4. Natural care for your gardens and trees

Horticultural practices are as important for the long-term health of the plants and trees in your garden as for your lawn. Each species has its own particular requirements for soil type, water and light. The right plant in the right spot almost always thrives. It is worthwhile to research the plant material before you plant as this initial work can save you a lot of problems down the road.

If you have an existing garden, it is worthwhile to learn about the plants and trees in it. To understand what is working and what is not, you should observe the performance of the different plants during the different seasons and keep a journal of ongoing problems. This is a good way to determine if it is appropriate to keep the plant or tree in the garden. A plant or tree that can not survive with good practices alone is probably in the wrong spot. It should ultimately be relocated to a more appropriate spot and replaced with more suitable material that is more naturally resistant to diseases and insects.

4.1 Natural plant and shrub care

Pruning is an important part of plant and shrub care and is performed for both aesthetic reasons and for plant health. Aesthetically, pruning helps shape the plant or shrub and maintain its size. Post-bloom pruning maximizes the blooms for the following season. In addition, you should prune a plant or shrub to remove crossed, damaged or diseased branches which will stress the plant. Pruning also improves air flow through the plant and can encourage better branch distribution which can result in a healthier and more vigorous plant that is less prone to disease.

You also need to consider proper watering for the plants in the garden. Creating a watering schedule for plants is a little more complicated than for lawns because each species has its own unique watering requirements. Garden design books sometimes suggest that plants with similar watering requirements should be placed together to simplify watering plans. Generally speaking you should water newly planted material twice a week throughout its first growing season. Water should be applied to the base of the plant to soak the root zone. Avoid watering that simply wets the leaves. After the first growing season most plants and trees if appropriately placed, should survive on water provided naturally by rain. During drought conditions, however, you may need to water between rainfalls. Alternatively, you may want to investigate xeriscaping, the art of creating gardens with plants evolved to thrive on low water supplies.

While some aspects of soil quality are out of your control, how you "manage" the soil in the garden can help you create good quality soil, which is critical to plant health.

The following are several important horticultural practices that will help you create healthy soil for your garden plants:

Regularly add organic matter

It is beneficial for soil health to add compost to the garden bed at the time of planting and then every year afterwards. Compost is an excellent fertilizer. As well, compost has been shown to help suppress plant diseases and may even provide the plant with improved resistance to various bacteria and fungi.[11]

Avoid excessive tilling

Tilling the soil, or turning over clumps of soil, is a very popular gardening technique for managing weeds in garden beds but it is generally not recommended in a naturally managed garden. You should avoid tilling deeper than the soil's top two or three centimetres as this

will bring weed seeds closer to the soil surface and encourage germination. Too much tilling can also cause accelerated decomposition of organic matter because of the constant addition of oxygen.[12] It can be injurious to the young roots of new plants and can disrupt the normal allocation of soil life. Many natural gardeners recommend a "no-till" policy in their garden beds. A much more effective technique to consider for weed control in the garden is mulching the bare earth to prevent weed seed from germinating.

- ***Use mulch to prevent erosion and to provide a habitat for beneficial organisms***

  Mulch is any covering applied to the soil that prevents light from reaching weed seeds. There are a variety of organic and inert mulches. Organic mulches include leaf mold, hay, cocoa bean husks and bark chips. These have the added advantage of providing humus to the soil as they decompose. Leaves are high-quality organic mulch and have the additional advantage of often being available on-site so there are no additional costs or resources required to add them to gardens. Organic mulches vary in their speed of decomposition and ability to retain heat and moderate temperature. Inert mulches include river rock or gravel which are particularly suitable in locations where permanent weed control is required and where little planting is planned. There are a wide variety of mulches now available and your selection may depend upon the purpose the mulch will serve.

  Mulching garden beds is highly recommended as it helps the plants to retain moisture, reduces soil erosion, suppresses weed growth, and insulates the soil, providing a good thermal layer of protection during winter freeze and thaw cycles. When you apply organic mulch such as pine or cedar chips, cocoa mulch or leaf mold, use a generous 7.5 centimetre (3 inch) layer. Mulch should be kept back from plant stems and tree trunks. A "leg up" from a layer of mulch could encourage animals to chew on tender tree bark. Too much mulch up against a plant stem could encourage rot.

- ***Use a variety of plants to encourage diversity in soil microorganisms.***

  Finally, consider a variety of plant species in the garden. Not only will this add interest to your garden, but diversity means that you will be creating a welcoming environment for a wide variety of beneficial insects and micro-organisms.[13] All these living things contribute to the vibrancy and health of your garden.

