

## Section II: Environmental Toxicology, Bees, and Regulatory Issues

### **I LOVE HONEYBEES AS MUCH AS THE NEXT ENTOMOLOGIST, BUT IS EPA GETTING CARRIED AWAY IN ITS FIT OF BEEOPHILIA**

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With the exception of California, Pacific Northwest agriculture is one of the most heavily dependent regions in North America on bees for pollination. Honey bees are suffering from a variety of ills that have posed significant challenges for beekeepers, have reduced the volume of bees available for pollination and increased the cost of pollination services. Among the culprits implicated include genetics, diseases, mites and pesticides. No group of insecticides have been more implicated than the 4a group of insecticides, neonicotinoids and in particular, the nitroguanidine subclass of that group. This group includes the most heavily used neonicotinoid insecticides including imidacloprid, thiamethoxam, dinotefuran and clothianidin. EPA is calling for substantial new labeling information on neonicotinoid insecticides that has the potential for being fairly disruptive and challenging for growers and be a compliance headache for manufacturers.

In a review of the impact on blueberries the impact of the new regulations was varied depending on location across the country. No place in the U.S. will be more severely impacted than Washington State. The impact of these new regulations can have unexpected impacts, for examples crops not requiring pollination services will have to be managed differently. Asparagus, a crop that is wind pollinated, but is attractive to bees during the period requiring insect control measures will be subjected to the new regulations. The potato industry is concerned that the regulation will impact there crop even though it is not pollinated by bees nor is attracted to bees and is seeking extensive funding to conduct research on the issue.

Perhaps more problematic are comments by EPA that they are likely to extend these requirements to insecticides and fungicides that have significant toxicity to bees.

### **DIRECTIONS FOR USE**

#### **1. FOR CROPS UNDER CONTRACTED POLLINATION SERVICES**



Do not apply this product while bees are foraging. Do not apply this product until flowering is complete and all petals have fallen unless the following condition has been met.

If an application must be made when managed bees are at the treatment site, the beekeeper providing the pollination services must be notified no less than 48-hours prior to the time of the planned application so that the bees can be removed, covered or otherwise protected prior to spraying.

## 2. FOR FOOD CROPS AND COMMERCIALY GROWN ORNAMENTALS NOT UNDER CONTRACT FOR POLLINATION SERVICES BUT ARE ATTRACTIVE TO POLLINATORS



Do not apply this product while bees are foraging. Do not apply this product until flowering is complete and all petals have fallen unless one of the following conditions is met:

- The application is made to the target site after sunset
- The application is made to the target site when temperatures are below 55°F
- The application is made in accordance with a government-initiated public health response
- The application is made in accordance with an active state-administered apiary registry program where beekeepers are notified no less than 48-hours prior to the time of the planned application so that the bees can be removed, covered or otherwise protected prior to spraying
- The application is made due to an imminent threat of significant crop loss, and a documented determination consistent with an IPM plan or predetermined economic threshold is met. Every effort should be made to notify beekeepers no less than 48-hours prior to the time of the planned application so that the bees can be removed, covered or otherwise protected prior to spraying.

### Non-Agricultural Products:



Do not apply [insert name of product] while bees are foraging. Do not apply [insert name of product] to plants that are flowering. Only apply after all flower petals have fallen off.

# PROTECTION OF POLLINATORS



## **APPLICATION RESTRICTIONS** EXIST FOR THIS

PRODUCT BECAUSE OF RISK TO BEES AND OTHER INSECT POLLINATORS. FOLLOW APPLICATION RESTRICTIONS FOUND IN THE DIRECTIONS FOR USE TO PROTECT POLLINATORS.



Look for the bee hazard icon in the Directions for Use for each application site for specific use restrictions and instructions to protect bees and other insect pollinators.

### **This product can kill bees and other insect pollinators.**

Bees and other insect pollinators will forage on plants when they flower, shed pollen, or produce nectar.

Bees and other insect pollinators can be exposed to this pesticide from:

- Direct contact during foliar applications, or contact with residues on plant surfaces after foliar applications
- Ingestion of residues in nectar and pollen when the pesticide is applied as a seed treatment, soil, tree injection, as well as foliar applications.

When Using This Product Take Steps To:

- Minimize exposure of this product to bees and other insect pollinators when they are foraging on pollinator attractive plants around the application site.
- Minimize drift of this product on to beehives or to off-site pollinator attractive habitat. Drift of this product onto beehives can result in bee kills.

Information on protecting bees and other insect pollinators may be found at the Pesticide Environmental Stewardship website at:

<http://pesticidestewardship.org/pollinatorprotection/Pages/default.aspx.org>

Pesticide incidents (for example, bee kills) should immediately be reported to the state/tribal lead agency. For contact information for your state/tribe, go to: [www.aapco.org](http://www.aapco.org). Pesticide incidents can also be reported to the National Pesticide Information Center at: [www.npic.orst.edu](http://www.npic.orst.edu) or directly to EPA at: [beekill@epa.gov](mailto:beekill@epa.gov)