Healthy Lawn Care and Renovation

A lawn that is healthy and well-established can out-compete most weeds and withstand a certain amount of stress from drought, insects, and disease. Lawns can often be renovated simply by improving management such as proper fertilization, mowing, watering, and addressing problems with thatch and soil compaction.

Build lawn fertility naturally and use fertilizers and pesticides responsibly

Don’t guess, soil test. Apply only the amount of lime and fertilizer the grass actually needs. The only way to know is to test your soil.

Rhode Island soils are naturally acidic and routine lime applications are often needed. Maintaining a soil pH of 6.0 to 7.0 through liming is very important for lawn grasses. When soil pH drops below 6.0, a number of nutrients become less available to the grass. Generally, lime should be applied at a rate of no more than 50 pounds per 1,000 square feet per application at any time except for when the ground is frozen.

When soil test results indicate a need for supplemental nutrients, choose fertilizer sources wisely. The type of fertilizer, and the timing and method of the application is very important for supplying the lawn with necessary nutrients while minimizing pollution risk.

- Consider compost or other organic fertilizer sources, they provide a slow, steady release of nutrients over time.
- Consider fertilizer that contains at least 50% water insoluble nitrogen, read the label.
- Recycle the lawn clippings. Recent research at the University of Connecticut has shown that fertilizer needs can be reduced by 50% or more. Most lawns will not need more than 2 pounds of nitrogen per 1,000 square feet per season. Apply no more than 1 pound of nitrogen per 1,000 square feet per application. Apply one application in May and another application in September. Do not apply fertilizer after October 15th to reduce pollution risk. Proper mowing and use of a mulching mower is important and will not contribute to thatch problems.
- Do not over-water, this greatly increases pollution risk.

Proper Application Methods. It is also very important to measure the actual area to be treated and calibrate your spreader. This ensures that you are applying the amount of fertilizer that you intend. Avoid spreading fertilizer on paved areas or near storm drains or drinking water wells. Sweep up these areas with a broom; do not wash with a hose. A drop spreader can allow for more accurate control around critical areas. Compost and other organic fertilizers are still sources of nutrients, so they must be applied at the proper rate and time using sound application methods.

The same applies when applying a pest control product. Avoid weed and feed products and routine pesticide applications. Nutrients should be applied based on soil test results and managed separately from pest management.
Use the following Integrated Pest Management techniques:

- Properly identify the pest problem.
- Is the problem bad enough to warrant chemical treatment?
- Learn about the pest—identify cultural, mechanical, biological options for controlling the problem.
- If chemical control is necessary, is spot treatment an option or is uniform application needed?
- Are there chemical control options that are less toxic and/or occur in a less risky formulation (granular instead of spray)?

In properly identifying the problem, be sure that it is not self-induced due to improper fertilization, watering and mowing practices—these can cause shallow roots, disease and other lawn health problems.

Grass clippings are a pollutant when washed directly into surface waters and storm drains. Recycle grass clippings on the lawn, compost them in a safe place away from water resources, or use them as mulch in beds. See our information sheet, Recycle Your Yard Waste for more information.

Address problems with soil compaction, thatch, and mowing

Soil compaction and thatch build-up result in shallow roots and reduced water infiltration and air flow. Mechanical soil aeration, vertical mowing (thatch removal) and coring can help loosen compacted soil. It is not unusual for residential lawns to contain shallow top soil and compaction from frequent vehicle access and foot and animal traffic.

Thatch is a dense layer of dead grass, stems and roots that develops between the soil surface and the growing grass. While some thatch is normal and desired, excessive thatch problems are often a sign of over-watering and improper mowing. Mechanical de-thatching in the early fall is recommended for lawns with more than one inch of thatch build-up.

Proper mowing at the correct heights and frequencies with a sharp blade is very important for lawn health. Mowing at heights between 2 and 3 inches is best to encourage deeper roots, discourage weeds and reduce evaporation.

Choose the Right Lawn Grass Mixes

Later summer/early fall (August 15 - September 15) is the best time to establish a new lawn seeding or over-seed an existing lawn. It is a time of less weed pressure, cooler temperatures and ample rain fall. A slice-seeder is one way to introduce new seed into an existing lawn.

- Fescue varieties of seed are the best for home use. They use less water, fertilization, and require less maintenance. The basic types of fescues are Turf-type Tall Fescue and Fine Leaf Fescue, which include Creeping Red, Chewings, Sheep, and Hard Fescues. A combination of Turf-type Tall and fine fescues is best.
- White clover is a legume that "fixes" nitrogen from the air and converts it to a form that plants can use, boosting natural soil fertility. White clover does attract bees which may not be desirable.

For more information:

URI Home*A*Syst Program
web.uri.edu/safewater
(401) 874-5398
Information on protecting your drinking water

URI Master Gardener Hotline:
1 (800) 448-1011 (M-Th, 9 AM to 2 PM)
Call to get your gardening questions answered

UCONN CE Water Quality and Home Landscape
http://www.sustainability.uconn.edu/sustain/turf/intro.html
Information on turf