

## What are Pollinators and why should you care?

Pollinators are bees, butterflies, hummingbirds and other animals that feed from flowers, transferring pollen in the process.

Nearly 80% of all flowering plants need pollinators to transfer pollen between flowers in order to produce seeds, fruits, and vegetables.

Approximately one out of every three bites of food you eat depends on the work of a pollinating animal.

Pollination also produces seeds and fruits that feed birds and other wildlife.

Many blooming plants depend on pollinators for survival, and globally many pollinators are declining from a variety of causes.

When you use pesticides you could unintentionally harm pollinators and other beneficial insects. Your careful actions can prevent harming pollinators.

## What is a Pesticide?

A pesticide is a substance used to control unwanted plants, insect pests, rodents, or plant diseases. Pesticides include herbicides, insecticides, rodenticides, and fungicides.

Because insects are the most prevalent pollinators, insecticides are the primary pesticide group to threaten pollinators. Herbicides, such as Roundup have little to no direct effect on pollinators.

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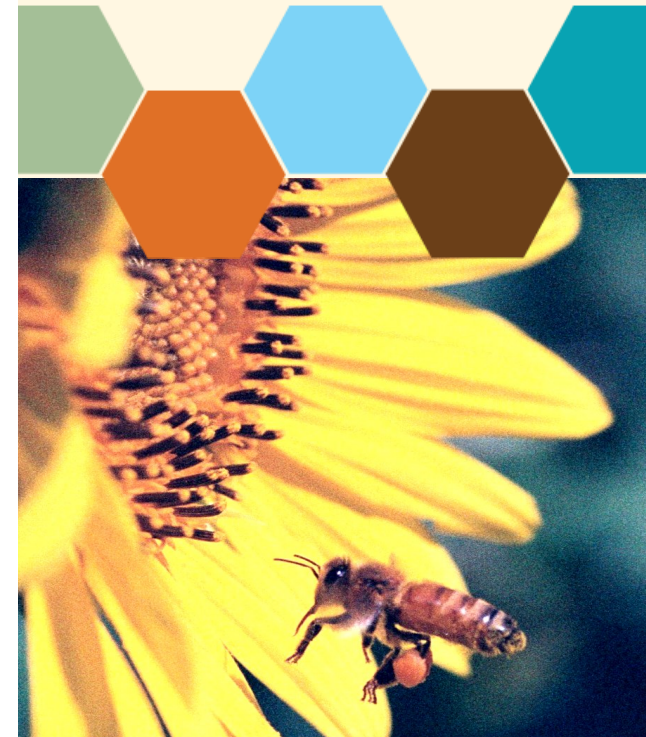


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# Be Aware of Pollinators

*Before Tackling Your  
Pest Problems*



**FOR HOMEOWNERS**



## Pollinator-Friendly Pest Control Strategies for Your Lawn and Garden

Use Integrated Pest Management (IPM) around the home.

Where possible, avoid pest problems in the first place by burying infested plant residues, removing pest habitat, and planting pest-resistant plant varieties.

Carefully diagnose your pest problem, and, before you apply a pesticide, make sure the pest population has reached a level where control is necessary.

Carefully evaluate your pest control options, and use a combination of pest control techniques if appropriate – these may include beneficial insects, manual removal, traps, a pesticide, etc.

Many native and introduced flowering plants support pollinators. Choose plants that are naturally resistant to insect pests. For a few ideas on what to plant, visit <http://growingsmallfarms.ces.ncsu.edu/> "Pollinator Conservation."

Many native pollinators such as bumble bees live in natural areas and also play an essential role in pollination. Be especially careful when trying to control pests in or near these areas. All butterflies start life as caterpillars, feeding on plants. Learn what type of insect is eating your plants before you inadvertently kill butterflies and other beautiful and beneficial insects.

## If you choose to use a Pesticide:

Read and follow ALL label directions carefully – use the proper rate (not more or less) at the right time for the correct target pests, and avoid re-applying unnecessarily.

Pay close attention to the Environmental Hazards statement and all pollinator information on the label to determine if special precautions must be taken to protect pollinators. Manufacturers have added a new bee hazard icon and precautions on labels of certain insecticides to protect pollinators from potential hazardous to their health.

Not all products that are harmful to bees are marked with this icon. Just because a product does not bear this icon does not mean there are no label restrictions for protecting pollinators. The label will tell you if the pesticide should not be used on prebloom or blooming plants, and if the pesticide should only be used when bees and other pollinators are not actively foraging (for example, just before dark). Remember that "prebloom or blooming plants" includes ALL plants – garden crops, ornamentals, weeds, native species, etc. Some labels will indicate if application must be delayed until the blooms and pollinators are gone. If in doubt, do not spray.



Keep the pesticide on the pest problem: don't spray when it is windy to ensure the pesticide doesn't drift into unintended areas; don't spray when rain is in the forecast to ensure the pesticide doesn't wash off your yard or driveway into streams or storm drains; and spray only the pest-infested area, avoiding hard surfaces such as sidewalks or your driveway. If you handle your pest issues by using pest

control professionals, discuss solving your pest problems without harming pollinators.

If you have questions, contact your local Cooperative Extension Center (<http://www.ces.ncsu.edu/>)

## Hobby Beekeepers

With the recent popularity of beekeeping, many hobbyists are locating beehives in urban areas around residences. Pay special attention while using insecticides in these areas. Bee hobbyists are highly attentive to their beehive(s) and may be concerned about insecticide applications. Read product labels and adhere to label warnings in regards to honey bees. If you know of neighbors who have bees, you may wish to let them know of your pesticide application plans so they can take steps to protect their bees.

## Pesticide Disposal

Dispose of unwanted pesticides and spray tank residuals safely according to label instructions. Do not contaminate water sources that honey bees may use. Homeowners can dispose of banned, outdated or unwanted pesticides, free of charge, through the N.C. Department of Agriculture and Consumer Services, Structural Pest Control and Pesticides Division, Pesticide Disposal Assistance Program. For more information, call (919)280-1061.

\*Some text in this brochure came from a similar one produced by the Pesticide Task Force of the North American Pollinator Protection Campaign (NAPPC). For more information please consult <http://www.pollinator.org>, or the "Pollinator Protection" module of the Pesticide Environmental Stewardship website: <http://pesticidestewardship.org>