



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

NC STATE UNIVERSITY

NORTH CAROLINA COOPERATIVE EXTENSION

COLLEGE OF AGRICULTURE & LIFE SCIENCES

JC Raulston Arboretum Plant Focus

Ornamental Cabbage and Kale Add Variety to Fall Gardens

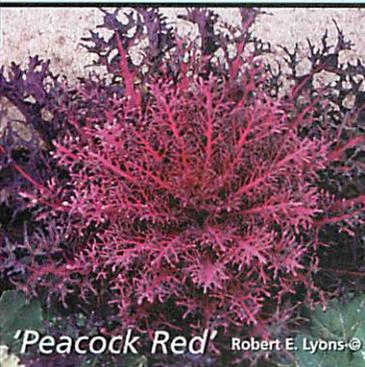
Ornamental cabbage and kale offer great color and texture for gardeners and landscapers in search of plants to add fall and winter interest to southern gardens. These plants are pretty on their own or teamed with cool-weather annuals such as pansies, violas or dianthus.

Botanically, all varieties of ornamental cabbage and kale are called *Brassica oleracea* var. *acephala*. For convenience, they are grouped by leaf shape. Ornamental cabbage has round, smooth leaves with wavy margins. Those with deeply divided or fringed leaves are classified as ornamental kale. Both categories offer hardy varieties with red, pink or white leaves that like winter frost.

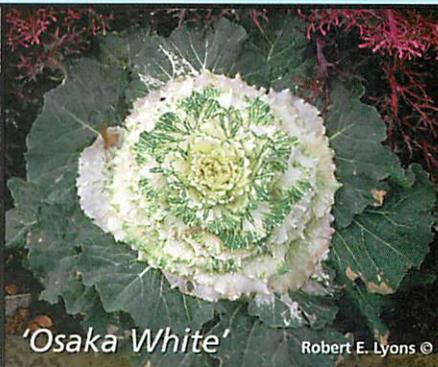
Though well-suited to all of North Carolina, these plants will retain their show the entire winter only in coastal areas and warmer parts of the Piedmont. Most will go by the wayside once temperatures drop below 15 degrees. Nevertheless, even mountain gardeners can achieve three months of color with plants set into the flower bed in late September. Classified as ornamentals and grown for landscape purposes, these varieties are edible but not as tasty as vegetable varieties. Consider using the leaves as garnishes and table decorations.

Varieties were tested in trial gardens at the JC Raulston Arboretum at NC State University. Varieties with the longest performance include 'Osaka White,' a cabbage with lightly serrated leaves with white centers; 'Rose Bouquet,' a cabbage with deep pink centers and wavy leaf margins; and 'Flamingo Plumes,' a kale with notched leaf margins in colors of fuchsia to magenta on a purple leaf. Look for these and other varieties such as 'Peacock Red' kale and 'Tokyo Pink' cabbage at your local garden center this fall.

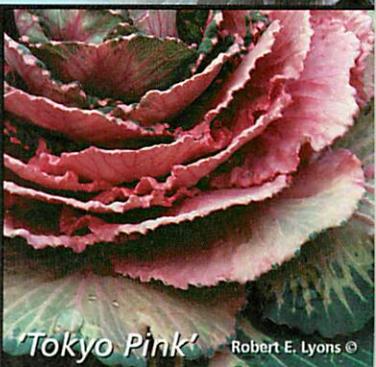
For a look at several varieties of ornamental cabbage and kale, visit the arboretum in the late fall and winter. Researchers have an active trial program in progress during these months and visitors are welcome. All plants are labeled, so take a pad and pencil to jot down your favorites. The arboretum, located at 4301 Beryl Road in Raleigh, is open year-round from 8 a.m. to 8 p.m. For more information, visit the website at www.arb.ncsu.edu or call (919) 515-3132. *Linda Blue*



