Reduce the water needs of your landscape by planting drought tolerant plants! Plants vary greatly in the amount of water they need to grow and thrive. Fortunately, many tough and attractive landscape plants are very drought tolerant once established. The plants listed below thrive under normal rainfall, needing extra water only in extended periods of drought. Designing new plantings to include only drought tolerant plants can greatly reduce the amount of water needed to grow a thriving, healthy landscape!

**Chinese Hollies**
*Ilex cornuta* varieties
There are many selections of Chinese holly, all of which make tough, adaptable evergreen shrubs. Two popular varieties of Chinese holly are ‘Carissa’, a low growing 3' x 4' mounding shrub great for foundations, and ‘Needlepoint’, which matures around 10' to 15' high and 5' to 7' wide and is excellent for screening. All Chinese hollies thrive in full sun to part shade and well drained soils.

**Lacebark Elm**
*Ulmus parvifolia*
Lacebark elm is a large, relatively fast growing shade tree that is both tough and attractive. Small, dark green leaves adorn this graceful, rounded tree spring through fall, while its beautiful mottled bark is attractive throughout the year. Several selections are available including ‘Bosque’, a slightly more upright selection that will mature around 50' tall and 30' wide, and ‘Athena’, which is broader spreading, reaching 40’ tall and 55’ wide. Lacebark elms prefer full sun and well drained soil.

**Pineapple Guava**
*Acca sellowiana*
Grow this fabulous silver leafed evergreen as a large shrub or multi-stemmed small tree. Dramatic crimson and pink flowers, with edible, sweetly flavored petals, open in May and June, and small, green, pineapple flavored fruits are occasionally produced in fall. Pineapple guava thrives in full sun and well drained soil, and also tolerates moderate levels of salt spray.

**Rosemary**
*Rosmarinus officinalis*
Beautiful and useful, rosemary enhances both the garden and the table. Many selections are available including ‘Huntington Carpet’, a low growing spreading variety that stays under 1’ tall, and ‘Tuscan Blue’, a strongly upright variety that can reach 4’ or more. All varieties of rosemary produce blue flowers in winter and spring and thrive in full sun and well drained soil. In addition, rosemary is evergreen, tolerant of salt spray and resistant to deer browsing.
What is Water Wise Landscaping?

Water wise landscapes are designed and maintained to need less water year around, making them more resilient to dry weather and less reliant on irrigation. These are both desirable qualities in our area, considering droughts often occur and the need for water conservation created by increasing demand from rapid development. Applying water wise principles to your yard will help you reduce your outdoor water use and grow a healthy landscape. Making your landscape water wise does not require you to redo your entire yard; simply incorporate the following practices into your landscape design and maintenance activities.

Mulch!
A 2” to 4” layer of mulch keeps soil moist by reducing evaporation and prevents weed seed from coming up. In addition, organic mulches like pine bark, hardwood mulch and pine straw, slowly enrich the soil as they naturally break down. Apply mulch evenly over planting beds and beneath trees and shrubs but do not pile it against tree and shrub stems and trunks as this can increase insect and disease problems.

Improve Your Soil!
Adding composted organic matter to your soil will increase the amount of moisture it can hold and will help plants grow better. Composted turkey litter is commonly available in SE NC, though homemade compost works just as well. Peat moss is sometimes added to soils as a soil amendment. Peat moss does increase a soil’s water holding ability but it does not add any nutrients, so is best mixed with compost and used only in extremely sandy soils.

Group Plants by Their Water Needs
Some plants need frequent watering to live while others can survive and thrive under normal rainfall conditions. Grouping plants together in beds based on their water requirements makes watering much more efficient and practical, and is the foundation of Water Wise Landscaping. Take a look at your landscape beds after several days without rain or irrigation. Are some plants thriving while others are wilting? Replace wilt prone species withhardier, more drought tolerant varieties. This does not mean your entire yard has to consist of drought tolerant varieties. If there are plants you want to grow that require more water, group them together in a location that is convenient to water, but try to keep high water use plantings to a minimum.

A few suggestions of drought tolerant plants include junipers, yaupons, Chinese hollies, crape myrtle, Indian hawthorn, lantana, yucca, and muhly grass. Beds planted with drought tolerant plants usually do not need any extra water once they are established except during extended drought. Most plants will establish within one year of planting.

Common landscape plants that are not very drought tolerant include azaleas, roses, dogwoods, impatiens, and Japanese maples. Group these plants together in beds that can be watered efficiently.

Grasscycle!
Grasscycling means leaving your clippings on the lawn rather than bagging them up. Grass clippings are 75% water and break down quickly, returning moisture and nutrients to your lawn. Leaving grass clippings on the lawn does not contribute to thatch build up unless you are not mowing frequently enough. Most turf grasses do best when mowed to 1” to 1 1/2” high, except St. Augustine which needs to be mowed higher, at 2” to 3”. When mowing, try not to cut off more than 1/3 your turf’s height—for example if you keep your bermuda lawn at 1” high, mow when it reaches 1 1/2”.

