LAWN CARE & PESTICIDES

Work with nature to help create a healthy lawn

TOWN OF NORTH CASTLE
CONSERVATION BOARD

How to improve your lawn

Healthy Soil is the Basic Ingredient

Healthy plants need healthy soil to be at their best, and grass is no exception. Plant nutrients, the right pH (acid-alkaline balance), beneficial organisms, and plenty organic matter all play their part. Check your soil's pH before preparing the soil for seeding. It should be between 5.5 and 7.0. Agricultural lime can be worked in to increase the pH (making the soil less acid). Nutrients are more available to the plant and beneficial organisms are more active in this range. Beneficial organisms will out-compete unwanted pests in a healthy soil. Adding organic matter, in the form of compost, provides nutrients and improves soil structure and water retention. Soil preparation is the same for all types of lawn installation, including sod. Soil-test forms and directions can be obtained from Cornell Cooperative Extension close by in Valhalla: 914-285-4640, E-mail: westchester@cce.cornell.edu, or www.ccecornell.edu/~westchester.

Soil Compaction

Heathy soil has minute air spaces between the soil particles. Plants need these spaces so that their roots can get oxygen, water and nutrients. Compacting the soil squeezes out these air spaces and makes it difficult for roots to grow properly. Prime causes of compaction are construction activities prior to lawn making or parking and operating heavy equipment on an established lawn.

How Much Topsoil?

Good healthy lawns that will survive summer heat and dryness should be grown on not less than 6 to 8 inches of topsoil. Grass roots will grow deeper and reach the cooler and moister layer down in the topsoil.

Seeding

Select the proper grass for your site, based on intended use and amount of sunlight. For the Westchester area, use cool-season grasses such as varieties of Kentucky bluegrass, fine fescues and perennial ryegrass. Choose a fresh and good-quality mixture and look for the lowest percentage of "other ingredients" in the mix. For best results, seed in late Summer (late August, early September) when competition from weed seeds and cooler temperatures are optimum.

Over-seed an existing lawn where the turf is thin at any time to help grass out-compete weeds.

Fertilize Lawns Lightly in the Fall, about Labor Day

A properly fertilized lawn will need fewer pesticides. Soil pH and fertility, especially nitrogen and potassium levels, influence a lawn's ability to resist pests. Use phosphorus-free fertilizer. (The middle number on a bag of fertilizer is the [P] phosphorus). Phosphorus is naturally available in the soil in the Westchester area. Nitrogen and potassium are needed in moderate amounts for a pest-resistant lawn. Returning the clippings after mowing can reduce these requirements by 30 percent. Fall is the best time to fertilize a lawn because it promotes deeper and healthier root systems at the time of year when conditions are most suitable. Use organic slow-release fertilizers.

Excess fertilizer flows downhill, entering water bodies, streams and wetlands, where it creates excessive plant and algae growth.

Mowing

Mow high, 3 to 4 inches, with a sharp lawn mower. Contrary to what many people believe, grass does not grow faster when cut short. Cutting it short weakens the grass by reducing leaf area that performs photosynthesis, and weeds creep in. Grass over 3 inches tends to shade out weeds. Leave normal clippings on the lawn. Mulching mowers are useful for this purpose. Also consider composting of excessive grass clippings with last fall's leaves to produce a good soil amendment.

Watering

A good watering of ONE inch per week is better than a shallow watering more frequently. Don't over-water your lawn. One inch per week, including rain, is adequate. DO NOT SET SPRINKLER SYSTEMS ON AUTOMATIC ONLY – INSTALL A RAIN SENSOR because over watering is as harmful as a lack of water and it wastes our precious water resources. An automatic sprinkler system operating during a rainstorm is truly a profligate waste of ever-scarcer water supplies.

Caring for Your Lawn

What Not To Do

Don't let sediment, pesticides, fertilizers, tree leaves, grass clippings household cleansers, or automobile fluids get into storm drains, water bodies or groundwater. They may threaten the safety of your drinking water.

*Illustration: Printed with permission of Cornell Cooperative Extension, Cornell University, The Homeowner's Lawn Care & Water Quality Almanac**

Lawn Care with Reduced Pesticides

Save money by allowing soil organisms to return nutrients to the soil. Diagnose lawn problems, and apply corrective measures only when needed. DID YOU KNOW THAT A LAWN WITH 15% WEEDS LOOKS WEED-FREE TO THE AVERAGE PERSON?

No pesticide is 100% safe. The US Environmental Protection Agency (EPA) estimates that homeowners and commercial lawn care companies use 140 million pounds of pesticides annually. They are designed to be toxic to the pest target but they can also harm humans, pets, birds, fish and plants as well as pollute the air, water and soil. Lawn pesticides present special risks for children because of their immature nervous and immune systems as well as the elderly and those with immune deficiencies.

GRASSROOTS Healthy Lawn Program is a comprehensive educational program designed to reduce exposure to lawn and garden pesticides. This includes training of lawn care professionals, liaison between manufacturers and retailers, and public outreach.

For a list of landscapers offering natural lawn care programs, or retailers carrying natural lawn care products, visit the website at www.ghlp.org or call the program office at 914-921-9009. Also visit GRASSROOTS Environmental Education at: www.grassrootsinfo.org.

