

Horticultural News – May 2006

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Warm Winter & Aquatic Weeds

According to NCSU Extension aquatic weed specialist Rob Richardson, the unusually warm weather this past winter has given aquatic weeds a head start into the 2006 growing season. As of mid April, filamentous algae, parrotfeather, watermeal, duckweed, and many other aquatic weeds were growing quite well with some small ponds already covered. So expect 2006 to be a bit worse than other years in terms of aquatic weed problems. You may not recognize by sight all the abovementioned weeds (I certainly don't), but be aware that your local Extension office can assist in identification and control recommendations by way of our specialists on campus. Feel free to bring in samples and/or photographs. Your willingness to keep an eye out for suspicious, heavy aquatic weed infestations will be much appreciated because our state does face several challenging weed problems in our lakes and streams.

Emerging Pest Problems of Concern

David Pearce, a Plant Pest Specialist with the North Carolina Department of Agriculture & Consumer Services, recently presented a short program on emerging and potential weed, insect and disease problems of concern to our state. Below is a very brief summary.

1. Sudden Oak Death (SOD) – List of known susceptible host plants continues to grow. Final host is various species of oak; not known to be established in N.C., but infected plants have been located in garden centers.
2. Emerald Ash Borer (EAB) – Huge problem already in Michigan; populations also established in Windsor, Ontario, Canada; and several locations in Ohio. Infested ash nursery trees were found in Maryland and Virginia. All ash species are at risk; major threat to ash trees all across North America.
3. Viburnum Leaf Beetle – Established in New York and Maine. Looks like Japanese beetle damage taken to ridiculous extremes. Don't move viburnums from up north down south!
4. Hosta Virus X – Causes stunting, yellowing, "bleeding" of green color from veins, and other symptoms. Of major concern in the perennials industry. Some cultivars more susceptible than others. Submit suspicious plants to the Plant Disease and Insect Clinic through your local Extension office.
5. Sirex Woodwasp – Potentially a major threat to our loblolly pines. Not in the area yet, as far as we know.
6. Tropical Spiderwort – a.k.a. Benghal dayflower. Has spread to more than 200,000 acres in Georgia and Florida, and has been identified in N.C. Known to be tolerant of many herbicides, including glyphosate (Roundup, etc.).

Please give us a call at 633-1477 for more detailed information on any of the above.

Landscape

Crapemyrtles not blooming well over the past couple of years? I've always considered crapemyrtle to be a sun lover, but according to information from the United States National Arboretum, full sun may be more critical than most of us realize for good flower production. An information note posted on their website states the following: "Crapemyrtles flower most heavily in full uninterrupted sunlight. Even an hour of shade during the day will compromise flowering." That sets a pretty high standard for full sun. The note goes on to say that frequent irrigation, lack of heat (no problem here), and overfertilization promote vegetative growth at the expense of flowering. In extreme drought conditions or cool, rainy summers, flowering may be delayed until early autumn. What does the U.S. National Arboretum suggest for Japanese beetles? That section of the note is worth reproducing in full:

"Remove the beetles by tapping infested branches over a bucket of soapy water. The beetles drop to the ground when disturbed, and a gentle tap is enough to induce them to drop into the water. Japanese beetles are generally found near the flower clusters at the tips of branches, so focus your effort on the ends of branches that are just coming into bloom. Hand removal is most effective if you start early, just as the adult beetles emerge in early summer, and make their removal a daily task. Japanese beetles release two pheromones – one is an aggregation pheromone that signals other Japanese beetles to come to a suitable host plant to feed, and the other is a sex pheromone that females use to attract males. If you remove the beetles daily, especially just when they are emerging, you will limit the amount of pheromone left on your crapemyrtles and often this measure is enough to avoid any real damage to the blossoms. Traps containing pheromones are largely ineffective since they attract many more Japanese beetles than they trap. Treatment of turf with milky spore to control the grubs is a help, but large areas of turf must be treated – an entire neighborhood must participate if a noticeable reduction in numbers is expected, and effective control does not take place until about four years after the initial treatment. Avoid spraying Japanese beetles with harsh pesticides, since many pesticides kill aphid predators. A rebound aphid problem is often the result when pesticides are used to control Japanese beetles and aphid predators are inadvertently killed."

