

# ALTERNATIVE PEST CONTROLS FOR TURF IN ONTARIO *plus* TIPS FOR A HEALTHY LAWN

The Ontario Turfgrass Research Foundation (OTRF) and the Ontario Horticultural Trades Foundation (OHTF) have launched a new pesticide alternatives brochure. It includes a scientific literature review of alternative pest controls for turf in Ontario. This review (reproduced below) was conducted by the University of Guelph based on scientifically published information prior to 2008. It will be updated on a continuous basis as additional alternatives are scientifically proven and released in scientific journals. The brochure, intended to be consumer user friendly, has instructions and tips on product applications specific to target pests. It also has current recommendations for lawn maintenance on how to out-compete weeds for a healthy lawn. The complete brochure is available at [www.otrf.ca](http://www.otrf.ca).

## SCIENTIFIC LITERATURE REVIEW OF ALTERNATIVE PEST CONTROLS FOR TURF IN ONTARIO

Product	Target Pests	Instructions & Tips	Research Studies
Corn gluten meal	Crabgrass and broadleaf weeds (dandelion and white clover)	Must be applied before weeds emerge in early spring and late summer/early fall on established lawns only. Water the lawn until the soil is moist but not wet and then apply. Do not apply in wind and ensure rainfall or irrigation within 2 days. Do not overseed with grass seed for six weeks after an application.	Effective on germinating seedlings of broadleaf weeds and crabgrass, but not on established weeds. For crabgrass, must be used pre-emergence (early spring when forsythia is in full bloom). Field studies show that labeled rate is relatively ineffective in most cases, but if used for several years it will reduce weeds.
Sclerotinia minor ( <i>Sarritor</i> ) Product availability limited at this time.	Dandelions	Must be followed by rainfall or irrigation for 20 minutes a day for a minimum of 2 days. Works best when temperature is moderate (18-24°C) and skies are cloudy with high relative humidity. Do not apply on lawn areas that border flower or vegetable gardens.	Works best as a spot treatment on individual weeds rather than as a broadcast treatment applied with a fertilizer spreader. Moisture and humidity are necessary for this product to work.
Acetic acid	Broadleaf weeds	Apply in warm, sunny weather to weeds less than 10 cm in height. This product will kill all plants that are sprayed (grasses and weeds).	Primary use is as a burn-down to kill all vegetation. For complete control of weeds, the product may need to be applied several times.
Fatty acid (Potassium salts or ammonium soaps)	Moss, algae, broadleaf weeds on driveways, patios, sidewalks.	Will kill all plants that are sprayed. Spray weeds until completely wet.	N/A
Entomopathogenic nematodes	Grubs, caterpillars (cutworm and armyworm)	Sensitive to sunlight, drying out and extremes in temperature. Water immediately after treatment to get nematodes into the soil both to prevent drying out and to provide contact with insects.	Results are extremely variable on grubs and caterpillars. Research trials using nematodes to control leatherjackets have not shown that they work. There are no published results using nematodes to control hairy chinch bugs.

