Hopefully most of you are now reading this newsletter online. If you are, consider dropping a note to tom_glasgow@ncsu.edu so I’ll have some idea of the number of people making the transition. Comments on the format etc. would also be welcome. In other words, does an online version work for you?

**Household Electronics Recycling Event**

Craven County Clean Sweep will sponsor a household electronics recycling event on August 8, 10 AM to 2 PM, here at the Craven County Agricultural Building. Unwanted or unusable electronics items including computer parts and televisions will be accepted at no charge. Call 633-1477 for additional information.

**Household Hazardous Waste and Electronics Collection Event**

Can’t get rid of all your electronics on August 8? Dispose of electronics and more on Saturday, October 17, from 8 a.m. to 1 p.m. at Craven Community College. Here are some details from The Coastal Environmental Partnership:

**Accepted Materials:** Latex and oil paints, used motor oil, lawn and garden fertilizer and pesticides, farm pesticides, gasoline, drain openers, paint Thinners, cooking oil, anti-freeze, batteries, computers, televisions, CRT’s, printers, used cell phones and other electronic waste for recycling from households (no commercial or institutional electronics accepted).
**We Do Not Accept:** Commercial waste (except farm pesticides), gas cylinders, explosives, ammunition, or infectious, biological or radioactive wastes.

**Materials must be labeled or easily identified. No “Mystery Cans.”**

### Herbicide Contamination Issue

Some of you have probably heard something about recent problems with herbicide carryover in hay, manure, compost and grass clippings. You can find an extensive article on this problem linked to our website. On the same page the horticulture newsletter is posted, look for “Herbicide Carryover in Manure” under Interesting Links. Or, I’ll be glad to mail a paper copy on request. Briefly, a number of farmers and home gardeners in the state have reported damage to crops after applying horse or livestock manure, compost, hay or grass clippings to the soil. Symptoms of damage may include poor seed germination; death of young plants; twisted, cupped and elongated leaves; misshapen fruit; and reduced yields. The herbicides of greatest concern are picloram, clopyralid and aminopyralid, although fluroxypyr and triclopyr can also be involved. They can remain active in the soil for extended periods of time, and can remain active in manure even after composting. In livestock production, this class of herbicides is used to control a wide variety of broadleaf weeds, including several toxic plants that can sicken or kill animals that graze them or eat them in hay. See the article for further details, including a simple bioassay you can use to determine if the compost or mulch you have is safe for plants or germinating seeds.

### Hydrangea Questions

Here are a couple more reader questions. How can we affect the color of the flowers, and how do we dry hydrangea flowers? First, from an old University of Tennessee note in my files (going almost back to my time as a horticulture student there in the ’70s): “If you have a hydrangea with blue flowers and want a pink flower, add dolomitic lime at the rate of 1/3 cup per foot of plant height. Sprinkle the lime around the plant and about 6-8” beyond the foliage spread and work into the top ¾” of the soil. Water thoroughly. If the color still has blue coloration repeat the application at the same rate or at a higher rate depending on the amount of color change observed. If you have a pink flower and you want to change to a blue color add one tablespoon of sulfur for each one foot of plant height. Spread evenly on the soil surface 6-8” beyond the foliage spread, work into the top ¾” inch of soil, and water thoroughly. Repeat the operation the next year in proportion to the shade of blue color desired. Do not exceed recommended rates or plant injury may result.” It’s a safe bet to assume that the sulfur referred to is the elemental sulfur (around 90% to 92%) commonly available in garden centers. Greenhouse operators and other professionals are generally approaching this issue in a more complex, calibrated manner, but the above suggestions are certainly worth a try in the home landscape. As for drying the flowers, here’s some advice from the US National Arboretum: “One of the easiest ways to preserve these flowers is to allow them to almost completely dry on the plant. Do not collect them until the flowers have developed a papery feel. On a dry day with low humidity, cut the stems the length you need for making floral arrangements. Strip off all leaves and then find a dry place indoors where the flowers can finish drying. Some people recommend using a warm, dark location, such as an attic. Others prefer a cool, dry location. Flowers can be hung upside down while being dried, or can be placed in a vase with or without water.”

### Landscape

By early July or so the redbud leaffolder is much in evidence in Craven County and elsewhere. Here’s a helpful paragraph on this pest, from a 1999 North Carolina Pest News article (NCSU). “Redbud leaffolders are small caterpillars that apparently feed only on redbud. They fold a part of a leaf over or web adjacent leaves together to feed within the shelter formed. There are two
generations each summer. The adult is a small, black moth with white spots. The moths are extremely active and run, jump, and fly readily when disturbed. The caterpillars are black with white markings (or white with black markings depending on your view). When leaves are pulled apart, the caterpillars usually go into a frenzy of thrashing about and drop to the soil. Because they fold the leaves together tightly, it may be best to use a systemic pesticide such as Orthene. Whatever pesticide is used should be sprayed thoroughly to soak where the leaffolders are feeding.'

