT	ENDOSULFAN TOTAL	0.049	0
3/11/2015	PEPPERS-BELL	CAPTAN	0.20	0.05
3/11/2015	PEPPERS-BELL	CARBENDAZIM	0.072	0
3/13/2015	**RADISHES-TOPS	METOLACHLOR	0.032	0
3/17/2015	RADISHES-TOPS	METOLACHLOR	0.028	0
8/20/2015	ROSEMARY	BIFENTHRIN	1.5	0.05
8/20/2015	ROSEMARY	CARBENDAZIM	0.076	0
8/20/2015	ROSEMARY	PERMETHRIN TOTAL	0.025	0
12/23/2014	SQUASH-SUMMER	ENDOSULFAN TOTAL	0.204	0
1/9/2015	SQUASH-SUMMER	ENDOSULFAN TOTAL	0.063	0
4/24/2015	TOMATO	ACEPHATE	0.057	0.02

* Some samples may contain multiple violations

** Some pesticide products are labeled for use on root crops for the root only. The tops can then not be sold for consumption. (FDACS, 1/27/16)

EPA Posts List of Pesticides Registered to Combat Varroa Mites in Bee Hives

The EPA has posted a list of pesticides registered for use against Varroa mites to help beekeepers identify products that can help fight this invasive species of bee pest. As part of EPA's role in the National Pollinator Health Strategy, the Agency has expedited its review of registration applications for new products targeting pests harmful to pollinators.

In 2015, EPA expedited the review of applications for oxalic acid and a new biochemical miticide, potassium salts of hops beta acids, to provide more options for beekeepers to combat Varroa mites. More pest control options help avoid the development of resistance toward other products. The list we published today makes it that much easier for beekeepers to identify all products that are registered for use against Varroa and helps advance toward the goals in the National Pollinator Health Strategy. Find out about other EPA efforts to address pollinator loss. http://www.epa.gov/pollinator-protection (EPA Pesticide Program Updates, 1/28/16)

Pesticide Registrations and Actions

- On January 15, the Florida Department of Agriculture and Consumer Services (FDACS) approved the Section 18 emergency exemption for the use of clothianidin on immature (3 to 5years old) citrus trees to manage the transmission of Huanglongbing (HLB) disease caused by the Asian citrus psyllid (ACP). The product, Belay® Insecticide, EPA Reg. No. 59639-150, containing 23.6% clothianidin, is manufactured by Valent U.S.A. Corporation. (FDACS letter, 1/15/16)

- FDACS has cancelled the Special Local Need registration effective December 15, 2015 for the use of REVUS® (mandipropamid) EPA SLN NO. FL-140008 (EPA REG. NO.l00-1254) for use in non-bearing citrus grown in the greenhouse for control of Phytophthora root rot. This use has been added to the FIFRA Section 3 label for REVUS® (FDACS letter, 12/15/15)

- On February 9, the Florida Department of Agriculture and Consumer Services (FDACS) revised the special local need registration for the use of Bayer CropScience Movento® MPC, EPA Reg. No. 264-1065, for use on citrus crops to control Asian citrus psyllid during bloom periods. The registration maintains the same assigned EPA SLN No. FL-140004 along with any other applicable conditions, restrictions, and precautions noted in the original FDACS approval letter dated June 26, 2014. (FDACS letter, 2/9/16)

- On January 8, the Florida Department of Agriculture and Consumer Services (FDACS) issued an Experimental Use Permit for TIGR Herbicide (sethoxydim), EPA Reg. No. 7969-58-67690 FL15-EUP-01, for the selective control of invasive grasses, such as torpedograss, West Indian marsh grass, para grass, and Tropical American water grass, in ponds, lakes, swamps, riparian areas, wetlands, marshes, reservoirs, and other areas adjacent to aquatic sites in Florida. The permit is authorized through December 31, 2016. (FDACS letter 1/8/16)