



Coming Events

Workshops, Demos, etcetera

Thurs., July 11, 10:00a and 6:00p

Food Preservation

Thurs., July 25, 10:00a and 6:00p

Shade Gardening

Fri., July 26, 10:00a

*Tour of Buster Sykes Demonstration Orchard
2430 Turner Road, Mebane*

Thurs., Aug. 8, 10:00a and 6:00p

Fall Vegetable Gardening

Thurs., Aug. 22 10:00a

Fall Lawn Care

Thurs., Sept. 12 10:00a and 6:00p

Fall Flowers-The Pollinator's Picks!

Wed., Sept 18, 9AM-6PM

MASTER GARDENER PLANT SALE

Thurs., Sept. 26 10:00a and 6:00p

Composting—Let It Rot!

Classes will begin in the auditorium at the Agricultural Building and are free unless otherwise indicated.

Registration is required.

Call 336-570-6740, or register online here:

<http://alamance.ces.ncsu.edu/>

Contact us :

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Arthropods At The Feast

There are more than a million species of arthropods, the majority of which are insects. This time of year, it seems like they are ALL camped out in your garden, eyeing your tomatoes and roses. Fear not!

By now, you've probably heard that some bugs are "beneficial". But, how do you tell the "good" guys from the "bad" guys?

Fact is, only a tiny percentage of all of these bugs is damaging. Most arthropods fill their roles in the natural world as decomposers, pollinators, predators or parasites of other bugs, and/or have aesthetic attributes we appreciate (butterflies). Some are even product producers (honey bees). Bottom line is that *most* insects are beneficial.



So, no big deal, right?

Actually, by the time you notice this damage, the tiny rose slug—larva of a nectar-feeding sawfly—is probably long gone, so treatment of any kind would be a waste of time, money and effort. Luckily, this sawfly has only one generation a year and the rose will recover to bloom in short order.

So, what to do to prevent this unsightly damage next year?

Here are a few steps to take to keep things glowing in the garden.

Step 1: Monitor and scout insects regularly. Take a daily walk around the garden and look for suspicious characters. You might have seen a tiny green worm beginning to feed on your rose leaves if you had checked earlier in the year.

Step 2: Identify the pest and the host accurately. Here's where we can help. Take a clear picture of the suspect and its host plant and send it to either Mark or me via e-mail. Or bring the bug and the damaged part of the plant in to our office.

Step 3: Assess and consider economic or aesthetic thresholds. A threshold is the point at which action should be taken. Chances are your plant has a higher threshold than you!

The IPM Approach

Pest management rather than eradication of pests is the goal of IPM, or Integrated Pest Management . By using multiple tactics it is possible to keep pests below damaging levels. Here are the tactics in order of environmental impact from least to most:

Cultural Control:

A happy, healthy plant is more resistant to attack. For example, an azalea growing in full sun is more susceptible to attack by lace bugs. Site the plant properly and prepare the soil well, adding organic matter and any amendments recommended by a soil test. Keep plants watered well until established and mulch to conserve moisture and reduce weed pressure



Physical (Mechanical) Control

- ◆ Hand picking . Here is where your scouting skills can really make a difference. Carry a jar of soapy water on your walk around the garden and deposit pest insects as you encounter them. You may not get every Japanese beetle, but putting a dent in their population will reduce the amount of damage.
- ◆ Check the undersides of leaves for clusters of eggs laid by pest insects. Removing the egg cluster along with the adult in the picture at left would eliminate 18 squash bugs.
- ◆ Set a beer trap for snails and slugs by partially embedding a small dish of beer in the soil near the affected plants

Biological Control—Predators, Parasitoids and Pathogens

The greatest single factor in keeping plant-feeding insects from overwhelming the rest of the world is that they are food for other insects.

Look for predators like the wheel bug pictured. This true bug will help you in your quest to conquer the Japanese beetles.

Parasitoids are organisms that feed on a host and end up killing or sterilizing the host in the process. Note the cocoons of a tiny parasitoid wasp on the tomato hornworm pictured. If you see this, just leave it on the plant. The hornworm stopped eating as soon as the wasp did its work.

Buyer beware: Some predators are available for purchase, but be aware that some mail-order “beneficial” insects may not be your best solution. Praying mantises, for example are nonselective in their appetites, eating as many good bugs as bad. You can buy a box of ladybugs, but they are highly mobile and won’t stay put if there’s not much to eat.

Pathogens are disease-causing organisms including viruses, bacteria and fungi that kill or debilitate their hosts. They are usually specific to certain insects. An example of this is the bacterium *Bacillus thuringiensis* (Bt) that produces a toxin that destroys the midgut of the larval stage of an insect. Several formulations are available that provide control of more than 400 insect species without harming people or domestic animals. The mosquito “dunk” pictured is *Bt Israelensis* that works on mosquitoes.