Continued on page 5
Plant Sale!

Thursday, April 10 & Friday April, 11, 9am—5:00pm
Saturday, April 12, 9am—1:00pm
Pender County Cooperative Extension Center,
801 S. Walker St., Burgaw

Featuring:
Drought tolerant perennials, shrubs and trees adapted to Pender County, Japanese Maples, Knockout Roses, Encore Azaleas, colorful annuals, herbs and vegetables, and ‘Crista’ Tomatoes—resistant to Tomato Spotted Wilt Virus and other common tomato diseases!

Free Children’s Story Hour—11am each day!
Sponsored by the Pender County Master Gardener Association.
All proceeds benefit Pender County Cooperative Extension’s horticulture education program!
Call 259-1235 for more information.

UPCOMING CLASSES:

Make Your Yard Water Wise!
Learn how to reduce water needs in your landscape and keep your plants healthy at this free workshop brought to you by Extension’s Coastal Gardener program. This class will be held at 3 different locations on 3 different days - choose the time and place that is most convenient to you!

Friday, April 4, 5pm—7pm
New Hanover Cooperative Extension
6206 Oleander Drive, Wilmington

Saturday, April 5, 10am—Noon
Poplar Grove Plantation
Hwy 17, Hampstead

Saturday, April 12, 10am—Noon
Pender County Cooperative Extension
801 S. Walker St., Burgaw

For more information call 910-259-1235

Ask a Master Gardener!
Master Gardener Volunteers can answer your lawn and garden questions! Take advantage of the following upcoming opportunities to ask a Master Gardener:

Poplar Grove Herb & Garden Fair
March 29 & 30
Poplar Grove Plantation
Hampstead
Visit the Master Gardener tent to find out about water wise landscaping, pick up handouts and ask questions!

Poplar Grove Farmer’s Market
Opening Day: April 9
Master Gardeners will be on hand at the Poplar Grove Farmer’s Market every 2nd Wednesday, including opening day, from 9am to 1pm to answer your gardening questions!

The Poplar Grove Farmer’s Market meets each Wednesday from 8am to 1pm, April 9 through mid December, at Poplar Grove Plantation in Hampstead
Spring has arrived, bringing with it gardening season! As you start working in your yard this spring, you may find you have questions or problems and Pender County Cooperative Extension can help you find answers and solutions! As part of North Carolina Cooperative Extension, a statewide educational outreach program of North Carolina State and North Carolina A & T Universities, Pender County Cooperative Extension provides educational services to Pender County residents in many areas including horticulture. Our programs are designed to enrich the lives, land, and economies of all North Carolinians. Take advantage of the many resources Extension has available to help you garden and landscape successfully!

**Answers to Your Questions**

Want to know what is wrong with your plant, what to do about weeds in your yard, or which are the best trees, shrubs, and perennials for your landscape? Your local Extension horticulture agent can help! Extension horticulture agents provide answers and solutions for your lawn, landscape, and garden problems. Contact Pender County’s Horticulture Agent, Charlotte Glen, by calling 259-1235, visiting the Pender County Extension Office at 801 S. Walker St. in Burgaw (Mon – Fri, 8am – 5pm), or by emailing charlotte_glen@ncsu.edu.

**Gardening Information for Pender County Conditions**

Both in print and online, Pender County Cooperative Extension provides local gardening information and advice specifically for Pender County conditions. To access online gardening information, visit the Pender County Cooperative Extension website at [http://pender.ces.ncsu.edu](http://pender.ces.ncsu.edu) and click on the Lawn & Garden link. Or sign up to receive weekly emails about timely gardening topics and upcoming events by emailing charlotte_glen@ncsu.edu and requesting to be added to the Pender Gardener email list.

Look for copies of the seasonal Pender Gardener newsletter at local libraries and garden centers or sign up to receive it free by mail by calling 259-1235. Call or visit the Pender County Extension Office, or visit our website, to find out more about the many gardening publications we have available and keep a look out for weekly gardening articles in your local paper.

**Pender County Master Gardener Volunteers**

Master Gardener Volunteers are local residents who love to care for plants and share their knowledge with others by volunteering with their local Cooperative Extension home gardening education program. All Master Gardeners have gone through an extensive training course and can help provide answers for your gardening questions. In Pender County, Master Gardener training is held each year. This year’s training is already underway and training for 2009 is scheduled for the fall.

Pender County Master Gardener Volunteers will be on location to answer your gardening questions at the Poplar Grove Herb and Garden Fair, March 29 and 30, and during their plant sale, April 10, 11 and 12 at the Extension Office in Burgaw.

**Soil Testing Supplies**

The only accurate way to know which nutrients you need to add to your soil is to submit a sample for testing to the NC Department of Agriculture’s Soil Testing Lab in Raleigh. This is a free service for NC residents. Boxes, forms and instructions for doing this are available from all Cooperative Extension offices. In additions, you can drop your samples off at any Extension office to be shipped free to Raleigh. Soil testing results and recommendations will be mailed to your home address. Extension agents can help you interpret these results and understand what fertilizers your yard needs.