Making a Transition to Natural Lawn Care

Transition to natural lawn care may take time, but success may be easier than you think. The health of the soil should be the primary concern because years of pesticide use may have destroyed many beneficial organisms that provided natural pest control, soil aeration and plant nutrition.

A soil rebuilding and natural lawn program should include aeration, compost applications, seeding with grasses best suited to the area, corn gluten for pre-emergence weed control, and if necessary, biological controls for insects.

Consider Integrated Pest Management (IPM)

As an alternative to dependency on pesticides, IPM is an extremely effective approach that uses mechanical, physical, biological and, as a last resort, chemical methods to control pests and maintain a healthy lawn. For more information on IPM, see: www.oag.state.ny.us/environment/ipm3fold.html.

Pesticides and the Law

If a lawn care service is used, seek a company that will follow a Natural Lawn Care Program and be aware that IPM (Integrated Pest Management) PROGRAMS MAY INCLUDE THE USE OF TOXIC PESTICIDES.

For a list of organic landscapers in the area, go to: www.grassrootsinfo.org.

New York State law requires that a written contract be signed before pesticides are applied by a lawn care company to a residential property and contains: All warnings of potential harm to humans, the brand and generic names of the active ingredients, the total number of applications to be provided and the total cost, dates of application, and the lawn care company's business registration number, applicator certification ID number, name, address and phone number.

For NYSDEC commercial lawn application policy, go to: www.dec.state.ny.us/website/dshm/pesticid/policy.html.

To help protect your family, pets and property from the dangers of pesticide applications, consider adding terms to the contract beyond those required by law, such as:

- to inform you at least 48 hours before any pesticide application
- to notify you in person of the date and time of each completed pesticide application and post that information, along with the name(s) of the pesticide(s) applied on warning sign around your property.

RESOURCES

Cornell Cooperative Extension
26 Legion Drive, Valhalla, NY 10595
914-285-4620
email: westchester@cce.cornell.edu
www.cce.cornell.edu/~westchester

** The Homeowner's Lawn Care & Water Quality Almanac*
http://ecommons.library.cornell.edu/bitstream/1813/68/2/Lawn+Care+and+Water+Quality+Alm

Grassroots Healthy Lawn Program
P.O. Box 373, Harrison, NY 10528-0373
www.grassrootsinfo.org

NYS Department of Environmental Conservation
Region 3 Headquarters, New Paltz, NY
General Information: 845-256-3000

Audubon: www.audubon.org

Poison Control Center, Hudson Valley 800-222-1222

HIGHLIGHTS ON LAWN CARE

- Test soil pH before preparing soil for seeding.
- Use appropriate seed for your area.
- Use slow-release organic fertilizers with zero phosphorus.
- Mow high, 3 to 4 inches with sharp mower blades.
- Don't over-water. No more than 1 inch a week is adequate, including weekly rainfall. Do not set sprinkler systems on automatic only. Install a rain sensor.
- Spot treat undesirable weeds.
- Use IPM (Integrated Pest Management).
- Fertilize ***sparingly*** in the fall.
- Reduce lawn area by creating a natural woodland or meadow where feasible.
- Leave a buffer of natural vegetation along a pond, stream or wetland and on steep slopes.
- Ask your lawn-care service about natural lawn care.
- Pesticides can be toxic, especially to children and pets.
- Keep children and pets away from freshly treated lawns.
- Cover or remove toys, keep car and house windows closed, turn air conditioners to circulate or off, and keep indoors while a pesticide is being applied.
- Pesticides kill "good" bugs along with "bad" bugs. Use pesticides with care.

IF YOU CHOOSE A PESTICIDE, BE SMART

- Use the right product at the right time. Follow label directions and keep accurate records to create a history.
- Choose products that have the least potential for leaching into groundwater. More highly water soluble materials have the highest potential (e.g. 2,4-D, dicamba, MCPP).
- Use extreme caution when handling materials close to wells and impervious surfaces where runoff may enter storm sewers.
- To avoid volatilization and drift, which release pesticides into the air, do not spray when temperatures are high or it is windy.
- To help prevent polluted runoff, do not apply pesticides when heavy rains are expected or the ground is already saturated.
- Empty containers should be triple rinsed and disposed of properly. Unused materials should be returned in the original container to authorized hazardous materials collection sites.

Adapted from The Homeowner's Lawn Care & Water Quality Almanac
Cornell Cooperative Extension, Cornell University,

LAWN CARE AND YOUR ENVIRONMENT

The Conservation Board, consisting of nine volunteer members appointed by the Town Board, functions in an advisory capacity to the Town Board and other Boards, and assists in the development of sound planning policies to help assure protection of our natural resources.

It reviews all development proposals of parcels of 10 or more acres and all wetland permit applications in coordination with the Planning Board and Town Engineer. Present efforts are focused on public education related to protection of our surface and groundwater resources and the preservation of meaningful open space.

Over 95% of North Castle residents rely on drilled wells for their water supply. Regular maintenance of your septic system and minimal use of pesticides help protect our groundwater, the source of your home water supply.

Remember: groundwater is the source of water you drink. Protect it!

TOWN OF NORTH CASTLE
CONSERVATION BOARD

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