

## **The Connection between Healthy Soil and Clean Water:**

What the public can do to keep waterways cleaner

As the spring unfolds into summer many people want to do the best they can to improve their grass crops (lawns). At the same time there is a growing concern about the connection between lawn care practices (and products) and the degrading integrity of our waterways. Lawn and garden care practices contribute phosphorus to the urban runoff in the form of excess fertilizer, as well as other pollutants such as pesticides. The Composting Association of Vermont ([www.compostingvermont.org](http://www.compostingvermont.org)) is pleased to work with other groups sharing the same concern for the health of Lake Champlain and other waterways - forming the Vermont Green Lawn Coalition..

### **Get Educated**

Have you considered the connection between healthy soil and clean water? A common source of water pollution is soil erosion and the runoff of fertilizers and pesticides. Compacted soils encourage runoff. Soil degradation is often caused by a lack of or decline in organic matter, one of the most important indicators of soil health and productivity. Healthy, organically rich soils greatly reduce and even prevent water pollution.

A healthy soil food web has many benefits for gardeners, farmers and turf growers. A healthy soil: recycles and uses nutrients better; retains more moisture; acts as a tougher buffer for environmental toxins and nutrient overloads (phosphorous, etc) by immobilizing or degrading the potential toxins and; generally produces healthier plants that are more resistant to negative influences such as diseases, insect infestations, or drought.

A healthy balance of soil microbial life is the right mix of living material: humus, fungi, bacteria, protozoa, and other microbes. You can create or help a healthy soil food web by making sure you have 5% to 10% organic matter in your soils by just adding compost to your lawns and gardens. A healthy soil food web creates the best conditions for soil and plant health and is better for the environment, which includes our waterways.

When a home gardener adds the "biology back to their soil," they are creating a situation where they will have fewer problems, more production, and less maintenance work in the garden and on the lawn. The key to bringing the life back is adding compost.

### **What are the economic benefits?**

By using compost and mulch to reduce dependence on chemical fertilizers and herbicides, you can cut costs for the purchase of those products, conserve water and avoid disposal costs. In general you can save money by:

- Reducing the use of herbicides
- Reducing the use of chemical fertilizers
- Supporting markets for local compost producers
- Avoiding landfill disposal costs for "green" material
- Conserving water – saving on water bills, less time watering

### **What are the environmental benefits?**

Good for your garden — and the Lake.

Composting yard waste and kitchen scraps (devoid of animal products) is one of the best and easiest things you can do to reduce waste, grow a healthy, sustainable garden and lawn, and discourage chemical runoff into our waterways. Using compost – whether home made or store-bought –recycles nutrients and organic matter that help grow trouble-free plants with less water, fertilizer or pesticides. In addition, by diverting organic materials from landfills you reduce their environmental impacts, including green house gas emissions. In general, using compost and mulch can result in:

- Increased soil fertility: better root and plant growth
- Improved soil structure: increased resistance to erosion and runoff
- Increased water holding capacity (i.e. water conservation)
- Improved disease resistance in plants: healthier plants and less pesticide use

How to "dress" your garden and lawn:

1. Apply *partially decomposed* compost in the fall to let microbes munch and build their numbers through the winter.
2. In spring add an even layer of *finished* compost before planting and seeding garden and turf. A finely crafted, completely decomposed compost is like gold. If you have healthy soil, you'll only need to add a 1-inch thick layer mixed into the top few inches of soil. For soils that are struggling, apply a layer that's two to three inches thick.

If you don't want to make compost yourself, check local sources for Vermont made compost. Some businesses even provide a service of "top dressing" lawns for you. Good compost should have a rich, dark brown color, earthy smell, and crumbly texture. With this little bit of soil savvy, you'll be producing healthier grass, flowers, fruits and vegetables sooner than you think.

### **Where you can purchase locally-produced compost:**

Food cooperatives, Garden centers and nurseries, and Farm and Field shops

For links to Vermont compost businesses, check out [www.compostingvermont.org](http://www.compostingvermont.org),

[www.anr.state.vt.us/compost](http://www.anr.state.vt.us/compost) and also the LCBP web site links under: "Phosphorous Pollution Reduction Tips" at [www.lcbp.org/action.htm](http://www.lcbp.org/action.htm).

For more information about the Composting Association of Vermont, contact the Director, 802-744-2345 or email [info@compostingvermont.org](mailto:info@compostingvermont.org)

Composting Association of Vermont promotes composting as an integral link between healthy ecosystems and sustainable agriculture, communities, and local economies.