Learn more about NC Cooperative Extension at [www.ces.ncsu.edu](http://www.ces.ncsu.edu)
Water Deeply and Infrequently
Help your plants to become more resilient by encouraging them to grow deep, strong root systems through deep watering. Plant roots grow where there is water, air and nutrients. Frequent, shallow applications of water (less than ½") that do not soak deep into the soil promote plants to grow shallow, weak root systems. When watering, be sure to apply enough water to soak into the top 8”-12” of the soil to encourage roots to grow deeper. On sandy soils, this equals around ½” to ¾” of irrigation while heavier soils require ¾” to 1” of water to soak into the top 1’ of the soil.

Most annuals, vegetables, lawns, and varieties of perennials, trees and shrubs that are not drought tolerant require around 1” of water each week throughout the growing season to remain vigorous and healthy. If you apply water through an irrigation system or sprinklers, place rain gauges around the yard to measure how much water you are actually applying so you will know when to turn the water off. For newly planted beds of annuals, perennials, trees and shrubs consider using soaker hoses to keep them moist through their first season. Soaker hoses are an efficient way to water because very little moisture is lost through evaporation.

Plant Shade!
Shade is definitely cool when it comes to water wise landscaping! Shaded areas of a landscape can be up to 20 degrees cooler than non shaded areas, reducing heat buildup and preventing water evaporation from the soil. Shade trees have many other benefits, including providing habitat for birds and wildlife, reducing erosion by binding the soil with their extensive root systems, and cleaning the air. Homes and neighborhoods with established shade trees even have higher property values!

There are many great shade trees for SE NC. A few suggestions for large trees include: Willow Oak, Ginkgo, Lacebark Elm, Live Oak, Longleaf Pine, and American Beech. A few good medium size shade trees include ‘Duraheat’ River Birch, ‘Townhouse’ and ‘Fantasy’ Crape Myrtle, and Red Maple (for moist soils).

LEARN MORE!
Learn more about Water Wise Landscaping by attending the upcoming Water Wise Landscaping Classes advertised on page 3 or from the Water Wise series of fact sheets available from NC Cooperative Extension online at http://www.bae.ncsu.edu/programs/extension/ag-env/publicat/turf.html, or by calling Pender County Cooperative Extension, 259-1235 (office hours Mon –Fri, 8am – 5pm).

PestWatch: Dieback
Though recent rainfalls have helped ease drought conditions for local landscapes, the effects of this past summer and fall’s extreme drought may continue to cause problems for trees and shrubs over the next few years. Drought damages plants in many ways. Some of the damage is immediately obvious, like wilting or death, while other damage may only become noticeable months or even years after the drought has ended. There are several diseases that cause the limbs and twigs of trees and shrubs to die. These diseases usually do not bother plants unless they are stressed, such as occurs in drought. There are no chemicals that can treat dieback diseases but in most cases plants do not die. If you notice the ends of the branches and limbs and your shrubs are dead, cut them back to a point where new growth is starting to come out. Watering deeply but infrequently during drought will help prevent dieback diseases, as will mulching and improving your soil.
Learn More!

There are many more tough, attractive, drought tolerant plants available for local landscape conditions!

To find out which varieties will thrive in your landscape, see the Recommended Plant Lists available online from Pender County Cooperative Extension at http://pender.ces.ncsu.edu.

Click on the Lawn & Garden link to access lists of perennials, annuals, shrubs, trees and more! Highly drought tolerant plants are underlined in the lists.

Continued from front page...

**Drought Tolerant Plants**

**Lantana ‘Anne Marie’**
*Lantana x ‘Anne Marie’*
This new, tightly-mounding, perennial selection of lantana is covered in clusters of bright, multi-colored magenta, salmon and yellow flowers from summer to frost. Growing 2’ tall and wide, Lantana ‘Anne Marie’ flourishes in full sun and well drained soil and is a butterfly favorite!

Other hardy varieties of lantana include ‘Miss Huff’, a large shrub like variety that grows 4’-5’ tall and 5’ to 6’ wide and has multi colored orange, salmon and yellow flowers, and ‘Ham and Eggs’, another large variety that grows 3’-4’ tall and wide, with pink and yellow flowers. ‘New Gold’, is a low growing selection that stays under 18” tall and spreads 2’ to 3’ wide, and is covered with golden yellow flowers all summer.

**Pink Muhly Grass**
*Muhlenbergia capillaris*
This tough, semi-evergreen native grass produces clouds of iridescent pink flower plumes in fall, reaching 2’-3’ tall and wide. Preferring full sun and well drained soil, pink muhly grass is long lived, deer resistant and tolerant of salt spray.

**Mexican Bush Sage**
*Salvia leucantha ‘Santa Barbara’*
A gorgeous, compact selection of Mexican bush sage, ‘Santa Barbara’ produces masses of velvety purple flowers throughout fall on plants that reach 3’ tall and 2’ wide. Thriving in full sun and well drained soil, Mexican bush sage is a great hardy perennial that is both deer resistant and a good cut flower.