



Maintaining an Established Lawn

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There are always lots of questions concerning lawn care in the Piedmont, everything from disease control to renovation. With a new lawn, you can consider the lawn established when you have mowed it three times. The tips in this article deal only with an established lawn.

Watering Properly

Improper watering of the lawn results in wasting water and unhealthy plants. In the absence of rain, water should be applied only when the lawn shows signs of moisture stress. The signs of moisture stress include a dark bluish-gray color; footprints that remain after walking and wilted or curled grass blades. Some general recommendations for watering are listed.

- ▶ If possible, water in the early morning. This is the preferred time to water to reduce risk of disease and water loss through evaporation.
- ▶ Water to a depth of 6-8 inches. Usually 1 inch of water per week is adequate.
- ▶ Use cans or a rain gauge to determine how much water is being applied in a certain time period.

If you do not plan to irrigate during the summer months you can slowly condition your lush lawn into dormancy. You can accomplish this by allowing the drought stress symptoms to appear between infrequent watering; by mowing high, and by not over fertilizing with nitrogen in the spring. Most turf grasses can withstand from 3-6 weeks without rain if conditioned. In the absence of rain, water the dormant lawn with .25 inch of water every three weeks to keep the growing points hydrated.

Mowing

You will choose to use either a rotary or reel mower. The reel mower is preferred if

grasses are cut to less than 1 inch. Our common fescue lawns are not cut to this low height but are usually maintained around 2.5-3 inches. Some general recommendations for mowing are listed.

- ▶ Keep mower blades sharp and balanced. Dull mower blades reduce quality of the grass by tearing instead of cutting.
- ▶ Mow at the proper height for the grass you are growing. How often you mow is determined by the desired height and the amount of growth. The amount of growth of your grass depends on the temperature, fertility, moisture available, season of the year, and the type of grass you grow. To have a high quality lawn, mow often enough to not remove more than 50% of the grass blades each mowing.
- ▶ When the grass is short, leave the clippings to decompose. Lawn clipping do not add to the thatch build up. Thatch is made up of roots, stems, and lower leaves below the mower blade. Short clippings left on the lawn release valuable nutrients back to the soil. Rake, bag, and remove clippings if too long or mowing is delayed and use them as a green in your compost pile.

Fertilizing

A soil test should be taken every 2-3 years to determine how much lime, phosphorus, and potassium is needed by your established lawn. The North Carolina Department of Agriculture's Soil Testing Division will run a soil test at no charge if you send them a sample of your soil. Although a poor substitute, a complete fertilizer in the ratio of 4:1:2 can be used if

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you have not taken a soil test. One should determine the amount of fertilizer, ratio of nutrients and when to apply based on the type of grass you are growing in your landscape. At the end of the article I have given you a reference that has many charts to help you with this determination. Some general recommendations for fertilizing are listed below:

◆ **Cool-Season Grasses:** The proper months to fertilize are September, November and February. (If you missed the February application still fertilize in March). Best to avoid excess nitrogen fertilizer between the February and September applications in our area if you have had fungal diseases on your turf. If color improvement is needed in early summer, apply an application of not more than .5 pound of nitrogen per 1000 square feet. In our area it is best to apply this before April 15th.

◆ **Warm-Season Grasses:** The proper months to fertilize are May, June and September. It is best to avoid winter applications of fertilizer to reduce winter injury.

◆ **Lime:** Most soils in North Carolina and our area are acidic and often require applications of lime to sweeten the soil for best grass growth. For most turf grass, except centipede, the soil pH should be between 6.5 and 7.0 for optimum nutrient availability.

Coring (Aerification)

Soils that are subject to heavy traffic are prone to compaction. Coring will alleviate this condition. Use a device that removes soil cores. Chop up the cores and distribute them by dragging with a span of chain-link fence

or a mat. Do coring during the active growing season for the grass you are growing.

Power Raking (Verticutting)

Sod forming grasses such as Bermuda, Zoysia, and Centipede tend to build up thatch when heavily fertilized and watered. When thatch exceeds ¾ inch, power rake and core the lawn to cut through the thatch. Thatch build up can also be removed from warm-season grasses by cutting closely at spring green-up and raking by hand.