Moving on to roses, Master Gardener and Eastern NC Rose Society Member Joe Gawek recently met with a group of Master Gardeners visiting from Carteret County. Joe reiterated the excellent performance of the Knock Out rose series, and also suggested 'Gourmet Popcorn White' as an excellent low maintenance rose. The Society is also testing 'Pretty Lady Pink', which is supposed to thrive on neglect and have great resistance to black spot. Based on many years of observation here at the Agricultural Building, I'd also suggest 'Carefree Beauty' and 'Nasturina' as excellent selections which don't really need to be sprayed. At all. By the way, research reported in *Arboriculture & Urban Forestry* (May 2006) indicates that white and yellow rose flowers attract more Japanese beetle adults than the darker colors such as apricot, orange, pink, mauve, and red.

Which tree species are shallow rooted and which are deeply rooted?

Here are some relevant comments from Thomas Perry, retired forestry professor from N.C. State: "There is no such thing as a 'shallow rooted' or a 'deep rooted' species of tree. Wet site species such as cypress, tupelos, maple and willow trees will grow down deeply into the soil, down cracks, and down sewerlines if oxygen and water supplies are adequate. Conversely the roots of pines, hickories and other upland species will scabble along the surface if the soil is too compact and hard or if oxygen cannot penetrate deeply." Elsewhere in this article, Dr. Perry states that tree roots occur mostly in the top 12 inches of the soil profile.

Now is a good time to fertilize trees, shrubs, perennials and annuals.

How do you calculate fertilizer rates over really small areas of the landscape?

Keep reading One pound of actual nitrogen per 1,000 square feet is a good, safe standard amount to apply at any one time. In estimating the amount of your particular product to apply, remember that the first number in the fertilizer grade represents nitrogen (10-10-10 is 10% by weight nitrogen; 8-0-24 is 8% by weight nitrogen, etc.). For those smaller areas, use the following suggestions to narrow down the correct amount to hit one pound nitrogen/1,000 square feet with your particular fertilizer product: For fertilizers in which the first number is:

5 – use 4 cups per 100 square feet, or 8 tablespoons per 10 square feet

8 - use 2.5 cups per 100 square feet, or 5 tablespoons per 10 square feet

10 – use 2 cups per 100 square feet, or 4 tablespoons per 10 square feet

12 – 1.5 cups per 100 square feet, or 3 tablespoons per 10 square feet

16 – 1 cup per 100 square feet, or 2 tablespoons per 10 square feet

To visualize 10 square feet, think of a strip of ground 1 foot wide and 10 feet long, or 2 feet wide and 5 feet long. For 100 square feet, that might be 1 foot wide and 100 feet long, or 2 feet wide and 50 feet long. Keep in mind that soil test reports often call for nitrogen only. Products useful for this purpose include 16-0-0 (apply 1 cup per 100 square feet) and 34-0-0 (ammonium nitrate – apply about ½ cup per 100 square feet). A word of caution: Do not apply turfgrass weed and feed products to trees, shrubs and other ornamentals. Unless the label states otherwise, you'll be running a big risk of damage to any non-turf plant species due to the herbicides contained in these products.

Turf

We've definitely had some complaints about dead centipedegrass this spring, as well as the random demand here and there that turf areas sodded last summer or fall be replaced by the landscaper or sod farm. However, weather conditions this past winter and early spring were extremely damaging to centipedegrass and we haven't yet had (as of May 15) sufficient warm weather for good recovery and greenup. Let's look at two key points. First, one might suggest we didn't even experience winter this past year, which I won't argue with; but temperatures maintaining in the high 60s and low 70s punctuated by random evenings in the high 20s is very detrimental to centipedegrass. Add to that a handful of frost events in early April and there's no wonder that we have widespread reports of

