

Want to Know More?

Websites

The City of Windsor
www.citywindsor.ca

Essex Region Conservation Authority
www.erca.org

Essex County Health Unit
www.wechealthunit.org

The Ontario Ministry of the Environment
www.ene.gov.on.ca

Books

How to get your lawn and garden off drugs: Pesticide-free gardening for a healthier environment. Author: Carol Rubin. Ottawa: Friends of the Earth, 1989.

The City of Windsor
Parks & Recreation Department
(519) 253-2300



Know Your Lawn Problem

Most problems can be prevented with healthy lawn and garden practices.

Problem	Cause	Solution
Dandelions	Bare patches, unhealthy lawn	Hand weed – dig out entire root to depth of at least 7-10cm or 4 inches. Topdress with organic matter and overseed.
Crabgrass	Poor soil, bare patches	Handpick before it goes to seed. Topdress with organic matter and overseed.
Grubs	Dry, unhealthy grass	Water properly, dethatch, aerate, fertilize. Topdress with organic matter and overseed.
Cinch Bugs	Too much thatch, weak grass	Dethatch, aerate, fertilize, proper watering, mow high. Topdress with organic matter and overseed.

Know Your Helpers

Nature provides us with free pest control helpers. Most insects are NOT harmful. Consider natural alternatives to lawn problems before using pesticides because pesticides may kill your helpers.

HELPER

Bats
Bees, Wasps
Birds
Ladybugs & Dragonflies
Spiders
Toads

Earthworms

WHAT THEY DO

Eat insects
Pollinate Plants
Eat insects
Eat aphids

Eat insects
Eat slugs, earwigs, cutworms, aphids, flies
Soil aerators
Turn organic matter into soil



A Lawn Care Calendar

APRIL	MAY	SUMMER	FALL
Lawn is still dormant- as temperatures warm, chlorophyll returns to leaves and turns grass green.	Active growth, bright green, if enough rainfall	As temperatures increase, lawns will rest and lose their green colour.	As temperatures cool and fall rains begin, grass will regain its green colour.
<ul style="list-style-type: none"> • DETHATCH • AERATE • OVERSEED 	<ul style="list-style-type: none"> • MOW HIGH • FERTILIZE • ADD WHITE CLOVER 	<ul style="list-style-type: none"> • HAND PULL WEEDS • WATER LESS • MOW LESS 	<ul style="list-style-type: none"> • FERTILIZE • AERATE • OVERSEED
<ol style="list-style-type: none"> 1. After snow melts, gently remove THATCH with flexible rake to allow a better flow of water, air and nutrients to matted grass roots. 2. AERATE if soil is compacted to improve soil quality. 3. Patch or OVERSEED so the seed is ready to grow on the first warm days of spring with a good quality, three-way blend of Kentucky Bluegrass, Fine Fescue and Perennial Ryegrass or an enviro-mix. 	<ol style="list-style-type: none"> 1. MOW HIGH at 8 cm or 3 inches (when lawn is dry and has reached 11 cm or 4.5 inches high) to shade weeds and increase lawn thickness. Leave clippings on lawn to add 30% more nitrogen. 2. Apply 5 mm or 1/4 inch compost or high quality slow release mineral or organic FERTILIZER to stimulate root growth during the active growing season. 3. Add WHITE CLOVER to your lawn. It absorbs nitrogen from the air and fixes it in the soil creating free fertilizer. 	<ol style="list-style-type: none"> 1. HAND PULL WEEDS, invest in a dandelion digger 2. WATER LESS and let lawn go dormant in dry hot spells (turn brown). A moderate watering every three weeks will keep it alive. Water deeply in early morning at 1 inch or 2.5 cm. Buy a rain gauge. 3. As turf growth slows, MOW LESS often, monitor lawn for weeds, diseases and insects. 	<ol style="list-style-type: none"> 1. FERTILIZE in September and October with a slow release mineral or organic fertilizer. 2. AERATE if needed – avoid dethatching, makes turf vulnerable to diseases. 3. OVERSEED and reseed bare patches with mixture of pest resistant seeds. Early September is best time, when temperatures are in the high teens, ideal for germination.



Definitions

PESTICIDES: Pesticides are poisonous chemicals that people use to kill insects (insecticides), plant diseases (fungicides), weeds (herbicides) and rodents (rodenticides).



AERATE: To poke a hole in the ground to allow air and water to penetrate the surface of the soil.

COMPOST: Compost is a dark, partially decomposed form of organic matter that has not yet decomposed into a carbon rich topsoil.

DORMANCY: The state where all plant growth stops temporarily.

FERTILIZER: Food for your grass. All retail fertilizers have three numbers on the label, indicating the kind and strength of the nutrients (eg. 3:1:2). The first number indicates the % nitrogen, which helps the leaves stay green. The second number indicates the % phosphorus. The third number indicates the % potassium, which improves the overall health of the plants. **Slow-release chemical fertilizer:** Primarily nitrogen fertilizers where the nutrients are coated to delay absorption. If applied at the wrong time or in the wrong amount, synthetic fertilizers can pollute local waterways, promote algal blooms and harm fish populations. **Organic fertilizer:** Derived from plant, animal or rock powders, (i.e. Compost, bone meal, fish products, dehydrated manure and kelp meal). Organic fertilizers are environmentally safe because their minerals are gradually released by the microorganisms in the soil.