4.2 Natural tree care

Trees are an important part of the urban landscape. Ninety percent of Ontario's urban forest is comprised of trees on private property[14] so how you care for your trees is extremely important. Trees, because of their impact in the garden, the time it takes them to reach maturity and the costs of replacing them, require ongoing monitoring and routine care to ensure their health.

Insect and disease problems on trees in urban gardens usually are the result of stresses on the tree. For example, trees can be stressed when:

- they are planted without regard for how suitable they are to the location;
- the type of tree planted is susceptible to insects;
- they are damaged from lawn equipment or the surrounding soil is compacted by construction equipment;
- the populations of naturally occurring beneficial insects that keep pests in check have been altered;
- they are impacted by pollution from salt and herbicides around trees[15]; and
- impervious surfaces near trees limit access to water.[16]

If you want naturally healthy trees, you need to protect them from these stresses. In addition, you should routinely check them for broken or dead branches and storm or insect damage to prevent even more serious problems. If you see a problem, call a certified arborist for a full diagnosis.

Pruning to remove dead and crossed branches is an important part of tree care. Some trees should be pruned only when dormant because fresh pruning wounds can leave them vulnerable to insects such as the Elm Bark Beetle or diseases like Oak Wilt. Only a certified arborist should prune your trees.

The principle of deep watering to encourage deep roots holds true for trees just as for grass and plants. During drought conditions, for your trees, you should apply a low pressure watering with a soaker hose once a week for about 2 hours. Trees that have been planted within the past four years tend to have limited root zones and are particularly at risk from drought stress. These younger trees should get special attention in your watering schedule and may require low pressure watering 3 or 4 times per week during a drought.

Most mature trees do not require any fertilization and the general natural lawn fertilizer you apply will provide all the necessary nutrients. Young trees will benefit from feeding in the spring and/or fall. In addition, you should plan on yearly

additions of compost and organic mulch around the root zone of the tree.

Tree trunks and roots are also at risk of damage from lawn mowers or construction equipment. You can protect your trees by creating wells around them and by avoiding mowing right up to the trunk. If construction is taking place on your property, rope off areas where tree roots lay to protect them from compaction from heavy equipment.

4.3 Leaves ...the all-purpose miracle garden product!

Leaves are probably the most undervalued resource in the urban garden. For many people, leaves signal the unpleasant fall chore of raking and bagging. However, leaves can be used in many wonderful ways around the garden. One of their most useful forms is leaf mould, also known as composted leaves.

You can make leaf mould by simply placing leaves collected in the fall in a dark plastic bag with a shovelful of dirt. By the time spring comes around the leaf mould will be ready to use. Leaf mould is an excellent soil amendment. You can add leaf mould to the soil to lighten up clay based soils or you can use it as highly nutritious mulch around new plantings. Both healthy leaves as they fall from the trees and leaf mould are excellent garden mulch for shrubs and trees (leave a little space between the mulch and the tree trunk). A 7.5 centimetre (three-inch) layer of leaves placed in garden beds is a free and readily available source of garden mulch.

New research also indicates that mulched leaves -- as long as they are not too thick -- can be left on the lawn over the winter without any problem. Studies conducted at Michigan State University indicate that you can just leave the tree leaves on the grass and mow over them with a mulching mower when you cut the lawn. It is recommended that you also apply a nitrogen fertilizer at the time of mulching to encourage breakdown.[17]

Leaves can also be collected and stored by the backyard composter. A good mix of food scraps from the kitchen and leaves provide the ideal balance of nitrogen and carbon for successful composting. Even during the winter, when the compost freezes, it is a good idea for you to continue to add leaves so that the composter will start "cooking" properly again in the spring.

If you use the leaves in your garden in these ways, you save the time of raking and bagging them, you save the costs of buying mulching material and soil amendments and you add to the life and vibrancy of your natural lawn and garden.

Summary - Natural Garden and Tree Care

- Proper plant selection and placement is the important first step in creating a garden of plants and trees that can be cared for naturally.
- Keeping plants and trees free of debris and diseased material is an important part of regular care.
- Proper pruning and watering are critical horticultural practices for plants and trees.
- Adding compost and mulch around plants and trees is beneficial to their health.
- Leaves are a beneficial and free resource that can be used throughout the garden.

4.4 A calendar of natural lawn care

Part of caring for your natural lawn and garden is accepting that each year will bring its own particular weather, insects and other unique seasonal conditions. Because of these seasonal variations, your lawn may look somewhat different from one year to the next. This is perfectly natural. If the differences are due to weather or other temporary cycles, patience is the best response. It is not uncommon for one season's challenges to go away as the weather changes. Bothersome insects one season become the food source for beneficial insects the next. In other cases, such as when unwanted weeds are moving in or your grass is dying, you may need to adjust your natural program with the addition an aeration, some extra topdressing or a little hand weeding.