Earlier this summer I had an opportunity to do a bit of kayaking in SE Virginia near my parents' home in Bristol, Tennessee. Perhaps the prettiest sight along the river that day was a large stand of native phlox in full bloom. Garden phloxes are wonderful perennials for Eastern NC landscapes, but we do need to be careful to select for powdery mildew resistance. ‘David’ has worked extremely well in my home landscape, and there are a number of other good choices you should be aware of. A recent article by Kim Hawks published in the Triangle Gardener suggests ‘Delta Snow’ (white), ‘David Lavendar’, and ‘Robert Poore’ (medium-pink). An October 2002 research report from the NCSU research station in Fletcher concluded after three years of observation that ‘David’, ‘Delta Snow’, ‘Natascha’, ‘Robert Poore’, ‘Speed Limit 45’ and the species Phlox caroliniana exhibited a high degree of disease resistance even under severe powdery mildew pressure. ‘Fairest One’, ‘Magnificence’, ‘Miss Jo-Ellen’, ‘Miss Katherine’, ‘Nora Leigh’, and ‘Rosalinde’ were rated Moderately Resistant. ‘Franz Schubert’, ‘Miss Margie’, ‘Nikki’, ‘Starfire’, ‘Miss Jill’, ‘Miss Mary’, ‘Russian Violet’, ‘Tenor’, ‘White Admiral’, ‘Miss Karen’, ‘Mt. Fujiyama’, ‘Sir John Falstaff’, and ‘The King’ were rated Poorly Resistant. There are certainly numerous other phlox cultivars out there with good, bad and indifferent powdery mildew resistance, but hopefully these examples provide a good start to the conversation. Good air circulation can reduce powdery mildew. Unfortunately, good air flow won’t do anything to dissuade the deer and they seem to like garden phlox pretty well. Indian hawthorn (Raphiolepis umbellata) is unfortunately yet another landscape plant that should be selected with some deference to disease pressure. The problem in this case is the same Entomosporium leaf spot that affects red tips (Photinia x fraseri). There are a variety of articles and research reports on the subject, including a test conducted in Tifton, Georgia and reported by J.M. Ruter. Based on evaluations in 1997, 1998 and 2001 (when weather conditions were suitable for disease development), ‘Minor’, ‘Georgia Petite’ and Olivia™ demonstrated excellent resistance. ‘Georgia Charm’ rated as “good”. Eleanor Taber™ and ‘Pink Pearl’ had moderate resistance. ‘Snow White’, ‘Clara’, Ballerina®, Bay Breeze®, Cameo®, ‘Elizabeth’, and ‘Kathy’ were rated as “unacceptable” and were discouraged for landscape use in the southeastern US. Interestingly, the bacterial disease fire blight may occasionally show up on Indian hawthorn; in the trial, minor fire blight damage occurred on Olivia™. By the way, there is rhyme and reason to all the “trademark” and “registered” symbols on the plant names given above. Maybe we can address that in a future newsletter article.

A publication from Cooperative Extension in Florida titled “The Florida Yardstick Workbook” provides some of those hard-to-track-down guidelines: One bale of pine straw should cover about 18-20 square feet, at the recommended depth of 3 inches. A bag containing 2 cubic feet of mulch should cover 8 square feet, also at 3 inches depth.

As we move into August, we should avoid landscape chores that tend to push new vegetative growth on our trees and shrubs. This would include fertilization, heavy pruning or unnecessary irrigation. August is a time of year to lay back a bit more, and allow nature to takes its course as trees and shrubs harden off for winter. By way of example, presenters at the 2000 Southern Nursery Association Research Conference suggested no fertilization after the end of July and reduced irrigation initiating around mid August as strategies for protecting the winter hardiness of crapemyrtles (they also called for no pruning in the fall or early winter – so wait until around late February/early March in our region). By late July, and certainly by early August, there’s a good chance of encountering the azalea caterpillar. Adults are noticeable for their reddish heads, reddish legs and black bodies with longitudinal yellow markings. They can do a lot of damage in a hurry. General caterpillar controls for shrubs include Bt products such as Dipel; Orthene;
pyrethrins (Pyrenone), insecticidal soaps, and spinosad (Conserve). Scout frequently and reapply as needed. How do you distinguish caterpillar damage versus slug damage on landscape flowers? According to a July 17 NC Pest News Article by Extension Entomologist Steve Frank, “Caterpillar damage to bedding plants can be distinguished from slug or beetle damage because caterpillars generally consume large areas of leaves including all but the largest veins. Slugs will leave a messy trail of slime and feeding damage will appear irregular.” Consider removing caterpillars by hand if found in hanging baskets and small plantings.

**Turf**

By the end of July or the very earliest part of August, you should attempt to wrap up any fertilization of established centipedegrass or seeding of new centipedegrass lawns. The seed may germinate quite well but not make it through the first winter in very good condition. This has been a summer, at least in Craven County, when a strict as-needed-only approach to turf irrigation would probably result in the sprinklers never being turned on, except on the sandiest soils. Certainly as we head into August, we should consider reducing irrigation a bit, so our lawns can slow down and begin to harden off.

