

## People need bees.

Bees pollinate as much as a third of the agricultural crops that we produce. In return, bees need a safe environment in which to do their job.

Landscapers should take an active role in protecting pollinators by making informed decisions about pesticide applications and other activities that may adversely affect bees and educating homeowners on why you are choosing those methods. Making informed decisions means knowing where hives my be. It starts with opening lines of communication with local beekeepers.

Working together, we can create a healthier environment for all pollinators.

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## NC STATE UNIVERSITY

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*Front Cover Image Courtesy of: NC Cooperative Extension Service, Chatham County Office. "Pollinator Paradise" Garden is maintained by Agricultural Extension Agent Debbie Roos.*

<http://chatham.ces.ncsu.edu/2015/04/pollinator-paradise-garden-featured-on-almanac-gardener/>

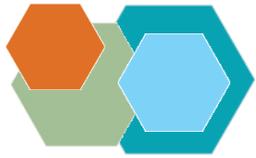
# Know

## Your Beekeeper

### Communication Is Key



# FOR LANDSCAPERS



## Information For Landscapers

### Know the Label

Some pesticides are toxic to bees either directly or when bees come in contact with residues on blooming plants or weeds. The labels of these products caution against drift to blooming plants or weeds while bees are foraging in the treatment area. Prior to applying any pesticide, always read and follow the label.

### Integrated Pest Management (IPM)

IPM involves choosing pest control tactics that reduce hazards to people, non-target organisms and the environment. With IPM you should: 1) reduce conditions that favor pest populations; 2) establish a threshold of how much damage can be tolerated before pest control must occur; 3) monitor pest populations; and 4) treat pests when the threshold is reached. For more information, see: "Preventing or Mitigating Potential Negative Impacts of Pesticides on Pollinators Using Integrated Pest Management and Other Conservation Practices," USDA Agronomy Technical Note No. 9, Feb. 2014, <http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=34828.wba>

### Notify Ground Pesticide Applicators of Hive Location(s)

Inform employees (and/or other contractual parties) of all apiary locations on or near managed landscapes.

### Timing of Pesticide Applications

The most important way to protect honey bees is to restrict spraying to the times of day when bees are not likely to visit blooms—when plants are not flowering, late evening or during cool temperatures (below 55°F) when bees are not active. When practical, apply pesticides in the evening in sensitive areas near hives. Remember: Always follow label directions and make

applications when pests reach threshold levels.

### Product Selection

Many flowering landscape plants and weeds attract bees. Therefore, it's critical to select products and formulations less toxic to bees when blooming plants appear. See pages "Relative Toxicity of Pesticides to Honey Bees" Chapter 5 (Insect Control) of the North Carolina Agricultural Chemicals Manual. Prior to application, ensure that pesticide application equipment is clean and in good working condition to ensure the product will be applied correctly.

### Wind Direction/Minimize Drift

Apply pesticides only when winds are blowing away from hives. Select formulations and/or droplet sizes to minimize spray and drift to flowering plants or other sites attractive to bees—such as ground cover or plants growing beneath the plants you are treating.

### 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. The bee hobbyist is highly attentive to his or her beehive(s) and has concerns about insecticide applications. Read product labels and adhere to label warnings in regards to honey 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. Farmers and 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, contact the N.C. Department of Agriculture and Consumer Services, Structural

Pest Control and Pesticides Division, Pesticide Disposal Assistance Program at 919-280-1061.

### Pollinator Habitat

Consider planting a designated pollinator habitat to provide undisturbed, safe foraging areas for bees and other pollinators. Many flowering ornamentals benefit from the pollination services that honey bees provide. The following are good sources of information:

<http://plants.usda.gov/pollinators/NRCSdocuments.html>  
<http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/plantsanimals/pollinate>

## Make Connections To Protect Pollinators

The best way to ensure protection of honey bees in regions where pesticides are used is to ensure effective communication between beekeepers and landscapers.

Beekeepers and landscapers with operations in close proximity are encouraged to have an open dialogue and to update contact information each year.



Fostering strong communication is the basis of a successful relationship. Beekeepers and farmers with operations in close proximity should know one another's name and pertinent contact information.