Lawns

- If you did not fertilize your lawn in September, there’s still time to apply 1 lb of Nitrogen per 1000 square feet.
- Don’t allow leaves to accumulate on the lawn. Rake or pick them up with your mower and add them to the compost pile.

Ornamentals

- If you have hemlock wooly adelgids in your shorter hemlock trees, treat with soap or oil as foliar sprays between August and January.
- Go ahead and plant pansies!
- Go ahead and divide your perennials.
- Now is the perfect time to plant trees and shrubs. Loosen roots of container grown plants that may be root bound. Do not plant too deep! Water thoroughly!
- Do Not fertilize ornamental plants.
- November is the best time to plant spring flowering bulbs. Plant bulbs to a depth of 3 to 4 times the diameter of the bulb.
- In November some woody plants can be propagated from cuttings e.g., boxwood, holly, juniper, and yew.

Fruit

- Rake and remove leaves and fruit that have fallen to the ground in your orchard.
- Remove old canes from blackberry and raspberry plantings
- Now is the time to weed, fertilize and water your strawberry bed. Next spring’s flowering buds are forming now.

Vegetables

- Plant Garlic and Onions
- Harvest pumpkins and winter squash before frost.
- Remove spent plants to the compost pile or turn them into the soil for decomposition.
Once again our homes will be invaded by the multi-colored Asian lady beetle. Local residents often call in the fall as swarming Harmonia axyridis' began to search-out a place to overwinter. The following information is a brief list of the most frequently asked questions and their answers.

Q. How did these ladybugs get here?
A. The multicolored Asian lady beetle made its way into the United States through a number of accidental and planned releases. There are several reports that this species was accidentally brought on ships to various ports, notably New Orleans and Seattle as early as 1916. This lady beetle was also intentionally imported from Russia, Japan, Korea, and elsewhere in the Orient and released in the United States as part of a Federal effort to naturally control insect pests in trees. The Federal releases were made in California an in many southern and eastern states, including Ohio, Maine, Connecticut, Delaware, Pennsylvania, Maryland, Georgia, Mississippi, and Louisiana. The multicolored Asian lady beetle was first reported in Western North Carolina in 1992.

Q. Why are the beetles coming to my house?
A. The multicolored Asian lady beetle seeks protected hibernation (overwintering) sites in and around buildings that are light in color or have windows and doors that reflect bright light. Because these exotic lady beetles readily occur on trees, homes in forested areas are often infested. Multicolored Asian lady beetles may overwinter underneath siding, roof shingles, landscaping timbers, or leaf litter. Others readily slip through cracks and crevices and come indoors, where they make themselves at home. They may cluster together in corners of porches, attics, soffits, wall voids, door or window frames, or dark, undisturbed areas within buildings. They periodically invade living spaces, apparently in response to the warm interior temperatures.

Q. What can I do to get rid of the beetles?
A. Seal, Caulk and Screen - Use good quality silicone or silicone latex caulk to seal cracks and small holes throughout the house, especially around windows and doors. Install screens (20-mesh max.) over all vents and replace or repair damaged door and window screens. Leave screens on windows instead of storing them. Install tight fitting door sweeps and a rubber seal around garage door.

Exterior Pesticide Application - At Ohio State University, efficacy and residual tests were performed on some of the pyrethroid pesticides (lambda-cyhalothrin, deltamethrin cyfluthrin, cypermethrin and bifenthrin) to help homeowners with their choice of which insecticides to use. All of these chemicals give good immediate control. However, the results from the long-term efficacy test showed some clear differences. After 78 hours the lambda-cyhalothrin and deltamethrin pesticide treatments were the best with over 95% of the beetles either dead or dying. The bifenthrin treatment was next with a score of 84%. Cyfluthrin and cypermethrin killed only about 50% of the beetles at this time. When spraying one of the above insecticides, concentrate on areas around windows, under eaves, along the roof line and around foundation. Applications are effective for at least 21 days, less if it rains frequently.

Vacuuming - An effective method to remove live beetles from inside the house.

Commercial Black Light Traps - Traps can be very effective in the fall, catching ~ 90% of the beetles. Operate the trap in a dark room or at night. Place in room most infested and leave light on all night.

Places to Purchase Ladybug Traps:
Check your local feed and seed stores and nurseries or purchase Bioconect's BioCare Asian Ladybug Trap phone 800 441-2847 website www.biconet.com,
Southeastern Insectaries, e-mail sei@alltal.com or phone numbers(877)-967-6777 or (478)-988-9412.

Q. Are the beetles laying eggs in my house?
A. The beetles do not reproduce indoors because there is no food available. In the spring, they will move outdoors in search of prey once the trees begin to leaf out. This usually occurs in April for Western N.C.