Renovating a Lawn

The term lawn renovation refers to any procedure beyond normal maintenance required to upgrade an existing lawn. A deteriorated lawn is often a symptom of some underlying problem. Some of the major causes of turf deterioration are listed here:

- ◆ Poor establishment procedures
- ◆ Improper lawn management
- ◆ Poorly adapted grasses
- ◆ Improper nutrient balance
- ◆ Excess thatch buildup
- ◆ Disease, insect, or weed infestation

Any problem that caused the lawn to deteriorate must be corrected before renovation begins.

The information provided in this article came from a North Carolina Extension Publication titled “Carolina Lawns” (AG-69). You can obtain this comprehensive guide from the local Extension Office. Included in this guide are topics: What to Plant, Establishing a New Lawn, Caring for a New Lawn, Maintaining an Established Lawn, Renovating a Lawn, and Integrated Pest Management.

A Deer-Proof Winter Woodland Landscape

by Mary Audrey Apple, Master Gardener

We pulled into the gravel driveway at dusk, just as three deer raced through the woodland garden. Like so many homes in the Atlanta area this one waits for a new owner. Located at the base of Kennesaw Mountain and next to the extensive national battlefield park, the acre of gardens surrounding the house is visited - and maintained - only occasionally. In the meantime the deer population grows, the young and their mothers nestle down under the Carolina buckthorn tree (*Rhamnus caroliniana*) at the edge of the perennial bed, and all those carefully tended plants of a past life become a salad bar in this National Wildlife Federation Habitat.

The deer population is also growing in Forsyth County, and Master Gardeners are getting more questions about deer proof plants from frustrated homeowners. A winter walk through our Georgia woodland garden is a three-year testimony to the resistance of an interesting variety of

evergreen shrubs and plants. Combined with large pots of various ivies, these can offer pleasing winter structure in a shaded area:

- * *Agarista populifolia* - (coastal leucothoe, fetterbush – great in flower arrangements)
- * *Arachniodes simplicior* - (holly fern)
- * *Arum italicum* - ‘Pictum’
- * *Asarum splendens* - ‘Quicksilver’ - (wild ginger)
- * *Daphne odora* - (winter daphne, fragrant daphne)
- * *Daphne odora* - ‘Aureo-Marginata’
- * *Edgeworthia chrysantha* - (paper bush – not evergreen, but blooms in winter)
- * *Helleborus niger* - (*Lenten/Christmas rose*)

- * *Illicium floridanum* - (Florida anise)
- * *Illicium floridanum* - 'Shady Lady' - (variegated)
- * *Leucothoe axillaris* - 'Margie Jenkins' - (lower growing)
- * *Mabonia japonica* - 'Winter Sun'
- * *Morella cerifera* - (wax-myrtle, southern bayberry)
- * *Pachysandra terminalis* - 'Green Sheen'
- * *Pieris japonica*
- * *Robdea japonica* - (sacred lily)
- * *Sarcococca confusa* or *Sarcococca ruscifolia* -(sweet box)



Edgeworthia chrysantha, also known as paper bush, shown above in bloom in the winter and to the left in summer.

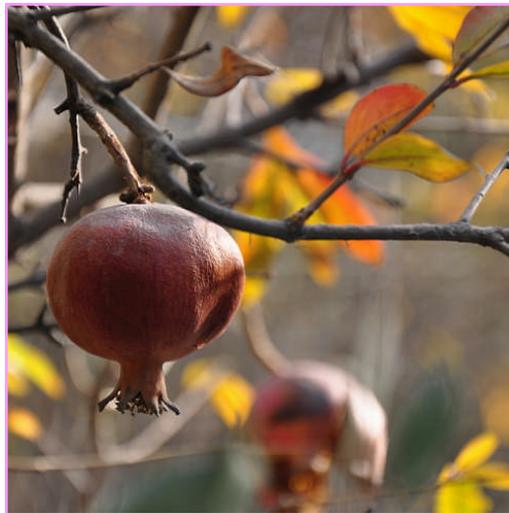
Pomegranate - by Derek Morris, Horticulture Technician

If a poll were taken on the most beautiful edible plant, pomegranate would have to place in the top 5 if not at the very top. After all it has bright reddish young new growth in the spring that turns a beautiful clear yellow in the fall before dropping. In the summer it is clad in lustrous bright green foliage which makes the perfect backdrop for its 2 inch wide brilliant scarlet blooms.