'Peacock Red' Robert E. Lyons ©



'Osaka White' Robert E. Lyons ©



'Tokyo Pink' Robert E. Lyons ©

Robert E. Lyons ©

Inside

2 Give Your Lawn the TLC Treatment

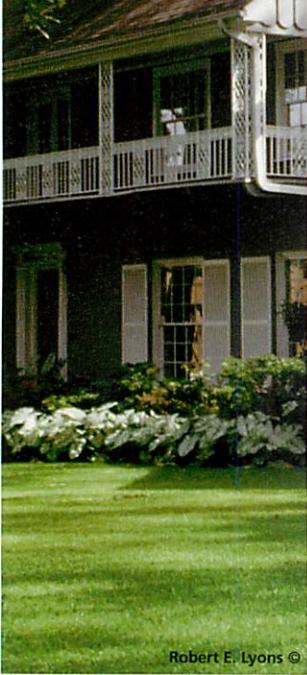
3 Enviro-Tip

4 Garden Spot

National Association of County Agricultural Agents Best Team Newsletter

International Association of Business Communicators 1999 Silver Quill Award

Southern Extension Forest Resource Specialists Award of Excellence



Robert E. Lyons ©



Robert E. Lyons ©

Give Your Cool-Season Lawn the TLC Treatment

Ancient Chinese emperors often are credited with being the first to maintain large expanses of turf for beauty and enjoyment. Even though you may not have the economic resources of an emperor, a few basic steps of “tender loving care” (TLC) will ensure your lawn is one of the prettiest in the neighborhood.

Conduct a Site Analysis

An essential step in lawn care is conducting a thorough site analysis. Walk across the lawn and note the species of grass. Estimate how much is desirable grass and whether the quality and density of the stand are sufficient. If the stand of desirable turfgrass is less than 50 percent, renovation and reseeding will be needed.

Next, identify weed, insect or disease problems. Determine whether these pests threaten the long-term viability of your lawn. Many pest or disease problems only temporarily affect lawn aesthetics. Others require control measures to maintain overall lawn quality.

Proper identification and knowledge of pest characteristics are necessary to establish an appropriate control strategy. Your local Cooperative Extension center will help with pest identification and provide pest control information.

Note other factors that affect turf quality: shade and root competition, thatch, excessively dry or wet areas, soil compaction and cultural practices such as mowing and fertilization. These “abiotic” factors lead to poor turf quality and can be more difficult to correct than pest problems.

Remember the Soil Test

Good soil fertility is essential for any lawn to be successful. A soil test will provide information on how much lime, phosphorus and potassium your lawn needs. Fall applications of lime are particularly effective.

Prepare the Site

Proper site preparation can help prevent or correct many problems identified during the site analysis. Selective tree removal can limit shade and tree root competition plus reduce environmental conditions favorable for disease development. Good soil and surface drainage can help reduce disease and weed problems. Soil amendments and a liming/fertilization program can reduce stress and result in increased pest resistance.

Control perennial weeds identified during the site analysis. Hard-to-control weeds may require the

services of a lawn professional or nonselective herbicides. This type of herbicide *will require* starting over in areas where it is used.

Close contact between seed and soil is essential for proper seed germination. For new lawns, till soil to a depth of 6 to 8 inches. Before tilling, add organic soil amendments such as compost, lime and fertilizer. In established lawns, core aerate to provide better seed-to-soil contact.

Seeding is usually the fastest and most economical method of establishing grasses. To ensure uniform coverage, use a rotary spreader and apply half the seed in one direction and the other half at right angles to the first pass. Apply a starter-type fertilizer and lightly cover the seed by hand raking or dragging. Rolling the seed slightly will improve seed-to-soil contact and encourage quicker germination.

Consider Water Needs

Water is essential for turfgrass care, but improper management of irrigation often results in turf loss. Reduce the time that foliage remains moist to discourage diseases. Between 5 and 9 a.m. is the most effective and efficient time to water.

When irrigating established lawns, apply water infrequently but deeply. Foot printing, leaf curling and discoloration are indications that turf needs water. New lawns benefit from more frequent irrigation that prevents the seed from drying out.

Feed Your Lawn

Proper fertilization programs should meet the nutritional needs of the turf without promoting excessive growth. Fertilize cool-season grasses such as tall fescue during the cooler months of the year. Fall fertilization is particularly important. Use of slow-release nitrogen sources can limit leaf burn and excessive growth and are particularly useful with young grass or near lakes and ponds. Apply no more than 1 pound of actual nitrogen per application.