dead areas in home lawns. Lawns sodded late in the season are even more likely to have some degree of damage. I have dead grass in my lawn, and there's a fair amount of it here at the Agricultural Building. But I ignore it this time of year – which brings me to my second key point. As cited in our May 2005 newsletter, the 150-degree rule helps us to put things into perspective: Until the night temperature + day temperature equals 150 degrees F, we are not yet in prime growing weather for our warm season turf. Generally speaking, we're hitting that standard when daytime temperatures start reaching the low 90s. Unless your dead spots have organized themselves into very distinct circles – indicating large patch, most likely – the best thing to do about dead centipedegrass this time of year is to ignore it. And remember some key strategies to minimize winter/early spring cold damage on centipedegrass: Maintain a mowing height of about 1.0 – 1.5 inches; no nitrogen fertilizer before May 15 or after August 1; fertilize lightly (if you do fertilize) to maintain a light apple green color, not gourd green; and soil test to make sure you have adequate levels of potassium. Bahiagrass is best controlled (or suppressed) before the development of the Y-shaped twin seedheads in early summer. If you know where it was prevalent last year and especially if you're becoming more familiar with its vegetative appearance, treat with Vantage or Manor according to label directions. Southern Speedzone should give you a little better control of annual lespedeza, especially if you treat by early June. As you may recall, annual lespedeza is the creeping, somewhat clover-like weed which develops purplish flowers later on in the summer.

Fruits & Vegetables

Why do some grape vines fail to set fruit? Why do we occasionally see miniature grapes just getting started, only to fall off before getting any larger than the head of a pin? Or flowers which open up but then fail to even initiate fruit set? According to small fruit experts at N.C. State, the most likely answer is a female flowered cultivar that has not been adequately pollinated. Has the vine ever set fruit? If not, this is the likely answer. Female cultivars which require a pollinator include Black Fry, Early Fry, Higgins, Scarlett, Summit and Supreme. They can be pollinated by perfect flowered varieties such as Carlos, Noble, Cowart, Triumph & Nesbitt. Scuppernong, which has been used almost as a synonym for muscadine through the years, is actually just another cultivar of the muscadine species. It too is a female vine and would need a pollinator. If you don't know the cultivar identity of your particular vine and fruit set has been poor or nonexistent, assume a pollinator is needed.

A *possibility* is disease, most likely powdery mildew. From our grape manual, "Powdery mildew attacks berry clusters and young grapes just after flowering. Infected grapes are covered with a white fungus growth. As the grapes enlarge, the fungus growth disappears, but the grapes become rough-skinned and may crack. Grape drop and reduced size of grapes results." As described, this chain of events doesn't seem to explain very tiny grapes which fall off, or flowers which don't develop into fruit at all. Bitter rot, another frequently discussed grape disease, sounds even more off base: "Bitter rot infection occurs shortly after bloom. Just before harvest, infected grapes turn black with spore-bearing

structures erupting through the skin of the fruit.” Seems to me that in this case, as with powdery mildew, you actually see grapes develop through the summer.

According to Connie Fisk in the Duplin County Extension office, fungicides are generally not necessary on backyard muscadine grape vines. Good air circulation and light penetration will promote drying of plant parts and minimize disease incidence. Wetable sulfur can be effective against powdery mildew if that problem develops. And Captan may or may not be effective against bitter rot, depending on which report you're reading. If you suspect powdery mildew or bitter rot on your grapes, submit a sample to the Plant Disease and Insect Clinic through our office to confirm, before spending the money on fungicides. But to sum up, disease doesn't seem to be a likely explanation for the lack of fruit development that we've seen on some vines over the past few years. I would also suggest that poor soil fertility, as in insufficient soil potassium or phosphorus, might explain poor vigor or even poor fruit set, but is not at all likely to explain a complete failure of fruit set.

Upcoming Events

June 1-2: Annual Vermicomposting Workshop, Raleigh. Sponsored by NCSU. For information and to register, visit <http://bae.ncsu.edu/workshops> or call Tom Glasgow at 633-1477.

June 9: Precision Vegetable Seeder Demonstration & Field Day, Village Creek Farms. Please contact Mark Seitz at mark_seitz@ncsu.edu or 252 448-9621 to register.

June 17: Shade Trees for Craven County Landscapes, 10 AM, Craven County Agricultural Building. Free and open to the public. Call 633-1477 for information.

Beekeepers meet the third evening of each month at 7:30 PM at the Craven County Agricultural Building. 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.