April 2014
Volume 5, Issue 4

Alamance Gardener

Alamance County Cooperative Extension Horticulture Department

Coming Events

THINK GREEN THURSDAYS

Workshops and Demonstrations

Thurs., Apr. 10, 10:00a
Daylilies and Crinum Lilies
Saturday, Apr. 12, 8:00a-1:00p
Hazardous Waste Collection (see Page 2)
Thurs., Apr. 24, 10:00a
Vegetable Gardening for Beginners
Saturday, Apr. 26, 10:00a
Rain Garden Workshop (see page 5)
Thurs., May 8, 10:00a
Container Gardens
Thurs., May 22, 10:00a
Honeybees and Beekeeping

All classes will begin in the auditorium at the Agricultural Building and are free unless otherwise indicated. Registration is required. Phone, visit or e-mail.

Contact us :

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The Honey Bee Issue

Honey bees are the most important insect pollinator for crops grown in North Carolina. Vegetable and fruit crops that require honey bees for pollination include apples, blueberries, cucumbers, melons, peaches, squash and strawberries. Unfortunately, there has been a dramatic decline in the honey bee population in recent years because of the introduction of two exotic parasitic mites. These mites can destroy an entire colony if left untreated. Most wild honey bee colonies have been wiped out by these mites. Our farms and gardens would be pretty sad if not for the efforts of our local beekeepers to maintain honey bee colonies.

There is another threat to the honey bee population that recently came to my attention and that is the insecticide imidacloprid. Imidacloprid is a neonicotinoid insecticide that became available in 1994 and now is the most widely used insecticide in the world. It is used on crops, ornamentals, pets, livestock and turf. The main advantage of using imidacloprid is its systemic activity. The chemical can be taken up by the plant and transported into the leaves where most of the insect pests feed. That is very useful for pests like aphids, soft scale, whiteflies and leaf feeding beetles that are hard to control with a typical foliar spray. The systemic activity of imidacloprid also means the chemical finds its way into the flowers contaminating the pollen and nectar.

More Bad News for the Bees

I had always assumed that if the imidacloprid was applied after the plants finished blooming, the insect pests would be controlled without harming the bees. I was wrong! The latest research shows imidacloprid has a half-life of 1000 days in the soil depending on the rate applied. That means there is a strong possibility it is still in the soil and is still available for plant uptake the next year when the plants flower again. Even if the concentration of the chemical is not enough to kill the honey bees immediately, there are definite negative effects of a sub-lethal dose. A sub-lethal dose of imidacloprid can be a little as 20 parts per billion.

A sub-lethal dose can affect the hive in many ways. The contaminated pollen/ nectar is fed to the queen, larvae and others. This exposure can lead to poor navigation and failure of some bees to return to the hive. This obviously affects foraging success which then leads to reduced food stores and honey production. Without sufficient food reserves we get reduced worker survival and low overwinter survival of the colony. The contamination also affects reproduction reducing brood and drone production. If all of that is not enough, a sub-lethal dose of imidacloprid reduces the colonies' resistance to mites and other pathogens.

Now that I have all this information, I am no longer recommending the use of any insecticides that contain the active ingredient imidacloprid. The question, then, is which insecticides contain imidacloprid? Almost every manufacturer and brand has these products. If the insecticide label contains the word 'systemic' you should look very carefully at the active ingredients and avoid imidacloprid. What do you do if you already have imidacloprid products? The Alamance County landfill is sponsoring a Hazardous Household Waste Collection Day Saturday April 12. That would be a good time to responsibly dispose of unwanted pesticides as well as many other household products.

If you have any questions about imidacloprid use or any other gardening topics, please give me or Chris a call.

Household Hazardous Waste Collection Day

Saturday, April 12, from 8 am until 1 pm at 100 Stone Quarry Road, Haw River.

The types of hazardous waste that will be accepted are as follows:

- ☺ Household cleaners, drain openers, toilet bowl cleaners, oven cleaners, disinfectants
- ☺ Solvents, thinners, shellacs, varnishes, sealers, wood preservatives
- ☺ Automotive products including brake fluid, antifreeze, used motor oil up to 5 gal, filters, gasoline
- ☺ Pesticides including poisons, aerosols and weed killers
- ☺ Miscellaneous materials such as acids, bases, kerosene, batteries, photographic chemicals, pool chemicals, mercury, fluorescent tubes, propane cylinders (grill and camp size only)
- ☺ Latex and oil based paint and spray paint

The following will NOT be accepted:

Radioactives / Smoke detectors, Medical waste, including sharps, Electronics / TVs / Computers, Explosives / Ammunition

If you have questions contact the Landfill at 376-8902 or Cooperative Extension at 570-6740.