Mow at the Right Height

Mowing frequency and cutting height are important to the TLC regimen and must be adjusted to the time of the year and growth rate of the grass. Remove no more than 30 to 40 percent of the leaf area in any one cutting.

For more information on lawn care in coastal areas, the piedmont or the mountains, contact your local Cooperative Extension Center and request *Carolina Lawns* or visit the web at www.ces.ncsu.edu/TurfFiles/. **Fred Miller**

Enviro Booster

A healthy lawn provides many benefits:

- Prevents runoff and erosion;
- Helps clean the air by converting carbon dioxide to oxygen; and
- Serves as a filter, capturing and breaking down many types of pollutants before entering streams.
- And an extra bonus: it increases a property's value!

Free soil test kits are available at your county Cooperative Extension Center!

Q&A Why doesn't my grass have any roots?

This sounds like white grub damage.

Grub damage shows up as large brown patches in the lawn. A closer inspection shows the grass has no roots. You can sweep handfuls of grass aside, revealing a powdery soil churned up by white grubs. White grubs are the larva stage of several beetles including the infamous Japanese beetle. A large beetle with shiny green wings produces the biggest grubs. These June bug eggs develop into translucent, C-shaped grubs that eat or destroy the grass roots. The adults show up

in July. Instead of waiting for the adults in the summer, count the grubs in early September. If you find more than five grubs in one square foot of lawn, it's time to take action. Use Turcam, Sevin, Diazinon, Mach 2, Merit, Grub Ex, Proxol or Dylox or another lawn-care product labeled for white grubs. Apply by October 15 before the grubs get so deep that the pesticide won't work. You can kill grubs in the spring but that's mostly revenge. It's unnecessary if they died in the fall. **David Goforth**

Extend Your Roots Along the Information Highway

Trying to find out what those bugs are on your prized camellia? Want to know how to prune your crape myrtles? Many answers to tree and shrub questions are right at your fingertips. The N.C. Cooperative Extension website has color photos of insect problems and guidelines on how to deal with them. Travel through our Urban Tree Identification guide and you'll find color photos of leaves, flowers, fruit and bark along with cultural requirements. In the Horticultural Leaflets section you'll find information on trees, shrubs, vegetables, flowers and fruit. Visit us at www.ces.ncsu.edu. Click on Educational Resources, then Horticulture.

For additional information on tree and shrub diagnostic problems, visit the Cabarrus and Mecklenburg county pages. If you're interested in tree seedlings, try the NC Forest Service at www.dfr.state.nc.us. **John MacNair**



ENVIRO-TIP

Bee-Friendly Gardening

Bees land among that category of beneficial insects. Though they may evoke fear among some people, they provide a valuable service by pollinating food crops and flowering plants. Because the bee population has been reduced due to harmful mites, protecting our helpful bees is a priority. Many of the pesticides we use in the lawn and garden can harm bees that are foraging for pollen and nectar.

Here's how to protect them:

- Select pesticides such as horticultural oils, insecticidal soaps and Bacillus thuringiensis (Bt) products that are less harmful to bees. Your county Cooperative Extension Center can advise you on this.
- Read the instructions for any spray product to see if there are special precautions with respect to bees.

- Apply pesticides after 3 p.m., by which time most bees have returned to their hives.
- Prevent drift by spraying during calm wind conditions.
- If there are beekeepers nearby, be sure to advise them before applying pesticides so that they may protect their hives if necessary.

It's also important to protect yourself and your family from bee stings. Contact your Cooperative Extension Center in your county for advice on how to avoid stings and control bee problems. Ask for the brochure "Reducing the Likelihood of Stings During Outdoor Activities" or access <http://www.ces.ncsu.edu/depts/ent/notes/BeeKeeping/bee15.html>.

John MacNair



Successful Gardener Recognized Nationally

We are pleased to announce that *Extension's Successful Gardener* will be recognized as the Best Team Newsletter by the National Association of County Agricultural Agents at the national meeting this month. In addition, the newsletter recently received the Award of Excellence from the Southern Extension Forest Resource Specialists.

These awards follow the Silver Quill Award, which was presented earlier this year by the International Association of Business Communicators (IABC) as the Best Newsletter in the Southeast!

gardentalk



"Unless you take care, the sun will pin you down. Put a hat on that foolish head of yours when you go out into the fields."

