# THE IMPORTANCE OF POLLINATORS

It is estimated that bumble bees, honey bees, mason bees, and other insects are responsible for pollinating 30% of the world's food supply. These bees and other pollinators play a role in the production of more than 150 food crops in the United States.

#### **POLLINATOR HEALTH**

Bees and other pollinators are under attack from many sources including diseases, poor nutrition, and loss of habitat. Pollinators can also be put at risk by the use of pesticides.

### **NEONICOTINOID PESTICIDES**

Neonicotinoids are a class of synthetic insecticides that affect an insect's nicotinic receptors in the central nervous system. They are widely used to control aphids, weevils, fleas, and many other insects. Neonicotinoids are of concern because they are systemic, meaning they can move into a plant's pollen and nectar.



### **ADDITIONAL RESOURCES**

**EPA Pollinator Protection** www2.epa.gov/pollinator-protection

How to Reduce Bee Poisoning from Pesticides, PNW 591, OSU Extension http://extension.oregonstate.edu/catalog/

National Pesticide Information Center (NPIC) www.npic.orst.edu

Landscape Plants Images, Identifications and Information http://oregonstate.edu/dept/Idplants

Oregon State University Extension http://extension.oregonstate.edu

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# Protecting Pollinators from Pesticides







### IN YOUR GARDEN

Use an Integrated Pest Management (IPM) approach for controlling pests.

- · Monitor for pest problems
- Identify your pest
- Determine if the pest warrants control
   Is the pest level high enough to cause significant plant damage?
- Evaluate all the ways a pest population can be reduced, including biological, mechanical, and cultural methods, as well as pesticides - starting with the least toxic to the environment and pollinators. Examples of mechanical controls include:
  - A strong stream of water
  - Picking off the insects or diseased plant parts by hand
- If mechanical or cultural controls are not sufficiently controlling the pest and pesticides are needed:
  - Use the least toxic chemical available that will reduce the pest population
  - Read the pesticide label before applying and follow all directions, restrictions, and precautions

## POLLINATOR PROTECTION IN OREGON

Oregon is very active in protecting bees and other pollinators from the adverse impacts of pesticides.
Oregon has required specific label language for pesticides containing dinotefuran, imidacloprid, clothianidin, or thiamethoxam to prohibit their use on linden, basswood and other Tilia trees, regardless of application method.





# LOOK FOR THE "BEE DIAMOND" ON PESTICIDE LABELS

The U.S. EPA is now using a bee hazard icon on neonicotinoid labels to help readers identify special precautions and restrictions intended to protect pollinators.



## HOW TO PROTECT POLLINATORS

Avoid applying pesticides which are toxic to bees while plants are blooming, including ornamental plants that are attractive to pollinators such as lavender, heather, rhododendrons, and azaleas, among others.

Apply pesticides, if needed, only after all flower petals have fallen.

Read the pesticide product label! Labels for neonicotinoid pesticides contain special label restrictions to protect pollinators. The active ingredients that will have special label language are dinotefuran, imidacloprid, clothianidin, and thiamethoxam.