OVERSEED: To spread grass seed over an existing turf area in order to increase turf density.

RAIN GAUGE: A container used to collect rain and measure the amount of precipitation.

THATCH: Thatch is an accumulation of partially decomposed and undecomposed plant material at the soil surface.

TOPDRESS: To spread a layer of organic material evenly over a turf surface.



Pesticide Reduction Awareness Committee



Growing *all* Healthy Lawns

Reduce Pesticide Use



Do You Use Pesticides?

Pesticides are poisons used to kill insects, weeds, plant diseases and other unwanted living things. They include insecticides, herbicides, fungicides and rodenticides.

Are You Concerned About Pesticides?

The long-term effects on human health from continuous exposure to low levels of chemical pesticides are a subject of ongoing debate. Improperly used chemicals can pass through the soil and enter well water, ditches, rivers and lakes, threatening fish, birds and other wildlife. Over time they can make their way into the foods we eat. Some say that our contact with pesticides may explain some reproductive and birth defects, brain and nervous system disorders, cancers and organ dysfunction. Children are especially vulnerable. If there is a chance that harm may arise from exposure to pesticides, it is better to avoid the risk to one's health.

Community concern has led to Windsor's new **PESTICIDE BYLAW** to eliminate most cosmetic pesticide use on private and public lands by 2009. See www.citywindsor.ca.

You Can Reduce or Eliminate Pesticide Use

A few insects or weeds don't mean you have a problem or that a pesticide is needed. Good soil, weed deterrent techniques and correct watering practices will build healthy plants that will resist most insect or weed problems and eliminate the need for pesticides altogether.

Start With Your Soil

Soil is the most important element for creating a healthy lawn. Your soil feeds your grass and is the key difference between healthy or weak plants.

Your soil is made up of a fascinating mix of minerals, organic matter and organisms. It's the hardworking **SOIL ORGANISMS** that break down organic matter, which releases nutrients to the plants. They also break up the soil to allow air and water to pass more freely to plant roots. Soil organisms are your lawn's best friends!

If you live in Windsor, chances are your soil needs help. Windsor typically has a lot of clay soils that are prone to compaction and are poorly suited for turf. **ORGANIC MATTER** that is bustling with biological activity will improve your soil.

The easiest way to improve your topsoil is to **TOPDRESS** your lawn once or twice a year with 5mm or 1/4 inch of compost, topsoil or compost manure.

Compost is available for a fee at Transfer Station #1 located at E.C. Row & Central Avenue. Bring your own shovel and containers to load your own compost during the spring, summer and fall or pay per cubic yard loaded.



Don't Give Weeds A Chance!

All soil contains millions of weed seeds, just waiting for an opportunity to grow in your lawn. Don't give it to them! Most weed seeds need light to germinate, so you can control weed growth by simply preventing light from reaching the soil.

You can block out light by:

- **OVERSEEDING** any bare spots.
- **HANDWEEDING** carefully to disturb the soil as little as possible.
- **MOWING HIGH** at 90mm or 3 1/2 inches to let the grass blades shade the soil.

Refuse to encourage weeds by:

- Keeping mature weeds and seed heads out of your garden compost.
- Mowing the weedy areas by roadsides or fence lines before the first flower buds open.

Lawn Alternatives



To reduce lawn maintenance, consider removing some lawn and replanting with alternative plants. These include trees, shrubs, perennials, ground covers and wild flowers. When selecting plants, consider using native species.

Choosing native plant species means stronger, hardier plants that are adapted to local conditions and are low maintenance. Native species also provide food and habitat for local wildlife.

Disposing Of Your Pesticides

NEVER dump leftover chemicals down the drain, toilet or on the ground. Take leftover pesticides or empty containers to **Windsor's** Hazardous Waste Depot at the **Windsor** Transfer Station #1, located at E.C. Row & Central Avenue.

Water Less in the Summer Season



Water less and let the lawn go **DORMANT** in dry hot spells (turn brown). During a prolonged summer drought, a moderate watering every three weeks will keep it alive.

By watering **DEEPLY AND LESS FREQUENTLY**, you will avoid shallow root growth and weakened grass that will not survive dry spells.

TOPDRESSING with compost also aids in water retention.

Water Effectively

If you intend to keep your lawn green through the summer, water to supplement rainfall at 25mm or one inch per week, using your rain gauge as a guide.

To water effectively, you need to know your soil type, monitor the amount of rainfall and plan for periods of dormancy.

On sandy soils, turf should be watered twice weekly for a total of 25mm or one inch. Lawns on clay soils can be given one good soaking per week but should get a full 25mm or one inch.

Water your lawn on your designated day before 8:00 a.m. in the morning, when it will absorb the most water without risk of fungal growth.

Do you know how long it takes for your sprinkler to distribute 1 inch? Use a **RAIN GAUGE** or pie plate to collect the water, and time how long it takes. Now you can use a household timer to tell you when to turn off the sprinkler.

