



## What are neonicotinoids?

*Neonicotinoids are a class of insecticides used to control aphids, weevils and other insects. Some neonicotinoids may be highly toxic to bees for up to several days after an application. The Washington State Department of Agriculture recommends care when applying any pesticide, regardless of the type, to help protect our state's pollinating insects.*

10. Educate yourself. Visit some of these sources of information on bees and pesticides:

- [www.beeinformed.org](http://www.beeinformed.org) – Bee Informed Partnership
- [www.entomology.umn.edu/cues/pollinators](http://www.entomology.umn.edu/cues/pollinators) – Center for Urban Ecology and Sustainability / Pollinator Conservation
- [www.npic.orst.edu](http://www.npic.orst.edu) – National Pesticide Information Center
- [www.pesticidestewardship.org](http://www.pesticidestewardship.org) – Pesticide Environmental Stewardship (click Pollinator Protection link)
- [www.pollinator.org](http://www.pollinator.org) – Pollinator Partnership
- [extension.wsu.edu/wsprs/Pages/default.aspx](http://extension.wsu.edu/wsprs/Pages/default.aspx) – WSU PICOL
- [pep.wsu.edu](http://pep.wsu.edu) – WSU Urban Integrated Pest Management and Pesticide Safety Education

## Questions?

Contact WSDA at [pestreg@agr.wa.gov](mailto:pestreg@agr.wa.gov) or Erik Johansen at (360) 902-2078. You can also visit [agr.wa.gov](http://agr.wa.gov) for more information.

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Photos courtesy of Erik Johansen.

# 10 Ways to Protect Bees from Pesticides



Washington  
State Department of  
Agriculture

Pesticide Management Division



# We need bees!

Honey bees, bumble bees, mason bees and other pollinating insects pollinate your fruit and vegetable gardens, native plants, and are critical for our environment and our economy.

The proper use of pest control products can help maintain healthy ornamental plants. Some pesticides, including those in the class of neonicotinoids, may pose a potential risk to bees and other insects that benefit us. You can help reduce that risk.



## How you can help protect our bees

1. Avoid applying any pesticides, including insecticides and fungicides, during bloom on ornamental plants that attract bees, like heather, lavender, linden, rhododendron and rose. Bees and other insects may be harmed if they consume nectar or pollen containing pesticides.
2. Apply pesticides only after flower petals have fallen, when ornamental plants are less attractive to bees. This will reduce the risk to bees coming in contact with pesticides.
3. If you must spray ornamental plants that are in bloom, WSDA recommends you choose a pesticide that is less toxic to bees. The Oregon State University extension publication ["How to Reduce Bee Poisoning from](#)

4. [Pesticides](#)" has information on the toxicity of pesticides to bees. Visit [pubs.wsu.edu](http://pubs.wsu.edu) for a copy of this publication.
4. Follow any specific requirements to protect bees on the pesticide label. The [WSU Pesticide Information Center Online](#) (PICOL) has a database of pesticides approved for sale in Washington.
5. Read the label to see if the pesticide contains a neonicotinoid insecticide

with these ingredients:

- Clothianidin
- Dinotefuran
- Imidacloprid
- Thiamethoxam

Insecticides containing these ingredients should only be used after flower petals have fallen, because they may be highly toxic to bees for several days after application.

6. Avoid applying these neonicotinoid insecticides by soil drench or tree injection methods to plants known to attract bees. These methods may contaminate nectar and pollen for up to several years after the insecticide is applied.
7. If you must use soil drench or tree injection to apply these neonicotinoid insecticides, do it after flower petals have fallen and use the lowest possible effective dosage to help reduce the risk to bees. Also, try to select an insecticide that offers the shortest persistence in ornamental plants while still controlling the pest.
8. When buying ornamental plants that are known to attract bees, try to buy plants not treated with insecticides containing any of the 4 ingredients listed above.
9. For more advice on pesticide use and protecting bees, consider contacting your local branch of the Washington State University Master Gardener Program by visiting [gardening.wsu.edu](http://gardening.wsu.edu) and look for the Master Gardener link.