



INTEGRATED PEST MANAGEMENT

Ever wondered why these ladybug signs have been springing up around town?

The Borough of Chatham recently adopted an Integrated Pest Management Policy and Plan. Integrated Pest Management has been required by law on school properties in New Jersey since 2002.

This brochure will tell you what Integrated Pest Management (IPM) means, why it matters, and how you can use it on your property, too.

WHAT IS INTEGRATED PEST MANAGEMENT?

IPM is a sustainable approach to managing weeds and pests, using all appropriate technology and management practices to minimize health and environmental risks. Non-chemical controls and monitoring are used first. Pesticides are used only as a last resort.

Pesticide examples: weed killer, grub control, crab grass preventer, fungus treatment, insecticides, herbicides.

A Pesticide-Free-Zone ladybug sign means that no pesticides are used to maintain that property.

WHAT'S WRONG WITH PESTICIDES?

Pesticides are Poisons. They are intended to kill weeds and pests, but they can harm people, pets, wildlife, and ecosystems, too.

Scientific studies associate pesticide exposure with various health problems, including asthma, cancer, developmental and learning disabilities, nerve and immune system damage, liver damage, kidney damage, birth defects, reproductive impairment, disruption of the endocrine system, and Parkinson's disease.

Infants, children, pregnant women, the elderly, and people with compromised immune systems are particularly vulnerable to pesticide exposure.

Pesticides can contaminate drinking water. During rain, pesticides, herbicides and fertilizer can run off lawns and into storm sewers, then into streams and into the Passaic River, which is the source of drinking water for many towns.

Pesticides may do more harm than good on a lawn. Pesticides kill the microbial life, including earthworms and beneficial insects, needed for healthy soil, and kill pests' natural enemies. Disease and insect infestation may result, leading to the need for increased pesticide use.

An EPA registration number does not mean a pesticide or herbicide is safe. The long-term health effects of many pesticide ingredients, their breakdown products, and their interactions are not well known. Chemicals listed as inert ingredients may be highly toxic.

Pesticides may persist, inside and outside. Many pesticides persist in soil and lawns longer than the posted 24-72 hours. Lawn pesticides can get carried inside on shoes, paws, and air. Inside, away from sun and water, pesticides can persist for months on carpets, dust, toys, and air.

WHAT CAN I DO INSTEAD OF USING PESTICIDES?

Work with nature for a beautiful, healthy lawn that minimizes or eliminates pesticides. Some tips:

Diagnose any soil problems. Read your weeds.

Weeds thrive in soil that is compacted, not pH balanced, incorrectly watered, seeded, or mowed.

For more information about reading your weeds, see "Read Your Weeds, A National Coalition for Pesticide-Free Lawns Factsheet", at www.pesticidefreelawns.org.

Compacted soil is hard. If you can't easily stick a screwdriver into your soil, it's compacted.

Aeration resolves compaction and allows air, water and fertilizer to enter the soil. Aerators can be rented or bought. A healthy, non-compacted lawn will be naturally aerated by earthworms and birds.

Soil Testing can determine your soil pH and specific nutrient needs. Good soil pH is 6.5-7.0 which helps prevent weeds. High pH prevents soil from absorbing nutrients. Soil pH under 6.5 benefits from fall lyme. Soil tests: Rutgers Cooperative Extension Morris County, 973-285-8300, www.morrisnjaes.rutgers.edu/garden.

Compost – spread ¼ inch organic or naturally-based compost to condition the soil and suppress turf pathogens. Compost also increases water absorption and decreases need for watering.

Mow grass high, with a sharp blade.

Mowing with a dull blade makes turf susceptible to disease. Leave grass 3-3.5 inches high to shade out weeds and create deep, drought-resistant roots.

(Cut grass to 2 inches at first and last mowing of season only, to prevent fungal problems.)

Leave The Grass Clippings on the Lawn

Grass clippings retain moisture and are natural fertilizer. Leave them on the lawn to block weed growth and decrease fertilizer and water needs. See NJDEP Grass Cut It and Leave It brochure: www.state.nj.us/dep/dshw/recycling/brochures/recycling%20brochures/grass.pdf.

Choose Native Plants For Your Garden

They are more resistant to pests and disease and often require less water and maintenance. See Native Plant Society of New Jersey, www.npsnj.org. If a particular plant consistently attracts pests, replace it with a more pest-resistant plant.

Don't Overwater

Drought, excessive watering, and poor drainage foster weeds. Excessive water leaves grass more vulnerable to disease and fosters shallow roots. **Only water when needed** – when grass holds footprints after people walk on it. Then water in the early morning, to minimize evaporation, about one inch of water per week if needed. Lawns that go dormant during summer drought will green up again after rain.

Seed Generously in September and October

Thick grass out-competes weeds. Grass varieties differ in their resistance to pests and disease, so overseeding with a variety of grass types can be helpful. Tall fescue, fine-leaf fescue, perennial ryegrass turf grass may be resistant to some grubs.

Fertilize Springly, and Only When Needed

Too much nitrogen, or quick-release synthetic fertilizer, can weaken grass, alter pH, and promote disease, insects, and thatch accumulation. EPA estimates only 35% of fertilizers ever reach the grass plant; the other 65% is volatilized in the air or seeps into groundwater.

Organic, slow-release fertilizer feeds the soil and grass, needs about 30% less water, and can lessen runoff into storm sewers and waterways.

Problem-Solving: Spot-Treatment

Weed Prevention: corn gluten, best time is spring.

Grub Damage: spot-treat with milky spore (every 10 years) and/or beneficial nematode worms (annually for two-three years).

Summary Calendar

Spring: reseed bare patches, best time to test soil, monitor for insect pests. Spot-apply corn gluten only where needed to prevent weeds. Spot-treat for grub damage with nematodes.

Spring and Summer: cut grass high with a sharp blade; leave grass clippings on the lawn; water only when needed.

Fall: aerate compacted soil; best time to seed (generously); spread ¼ inch compost on lawn; fertilize sparingly if needed using organic fertilizer; lime if pH lower than 6.5. Mow high, leave clippings on the grass, last mowing of season 2”.

ADDITIONAL RESOURCES

Beyond Pesticides: www.beyondpesticides.org, 202-543-5450.

Safe Lawns: www.safelawns.org/lawn.

Northeast Organic Farming Association – NJ: 609-737-6848, www.nofanj.org.

Factsheets on Lawn Care, IPM, Weeds, Plant Diseases, Composting, related topics: www.ifplantscouldtalk.rutgers.edu/factsheets/?category=6.

How to read a pesticide label: www.epa.gov/0001/label/

Purchase Pesticide Free Zone signs at: www.beyondpesticides.org/pesticide-free-zone-yard-sign.html.

NJ School IPM Law: www.state.nj.us/dep/enforcement/pcp/ipm and www.pestmanagement.rutgers.edu

Documentary Film, “A Chemical Reaction”, shown as part of the Eco Film and Discussion Series of the Chatham, trailer, www.safelawns.org/chemical-reaction/

www.chathamtownship.org/healthy_lawns.html.

Additional information, including Chatham Borough IPM Policy and Implementation Plan:

www.chathamborough.org/Boards%20%26%20Commissions/Committees/Green%20Initiatives%20Committee.