Chemical Control

If, after properly identifying the insect and exhausting these measures, the problem persists above your tolerance threshold, chemical options may be considered as a last resort. Please contact us! We are always happy to help you find a solution!

Read more about Integrated Pest Management in the Extension Gardener Handbook:

<https://content.ces.ncsu.edu/extension-gardener-handbook/8-integrated-pest-management-ipm>

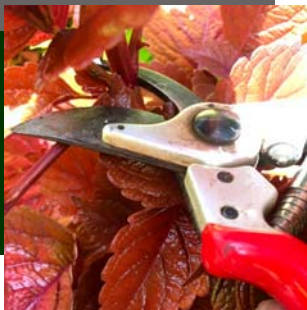
We love our bats, but... Please don't hesitate to put up a bat house for these fascinating creatures. Did you know they are pollinators? Just don't count on them to take care of your mosquito issues. While they do eat mosquitoes, bats would much rather munch on a nice juicy moth—a bigger meal for their effort than a miniscule mosquito. You won't be disappointing your local bats if you empty any standing water and use mosquito dunks in containers that can't be emptied (fountains, ponds, even birdbaths).



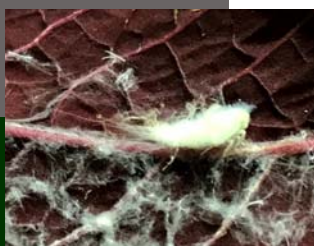
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July Garden Tips



Annual bedding plants will benefit from a summer haircut. Stagger your pruning by cutting back one-third of a bed or container each week. By the third week, the first group of pruned plants will be blooming again, assuring some color during the entire pruning period. Annual plants grown for their foliage, such as coleus and basil, will produce more leaves if the flowers are pinched out regularly.



If you're seeing fluffy white stuff on the stems and undersides of leaves in the garden, fear not! It's just the nymph of the flatid planthopper. See how it jumped when you inspected the fuzz? Although they feed on plant juices, they are usually not numerous enough to cause a problem. Check out this month's article for tips on dealing with insects.



Fertilize established warm-season (Zoysia or Bermudagrass) lawns at the rate of one pound of nitrogen per 1,000 square feet. Unlike fescue, which should be kept tall – at least 3 to 3-and-a-half inches, warm-



season lawns need to be maintained at a height of about 1". This promotes dense growth and discourages many weeds.

Even moisture at the root zone of tomatoes may help prevent blossom-end rot. Use soaker hoses or drip irrigation rather than overhead watering to reduce disease pressure and keep plants mulched. Even moisture is also key to preventing bitterness in cucumbers.

Plant Brussels sprouts, carrots and rutabagas from July 1st to the 15th. Around the middle of the month begin planting beets, broccoli and collards. Keep summer vegetables picked to encourage production.

Mature vines of poison ivy, trumpet creeper, English ivy and wisteria that climb your trees can be killed at this time. Cut a chunk from the vine near the base of the plant, being careful not to cut the resident tree. Apply brush killer to the cut. The cut must be fresh – no more than 15 minutes old. Bag vines and dispose of in the trash. Never burn poison ivy!!!

Brown patch is a disease that attacks cool-season lawns and is encouraged by overwatering and over fertilizing with nitrogen. Allow your cool-season (Fescue) lawn to go dormant, watering only if there has been no rainfall for three or four weeks. Remember that no lawn grass is green year round.

Take semi-hardwood cuttings of spring-blooming shrubs such as azaleas and camellias. Remove most foliage from a four- to six-inch cutting, dip the cut end in a rooting hormone, then stick the cutting in moist potting medium. Pre "drill" the holes with your finger or a pencil to keep the powdered rooting hormone from scraping off. Place the cuttings in the shade and keep them moist by misting or placing them under cover in a large translucent box or plastic bag. Make sure to keep the plastic from touching the foliage by using small stakes to prop the bag away—wooden skewers work well for this. After about three months, a healthy root system should be growing strong.

Arbor Gate Plant of the Month



Flame acanthus

Anisacanthus quadrifidus var. wrightii

In its native territory, Flame acanthus is known as “Texas firecracker” and grows to be a woody shrub up to six feet tall. Here in Zone 7 *Anisacanthus quadrifidus var. wrightii* will most likely be killed to the ground by winter. Lucky for us, this hummingbird and butterfly magnet springs from its roots when the weather warms, grows 3 to 4 feet tall and wide and puts on a display of firecracker red flowers that continues until frost. Happiest in full sun, but will grow in bright shade. Well-drained soil is a must, especially in winter. Also called Wright’s desert honeysuckle after world-wide botanical collector, Charles Wright, this plant is easily able to withstand summer’s heat and drought, and is an excellent candidate for that dry area the hose just won’t reach. Here it shines in our parking lot Scree Garden. This great Texas native is not a favorite of deer. Read more here:

https://www.wildflower.org/plants/result.php?id_plant=anquw

