

# Virginia Cooperative Extension

A partnership of Virginia Tech and Virginia State University



School of Agriculture  
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## Lawn Best Management Practices

### General practices

- Test the soil to learn the pH and nutrients already present
- Maintain healthy plants by meeting their cultural requirements with the goal of using less pesticides
- Determine soil drainage capacity before planting
- Maintain desirable pH (6.2-6.5) for turf grass through regular soil testing
- Areas that receive less than 4 hours of sunlight per day are often better suited to shade-tolerant ground covers or the use of mulched beds.
- Use plants or mulch to conserve water, suppress weeds and prevent soil erosion
- Measure your turf's square footage – don't guess!
- Re-test your soil every 3-5 years
- When selecting plants, consider the site's conditions (sun/shade, moist/dry, pH, growing space available) and the landscape plan.

### Mowing

- Follow the 1/3 mowing rule --Never remove more than one-third of the leaf blade at any mowing event
- Sharpen mower blades about every 10 hours of use or every 10 to 20 mowings. Wet grass tends to dull blades. Mowing with a dull blade also contributes to lawn diseases.
- Avoid mowing under drought conditions or when the leaf blades are wet.
- Return grass clippings back to the lawn-- it counts for up to 30% of a lawn's nitrogen requirements for the year.

### Fertility

- Consider adding slow release fertilizers (those containing 30 to 50% Water Insoluble Nitrogen) to your fertility program to minimize nutrient leaching potential.
- Keep all fertilizers for the lawn off of hardscapes (sidewalks, driveways, streets, etc.). Fertilize based on soil test
- Fertilize based on soil test AND the grass!
  - Cool season grasses**-Fertilize no more than 2 pounds of Nitrogen per 1,000 square feet TOTAL in the Fall; applying no more than 1 pound of water soluble Nitrogen every 30 days. Optimal time is September through November. Fertilize no more than 1 pound of Nitrogen per 1,000 square feet TOTAL in the spring. Optimal time is May 15- June 15.
  - Warm season grasses**-Optimal time for fertilizing is June, July and August. Fertilize no more than 1 pound of water soluble Nitrogen per 1,000 square feet per application. With no more than 3 lbs of Nitrogen per 1,000 square feet TOTAL for the season  
In particular, apply phosphorus and lime based on a soil test.

[www.ext.vt.edu](http://www.ext.vt.edu)

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## Irrigation

- ❑ In times of low precipitation irrigate landscape plants deeply and infrequently, usually no more than 1" of water per week, while being sure that the water applied enters the soil and is not running off.
- ❑ Irrigate early in the morning, rather than late at night, to minimize evaporation losses, effects of wind, and to reduce the length of leaf wetness so that disease pressure is reduced.
- ❑ Periodically inspect and audit your irrigation system to maximize system performance and improve water use efficiency.
- ❑ If irrigation is not available to sustain active growth during periods of summer drought, refrain from irrigating and let the grasses go dormant.

## Compost

- ❑ Top-dress existing lawn with ¼" of compost one to two times per year to improve the soil structure of clay soils. The benefits are enhanced when done in conjunction with soil aeration. A simple formula to calculate how much compost is needed is :  
**Area to cover (square feet) X depth of compost (inches) X 0.0031 = compost needed (cubic yards)**
- ❑ In late spring, add about 1 inch of compost around the trees and shrubs. Cover with a mulch of shredded pine needles, straw, bark chips, or leaves 2 to 3 inches deep.
- ❑ In the fall, spread about 2 inches of compost over your entire garden and work it 6 to 8 inches into the soil

## Aeration

- ❑ Core-aerate cool season lawns in late August-early September or mid March-mid April; warm season lawns from June through mid-August.
- ❑ Mow the lawn before aerating. Lawns should be thoroughly watered, but not wet, prior to aerating, so tines can penetrate deeper into soil and soil cores easily fall out of the tines.
- ❑ Aerate the lawn in at least two different directions to insure good coverage. Be careful on slopes, especially steep ones, as well as near buildings and landscape beds.

## Overseeding

- ❑ An annual overseeding will give you thick turf and will help to push out unwanted weeds. Aerate first, then compost. Irrigate lightly and frequently until germination is complete. This is the only time you can violate the deeply and infrequently watering rule!
  - **Cool season grass**- early-mid September, but no later than October 15.
  - **Warm season grass**-May-June, after spring green up & when soil is warm enough.
- ❑ For over-seeding, apply 4 to 6 lbs. of grass seed per 1,000 square feet. Purchase quality seed. For sunny areas, use turf-type tall fescue cultivars. For shady areas, choose fine fescues such as creeping red, chewing, or sheep fescue.

# **Pest Management**

## **Insects**

- Identify the pest and susceptible life stages before you treat with a pesticide. Contact the Extension office for identification and control recommendations.
- Maintain healthy plants by meeting their cultural requirements with the goal of using fewer pesticides
- Monitor plants in the landscape regularly to recognize when pests are present
- Learn which insects are common to the plants growing in your landscape/garden.
- Reduce pest populations by hand removal and regular clean up
- Establish thresholds for acceptable levels of pest infestation; consider how beneficial, non-target insects might be affected by a chemical treatment.
- Keep all insecticides off of hardscapes.

## **Diseases**

- Learn the diseases common to the plants growing in your landscape/garden and consult with your Extension office regarding management strategies that can reduce disease incidence.
- Maintain healthy plants by meeting their cultural requirements with the goal of using less pesticides
- Monitor plants in the landscape regularly to recognize when pests are present
- Keep all fungicides off of hardscapes.

## **Weeds**

- The best weed control in a lawn is achieved by a dense turf canopy. Choosing an appropriate grass and providing responsible fertility and cultural management programs is the best way to reduce weed pressure.
- Identify weeds before using a chemical control and consider WHY the weed is present (compaction? Persistent wet soils? Shade? etc.). Decide which species you can live with and which species you want to control. Contact the Extension office for identification and control recommendations and for help in improving growing conditions such that weeds are discouraged.
- Hand-pull weeds or use spot herbicide treatments where possible.
- Appropriate timing is critical for pre-emergent herbicide control of summer and winter annual weeds. Consider how pre-emergent herbicides can affect the chances for success with future seeding establishments. When fertilization is not appropriate, choose pre-emergent herbicides that do not contain fertilizer. Read the label; many products require a second application or need to be watered in to activate.
- When using post-emergent herbicides, treat young, actively growing weeds and consider how the environment (temperature, wind, humidity, chance for rain, etc.) might affect herbicide activity on the target weed AND surrounding, desirable vegetation.