Regardless of the season's characteristics, however, there are some important practices that should be followed every year. These simple practices in combination with proper mowing and watering techniques will let you create a lawn that is healthy and vibrant. With just a little help from you, your lawn will be able to cope, season after season, with whatever Mother Nature has to offer.

EARLY SPRING	SPRING	SUMMER	FALL	LATE FALL
Late April to Early May	**May and June**	**July and August**	**Late August to Late September**	**Late September to November**
➤ Repair areas of winterkill, but avoid working on a wet lawn ➤ Rake the lawn to remove debris and any brown patches ➤ Apply organic soil amendments: topdress and overseed ➤ Monitor for weeds and spot hand weed ➤ For larger areas of annual weeds, consider soil solarization in July or August ➤ Sharpen lawn mower blade ➤ Raise mower height to 7.5 cm (3")	➤ Fertilize after first burst of grass growth ➤ Aerate lawns new to a natural approach, add topdressing or fertilizer ➤ Identify weeds and hand weed as necessary ➤ Cut lawn before weeds go to seed ➤ Monitor for grub activity in dead patches where grass easily pulls up ➤ If you have grub damage, repair areas and ensure proper cultural practices are followed	➤ Dormant lawns may naturally turn brown during heat of the summer – see Chapter 3 for further maintenance details ➤ Avoid cutting the lawn during drought ➤ Keep foot traffic off the lawn if it is dormant ➤ Apply liquid kelp to help manage summer stress ➤ Water the grass every 2 to 3 weeks during an extended drought ➤ If you have a lot of weed cover, now is to the time to start solarization ➤ Check for signs of chinch bug damage. If you have damage, repair and ensure proper cultural practices are followed	➤ Overseed the entire lawn ➤ Repair damaged areas with a seed blend high in endophytic grass seed ➤ Monitor for insect damage when lawn greens up with fall rains ➤ Aerate in combination with seeding or topdressing ➤ Apply nematodes if grub damage has not been managed with cultural practices ➤ Seed and water solarized areas	➤ Apply final late fall fertilization to prepare grass for the following spring ➤ Clean and winterize lawn equipment ➤ Leave mulched leaves on lawn with mulched clippings from final cut

4.5 A calendar of natural garden care

It is very important that you have an understanding of the plants in your garden and their specific care requirements. Each plant requires unique horticultural practices including pruning and watering. Understanding the specific requirements of garden plants will go a long way toward successful gardening. There are some general practices that will benefit all plants and should be part of a natural garden care plan.

SPRING	SUMMER	FALL	WINTER
➤ Cut back dead plant material on perennials ➤ Prune roses to improve air circulation and remove winter kill ➤ Add a fresh 5 cm (1 to 2 inch) layer of compost on all garden beds ➤ Remove any large, wet clumps of leaves and add to composter ➤ Plant new material by the end of May ➤ Apply mulch to new plantings ➤ Trim evergreens after spring growth to maintain shape or size	➤ Deadhead (remove the dead flowers from) any plants which are enthusiastic spreaders ➤ Prune any plants which are growing fast to encourage good air circulation ➤ Monitor garden for weeds, remove from beds and replenish mulch ➤ Monitor for garden pests and check gardening reference resources to help identify problem insects and beneficial insects.	➤ Divide any perennials which have outgrown their space ➤ Mulch beds ➤ Cut back roses to 1/2 their height ➤ Remove any plants that were poor performers and note in journal for future planning ➤ Leave the leaves in the garden for winter mulch or by the composter so fresh compost will be ready for spring	➤ Prune shrubs and small trees when branching structure is easy to see ➤ Make notes about spring planting plans

4.6 A calendar of natural tree care

The calendar for tree care, as for plants and shrubs, is highly dependent upon the tree species and unique seasonal conditions. In some cases, it will be necessary to call in a certified arborist for an exact diagnosis of the situation and to make care recommendations. However, you are in the best position to monitor and observe tree performance throughout the season and to ensure proper horticultural practices are being followed.

SPRING	SUMMER	FALL	WINTER
➤ Monitor for pests - this tends to be the most active time for insect damage ➤ Remove any tent caterpillar nests ➤ Check with arborist if large trees require pruning to remove dead or damaged branches or to allow more sunlight on your lawn	➤ Ensure that trees, especially young ones, are properly watered during drought ➤ Protect tree trunk and roots from summer construction activity and lawn equipment	➤ Inspect for insects such as fall web worm ➤ Let fallen leaves collect around base of tree to protect tree roots	➤ Avoid piling snow containing salt shoveled from driveways on root zone of trees ➤ New tree plantings over 3 metres tall can be staked. Remove stakes when roots become established in about one year