



Member of the Professional Lawn  
Care Association of Ontario

## Durnan Property Maintenance

2352 Pigeon Lake Road, Bobcaygeon, Ont. K0M 1A0

Tel:(705)738-2068 Fax:(705)738-9176

[www.durnan.ca](http://www.durnan.ca)

### 2010 Lawn Care and the new products.

Prior to the beginning of last year's growing season we issued a letter outlining the implementation of the provincial pesticide ban (Bill C-64). As 2009 progressed there was a lot of information circulating about the new products (some of which were rushed to market), some of it true some not so accurate.

Last year we decided to take a "year off" from pest control because we felt that many of the products that had been quickly introduced into the market were untested or surrounded by unsubstantiated claims which we felt would only lead to unfair customer expectations. During the past year we have been in contact with suppliers, other lawn care companies (who have used some of these products in the real world) and attended trade symposiums and seminars, all in an effort to gather as much accurate information as possible.

The biggest challenge facing us will be educating the consumer as to what each product is truly capable of. Unfortunately none of the current pesticides (either for weeds or insects) will give results that the previous products gave as almost all current acceptable pesticides are affected to some degree by environmental conditions beyond our control such as temperature, moisture and sunlight and some may require some attention by the consumer after the product has been applied. In order for some of these products to be truly effective, multiple applications over a period of time may need to be made.

It appears that the best use of these new products is to use them in conjunction with a complete lawn maintenance programme throughout the whole year. This will involve fertilizing, repair, watering, cutting etc. The best defence against weeds is a thick healthy lawn that will out-compete weeds for the available space and nutrients.

**Fertilizing.** In our area of Ontario most of our lawns are grown in very little top soil, which is sitting on gravel and rock. The result of this is that it is hard to keep the necessary nutrients for a healthy lawn in the soil, as they are washed through the top soil and into the gravel below, out of reach of most grass roots. Replacing the necessary nutrients is the purpose of fertilizing. There are many elements necessary for healthy plant growth, but the most important elements for a strong healthy lawn are Nitrogen (N) which stimulates chlorophyll production and so leaf growth, Phosphorus (P) for root growth and Potassium (K) which promotes over all plant growth along with resistance to drought and disease. Spring fertilizers are usually high in Nitrogen which will result in quick greening of the lawn, whilst fall fertilizers are high in Phosphorus and Potassium. Nitrogen is a very mobile element in the environment, it is easily washed out of the soil and in our area where there is very little soil depth Nitrogen can be leached out of the soil and lost to the plants that need it. This Nitrogen loss can be combated to some degree by using a slow release fertilizer that releases its components over a longer period of time and so is available to the lawn for longer. Slow release fertilizers are similar to traditional fertilizer but the granules have a coating so that their nutrients are released over a longer period of time. The consideration of using slow release fertilizers should be made. They are however a bit more expensive.

**Over seeding.** This is a process whereby top soil and new grass seed are applied over the lawn in an attempt to thicken the lawn and so choke out any weeds. This should be done in conjunction with aerating of the lawn to get the best results. Good quality top soil, grass seed and a starter fertilizer promoting strong seed germination and root growth should be used.

**Lawn Mowing.** The height at which grass is cut is a very important component in overall lawn health. Too short and the grass plants will be exposed to excessive sunlight leading to short roots and less drought-resistant lawns, too long it will lead to excess shading (dampness) and matting of the grass. The optimum height for lawn cutting is between 2.5" and 3.25". No more than 1/3 of the grass blade should be removed at each mowing and sharp blades are a must. Blunt blades result in tears in the blade tip making it harder for the lawn to recover and leaving the lawn more susceptible to disease. Grass clippings should be left on the lawn, these will break down releasing nutrients into the lawn, but if the thatch becomes too thick moisture related problems can occur.

**Watering.** Just as too little water can damage a lawn, too much water can be harmful. Excessive watering will lead to shallow root systems, weaker plants and diseases related to moisture (moulds & mosses). If grass roots are encouraged to grow deeper the lawn as a whole will be more drought resistant better able to repair surface damage and combat weeds.

Below are some of the products that will be available this year to combat weeds and lawn pests, it is important to keep in mind that although these new products are somewhat effective, results similar to those in past years are impossible to guarantee as these products are affected by environmental conditions much more than products used in previous years.

**Corn Gluten Meal.** Corn Gluten Meal (CGM) can be used as both a fertilizer and/or weed control agent, depending on the timing of the application. CGM is a by product from the corn milling process and has been shown to be effective against seed germination so will be useful in the control of annual weeds such as crabgrass. Natural proteins in CGM inhibit the development of the roots of germinating seeds and the germinating plant dies. CGM has no adverse effect what so ever on plants that are already established, and can be used as a fertilizer for existing lawns. Timing is critical for this product, it has to be applied before the seeds begin to germinate because once the seeds have germinated they will be fertilized by CGM. Optimum results are obtained with CGM after it has been applied multiple times over a period of time. Each time it is applied the results improve.

**Beet Juice Extract.** Beet Juice Extract (BJE) is a product that is derived from the processing of sugar beets. It is primarily marketed as a lawn fertilizer (18-0-5) but has shown some potential in the control of weeds. In order to get maximum effectiveness of BJE a minimum of 4 applications per year are recommended. BJE is applied to a lawn in a liquid form using a conventional spray method.

**Sarritor.** This product has been developed by McGill University in Montreal and was released into the market mid 2009. It is a naturally occurring fungus (*Sclerotinia minor*) that is applied onto the weed rosette by depositing barley kernels impregnated by the fungus directly onto it. Given the correct environmental conditions the fungus will develop, killing the weed completely and has no effect on the surrounding grass. This product has proven to be more effective in the fall when the temperatures are more constant and the overnight dew helps to keep the fungus active. This product is targeted for Dandelions and other broadleaf "rosette" type weeds.

**Iron Chelate.** Iron chelate is a product that has been developed and used in Europe and other parts of the world for a number of years and has been recently introduced here to control a variety of weeds such as Dandelion, Clover and many other broadleaf weeds that we find in our lawns. This product works by being sprayed onto lawns where the compound is absorbed, passed throughout the plant and the weed is killed by an overload of iron. As weeds absorb compounds in a different manner to grass, weeds can be targeted and controlled. This product will not be affected by weather to the same degree as others, it is rain-fast in approx. 3 hours, works in a wider range of temperatures and is safe to walk on as soon as it dries.

**Nematodes.** Nematodes are naturally occurring microscopic worms that attack and kill the target insect causing damage in lawns. Specific species of Nematodes attack different insect pests, so the correct identification of pests is important. Nematodes are available to control White Grubs, Crane Fly, Sod Webworm, Chinch Bugs and many other pests. They are sprayed onto affected lawns where the nematodes seek out the target pests and kill them. Care must be taken not to apply the Nematodes in direct sunshine and after application water must be applied to carry them down into the soil.

If you have any questions, concerns or require further information please call and we will be glad to assist you in whatever way we can.

Mike Burton-Davies,  
Phone: (705)738-2068

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