The Greater Victoria Compost Education Centre

#1

Organic Lawn and Garden Fact Sheet Series

Building Healthy Lawns & Gardens

Making the transition to a pesticide-free lawn and garden can result in a sustainable, livable and beautiful space for you and your family to enjoy. Gardens accustomed to chemical fertilizers and pesticides require a transition period before they become full-fledged, balanced and vibrant ecosystems. Transition takes time and it is easier to exercise patience when you have a clear plan. This fact sheet will help make your healthy garden plan a success!

Tip #1: Know Yourself

Even the most self-sufficient garden takes time to maintain. Think about your lifestyle and commitments before you design your garden. A simple garden with automatic watering or native, drought-tolerant plants will save you time and money. Replacing a lawn with wild flowers or ground cover crops can also save resources.

> ***Plan for Diversity***
> Diversity is the key in ensuring the health of your lawn areas as well as your garden beds. Plant a diverse range of species to attract a variety of beneficial insects and micro-organisms to your garden.

Tip #2: Know Your Space

Different species of plants have evolved to thrive in specific environments. Consider your plant's needs with regard to environment and plant it accordingly. Observe the plants thriving in your neighborhood gardens; they may be well-suited for your own space. Observe and make notes about sun exposure, water availability, slope, wind, frost sensitive pockets, garden traffic, pathways, patios and soil texture. Sketch out a garden map illustrating your findings and use it as a guide for what to plant. You will probably find you have a number of micro-climates in your garden and you can then choose plants suitable for each of these special situations.

i. Sun Exposure

Plants use sunlight to perform photosynthesis, a process that allows them to make 90% of their own energy. Different plants require different levels of light to photosynthesize effectively. Planting in the correct sun exposure is an important step towards plant health.

ii. Water Availability

All living organisms require water and many plants need supplemental watering to survive dry periods. Study your garden with respect to moisture retention. Lower lying shady areas will retain water, while higher areas with more sun will lose moisture quickly. Choosing plants that need the least amount of supplemental water will make things easier for both you and the plants.

To reduce your garden's water needs, choose plants that flourish in dry conditions (alpine varieties, native plants, succulents) or that go dormant in the summer and bounce back in cooler/wetter weather (native plants, grasses). Responsible watering information, including watering tools and methods, can be obtained from the CRD.

iii. Slopes, Wind and Frost

Water will be less available and winds more damaging at the top of slopes; while frost is more likely to affect plants in low-lying and shaded areas. Unless you establish retaining walls or wind breaks you will need to install hardy plants adapted to these stress conditions. The direction of a slope for sun exposure can also affect what kinds of plants will thrive (south = warm, north = cool).

iv. Pathways & Patios (hardscaping)

Avoid plant-trampling stress by planning for garden access and enjoyment areas. Naturally stressful areas, like heavy clay and especially sandy spots, are good choices for hardscaping. Consider placing garden structures and sculptures in areas where plants have difficulty surviving.

There are many exciting alternatives and beautiful designs for creating paths and peaceful outdoor living spaces in your garden. Pieces of flat or crushed stone, poured concrete cement or pavers, and bark mulch are a few good hardscaping materials. A landscaper can help you make the best choice for your garden.

v. Soil Texture

Soil texture is a determinant of the water, air and mineral nutrient holding capacity of your soil, which in turn affects the health of your soil's micro-organisms and plant roots. The three soil texture components are clay, silt and sand.

- Clay: holds water and nutrients firmly but has few air pockets.
- Sand: holds neither water nor nutrients efficiently but has lots of air space.
- Silt: holds water, air and minerals well.

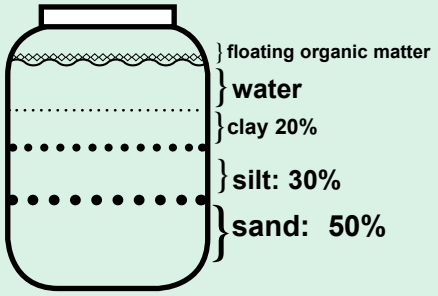
Most soils are a blend of the three components. If your soil is not ideal for the kinds of plants you want to grow there are many ways to amend it to create an optimal growing environment. Adding a thick layer of organic material in the form of mulch or compost is an excellent way to breathe life into your soil and improve moisture retention and fertility. You may also want to try building raised beds and filling them with soil that suits your plants' needs.

Simple Soil Test

1. Take two cups of soil from your garden site and pour into a one litre jar.
2. Fill the jar with water leaving about 1cm of space at the top and add 2 tsp of salt.
3. With the lid screwed on tightly, shake the jar for about ten minutes.
4. Allow the soil particles to settle – particles will settle from large to small: sand first, followed by silt, followed by clay leaving you with a profile of your soil.
5. After 1-2 days mark the levels of sand, silt and clay on the jar.
6. Using your measurements of each kind of particle in the jar calculate the percentage of each.
7. Use the soil texture chart to determine your soil type.

Texture	% sand	% silt	% clay
Sandy	70 or more	0 to 30	0 to 15
Silty	0 to 20	80 or more	0 to 15
Clay	0 to 45	0 to 40	25 or more
Loam	40 to 60	30 to 50	15 to 25

Soil Strata:



Soil Amendments

- Sandy soils: increase the soil's ability to hold moisture and store nutrients by using organic amendments that are well decomposed, like composts or aged manures.
- Clay soils: improve soil aggregation, aeration and drainage with fibrous amendments like peat, wood chips, tree bark or straw.

Mulch

Mulches help with weed suppression, soil water retention and temperature moderation. They also provide microbes and nutrients to keep soil and plants healthy. A constant two-inch layer of mulch will benefit garden beds, while lawns benefit from a half-inch of sifted mulch applied in spring and fall. **Note: Tree bark mulches contain natural toxins that can discourage plant growth. Use them for your paths or rest areas and use more nourishing mulches, like compost, leaf mould or sea soil, for your garden beds and lawns.*

Compost is your garden's mulch of choice. There are different ways to compost and various composting containers, including ones you can build yourself. The Greater Victoria Compost Education Centre provides a website and excellent courses to get you started turning garden trimmings into black gold. If you need more compost than you are able to make yourself, you can purchase extra from retailers, community compost services and/or your municipality.

More information

Healthy gardening is easy to do once you have a plan. Take time to observe, take notes, and if you need to know more the Greater Victoria Compost Education Centre, GAIA College, Glendale Gardens, Camosun College, UVIC and many local non-profit organizations offer courses and information on natural, sustainable gardening.

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CRD
Making a difference...together

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We sell composting equipment, gardening guides and more. Call, e-mail, drop by or visit our web site.

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