



The Garden Path

The path to an environmentally sound and beautiful landscape

Invasive Plants

Straightforward information about what makes a plant “invasive”

by Marty Finkel, Extension Master Gardener, Granville County

Most of the following information for this article was found through the website of the NC Botanical Garden (NCBG) in Chapel Hill (www.ncbg.unc.edu). It is easy to use and has invaluable resources for this subject, which is rather complicated. Basic definitions will be given here, as well as examples from the excellent booklet “Controlling Invasive Plants,” an NCBG publication updated in 2007.

Definitions:

Southeastern US native: An indigenous, regionally native taxon.

Exotic: Any taxon not indigenous to the southeastern US. The term exotic is synonymous with the terms non-native, alien, non-indigenous, and introduced.

Invasive Exotic: Any exotic species that threatens the survival or reproduction of native plants or animals or threatens to reduce biological diversity.

It is sometimes difficult to draw a clear distinction between benign exotics and invasive exotics. Benign exotics include, for the most part, plant species that depend on humans for their survival; that is, most cultivated plants.

Invasive exotics threaten native plants because they can survive and reproduce without human intervention and have been naturalized. They can cause significant damage to ecosystems, communities, habitats, and native species. Also there are large economic costs associated with

their control – millions of dollars annually. We all recognize some of the worst offenders: kudzu (*Pueraria montana*), Chinese privet (*Ligustrum sinense*), bamboo grass (*Microstegium vimineum*), and Japanese honeysuckle (*Lonicera japonica*). These notorious exotic invasives have naturalized to the extent that they are now inextricable from the local landscape.

The list of invasive plants for the Southeast is too extensive to list here. To view the list, go to the NCBG website, click on “Conservation” at the top of the page, then click on “Invasive Exotic Plants: Publications and Resources.”



biology.cbc.unc.edu

From the NCBG booklet mentioned in the first paragraph “Controlling Invasive Plants,” the following plants are listed, with pictures, descriptions, and recommendations for control. Suggestions for native alternatives and replacements are given.

Vines: Porcelainberry (*Ampelopsis brevipedunculata*), Chinese and Japanese wisteria (*Wisteria sinensis* and *W. floribunda*), Oriental bittersweet (*Celastrus orbiculatus*), Japanese honeysuckle (*Lonicera japonica*), English ivy (*Hedera helix*).

Trees and shrubs: Autumn olive and Thorny olive (*Elaeagnus umbellata* and *E. pungens*), Chinese privet (*Ligustrum sinense*), Mimosa (*Albizia julibrissin*), Multiflora rose (*Rosa multiflora*), Princess Tree, Paulownia (*Paulownia tomentosa*), Tree of Heaven (*Ailanthus altissima*).

Grasses and herbs: Chinese lespedeza (*Lespedeza cuneata*), Garlic mustard (*Alliaria petiolata*), Japanese stiltgrass (*Microstegium vimineum*).

The recommendations for control will be continued in the September 2007 issue.

PESKY PESTS

Slugs

by Cynthia Dickinson, Extension Master Gardener, Warren County

Adult slugs are soft, slimy, slender animals more closely related to clams and octopi than insects. Slugs have stalked eyes and two small feelers. Some species grow to 3 or more inches long. Slugs have various spots and stripes. Slug eggs are oval and up to 3 mm long. They are clear or cream or yellow and are usually laid in masses sometimes in a gelatin like substance. Snails will have a similar habit, but carry a shell.

Slugs are found throughout the United States and Europe. Slugs feed on the leaves and flowers of many ornamental, vegetable and field crops. They are most damaging to tender, young crops in spring. Slug damage on foliage usually appears between the veins and on leaf margins. Small slugs rasp away the leaf or petal surface. Medium slugs often eat holes. Large slugs consume whole leaves, petals and sometimes entire plants if the plants are small. A silvery slime trail is left behind. Greenhouse slugs tunnel through soil and feed on roots. Slugs are active at night and during cloudy, warm weather. During bright warm weather, slugs usually hide under boards, stones, debris or tunnel into the soil. At night, especially in warm, humid weather, slugs feed on decaying organic matter and succulent plants. Their mouthparts resemble tiny rasps, and they rasp away plant tissue and suck up the residue. Slugs feed on many kinds of plants but they tend to stick with one plant, often consuming it entirely before moving on.

