Pollinator protection: More than monarchs and milkweed
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By now, most of us have heard about pollinator decline and may even be participating in conservation efforts. Monarch butterfly conservation is a hot topic, and I’ve given several programs in schools and communities about pollinator protection.

Concern for monarch butterflies arose in the 1990s when observers reported dramatic reductions in monarch populations overwintering in Mexico and California. The loss of milkweed plants (*Asclepias* sp.) along migratory routes between Canada and Mexico is considered a primary factor.

Unlike bees, who construct or commandeer a nest and provision it with pollen to nourish larvae, butterflies lay their eggs on plants. And not just any plant will do. Each butterfly species seeks out particular plant species to host her eggs and larvae because that plant provides specific nutrient needs for that type of caterpillar. Between hatching and pupating, monarch caterpillars exclusively eat milkweed leaves. To help restore monarch habitats, conservation organizations urge people across the nation to plant milkweed.

Unfortunately, monarchs are not alone in the crisis of habitat loss. Other butterflies are losing the host plants that nourish their larvae. Zebra swallowtail caterpillars feed on the leaves of pawpaw trees, a native fruit plant that gets cleared out by urbanization and is rarely replanted in landscapes. Spicebush swallowtail caterpillars feed on leaves of spicebush, red bay trees, and sassafras trees. Red bay trees are dying throughout the southeast because of laurel wilt, a fungal disease introduced into them from an invasive ambrosia beetle that is native to Japan and India.

While the principle of providing flowers and host plants to sustain migratory monarchs is sound, social fixation on a single plant, like milkweed, may ultimately jeopardize the dynamic biodiversity of local ecosystems. If we widen our viewing lens and plant selection,
however, we can help protect the 1,200-plus native and resident pollinators in Georgia, including 725 species of butterflies and over 540 native bee species.

As home- and land-owners, we can support pollinators by designing our landscapes with a variety of flowering trees, shrubs, and herbaceous plants that bloom sequentially from early spring until the first fall frost. Native plants in their natural forms provide the best nourishment and habitat for pollinators. Native plants and pollinators did, after all, develop over countless generations to support each other. On the other hand, exotic plants and some native plants that have been cultivated for traits like double blooms often lack the nectar and pollen that reward bees and butterflies for their pollination services.

The UGA publication Selecting trees and shrubs as a resource for pollinators provides photographs and descriptions of pollinator-friendly plants for your landscape, and the Georgia-Piedmont Chapter of the North America Butterfly Association offers a quick guide to common Georgia butterflies and their host plants. You can also see several native fruit and nut plants up close and in person at the Forsyth County Sustainable Orchard, located in Chattahoochee Pointe Park. In addition to providing food for people and pollinators, these flowering trees and shrubs make hardy, attractive landscape plants. The orchard is open to everyone for learning and tasting.

**Landscape basics for new homeowners: Lawn care**

By Heather N. Kolich

Whether you’re a first-time homeowner or new to home-ownership in Georgia, your new home probably came with a yard adorned with a variety of plants. As with all living creatures, landscape plants need care.

In this series, we’ll break landscape management down into basic parts – lawns, trees, and shrubs. Principle tasks include managing growth, controlling pests, and maintaining adequate irrigation and fertility.

**Lawn care basics**

In suburban settings, turfgrass tends to be a large percentage of the landscape. Unfortunately, lawns have a high labor requirement.

*Task 1 – Identify your grass.* Different species of turfgrass require different soil conditions, mowing heights, and seasonal care. Tall fescue is the typical cool-season lawn grass, with active growth during fall to early spring. The more common warm-season lawn species in North Georgia are bermudagrass, zoysiagrass, and centipedegrass. Their active growth season is late-April to September.
Task 2 – Mowing and trimming. During active growth, mow turfgrass frequently enough to maintain the recommended blade length (mowing height) without removing more than one-third of the blade. Mowing frequency depends on conditions such as grass species, irrigation, frequency of fertilization, and weather. Recommend mowing heights are 2-3 inches for tall fescue, and 1-2 inches for bermuda, zoysia, and centipede grasses. During hot weather, let the grass grow a half-inch taller between mowings.

Use a string trimmer to tidy areas too tight for the mower and to make clean edges, but avoid using it around the base of trees. Mowers and trimmers can damage tree roots and bark.

Task 3 – Irrigation. Lawns are high water-use areas, but according to the EPA, half of summer irrigation water is lost to evaporation, wind, and runoff, or is otherwise wasted through overwatering.

Lawns need around one inch of water weekly. Invest in a rain gauge to measure weekly rainfall, and you’ll save money – and maybe your lawn – by supplementing with irrigation only when necessary. Deeper, less frequent watering encourages grass roots to push deeper into the soil, making them more likely to survive during drought periods.

Time supplemental irrigation for late evening or early morning hours. This practice reduces loss of water to evaporation and limits the hours of wetness on grass blades. The longer plant leaves stay wet, the more likely they are to have fungal disease issues.

Task 4 – Weed control. Weed seeds enter lawns on wind, equipment, shoes and clothing, and in the digestive tracts of birds and wildlife. Weed control includes preventive and responsive actions.

Preventive actions:
- Don’t let weeds flower. Frequent mowing removes weed flowers before they can form seedheads.
- Make timely applications of pre-emergent herbicides to stop weed seed germination. Apply pre-emergent herbicide to lawns in late February to mid-March to prevent summer annual weeds. Apply again in late August to mid-September to prevent winter annual weeds.

Responsive actions:
- Scout for lawn weeds frequently.
- Hand pull or spot treat with appropriate herbicide when weeds are small and young. They’re easier to pull out and more susceptible to herbicides as seedlings than they are when they’re more mature.

Task 5 – Amending soil. We’re often trying to grow turfgrass in soil that’s been eroded, compacted, relocated, or excavated during the home construction process. Numerous weeds can exploit poor soil, but turfgrasses need more optimal conditions to thrive. We can improve soil condition, but it takes time, persistence, and the right amendments.
Start improving your soil by leaving grass clippings where they fall on your lawn. They’ll break down quickly, returning necessary organic matter to the soil. Next, bring a soil sample to your Extension office for lab testing before applying lime, fertilizer, or other amendments. Use the soil report as your guide for adjusting soil pH, and talk with your local Extension agent for advice on improving soil condition and fertility to nourish the type of turfgrass you’re growing.

Contact UGA Extension Forsyth County at 770-887-2418, or visit our website for more information.

Let’s Look: Pollinator feeding sites

Plants in the landscape serve many purposes. They stop erosion, produce oxygen, absorb and filter pollution, and look pretty. Some also provide food and habitat for pollinators. Here’s a way to learn how pollinator-friendly your favorite outdoor spaces are. When you’re out in your yard, jogging on the Greenway, or visiting a community garden at a library or park, take five minutes to observe one flowering plant. During this 5-minute break, use the Forsyth County Pollinator Census to record how many large bees, small bees, butterflies, or wasps visit that flower. Feel free to repeat with different flowers and at different times of day throughout the summer. This practice will help us get ready to take part in the Great Georgia Pollinator Count in 2019. Data from the Forsyth County census will be shared with the UGA Center for Urban Agriculture.

Did you see our 4-H’ers in the news?

Forsyth County 4-H students and programs gained some well-deserved media attention this summer. FC 4-H Archery Team members, coached by Forsyth County Extension Volunteer Bryan Carlisle, bullseyed their way to the national archery contests in Nebraska, where they continued to win awards. In the Recurve Archery contest, the Forsyth County team placed fourth, and team member Josef Scarboro earned the High Overall Individual title.

4-H Summer Day Camp programs provided fun and enrichment during the summer holiday. Check out the High Climbing Adventure and Horse Day videos by Studio Forsyth.
Fall fair contests – get started now!
Why are we talking about the October Cumming Country Fair and Festival already? Because winning fair contest entries don’t grow overnight!

School contests:
- Scarecrow Contest, K-5 classroom entries. Theme: Famous Georgians

Open to everyone contests:
- Baking and Canning Contests – Must feature Georgia Grown products
- Hay Contest – In conjunction with 2018 Southeast Regional Hay Contest

Visit our website for details, rules, and entry forms.

Learning with Extension – Events and Opportunities

Master Naturalist Training – September 14-November 2, 2018
Georgia Master Naturalist is an adult education program developed by the UGA Warnell School of Forestry and Natural Resources and UGA Extension. Forsyth and Cherokee County Extension will be offering the 8-week course on Fridays beginning September 14, 2018. Classes will run from 9 a.m.-4 p.m. with classroom learning in the morning and field activities in the afternoon. Topics covered include ecology, stream systems, forestry, geology, and Georgia’s wildlife. $200 tuition covers materials and field trips. Apply now – only four spots left!

Master Gardener Training 2019 – Second Saturday of each month
If becoming a Georgia Master Gardener is on your bucket list, but you haven’t been able to attend classes during the week, mark your calendar now for the 2019 Master Gardener training in Forsyth County. Learn how Forsyth County Extension Master Gardener Volunteers are Building Community through Gardening. Applications for the training will be available this fall on the UGA Extension Forsyth County website. Check back often!

College Scholarships for Horticulture Students
Forsyth County Extension Master Gardener Volunteers have created a scholarship for Forsyth County high school graduates who are pursuing a degree in horticulture. One scholarships in the amount of $1,250 will be awarded for the Spring 2019 semester to a qualified student attending or accepted to attend a two or four year Georgia college to pursue a degree in horticulture. Visit the Forsyth County Extension website for application information and form.

Got Questions?
Visit UGA Extension Forsyth County for answers, articles, upcoming events and classes, and lots more useful information.