**Pollinator Protection**

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| Infographic: Tips for protecting pollinators  when using pesticides. |

Many plants benefit from pollinators. Some, like almonds trees, are dependent on them to reproduce. Pollinators are attracted to nectar or pollen. As the pollinator goes from flower to flower, they help plants reproduce, providing us with fruits, vegetables, and nuts. There are [**many different species**](https://www.fs.fed.us/wildflowers/pollinators/animals/index.shtml) of pollinators, including the well-known honey bees, [**bumble bees**](http://www.xerces.org/wp-content/uploads/2013/05/BumbleBeeConservationBrochure.pdf), butterflies, and hummingbirds, and the lesser known bats, lizards, flies, and beetles.

* Most [**insecticides**](http://npic.orst.edu/ingred/ptype/insecticide.html) can hurt bees and butterflies. Minimize the need for insecticides by tolerating harmless pests and trying [**alternative methods**](http://npic.orst.edu/pest/ipm.html) first.
* Create habitat for pollinators by making your landscape complex, with a variety of plant types, ground cover, and refuge areas.

**How can you protect pollinators when using pesticides?**

* Do not spray flowers directly.
* Do not spray while pollinators are active. Spraying in the evening, after bees have returned to their hives, allows for spray residues to dry overnight.
* Always follow the label directions when applying a pesticide product. Pay special attention to the “Environmental Hazards” section of the label.
* Consider using granules rather than liquids. Granules are less likely to leave residue on plant surfaces.
* Apply as close as possible to the target pest to [**minimize pesticide drift**](http://npic.orst.edu/reg/drift.html).
* There are trees that bees are attracted to, like Linden and Basswood trees, which are toxic to bees. Treating those trees may create a lethal combination for honeybees and other pollinators.
* Honeybees and other pollinators need water. Keep in mind some products intended to kill mosquitoes in birdbaths can be toxic to pollinating insects.
* Consider using native plants. They often require less maintenance and pesticide use.
* Learn about [**Extended Residual Activity**](http://pesticidestewardship.org/PollinatorProtection/PesticideApplicatorBMPs/Pages/Pesticide-Applicator-BMPs.aspx) (ERT or RT), the amount of time residue may be expected to be harmful to bees. Look up your active ingredient in this [**publication**](https://catalog.extension.oregonstate.edu/files/project/pdf/pnw591.pdf) to learn more.

If you have questions about this, or any pesticide-related topic, please call NPIC at **1-800-858-7378** (8:00am - 12:00pm PST), or email at [**npic@ace.orst.edu**](mailto:npic@ace.orst.edu).

**Additional Resources:**

* [**Protecting Bees and Other Pollinators from Pesticides**](https://www.epa.gov/pollinator-protection) - US Environmental Protection Agency (US EPA)
* [**Pollinator Protection: Report Bee Kills**](https://www.epa.gov/pollinator-protection/report-bee-kills) - US Environmental Protection Agency (US EPA)
* [**Residual Time to 25% Bee Mortality (RT25) Data**](https://www.epa.gov/pollinator-protection/residual-time-25-bee-mortality-rt25-data) - US Environmental Protection Agency (US EPA)
* [**Bee Precaution Pesticide Ratings**](https://www2.ipm.ucanr.edu/beeprecaution/) - University of California
* [**Protecting Pollinators from Pesticides**](https://bees.caes.uga.edu/bees-beekeeping-pollination/pollination/pollination-protecting-pollinators-from-pesticides.html) - University of Georgia, Honey Bee Program
* [**Finding Pollinator Attractive Plants**](https://protectingbees.njaes.rutgers.edu/find-plants/) - Rutgers University
* [**Pesticide Applicator Best Management Practices**](http://pesticidestewardship.org/PollinatorProtection/PesticideApplicatorBMPs/Pages/Pesticide-Applicator-BMPs.aspx) – Pesticide Environmental Stewardship
* [**Managed Pollinator Protection Plan Resources**](https://honeybeehealthcoalition.org/managed-pollinator-protection-plan-mp3-resources/) - Honeybee Health Coalition
* [**Gardening and Landscaping Practices for Nesting Native Bees**](http://extension.usu.edu/files/publications/factsheet/ENT-175-15.pdf) - Utah State University Extension
* [**Pollinator Conservation: Gardens**](https://xerces.org/pollinator-conservation/yards-and-gardens) – Xerces Society
* [**Roadside Best Management Practices that Benefit Pollinators**](https://www.environment.fhwa.dot.gov/env_topics/ecosystems/Pollinators_Roadsides/BMPs_pollinators_landscapes.aspx) - US Department of Transportation, Federal Highway Administration
* [**Best Management Practices for Turf Care and Pollinator Conservation**](https://www.ncipmc.org/action/bmpturf.pdf) - North Central IPM Center
* [**Bumble Bee Conservation**](https://xerces.org/bumblebees) – Xerces Society
* [**12 plants to entice pollinators to your garden**](https://extension.oregonstate.edu/news/12-plants-entice-pollinators-your-garden) – Oregon State University Extension
* [**Pollination**](http://homeorchard.ucanr.edu/The_Big_Picture/Pollination/) – University of California
* [**Backyard Pollinators**](http://calscomm.cals.cornell.edu/naturalist/Naturalist-Outreach-Backyard-pollinators.pdf) – Cornell University
* [**Minimizing Pesticide Risk to Bees in Fruit Crops**](http://msue.anr.msu.edu/uploads/236/68700/E-3245.pdf) – Michigan State University Extension
* [**List of Animal/Insect Pollinators**](https://www.fs.fed.us/wildflowers/pollinators/animals/index.shtml) - USDA Forest Services
* [**Pollinator Protection Outreach Materials**](https://aapco.org/pollinator-protection-outreach-materials/) - Association of American Pesticide Control Officials

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