– Farmer's Almanac



Garden Spot

The North Carolina Arboretum in Asheville is a 426-acre site nestled within the Bent Creek Experimental Forest and surrounded by the Pisgah National Forest. Established in 1986 as a research and conservation facility, the garden includes collections such as the Quilt Garden, Stream Garden and Heritage Garden which reflects Southern Appalachian culture. The Plants of Promise Garden features award-winning landscape plants, new introductions and superior plants derived from our native flora. The National Native Azalea Repository has some of the most striking floral images when the flame azaleas are in bloom. In addition, a state-of-the-art greenhouse complex is home to one of only two public bonsai displays in the Southeast.

Located at 100 Frederick Law Olmsted Way in Asheville, the garden is open Mondays through Saturdays from 8 a.m. to 5 p.m. and on Sundays from 12 noon to 5 p.m. Call (828) 665-2492 or access www.ncarboretum.org.

Karen Neill

Gardening in August

Lawns

- Treat lawn for grubs.
- Fertilize bermuda with 1 pound of nitrogen per 1,000 square feet; fertilize zoysia with 1/2 pound nitrogen per 1,000 square feet. Fertilize St. Augustine with 1/2 pound nitrogen per 1,000 square feet for the last time this month.
- Allow fescue to go dormant during the hottest phase of the growing season. At this time, don't try to push it with fertilizer and water.
- In late August, prepare the lawn area for seeding if you plan to have a tall fescue lawn.

Ornamentals

- Check conifers such as juniper and arborvitae for spider mites, and treat with Orthene, Ultrafine Sunspray (a horticultural oil) or with an insecticidal soap.
 - Trim red-tip photinia in early August for red foliage through the winter.
 - Lightly prune most landscape plants except those that you expect to have blooms from next spring such as azaleas.
 - Annuals and biennials that have recently been deadheaded will benefit from fertilizing with a liquid 20/20/20 fertilizer.
 - Get ready! Fall is the best time to plant trees and shrubs in the landscape. Analyze your site to see how you can enhance your landscape.
- Edibles**
 - Strawberries will benefit from a feeding of nitrogen.
 - Treat leaf spot on tomatoes with a fungicidal spray. Follow label directions.
 - Plant these fall vegetables: beets, Chinese cabbage, cucumbers, kale, spinach, squash, radishes, rutabagas and turnips.
 - Spray peach and plum tree trunks this month for control of peach tree borer.

David Barkley



Extension's *Successful Gardener* provides timely, research-based horticultural information. The newsletter is part of a statewide horticulture program which includes Extension's Regional Successful Gardener 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**
Area Specialized Agent, Marketing & Media Relations, Mecklenburg, Gaston, Cabarrus

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

Compilations Editor: **John MacNair**
Urban Forestry Agent, Mecklenburg County

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

Contributors:

County	Name	Phone
Buncombe	Linda Blue	(828)255-5522
Cabarrus	David Goforth	(704)792-0430
Catawba	Fred Miller	(828)465-8240
Durham	Paul McKenzie	(919)560-0525
Forsyth	Craig Mauney	(336)767-8000
Gaston	Ben Dungan	(704)922-5000
Guilford	Karen Neill	(336)375-5000
Henderson	Bill Skelton	(828)697-4891
Lincoln	Kevin Starr	(704)736-8452
Mecklenburg	John MacNair	(704)336-2561
	Emily Revels	(704)336-2561
Nash	Mike Wilder	(252)459-9810
Orange	Royce Hardin	(919)732-8181
Polk	John Vining	(828)894-8218
Randolph		(336)318-6005
Rowan	Darrell Blackwelder	(704)633-0571
Union	Willie Earl Wilson	(704)283-3741
Wake	Carl Mayac	(919)250-1100
Wilson	Cynthia Lauderdale	(252)237-0111

All Agents of N.C. Cooperative Extension

Ask for Extension's Successful Gardener 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, age or disability. NC State University, NC A&T State University, U.S. Department of Agriculture and local government cooperating. Vol. 2, 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, 1 p.m. WTVI 42, Charlotte

Successful Gardener is provided to you compliments of:

