Every year, homeowners inquire what control options are effective in removing moss from their yard. The answer is not so simple and requires careful consideration. Some landowners love moss! They love the earthy texture and look with the added benefit of minimal time and labor spent mowing. The reality is moss loves shade and so oftentimes I respond with the question “do you really want to get rid of it?” Keep in mind that shade-tolerant grasses prefer sunny locations while moss is associated with poor growing conditions such as low pH, poor fertility, compact soil, wet soil, limited sunlight and excessive thatch or a combination of these factors. It might be easier to leave the moss, mulch the area with pine needles or bark, or plant a shade loving ground cover instead of a turf grass.

Mosses are small green plants with leaves arising from all sides of a central axis. Generally, mosses are competitive and grow in clumps or mats in cool, moist, shaded locations such as on the north side of buildings and in wooded areas. Removing moss physically (e.g., hand or rake) or chemically (copper or ferrous sulfate) provides only temporary control. Without proper site and soil modifications, newly seeded grass will struggle whereas unwanted moss will return right where it left off.

If you desire to reduce or eliminate your mossy area and take back control of your lawn, then the following practices will help to prevent and control moss:

- Take a soil sample to determine proper lime and fertilizer needs. Lime raises pH and helps to lower soil acidity. Changing the soil pH and nutrient levels will minimize weed encroachment and enable grass seeds to germinate and grow in less stressful conditions.
- Options for removing moss include: physical removal or chemical control with copper sulfate or ferrous sulfate. Read the label for specific instructions for appropriate concentrations and safety. Afterwards, you may need to remove the moss by raking to allow recovery of the area. Once the moss is gone prepare a good seedbed by tilling in the appropriate amount of lime and fertilizer and reseed bare areas with a shade loving turf grass.
- Plant shade-tolerant grasses. (See NCSU publication Carolina Lawns at URL http://www.turffiles.ncsu.edu/PDFFiles/004175/CarolinaLawns2008.pdf)
- For areas already covered in turf, aerify (core) compacted soils.
- Increase light penetration and air movement in shady areas by removing a few trees (this is difficult for many) or with less impact a few limbs, along with unnecessary undergrowth.
- If sitting water is an issue, consider improving drainage and avoid excessive watering by altering irrigation schedules.
As one travels across western North Carolina, it is quite evident that azaleas and Rhododendrons are favored ornamental plants utilized by home gardeners and professional landscapers. Both types comprise the genus Rhododendron in which there are over 900 species and thousands of cultivars. Rhododendrons are indigenous to many parts of the world but the strongest concentrations exist in China, Japan, and the eastern United States.

Oftentimes, people ask the question, “What is the difference between an azalea and a rhododendron?” There are some generalities that distinguish azaleas from rhododendrons but at times these are blurred. Azaleas have flowers with five stamens while true rhododendrons have ten or more. Azaleas may be deciduous or evergreen while true rhododendrons are all evergreen. Rhododendrons are usually larger than azaleas, with some exceeding 20 feet tall at maturity. Azaleas range from one and a half feet to eight feet tall.

Both Azaleas and Rhododendrons offer a wide range of size, form and a rainbow of colors that are often spectacular. Both types work well as specimen plants or as a mass hedge planting; and are available in evergreen and deciduous forms. Flowering dates range from March to late June.

When choosing an azalea or rhododendron, it helps to see the plant in full bloom in order to get the exact color desired. Besides looking at the flowers, take a close look at the branches and leaves of any plant you are considering. Leaves should be dark green and healthy looking. Do not purchase plants with dead stems, fungal spots on the leaves, or wilting. Watch for scale insects, mites, and mealybugs. It is easier to avoid these problems prior to purchase than to attempt to eradicate them once they are established in your yard.

Once you get your plants home, look for a well-drained site in the shade. Azaleas and rhododendrons require moist, well-drained, acid soil with a pH close to 5.5. If a soil test shows that the pH is too high, use sulfur or aluminum sulfate before planting.

Prepare individual holes or planting beds by working a large amount of composted organic matter into the site. If the soil does not drain well, plant the shrubs in raised beds as azaleas and rhododendrons dislike wet feet and may be prone to the root rot disease Phytophthora cinnamomi. Mulch the soil around the planting to protect shallow feeder roots from heat or cultivation damage. Throughout the first year, monitor rainfall to ensure plants are watered once per week via rainfall or watering can.

When fertilizing azaleas and rhododendrons, apply cottonseed meal or granular fertilizer such as 10-10-10 in the springtime. Follow the directions on the package. Sprinkle it over the mulch and water thoroughly.

Pruning is fairly straightforward. It’s important to understand that new flower buds are set in late summer, so prune azaleas and rhododendrons after flowering and before July to prevent removing next year’s flower buds. Remove tall, rangy branches at the top of plants selectively pruning to a side branch down inside the canopy.

