

# Successful Gardener

NC STATE UNIVERSITY

NORTH CAROLINA COOPERATIVE EXTENSION

COLLEGE OF AGRICULTURE &amp; LIFE SCIENCES

Helping  
Carolinians  
Increase Their  
Knowledge of  
Gardening,  
Manage Their  
Landscape  
Investment &  
Protect the  
Environment

## JC Raulston Arboretum Plant Focus

### *Zinnia angustifolia* Stands Up to Summer Heat

**Z***innia angustifolia* is a bright little flower machine from the aster family that will tolerate heat, humidity and long, dry spells in full sun. Native to Mexico, this heat lover was once known as *Zinnia linearis* or commonly as narrow-leaved zinnia. Small, 1-inch, single daisy-form blossoms are borne continuously, from late spring until frost, on plants 8 to 15 inches tall with an eventual spread of 12 to 18 inches wide. Use them as a summer groundcover, at the front of a border, in hanging baskets or containers on a patio, deck or sunny porch.

Originally, the flowers of this species came only in bright yellow or orange with gold centers like varieties 'Star Gold' and 'Star Orange', with 'Crystal White' a more recent development and a 1997 All-America Selections Winner. Because they resist powdery mildew, their narrow leaves do not become disfigured by white blotches in our summer humidity the way the larger flowered zinnia species typically will. They are easy to grow from seed, and easier still with plants from the garden center. Once established with adequate water in fertile soil in a sunny spot, they can thrive through longer periods of hot, dry weather than many other annuals, saving water and work for the gardener. Flowers can be left in place without deadheading after they fade, as these zinnias continue producing new blossoms after the old ones have gone to seed.

New hybrid varieties that have larger flowers in additional colors, slightly taller plants, a wider lateral spread and disease resistance are now available. In annual flowering plant trials at the JC Raulston Arboretum (JCRA) at NC State University in Raleigh, the Profusion orange and white varieties outperform comparison types by blooming profusely throughout the season without fading in summer heat or showing any sign of powdery mildew disease. Visit the JCRA to see these zinnias and dozens more annuals under evaluation.

**Viv Finkelstein**

*Viv Finkelstein is a JCRA volunteer and a perpetual student of horticulture at NC State University.*

'Star White'

Robert E. Lyons ©

#### TOP AWARDS RECEIVED FROM:

International Association of Business Communicators  
National Association of County Agricultural Agents  
Southern Extension Forest Resource Specialists  
N.C. Association of County Agricultural Agents  
Mecklenburg County Priority Awards  
Printing Industry of the Carolinas





Robert E. Lyons ©

### Foundation Plantings



Robert E. Lyons ©

## Tree and Shrub Tips for New Homeowners

Good landscaping can increase home values and provide shade, aesthetics and wildlife benefits. New trees and shrubs are investments and often become the most treasured components of your landscape. Ten to 20 years from now, that Japanese maple or willow oak that you planted to celebrate a special occasion will transform from a sapling into a beautiful specimen.

The key is to start out on the right foot. On newly developed lots, the condition of any existing trees may be an issue. Unless bulldozers and utility lines were kept at least 20 feet from the trunks of large trees, you will have to deal with hazardous trees now or in the future. If the soil and roots around your tree cannot be protected, it often is better to clear-cut and replant. Hire an International Society of Arborists (ISA) certified arborist to inspect your existing trees at the time you purchase your house. Understand that large trees cannot be "saved." They're either in good enough condition that they can be maintained or structurally weak enough that they are hazardous and should be removed.

After closing on your house, don't be afraid now or down the road to remove trees and shrubs the developer planted. Often these "developer plants" are improperly planted or are the wrong plant for the wrong site. Examples include planting trees too deep, using Japanese holly instead of the much tougher yaupon holly, planting a river

birch 3 feet from the foundation and planting dogwoods, cherries and azaleas in poorly drained soil.