Mature slugs lay eggs anytime throughout the growing season. Eggs are laid in batches of 20, 30 or more under boards, pots or in the soil. Eggs are resistant to drying out

and their development may be delayed until sufficient moisture is available. Young slugs develop relatively slowly. Slugs may take up to a year to mature.

Sanitation - Slug populations can be reduced by eliminating their breeding and hiding places. Remove rotting boards, logs, pots and other debris from the area. Compost or destroy plant refuse and properly stack or store flats, boxes, etc., which provide shelter for slugs. Trim tall grass and weeds along fences and ditches in the vicinity of susceptible crops.

Traps - In small plant beds and gardens, place boards or other flat objects on the soil. These traps should be at least 6 by 6 in. Each morning remove the slugs from beneath the traps and destroy them. For snails in water gardens, float lettuce or cabbage leaves on the water surface over night. Remove the leaves with any attached snails every morning until no more are found.

Pesticides - BEFORE USING A PESTICIDE IN A VEGETABLE GARDEN, CHECK TO BE SURE IT IS LABELLED FOR THAT USE. In some instances, the molluscicide (slug-killing agent) should be used only at the ends of the garden or in walkways. For best control, apply the molluscicide on a warm, clear night under boards or traps. Two or more treatments at 5 to 7 day intervals may be necessary to obtain adequate control. In the list below are pesticide formulations labeled for slug control in North Carolina. Because there is considerable variation in the percentages of pesticides included in various brands, it would pay to shop comparatively. Do not use Mesurool or Metaldehyde products around pets. Iron phosphate products are labeled safe around pets, but efficacy reports have been variable, at this time.

Some people have been known to kill slugs with table salt. Note that table salt is not labeled for this use and excessive amounts could affect soils. For control of slugs there are baits and sprays and aerosols on the market. Many of them are labeled for home use.

Information obtained from:
Pests of Flowers and Foliage Plants in NC
Robin Rosetta's Oregon State University Slug Page
Identification Guide to Land Snails and Slugs of Western Washington
Key to Slugs of British Columbia

Interesting Tidbits

by Marty Finkel, Extension Master Gardener, Granville County

American Horticulture Society Online Seminars: On May 10, University of Georgia horticulture professor and garden author Allan Armitage gave a webinar “Annuals That Work,” in which AHS members from 33 states, the District of Columbia, and one Canadian province participated. Some annuals Armitage is particularly excited about include Euphorbia ‘Diamond Frost,’ naranjilla (*Solanum quitense*), and eyeball plant (*Spilanthes oleracea*). At the end of the webinar, Armitage also answered questions from the audience. From July/August 2007 edition of “The American Gardener,” the journal of the AHS.

A take on the labeling tidbit from August: Use a soldering iron to melt the names of the plants into the plastic knife blade. The names won’t fade, and when the labels get dirty, it’s easier to read because the dirt is left behind in the grooves when the label is wiped clean. From the Oct. 2007 issue of “Fine Gardening.”

For those of us who use (or have used) jute twine to tie up plants and have found that it often breaks during even one summer, a reader suggests using dark green polyester knitting yarn, which is cheaper and stronger than colored twine and pulls neatly out of long skeins. From the Oct. 2007 issue of “Fine Gardening.”

To keep potted plants from rolling around in the car trunk or the pick up truck, make long, skinny sand bags. Cut off the leg of an old pair of jeans or other pants, slice down one side to open it up, then cut down the middle to make 2 long, skinny rectangles. Sew the long sides of each rectangle together to make two tubes, then sew them shut on one end. Fill each tube with sand and sew up the final openings. Place alongside or around pots to prevent them turning over during transit. From the Oct. 2007 issue of “Fine Gardening.”