There are many varieties of pomegranate chosen for fruit quality and some strictly for ornamental purposes. Most ornamental varieties which mainly produce double flowers do not produce fruit, a few do but the fruits are only an inch or so wide and are a showy feature in late summer. The variety 'nana' only grows to about three foot and 'flora plena' has double carnation like flowers that make this shrub a showstopper in June and July. This variety as well as most others will grow anywhere from 10 to 15 foot tall but these shrubs can be pruned in late winter and kept shorter if needed.

All pomegranates are best planted in full sun locations especially if you are growing mainly for fruit production, however, they will tolerate partial shade. They are quite drought tolerant once established and are not bothered by any major insects or diseases. Pomegranates are multi stemmed shrubs with cinnamon colored bark that add winter interest.

There are hundreds of varieties that have been selected for fruit quality, some dating back hundreds of years. However the majority of those selected in Europe and the Middle East will not tolerate our sometimes frigid winters,



thus it is important when choosing a fruiting variety for our area that you pay close attention to the variety.

Pomegranates are hard to find locally but there are several mail order sources. If you are fortunate enough to have a neighbor with one, they may let you take stem cuttings which root readily. The most commonly available fruiting variety 'wonderful', selected in FL and grown commercially in CA, is not cold hardy in our area. Buyer beware! A few that are great for our area with quality fruit are: 'kazake', 'favorite', 'salavatski' and 'Russian'. These can be ordered from places like One Green World in Oregon and Edible Landscaping in Virginia.

Pomegranates are self fertile so you will get some fruit by planting just one, however, fruiting will be increased with cross pollination so if you have the room and are interested in fruit production it might be best to plant at least two different varieties. Other than placing in full sun, they are not fussy about soil conditions as long as it is well drained. Fertilizing once a year with a balanced fertilize is sufficient. This can be done in early summer.

Harvesting fruit is done when the rind is the right color for the variety (usually red) and the calyx at the bottom of the fruit turns inward instead of being flared out. This is usually in October or early November. Once fruit is harvested by clipping from the shrub, they can be enjoyed right away or stored in the crisper for several months. They can also be seeded and frozen in containers if you want to keep them for more than a few months.

Growing Fruit in the Community Garden - *by Mary Jac Brennan, Extension Agent, Community Gardens*

Community Gardens in Forsyth County are often associated with growing vegetables, flowers, and herbs on a seasonal basis. As community gardens become better established, participants may consider adding more permanent plantings, such as perennial vegetables and fruits. This month, the variety of fruits that can be grown in a community garden will be discussed. Some fruits are better suited for the community garden, in that they require less spraying for insect and disease pests. We will focus on what we call 'lower maintenance' choices for the community garden, fruits that can be grown with less need for spraying. To grow fruit successfully, attention must be paid to site selection and soil conditions. Because most of the recommended fruits will be planted once, it is critical to make good decisions at planting time. A number of factors should be considered when selecting where in the garden you will plant your fruits, as well as which fruits to grow. Derek Morris, Forsyth Cooperative Extension Horticulture Technician, shared the following comments regarding good cultural practices and other suggestions for successful fruit growing in the community garden.

Fruits in general are not that hard to grow in the piedmont of NC if you pay close attention to the variety or type of fruit grown. It seems the most popular fruits and the ones most planted require the most care in terms of insect and disease control - for example apple, pear, peach, cherry, and plum. Most of these fruits will require spraying at certain times of the year if you want picture perfect fruit. There are organic fruit tree sprays available if one searches around and has the time to devote to spraying on a regular schedule. There are varieties of some common fruits that are much less problematic when it comes to disease and insects so one needs to be very selective when planting. Smaller fruits such as strawberry, fig, blueberry, grape, blackberry, and raspberry are much easier to grow and require no spraying if recommended varieties are planted. Keep in mind these fruits as they are ripening may need protection from birds as they are especially fond of such fruits. Netting can be purchased for this purpose. Other lesser grown or known fruits, such as persimmon, pawpaw, mulberry, and Chinese date (jujube) are the easiest to grow in our area. Many varieties of each fruit mentioned above are recommended for one reason or another in our area, such as being heat or cold tolerant or disease resistant and when choosing fruits to plant, these recommendations should be paid close attention to. As a general rule most fruits should be planted in well drained soil and in a location where they will receive sun all day. Fruits planted in shade will be more disease prone and less productive. Mixing in a little compost or well rotted manure to the hole when planting is a good idea. Keeping fruits mulched with something organic such as straw, pine needles, or leaves is insurance against drought and will help in the control of weeds.

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