Start with a plan and divide the landscape into sections such as back, front, north, south. Determine sun and soil conditions for each of these areas. Decide what you want the landscape to look like five to 10 years from now. Next, think in terms of the type of plant desired such as evergreen or deciduous, tall or low-growing. Finally, the last objective is the type of plant. Check your final selections to see if they will tolerate the sun and soil conditions and how large they will become. Small- to medium-sized trees should be kept at least 15 feet from the house and large, maturing trees 30 feet. Contact your local Cooperative Extension agent for suggestions. If you want to play it safe, some "can't go wrong" plants for the landscape are crape myrtle, large-leaved hollies, lacebark elm, most oaks and red maple.

Make sure you plant correctly. Most folks, including good landscape companies, plant trees and shrubs too deeply. New soil should never cover the rootball.

For photos and descriptions of plants for North Carolina and how to plant them, visit [www.ncstate-plants.net](http://www.ncstate-plants.net) and click on "plant fact-sheets." You can also mail or email photos of your landscape to your local Cooperative Extension agent who can make valuable suggestions.

**John MacNair**

## Fall for a Vegetable Garden

Many gardeners finish up the garden season by mid-summer when it gets hot, but there are many vegetables that adapt well to planting in August to be harvested in the fall. To have a productive fall garden, put some thought and planning into it. Using good cultural practices is the key to success.

Many of the cool-season vegetables, such as broccoli, cauliflower, Brussels sprouts and carrots, actually do better in the fall and have excellent flavor and quality. Leafy type vegetables such as lettuce are better suited to the fall season in North Carolina since in the spring they tend to bolt or become bitter when the weather warms quickly. Covers and cold frames can extend your fall harvest by providing protection from early frosts.

To have a mature harvest before it gets too cold, find out the days of maturity for the vegetable you plan to plant. Count backwards from the average frost date in your area, using the number of days to maturity to determine the best time to plant the vegetable. For example, in the Piedmont, 60 to 80 day maturity cycle vegetables

would best be planted (without protection) around August 1. Therefore, in the western part of the state, planting would be 7 to 10 days earlier and 7 to 10 days later in the east.

To prepare the site, remove all residue from the summer garden and till a shallow depth of 6 to 8 inches. If the spring crop was heavily fertilized, you may not need to apply fertilizer before you plant.

Plant seeds about 1 1/2 times deeper than recommended because the moisture level is lower in the soil and the surface temperature is usually higher. Add mulch or cover the seed with potting soil or vermiculite to help increase germination. If the weather is extremely hot, shade young seedlings for a few days after transplanting them.

Most vegetables require at least 1 inch of water per week. Water once each week and allow the water to penetrate deep rather than making several small applications.

Insects and diseases tend to be more abundant in the late summer and fall when you are planting the fall garden, so scout regularly. Keep the fall vegetables healthy, since healthy plants are less likely to be affected by insects and diseases. **Craig Mauney**

## Q&A Who can I hire to do some tree work?

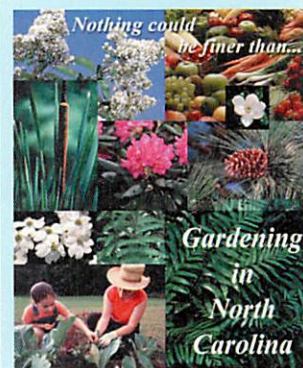
If you are keeping the tree, hire an arborist certified by the International Society of Arborists. Ask to see their card or check their name on the ISA Web site at [www.isa-arbor.com](http://www.isa-arbor.com). Certification isn't a legal requirement but it proves an arborist is professional and knowledgeable. Their knowledge extends to pruning, fertilization, planting, cabling, bracing and lightning protection. They also can evaluate a tree to see if it is dan-

gerous. Arborists will prune a tree for various reasons including raising the crown, reducing danger, shaping the canopy or reducing conflicts with driveways or houses. Certified arborists will use proper pruning techniques to avoid creating hazards. If you just want to take down a tree, a number of companies can do that. Go to the phone book, get several bids and make sure they have insurance. Check a few references. Make sure they have safety equipment and training. **David Goforth**

## Helping Gardeners Put Knowledge to Work<sup>sm</sup>

Contact your local Cooperative Extension Center to learn more about:

- gardening
- managing your landscape investment
- protecting the environment



Or, access [www.ncstate-plants.net](http://www.ncstate-plants.net) for fact sheets about:

- lawn care
- indoor plants
- trees
- shrubs
- fruits
- herbs
- flowers
- vines
- vegetable gardens

The site includes recommendations for propagating, pruning, mulching, fertilizing and managing insects, diseases and weeds.