Examples of advice you might come across in very general, generic magazine & newspaper articles: 1) *The best time to water your grass is between 6 AM and 10 AM.* In fact, plant pathologists warn against watering practices that extend the period of nighttime leaf wetness. It would be better to water *during* the night than to water prior to dusk or first thing in the morning, as these times will extend the time of high moisture on the leaf blades. 2) *Set your mower blade one notch higher to prevent water loss.* Mowing too high can result in problems for various lawn species, including thatch on zoysia and increased likelihood of winterkill on centipedegrass. Maintain centipedegrass at the recommended height of 1.0 to 1.5 inches; it will have plenty of drought tolerance at that height.

**Fruits and Vegetables**

Good advice from a fellow Extension agent just recently, regarding whiteflies on collards. To summarize: 1) Don’t grow summer collards. 2) Neem oil, insecticidal soap, pyrellin – which have limited efficacy – can be applied late at night or early in the morning (on virtually a continual basis) to catch as many “sleeping” adults as possible, while avoiding honeybees. Malathion can be used as well, but is pretty rough on the bees. 3) Don’t grow summer collards.

More comments on blossom-end rot (BER), this time from Dr. Steve Olsen of the University of Florida: “Blossom-end rot (BER) is caused by a localized calcium deficiency in developing fruit. It begins with light tan, water-soaked areas which can then enlarge and turn black and leathery in appearance. Most often the problem occurs at the blossom end of the fruit, but on occasion can occur on the side. It may also occur internally with no visible symptoms on the outside of the fruit. Many factors can influence BER. The following conditions may increase BER: low soil calcium, high nitrogen rates, using ammoniacal sources of nitrogen, high concentrations of soluble potassium and magnesium in the soil, high salinity, low humidity, inadequate soil moisture, damage to the root system by nematodes, disease or mechanical means or heavy pruning. Foliar applications of calcium materials have not proven to reduce BER since very little calcium is taken up by the fruit and that taken up by the leaves cannot be translocated to the fruit. Control is through proper fertilization and good water management.”

Another use for cherry tomatoes – you might consider these as a trap crop for box turtles, which occasionally forage on vegetable gardens. The turtles can be pretty easily fenced out, or diverted to cherry tomato vines which have been planted elsewhere and allowed to flop on the ground.
We’ve received more than a few complaints this year regarding poor fruit set on squash. This is usually related to a lack of pollination. Squash are quite dependent on bees, unless you hand pollinate (more on that in a moment). And I know that at least one caller was routinely spraying insecticides at times when the bees would be in the garden or trying to get in. Sometimes we’re not getting the right mix of male/female flowers. As an excellent vegetable garden note from the University of Florida explains, “The plants may produce only male flowers or only female flowers. Flower sex is influenced by temperature, seasonal day length, plant maturity and hormones.”

The male and female flowers are quite easy to pick out, with a little practice. Female flowers will have a small, rudimentary squash visible on the stem just behind the flower; male flower stems will be straight. For small plantings, hand pollination – involving the brushing of male flowers against female flowers - is a perfectly good way to increase squash production. Techniques are illustrated in the information note cited above, titled “Home Vegetable Garden Techniques: Hand Pollination of Squash and Corn in Small Gardens”, and available at:

http://edis.ifas.ufl.edu/HS398

Give me a call at 633-1477 if you have trouble accessing this note and I’ll send along a copy.

Upcoming Events

**August 7:** North Carolina Muscadine Grape Association Summer Bus Tour, originating in Concord (near Charlotte). Visit [www.ncmuscadine.org](http://www.ncmuscadine.org) for information.

**August 8:** Household Electronics Recycling Event, Craven County Agricultural Building, 10 AM to 2 PM. Unwanted or unusable electronics items including televisions will be accepted at no charge. Call 633-1477 for information. Sponsored by Craven County Clean Sweep.

**August 12:** 2009 Turfgrass Field Day, Lake Wheeler Road Turfgrass Field Laboratory, Raleigh. Contact Tom Glasgow at 633-1477 for registration forms, or visit [www.ncturfgrass.org](http://www.ncturfgrass.org)

**August 15:** Plant Propagation, presented by Tim Minch of Tryon Palace, 10 AM. Free and open to the public. Call 633-1477 for information.

Beekeepers meet the third Tuesday evening of each month at 7:30 PM at the Craven County Agricultural Building, with the exception of November and December. Everyone interested in bees or beekeeping is welcome to attend.

The Eastern NC Rose Society meets the first Saturday of each month at 10 AM, also at the Agricultural Building. If you have a strong interest in roses, stop by for one of their meetings and maybe consider becoming a member. Be sure to visit their demonstration garden on the grounds of the Agricultural Building.

Any reference to trade names is made with the understanding that no discrimination is intended and no endorsement by NC Cooperative Extension is implied. Use pesticides safely. Read and follow all label directions.