

Farm Stewardship Tips Help Gardeners – Part 4



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NUTRIENT MANAGEMENT

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Just as people need a proper balance of nutrients to keep us healthy, so do our plants. Whether you're growing ornamentals, garden veggies or soybeans, farmers and gardeners alike must ensure that their soils contain the right amount of nutrients and organic matter to grow healthy plants.

Since moving to the country, it has become obvious to me that Ontario's farmers employ many stewardship practices that gardeners can learn from. Farmers develop nutrient management plans to determine where and when nutrients will be applied to their land. They also regularly test their soils to determine which nutrients the soil needs to ensure a healthy crop. Nutrients such as fertilizer or manure improve the fertility of the soil, while nutrients such as compost improve the soil structure.

The ideal soil type, whether you're growing coreopsis or corn, is loam, which is a mixture of clay, sand and silt that is rich in organic matter. But

not everybody is lucky enough to have loam soil to work with. Gardeners can test their soil type simply by gathering a ball of moist soil in their hand. If the soil is sandy, it will fall apart readily and will be difficult to form a ball. Silty soil forms a ball quite easily and feels powdery. Predominantly clay soils form a sticky ball easily. If you drop the ball onto the ground and it crumbles, the soil has a balanced texture. If it stays in a ball shape, it has a clay-based texture.

Ninety per cent of gardening success is rooted in proper soil preparation and, when faced with less than ideal soil conditions, it is worth the effort to amend the soil and improve its composition.

Organic matter adds texture and workability to soil as well as a supply of nutrients necessary for healthy plant growth. Organic matter is the material that comes from leaves, manures, twigs, fallen logs, compost and many other sources. Finished compost is the decayed remain of organic or once-living material. The organic material found in finished compost can have the greatest effect on how well plants thrive. It contributes nutrients such as nitrogen, phosphorous and potassium which plants need in large quantities. Compost also affects the composition of the soil; making clay more workable and helping sandy soils retain more moisture and nutrients.

A compost bin can be very useful in the home garden. It is a great place to dump yard and kitchen scraps to be recycled into valuable compost. A successful compost pile is made by alternating layers of dried brown plant material (like last autumn's fallen leaves) with layers of fresh green plant trimmings. You can also add straw, sawdust, hay, grass clippings,

shredded newspaper, vegetable and fruit waste, tea leaves, coffee grounds and eggshells. Do not add dairy products, meat or pet waste to a compost pile. These items will attract rats and other unwanted pests.

Turning your compost with a garden fork hastens the composting process by introducing oxygen. This in turn allows the pile to reach high temperatures which will kill disease spores, hibernating pests and weed seeds and is vital to semi sterilize the developing compost.

Manure is another valuable source of nutrients for your soil. It also improves soil texture. Fresh manure should not be applied to the garden because of the high ammonia content which can damage new roots. Composted animal manure will not cause damage and is less likely to contain viable weed seeds.

While Ontario farmers are taking major steps to "walk the talk" by being good stewards of the land, gardeners can learn a great deal from their soil management practices.

Managing healthy soil nutrient levels is an important component of the Environmental Farm Plan (EFP) program. Farmers develop an EFP to evaluate the environmental benefits and manage the risks of their farm operations, ensuring that they are acting as good stewards of the land. The EFP is a voluntary educational program supported through the Agricultural Policy Framework (APF), a federal, provincial and territorial initiative that aims to make Canada's agricultural sector a world leader in environmentally sustainable production. *More than two-thirds of Ontario's farmers have voluntarily participated in the EFP program (including me!).*