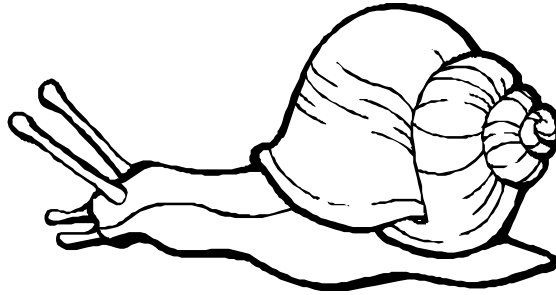


# Gardening from a natural perspective

by Henry Kock, University of Guelph Arboretum, Feb. 2003



**Adopt** the pace of nature: her secret is patience. Ralph Waldo Emerson (1803\_1882)

**Plants** are the only organisms on earth that can combine the four elements of life: fire (sun), rock (mineral), water and air. The “healthier” the elements the healthier the plants will be. We have partial control only, with water and soil health. We have more choice in the kinds of plants we acquire.

**Soil** health (richness of soil life) is supported by the decay process on the soil surface - not with the addition of fertilizers or finished compost. Natural soils are organized in layers, with the course organic material covering about 10 cm. of organic soil, below which are the mineral layers. The practices of turning soil over and rototilling, both destroy this organization. Continuous rototilling further destroys soil structure by incorporating air into the soil which causes the organic material to decompose faster and release CO<sub>2</sub> into the air. Peatmoss is undeniably over-rated and only plants like those of the Rhododendron family must have the acidic, peat soils. Soil doesn't have to be “black” or stone free, it is the organic matter content and the surface decay that yields success.

**Moisture** should determine the nature of the garden. Make use of dry sites for drought tolerant plants. If you do not have a moist ground area, you can create one by digging a depression where the down spout empties. Fill it with rich compost to establish a bog garden of cardinal flowers, sedges and marsh ferns. With the use of a rubberized liner you might make an ephemeral pool garden. Pay close attention to the moisture requirement characteristics of the plants you wish to

**Aeration** is maintained by avoiding heavy traffic when the ground first thaws out and not rolling your lawn. Soils must have air movement to allow the roots to breath (oxygen in and CO<sub>2</sub> out) just like we do. Rather than turn garden soil over, aerate it by just prying it open using a spading fork. Earthworms are ultimately the best soil aerators but require time to re-colonise after pesticide use.



**Leaf fall** is nature's way of moderating the changes in soil temperature, capturing and holding rainfall in the soil and maintaining the proper soil chemistry and nutrients. Raking leaves significantly reduces the health and longevity of trees. Try mulch-mowing or letting the leaves lay on the ground for a month to allow time for organic acids to be liberated, before raking the leaves and composting what is left. Your lawn will not die under a month of leaf cover.

**Compost** is best turned every week or two and spread before it breaks down completely. Mulch is a surface compost that is ideal for water conservation, weed control and predator habitat.

**Shade** is a critical factor for many plants, so a good catalogue should list the light requirements. Make a diagram of the shadow pattern changes in your yard. The degree that a slope faces *northish* or *southish* (aspect) or up against a hot wall strongly influence the microclimate temperature.

**Breezes** are very important in a garden for reducing the severity of fungus diseases on all plants. Stagnant air may increase diseases such as mildew on beans, rust on apple and black spot in roses.

**Water** thoroughly, but only when plants show signs of needing it. Frequent watering encourages shallow roots thus making lawns, trees and gardens more prone to drought stress. New plants need a light mid afternoon shower on the leaves, until they are growing well. Use rain water when you can. Avoid evening and morning watering, to not extend the dew period, which favours fungus diseases.

**Predator** diversity such as ground beetles, toads, horse-hair nematodes, parasitic wasps, spiders and ladybugs, etc. are present in a dynamic garden that includes habitat such as decaying wood. Avoid fall cleanup of perennials so as to leave the important habits for overwintering predators. Few pests (or diseases) can kill a plant unless the plant is already compromised by poor management or poor selection. Pest control receives far too much attention. We do not need to release predators - many of which are not even native to these parts.

**Vegetables** are more productive in un-trampled, slightly raised beds rather than rows because of reduced soil compaction at the root zone. Beds provide easier options for succession planting. Hoe a few days after rain for water conservation and weed control. Leave some weeds for diversity.

**Grasses** are the world's best soil builders so let them do that by leaving the grass clippings on the lawn. Avoid cutting during a drought and simply stop feeding it with nitrogen fertilizer - the primary cause of plant stress, which predisposes lawn grasses to pests and diseases.

**Turf** should be turfed out well in advance of planting. Expand your garden in stages the way nature slowly advances. Remove "lawn" in its poorest locations first, by smothering it with twenty layers of newspaper or reusable landscape fabric with a mulch covering for a whole growing season.



**Perennials** will grow in poorer soils. If over-fed with manured soil, they tend to grow so luxuriantly that they flop over. Perennial stems can be chopped on site as a mulch.

**Acquiring** new plants can be much more rewarding when you purchase many young plants at lower prices and grow them on in your own small nursery. Plants grow fast enough and you will be rewarded with a more heavily planted garden - established in well cleared ground.

**Pruning** is required to correct branch spacing and weak branch angles in planted trees so that they will not fall apart. Nature leaves the dead wood in a plant and it is a very important part of a healthy landscape. Pruning is important for non-natural aspects of gardening, such as fruit and flower production, aesthetics and size control. Take a pruning workshop for all the wonderful details.

**Enjoy** gardening by doing it in well measured doses. Try not to change your entire garden in one year. Most gardens need a remake every so often. Even the best plans may no longer meet your expectations for the site two years after planting as your understanding evolves.

**Design** your garden based on how you organize your socks. If they are all neatly folded, you will likely want a more tended garden. If your socks are all mixed up, you will likely enjoy a much wilder garden - and there is a range in between. Arrange 'rooms' in your garden with walls, halls, windows, and canopy just as your house is made useful with rooms. Certain species can be selected as themes for your garden to tie it together at various seasons or to create a more natural organization of plant communities. Natural landscapes also combines various textures and plants in interlocked arrangements.

**Garden** tours can provide ideas but try to avoid getting overly impressed about gardens with tons of rock brought in from the dismantling of the Bruce Peninsula, it is costly in more than one way.



## Suggested reading:

**Our Gardens Ourselves**, Jennifer Bennett, Firefly Books, 1994.

Reflections on an ancient art. A wonderfully written book on gardens and wisdom.

**Swamp Walker's Journal: A Wetlands Year**, David M. Carroll, Houghton Mifflin, 1999.

This deeply dedicated biologist's exploration of life in swamps is so real, you'll think you got a soaker!

**The Trees In My Forest**, Bernd Heinrich, Cliff Street Books, 1997.

An eye opening journey into the hidden life of forests, beautifully illustrated with his own sketches.

**Dirt: The Ecstatic Skin of the Earth**, William Bryant Logan, 1995, Riverhead Books.

A much accomplished writer delivers a beautiful, poetic insight into that which sustains us.

**The View From Foley Mountain**, Peri Phillips Mcquay, 1987, 1995 Natural Heritage Inc,

Exploration and experiences in a conservation area in eastern Ontario.

**Second Nature: A Gardeners Education**, Michael Pollan, 1991, Dell.

A brilliantly written experience of Pollan's own exploration of naturalization.

**Tending the Earth: A Gardener's Manifesto**, Lorraine Johnson, 2001.

