

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 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 pesticides, and 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/ldplants>

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

Cover photo: Kathy Keatley Garvey
Tilia photos: Patrick Breen, Oregon State University



Oregon
Department
of Agriculture

Oregon Department of Agriculture
Pesticides Program
635 Capitol St. NE
Salem, OR 97302
(503) 986-4635
pestx@oda.state.or.us



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Protecting Pollinators from Pesticides





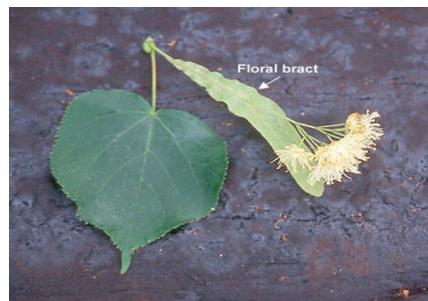
In Your Garden

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 using biological, mechanical, and cultural methods, as well as pesticides - starting with the least toxic to the environment and pollinators. Examples of mechanical controls:
 - a strong stream of water may work
 - hand picking off the insects - or diseased plant parts
- If mechanical or cultural controls do not control your problem, and pesticides are needed
 - use the least toxic chemical available that will reduce the pest population.
 - read the pesticide label before you make any application - and follow the label directions.

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 the active ingredients dinotefuran and imidacloprid, prohibiting the use of these products on linden, basswood and *Tilia* species trees, regardless of the application method.



Look for the Pollinator Protection Icon on Pesticide Labels

The Environmental Protection Agency (EPA) is now using a bee hazard icon on pesticide labels as a quick guide that a pesticide contains special precautions or restrictions 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, a class of insecticide, contain special label restrictions to protect pollinators. The active ingredients that will have special EPA required label language are:

- clothianidin
- dinotefuran
- imidacloprid
- thiamethoxam