April Garden Tips

Shape up evergreen shrubs now, but avoid shearing, if possible. Shearing encourages dense growth on the outermost part of the plant leaving interior branches shaded and leafless. Hand prune from within, cutting back the longest shoots to a point where they join a main branch. Use a different technique to prune stringy *Nandina domestica.* Cut the longest canes close to the ground. New canes will come up from the base to give this old-fashioned garden staple a fuller look and a place in your modern garden.

To protect the pollinators, wait to spray fruit trees until the flower petals drop. When the blossoms fade, you may begin your spray program with a home orchard spray. Always read and follow label directions.

Now is the time to begin to fertilize your warm season lawn (Bermudagrass or zoysia) Apply ½ pound of nitrogen per 1000 square feet. Repeat the application in June and August.

Fertilize established roses when new growth is approximately 2" long. Susceptible plants should be on a regular spray program to control fungus diseases. If you're a rose lover but hate the thought of adhering to a spray schedule, consider planting one of the many disease-resistant roses. Call the Cooperative Extension Office for recommendations – 570-6740. Or visit Arbor Gate Teaching Garden to see several easy-care varieties in bloom.

If yours is a cool-season lawn, mowing season is here! Set your mower blade high; at least 3 inches, preferably 3-1/2. Try not to take more than one-third of the blade off when you mow. This may mean mowing more than once a week this time of year.

Leave grass clippings on the lawn! They return nutrients to the soil and reduce the need for additional fertilizer. You can reduce the amount of nitrogen you add to your lawn by as much as one-third if you grasscycle!

After danger of frost is past – around April 15th – plant seeds of sweet corn, pole beans, lima and snap beans, cantaloupe, cucumbers, summer squash, pumpkins and watermelons.

Wait until the end of the month to plant tomatoes, peppers and eggplant. These do best when night temperatures are a little closer to 50 degrees and the soil has warmed a bit.

Divide, repot and fertilize houseplants before moving them outdoors for their summer vacation at the end of the month.

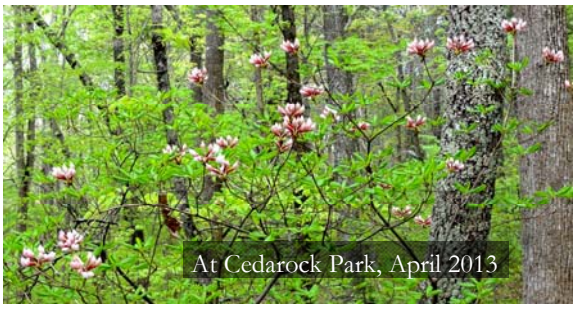
When selecting summer annuals, look for short, bushy plants with green leaves, well-developed root systems and more buds than flowers.

Arbor Gate Plant of the Month

Piedmont Azalea

Rhododendron canescens

One of our most beautiful natives, you've probably walked by Piedmont Azalea many times on a summertime hike in the woods without noticing it. But, in April, its fragrant blooms in shades of pink and white light up the dappled shade of tall trees just ahead of the medium green foliage. Plant this deciduous Rhododendron in your garden in shade to part sun—the more sun it gets, the bushier its habit. Eventually reaching a height of ten to as tall as fifteen feet, the habit stays relatively narrow. Plant in moist, well-drained, slightly acidic soil. Once established, *Rhododendron canescens* will tolerate some drought. Mulch the shallow roots to maintain even moisture. No pruning necessary, but if you feel the need, do it just after bloom.



At Cedarock Park, April 2013

Click the link below to learn more about this outstanding native shrub.

http://plants.ces.ncsu.edu/plants/all/rhododendron-canescens/

In Arbor Gate Teaching Garden

Rain Garden Workshop

Learn more about the importance of removing pollutants from rain water by using landscape areas.

Alamance County Cooperative Extension and the City of Burlington Stormwater Division are offering a Rain Garden workshop on ***April 26, 2014***. The class will begin at 10 am at the Alamance County Cooperative Extension Center and conclude around 12:30 pm at the Fairchild Soccer Park.

Registration is free so please call (336) 570-6740 to reserve a spot or register online at http://go.ncsu.edu/raingardenworkshop.

Rain Gardens are areas that use plants and soils to remove pollutants from rain water runoff by way of adsorption and filtration. In addition, these areas provide attractive landscaping as well as habitat enhancement benefits for pollinators.

Plants are an integral element of the pollutant removal and water filtration process. Plant roots aid in the physical and chemical bonding of soil particles necessary to form stable aggregates, improve soil structure, and increase infiltration capacity.

Please contact Chester Patterson, City of Burlington-Environmental Specialist 336-222-5140 or cpatterson@ci.burlington.nc.us for more detailed information.