Q. Do these beetles pose any threat to me or my home?
A. Homeowners often express concern, aggravation, and outrage with these nuisance pests. During late autumn, homeowners complain that multicolored Asian lady beetles cluster on the sides of houses; "crunch" under foot; get into food and drinks; and sometimes enter the ears and mouth. The lady beetles can be so numerous that they appear to be "raining" outdoors or swarming like bees. After a week or two of swarming activity, the ladybugs will settle down in your home. The ones that escape vacuum cleaners or traps will hide in the wall voids. Many will die from dessication throughout the winter. Eventually, homeowners will see more ladybug “activity” as day time temperatures warm up during the winter months. This can be a frustrating time but be assured they will leave once the trees begin to leaf out.

Q. Can I use "flea bombs" to get rid of the beetles?
A. This method will only kill beetles that are in exposed areas of your home; this is considered only a temporary fix. These products don't penetrate walls or other crevices easily. Any beetles showing up after the insecticidal fog has dispersed will not be killed.

Q. Will the beetles be back next fall?
A. Yes!

For more detailed information go to Ohio State University at website: ipm.osu.edu/pageview.asp?id=6
What is a Cover Crop? A cover crop is "any crop whose main purpose is to benefit the soil and/or other crops in one or more ways, but is not intended to be harvested for feed or sale". Cover crops have been part of agriculture for at least a few thousand years, but have recently received renewed attention as the result of environmental and economic concerns.

Benefits of Cover Crops: Conventional agricultural practices can result in environmental problems such as soil erosion, surface and groundwater pollution, and overdependence on fossil fuels and other inputs. There is increasing interest in developing sustainable agricultural systems that decrease reliance on chemical and fossil fuel inputs by enhancing biological processes. Cover crops are an important component of a sustainable system.

Improve Soil Fertility: There is increasing interest in the use of cover crops to improve soil fertility. Much of this interest stems from a heightened awareness of the negative environmental impacts of synthetic fertilizers, including ground- and surface water contamination, long-term soil productivity, and the energy-intensiveness of fertilizer production. Cover crops are capable of trapping residual nitrogen in the soil and, in the case of legumes, fixing atmospheric nitrogen.

A successfully established leguminous cover crop can replace some or all of the nitrogen fertilizer needed to produce crops. Both legumes and non-legumes can help recycle and increase the availability of phosphorous, potassium and micronutrients. The quantity and availability of nitrogen provided by the cover crop depends on many factors:

- the current level of nitrogen in the soil -- legume nitrogen fixation is reduced by 2.5 pounds per acre for every one pound of available soil nitrogen; to facilitate nitrogen fixation, precede the cover crop with a crop that will uptake high levels of nitrogen
- the cover crop species -- different legume species contribute varying quantities of nitrogen (see chart cited below); also, the nitrogen content of the same legume species can vary according to environmental conditions and management strategies
- the growth stage of the cover crop when killed -- some studies have shown that the highest nitrogen levels are achieved when the cover crop is killed at the full bloom or pod stage; however, yield loss could occur if the cover crop delays planting; for best results, time cover crop planting and incorporation so that they don't interfere with optimal cash crop planting schedules
- landscape position -- one study revealed that nitrogen fixation by peas was higher on bottomland than on slope and ridge sites
- method of cover crop suppression and incorporation -- tillage operations can affect nitrogen availability; a leguminous mulch may be vulnerable to nitrogen loss from volatility in areas of high moisture and temperature.

Additional benefits include improvement of soil structure, a reduction in insect disease and nematode populations, a reduction in groundwater contamination, weed suppression and reduced production costs.

Winter Cover Crops for North Carolina
For more details go to website: www.ces.ncsu.edu/chatham/ag/SustAg/wintercrops.html

Legumes
- crimson clover (Trifolium incarnatum)
- Austrian winter pea (Pisum sativum subsp. arvense)
- yellow sweetclover (Melilotus officinalis)
- subterranean clover (Trifolium subterraneum)
- lupin (Lupinus spp.)
- red clover (Trifolium pratense)
- hairy vetch (Vicia villosa)
- annual white sweetclover (Melilotus alba)
- berseem clover (Trifolium alexandrinum)
- white clover (Trifolium repens)
- faba bean (Vicia faba)
- Sericea lespedeza (Lespedeza cuneata)

Non-legumes
- cereal rye (Secale cereale)
- mustard (Brassica nigra)
- winter wheat (Triticum aestivum)
- annual ryegrass (Lolium multiflorum)
- barley (Hordeum vulgare)
- oat (Avena sativa)
- rape (Brassica napus)

For more information go to website: www.ces.ncsu.edu/chatham/ag/SustAg/reading.html to learn more about the benefits and challenges to cover crops (Debbie Roos, NCSU Extension Horticulture Agent in Chatham County).
When the fall leaves begin to drop many folks are inspired to start a compost pile. For more information contact your local Extension Center or go to website: www.ces.ncsu.edu/depts/hort/hil/pdf/ag-467.pdf

Sincerely,

Christy Bredenkamp, Extension Agent
Agriculture-Horticulture

NC STATE UNIVERSITY

Jackson County Center
538 Scotts Creek Road, Suite 205
Sylva, NC  28779