## ENVIRO-TIP

### Reducing Water Use in the Landscape

It's too bad we often don't think about how much water we use in the landscape until dry weather arrives. We can conserve water a lot more effectively with some planning.

One of the best ways to help plants survive droughts is to ensure they have a strong, deep root system. Good soil preparation before planting is key. Adjusting the pH and phosphate levels according to soil test recommendations is one of the easiest things you can do to enable your plants to develop a good root system. Working plenty of organic matter into the planting area also can be a great help. Materials like pine bark soil conditioner, compost and manure are quite effective in not only loosening and aerating the soil, but helping retain moisture as well. When really dry conditions set in, the plant with the most extensive root system will survive longer.

After planting, a layer of organic mulch will help prevent moisture from evaporating from the soil. Apply the mulch while there is plenty of moisture in the soil so you can retain what is already there. Mulch should

be about 3 inches deep and no more than 4 inches around trees and shrubs.

A healthy lawn can survive several weeks without water. Fescue and bluegrass lawns that are allowed to go dormant only need one inch of water every 3 weeks to keep the roots alive. If you water lawn or landscape areas, do so only when really needed, not just because you always run sprinklers on Wednesday.

Prepare yourself ahead of time for potential drought by deciding what your watering priorities are. Annual flowers can be replaced next year. Turfgrass can be replaced less expensively than trees and shrubs. If you have put a large investment into shrubs in the last 2 years, you may want to protect that investment. Herbaceous perennial beds may come next on the list.

Water is one of our most precious resources. We can be successful gardeners without unduly taxing our water supply.

**Linda Blue**



## gardentalk



"Weather means more when you have a garden. There's nothing like listening to a shower and thinking how it is soaking in and around your lettuce and green beans."

— Marcelene Cox



Zinnias  
Robert E. Lyons ©

Garden Spot

## The Daniel Boone

**Native Gardens** in Boone feature a collection of native North Carolina plants in an informal landscape. Mountain laurel, mountain ash, ferns, trillium, pink shell azaleas, flame azaleas and dogwood are a few of the many plants in these botanically diverse gardens. Some of the main features are the pools, sunken garden, rock garden and meadows. The garden is maintained by the Garden Club of North Carolina. On the same site is the Hickory Ridge Homestead, an 18th century living museum.

Located in the Daniel Boone Park, the gardens are next door to the Horn in the West theater. They are open mid-May through September, from 10 a.m. until 6 p.m. while the theater is in production. Following the close of the Horn in the West production, the garden is open on weekends to the end of the autumn leaves season. A small admission fee is charged. The garden is located at 651 Horn in the West Drive in Boone. For more information, call (800) 438-7500.

Cyndi Lauderdale

## Gardening in August

### Lawns

- Do not fertilize fescue or bluegrass lawns; wait until September.
- Zoysia and St. Augustine may be fertilized with 1/2 pound of nitrogen per 1,000 square feet for the last time this season. Bermuda can have up to 1 pound of nitrogen.
- Maintain proper mowing heights of 2.5 to 3 inches for fescue and bluegrass and 0.75 to 1 inch for zoysia and Bermuda.
- If grubs were a problem in the lawn last year, apply insecticide in August or September to kill newly hatched grubs of Japanese or green June beetles.
- If winter weeds such as annual bluegrass and chickweed have been a problem in the past, Piedmont and Mountain gardeners need to apply a preemergent herbicide in late August or early September. Eastern gardeners can wait until mid-September.