Azalea lace bugs are the most common insect pest of azaleas and rhododendrons. These insect pests have lacy wings and are found on the underside of the leaves. In the winter months, you may find black, varnish-like excrement spots on the underside of damaged leaves as evidence of lace bug damage. If left untreated, a blotched or spotted appearance will occur on the upper leaf surface. Eventually plants become weak as damaged leaves turn yellow and drop. Treat for this pest with insecticidal soap, horticultural oil or the systemic insecticide containing imidacloprid. For more information on azalea lace bugs go to the NCSU publication at http://www.ces.ncsu.edu/depts/ent/notes/O&T/shrubs/ort039e/ort039e.htm
June Horticulture Tips

**Lawns**
- Do NOT fertilize cool season lawns (fescue and bluegrass). Nitrogen applied this late is an invitation for brown patch fungus disease in June.
- Maintain mowing height for fescue lawns at 3 to 3 1/2 inches.
- It is too late to expect good results from applying crabgrass preventer now. Much of the seed has already begun to germinate.

**Vegetables**
- Did you thin the early seedlings of lettuce, greens and the like? Radishes and carrots only need to be 1 to 2 inches apart. Lettuces and greens should be closer to 6 inches.
- All cabbage family crops are now being attacked by cabbage worms. Spray with organic B.t. (Bacillus thuringiensis) about once a week.
- Seeds of beans and melons do not germinate well if the soil temperature is below 65. Use a soil thermometer or wait until about the middle of May to plant seeds in the garden.
- If you plant frost sensitive plants (all of the summer crops) before May 10, be prepared to use floating row cover or other material to cover plants if frost is in the forecast.
- Spindly tomato plants can be planted very deep as they will form roots on the buried stem. Remove leaves that will be below the soil.
- Continue planting warm season vegetables. Beans, squash and cucumbers can be seeded through July, so plan succession crops.
- Prevent blossom end rot on tomatoes, peppers, squash and melons by maintaining consistent soil moisture.
- Vegetables need a regular supply of fertilizer. Apply light doses of nitrogen containing fertilizer 5 or 6 weeks after planting.
- Keep records of when you fertilize so you do not over-do it. Some vegetables, especially beans and peppers will not bear fruit if excess nitrogen is used.

**Fruits**
- Pick strawberries regularly. Pick and discard any moldy berries.
- Begin fungicide sprays, especially on peaches, plums and grapes.
- If an April freeze did not thin your apple, pear or peach crop, this is the time to do it. Remove excess fruit so they are about 6 inches apart, before the fruit is the size of a nickel.

**Ornamentals**
- Sprinkle seeds in the flower bed for zinnias, cosmos, nicotiana, love-in-a-mist and other easy annuals.
- Select annual and perennial flowers according to their sun light requirements.
- Flower and shrubbery beds can still be fertilized. Use a product with slow release fertilizer for extended feeding and to protect water quality.
- Prune spring blooming shrubs soon after blossoms fade.
- Nothing perks up a patio or entry like a colorful container garden. You can create great looking containers without relying on flowers. Combine colorful foliage plants such as sweet potato vine, purple heart, coleus, wandering Jew, creeping Jenny, dusty miller, crotons, ivies and grasses.
- If you move house plants outdoors for the summer, wait until nighttime temperatures are above 50 degrees.
- Do not place plants in direct sunlight.
Wildflowers that Bloom in June

Spiderwort Tradescantia subaspera (into July)
Turk's Cap Lily Lilium superbum (into August)
Carolina Lily Lilium michauxii (into August)
Rattlesnake Plantain Goodyear pubescens
Black Cohosh Cimicifuga racemosa (into July)
Saxifrage Saxifraga michauxii (into Aug.)
Brook Saxifrage Boykinia aconitifolia (into July)
Mountain Lettuce Saxifraga micranthidifolia
Flowering Raspberry Rubus odoratus (into Aug.)
Indian Pipes Monotropa uniflora (into Oct.)
Rosebay Rhododendron maximum (into July)
Sourwood Oxydendrum arboreum (into July)
Wintergreen Gaultheria procumbens (into Aug.)

Bush Honeysuckle Diervilla sessifolia
Beard Tongue Penstemon spp (into July)
Mountain Ash Sorbus Americana
False Hellebore Veratrum viride (into Aug.)
Coreopsis Coreopsis pubescens (into August)
Mullein Verbascum thapsus (into September)
Bull Thistle Carduus lanceolatus (till frost)
Tall Meadow Rue Thalictrum polygamum
Fleabane Erigeron strigosus (until July)
Hypericum Hypericum spp (into August)
Wintergreen Gaultheria procumbens
Whorled Loosestrife Lysimachia quadrifolia

Sincerely,
Christy Bredenkamp, Extension Agent
Agriculture-Horticulture

Jackson County Center
538 Scotts Creek Road, Suite 205
Sylva, NC 28779