Recommendations for the use of chemicals are included in this publication as a convenience to the reader. The use of brand names and any mention or listing of commercial products or services in this publication does not imply endorsement by NC State University, NC A&T State University or NC Cooperative Extension nor discrimination against similar products or services not mentioned. Individuals who use chemicals are responsible for ensuring that the intended use complies with current regulations and conforms to the product label. Be sure to obtain current information about usage regulations and examine a current product label before applying any chemical. For assistance, contact an agent of NC Cooperative Extension.

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Plant of the Month

by Marty Finkel

Hedera helix Tree Ivy



Tree, or Bush Ivy has the form of an upright branching shrub and is only a mature form of the common English Ivy, *Hedera helix*. An old ivy grown in full sun will change genetically (without human engineering!) in order to produce upright branchings that look like free-standing shrubs. Flowers occur on these shrub forms, but not on the trailing, clinging ivy vines. When the genetic transformation takes place, it is irreversible; the upright ivy will never change into the trailing form. If it is rooted, it will develop over time into an upright shrub, bypassing the vine form altogether.

Tree Ivy is propagated by rooting cuttings of a permanently transformed shrub ivy, or parts of it are grafted onto the rootstock of regular trailing ivy. The most common tree ivies on the market are ‘Congesta’ and ‘Conglomerata.’ Sometimes ‘Erecta’ is used as a generic name for all upright adult ivies, but some growers sell ‘Erecta’ as a separate cultivar that is supposedly a little faster growing, but all three are slow growing. These cultivars are sterile, so there is no risk of invasiveness.

There is a natural, fertile tree ivy sold as ‘Arborescens’, which should not be planted due to the danger of invasiveness.

Most of the fancier vining ivies are difficult to induce to go through the change into the adult form, so it is rather difficult to find them in the trade. An exception is the trailing ‘Gold Heart’ which morphs easily into tree ivy. The shrub I have is the beautiful ‘Iceberg,’ which is the morphed form of ‘Glacier,’ with lovely variegated leaves of white, powder blue-green, and green. Some other tree ivies are ‘Pittsburg,’ ‘Garnet,’ ‘Poetica,’ and ‘Peppermint.’ These varieties are all fertile, so they should not be planted unless flowers or seed clusters are deadheaded. Most grow to about 3 to 4 feet tall and wide, but ‘Peppermint’ and ‘Arborescens’ can get to six feet or taller. They do better in light shade to deeper shade in average soil – and they seem to be drought tolerant! The deer had a go at ‘Iceberg’ last winter, but it has fully recovered and is about 3’ x 3’ – free pruning, I suppose.

What to do?

Fruits and Veggies

by Carl Shafer, Extension Master Gardener, Vance County

- Strawberries set fruit buds for next spring in the fall, so now is the time to fertilize with a complete fertilizer like 10-10-10. Water if the ground is dry.
- The first week of September is the recommended time to spray for peachtree borers. Spray the trunk and major branches with endosulfan. Follow label instructions. Peachtree borers may also attack apricot, cherry, nectarine, and plum trees.
- Prune out fire blight killed wood from apples, pears, and pyracantha if you have not already done so. If you wait until winter it will be more difficult to determine the dead wood.
- Continue to remove spent crops and plant cool weather fall crops or cover crops. See July and August issues for more details.
- Carefully monitor your fall crops for insects. Use appropriate insecticides. BT products work well to control worms on cold crops.

Lawn Care

by Virginia Tietz, Extension Master Gardener, Vance County

- Check for grubs & control them if necessary.
- Fertilize cool-season lawns to encourage healthy growth. The best way to determine your lawn's nutrient needs is by a soil test. Soil test kits can be picked up at Vance County Extension Center, Young St., Henderson.
- Seed cool-season grasses such as fescue and bluegrass.

- Apply broadleaf herbicides to control dandelions and other weeds if necessary. Remember that some herbicides may affect newly seeded turf. Read and follow label instructions. Henbit, chickweed, wild onions and other winter annual weeds will begin growing soon. Start pre-emergence weed management in mid-September to prevent their growing in winter. Control winter weeds with pre-emergent herbicides, only if you are not planning to reseed your lawn. Pre-emergent herbicides will kill seeds if applied several days before or after seeding. Remember to check & follow label instructions.
- Check for white grubs and treat if necessary.

Landscape Chores

by Kelly Groves, Horticulture Agent, Vance and Warren Counties

- To avoid damage from mice or other rodents, plant bulbs in cans. Cut both ends from large fruit-drink cans. Bury the cans to their rims. Fill about one-third full of soil, place one bulb in each, and cover to the surface with soil.
- If you enjoy growing wild flowers, collect seed for your garden from many of the summer-flowering types now.
- Plant peonies now, but make sure the crowns are buried only 1 1/2 to 2 inches below ground level. Deeper planting keeps the plants from blooming.
- Mums can be transplanted while in bloom, which makes them useful for instant landscapes in early autumn. Water thoroughly the day before (or at least several hours before) digging plants, retaining as much of the root system as possible.

Herb

of the Month

by Mary Jane Bosworth, Extension Master Gardener, Vance County



Basil

Occimum basilicum

- Annual
- Height 18" Spread 10"
- This easy to grow herb may be grown from seed or plants may be purchased. Basil needs full sun and moist soil. It has a dense growing habit with bright green, glossy, triangular leaves. All varieties of this annual make effective additions to any garden.
- Fresh, dried and frozen leaves can be used in sauces, stews, salads and with tomatoes, fish, veal, lamb, chicken. Fresh branches can be used in floral arrangements.
- The ideal harvest time, when flavor is at its peak, is when flower buds are about to blossom. Prunings can be used whenever they are taken. Hang dry and store in airtight containers. Better flavor is retained if frozen or stored in oil or vinegar. Try chopping basil and mixing with a little olive oil and then freezing in small batches. (Ice cube trays work well)

(recipe is on following page)

Linguine with No-Cook Cherry Tomato and Herb Sauce

- 2 pounds (3 pints) cherry tomatoes, halved
 - 3 cloves garlic, minced
 - 1 cup loosely packed fresh basil, torn or chopped
 - ½ cup loosely packed flat leaf parsley, chopped
 - 1 tablespoon fresh marjoram leaves, chopped
 - Pinch of dried red pepper flakes
 - ¼ cup drained capers
 - 4 teaspoons balsamic vinegar
 - ½ cup olive oil
 - 1 teaspoon kosher or sea salt
 - ½ teaspoon fresh-ground black pepper
 - 1 pound dried linguine
 - ½ cup grated Parmesan, Asiago or Pecorino Romano cheese
- Combine the tomatoes, garlic, basil, parsley, marjoram, pepper flakes, capers, vinegar and olive oil in a large bowl. Season to taste with salt and pepper. Let sit for the flavors to combine while the linguine cooks.
 - Cook the linguine, al dente, according to package directions. Drain linguine and add it to the tomato mixture and gently stir to combine. Let sit for 2 minutes to allow the pasta to absorb some of the liquid. Garnish with cheese.
 - Makes 6 to 8 servings.

Local Happenings

compiled by Marty Finkel

JC Raulston Arboretum

4415 Beryl Road, Raleigh, NC.
919-515-3132.

Self-Guided Tours: daily, 8 - 5.

Free Guided Tours: Sundays at 2 p.m.

www.ncsu.edu/jcraulstonarboretum

September 8, 8 a.m. – 4 p.m. and September 12, 7 p.m. – 10 p.m., Photography Workshop “Blossom Bonanza – Working Your Way to Prize Winning Photography”.

September 11, 1 p.m. – 2:30 p.m. Plantsmen’s Tour: Wonderful Weepers, with Mark Weathington, Assistant Director.

September 15, 10 a.m. – 3 p.m. JCRA Arborfest

September 20, 7:30 p.m. – Lecture: Rock Gardening in the South, by Bobby Ward.

September 22, 11 a.m. – 4 p.m. and September 23, 1 p.m. – 4 p.m. Garden Conservancy’s Open Days. Sponsored by the Garden Conservancy and the JC Raulston Arboretum

September 29, 8 a.m. – 4 p.m. and September 30, 10 a.m. – 3 p.m. Pi Alpha Xi Plant Sale

The Sarah P. Duke Gardens

426 Anderson Street, Durham, NC
919-684-3698 or 919-668-1707
www.hr.duke.edu/dukegardens/

September 11, 2 – 4 p.m. Class: Perennials for Sequence of Bloom, by Laurie Lawson of Niche Gardens.

September 12, 7 – 9 p.m. Advanced Photoshop Workshop (Session I)

September 13, 1:30 – 4:30 p.m. Trip to Hoffman Nursery, “A Fascination with Grasses”.

September 15 & 16, 9 a.m. – 4 p.m. Japanese Embroidery Workshop

September 16, 2 – 4 p.m. Successful Garden Seminar – Lazy Gardener.

September 19, 7 – 9 p.m. Advanced Photo Workshop (Session II).

September 23, 4 – 6 p.m. Wine Tasting, NC Wineries

September 25, 2 – 4 p.m. Winter Container Workshop

September 26, 7 – 9 p.m. Advanced Photoshop Workshop (Session III)

September 28, 4 – 6 p.m. Friends Preview and Sale of Duke Gardens plants, followed by light supper & program

September 29, 9 a.m. – 2 p.m. Plant and Craft Festival: Plants, garden accessories & crafts for sale, refreshments, entertainment and information booth to answer garden questions.

NC Botanical Garden

CB3375, Totten Center
Chapel Hill, NC
919-962-0522

www.ncbg.unc.edu

Guided Tours: Saturdays 10-11 a.m. Meet at the gathering circle in front of Totten Center.

Self-Guided: Monday-Friday 8 a.m.-5 p.m., Saturday 9 a.m.-5 p.m., Sunday. 1-5 p.m.

September 5, 12, 19 and 26: Chinese Brush Painting. Instructor: Alice Zhao. Contact the NCBG for times.

September 6, 13, 20 and 27: Native Plant Studies: Sex and the Single Plant – Pollination. Instructor: Anne Lindsay. Contact the NCBG for times.

September 7, 14, 21 and 28: Native Plant Studies: Fall Flora. Instructor: Stephanie Jeffries. Contact the NCBG for times.

September 8, 15, 22, 29 and October 6: Native Plant Studies: Basic Botany. Instructors: Amanda Senft, Brooke Wheeler. Contact the NCBG for times.

September 11: Lecture: Chasing the Rain – My Hunt for the World’s Most Beautiful Mushrooms. By Taylor Lockwood. Contact the NCBG for times.

The Garden Path is brought to you by NC Cooperative

Extension, Vance and Warren County Centers.

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On the web:

The Garden Path Newsletter

vance.ces.ncsu.edu/content/thegardenpath

Vance County Extension

vance.ces.ncsu.edu

Warren County Extension

warren.ces.ncsu.edu

Urban Horticulture at NC State University:

www.ces.ncsu.edu/depts/hort/consumer

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Question Corner

by Kelly Groves, Horticulture Agent, NC Cooperative Extension

Q: When should I reseed my lawn?

A: In normal weather years, the answer is now. But because of the drought and water restrictions, it is a good idea to wait a while. Grass seedlings require regular waterings to grow and establish. They do not tolerate drought. Unless you have a good source of water, you should wait until we get some rain. You may even have to wait until next fall if it stays dry all winter long.