### Ornamentals

- Do not prune or fertilize trees or shrubs. Plants need to have time to harden off for winter.
  - Remove bagworms from needled evergreens. Half of those bags contain eggs that will hatch in the spring.
    - Continue regular fungicide sprays on roses.
    - Divide or transplant daylilies, irises and peonies.
    - Late August is the time to apply insecticide to the trunks of cherry, plum and peach trees (both ornamental and fruiting) to prevent peach tree borers.

### Edibles

- Vegetable gardens need at least one inch of water each week.
- Check regularly for insects such as cabbage worms, aphids, pickleworms and squash vine borers.
- In late August, strawberry beds should receive some nitrogen and ample water to develop next spring's flower buds. *Linda Blue*



Extension's *Successful Gardener™* program provides timely, research-based horticultural information. The newsletter is part of the statewide horticulture program which includes Extension's *Successful Gardener™* Regional Seminar Series and county workshops. We publish 10 issues per year. Comments concerning *Successful Gardener™* may be sent to:

#### Successful Gardener™ Editor

Mecklenburg County Extension Center  
700 N. Tryon St. • Charlotte, NC 28202

Editor and Project Coordinator: **Leah Chester-Davis**  
Extension Communication Specialist – Urban Programs

Project Coordinator: **Emily Revels**  
Consumer Horticulture Agent, Mecklenburg County

Assistant Editor: **Karen Neill**  
Consumer Horticulture Agent, Guilford County

Compilations Editor: **Ben Dungan**  
Consumer Horticulture Agent, Gaston County

#### Contributors:

County	Name	Phone
Buncombe	Linda Blue	(828)255-5522
Cabarrus	David Goforth	(704)792-0430
Catawba	Fred Miller	(828)465-8240
Currituck	Tim Clune	(252)232-2261
Durham	Paul McKenzie	(919)560-0525
Forsyth	Craig Mauney	(336)767-8213
Gaston	Ben Dungan	(704)922-0301
Guilford	Karen Neill	(336)375-7500
Henderson	Bill Skelton	(828)697-7500
Lincoln	Kevin Starr	(704)736-8452
	Miranda Shearer	(704)736-8452
Mecklenburg	John MacNair	(704)336-2561
	Emily Revels	(704)336-2561
Nash	Mike Wilder	(252)459-9810
New Hanover	David Barkley	(910)452-6393
Northampton	Heather Lisey	(252)534-2711
Orange	Royce Hardin	(919)245-2050
Pitt	Danny Lauderdale	(252)757-2801
Polk	John Vining	(828)894-8218
Randolph	Amy Lynn Bartel	(336)318-6005
Rowan	Darrell Blackwelder	(704)633-0571
Union	Willie Earl Wilson	(704)283-3741
Wake	Carl Matyac	(919)250-1100
Wilson	Cyndi Lauderdale	(252)237-0113

All Agents of N.C. Cooperative Extension

**Ask for Extension's Successful Gardener™ newsletter at one of your local garden centers each month!**

For a list of garden centers where you can find *Successful Gardener™*, please call (704)336-2561 or visit Cooperative Extension on the web at <http://www.ces.ncsu.edu>

**Disclaimer:** The use of brand names does not imply endorsement by N.C. Cooperative Extension nor discrimination against similar products or services not mentioned.

Distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914. Employment and program opportunities are offered to all people regardless of race, color, national origin, sex or disability. NC State University, NC A&T State University, U.S. Department of Agriculture and local government cooperating. Vol. 3, No. 6

*Successful Gardener™* may not be reproduced without written permission. Any news media using sections of the newsletter should credit "Cooperative Extension's *Successful Gardener™*."



Printed on recycled paper.



Tune in to "Making It Grow!" – a gardening show featuring Extension agents from the Carolinas. Saturdays, noon, WTVI 42, Charlotte

Successful Gardener™ newsletter is provided to you compliments of:

