

**CARVER SCOTT EXTENSION MASTER GARDENERS****2017****HELPFUL HINTS FOR A HEALTHY GARDEN****PLAN OF ATTACK**

There are so many possibilities that can turn a beautiful garden into an unhealthy mess of plants. Many of these issues can be avoided by using caution in three major areas: Soil, Plant selection and maintenance, and Pest prevention.

**HEALTHY SOIL = HEALTHY PLANTS**

Soil that does not provide nutrients, moisture, and porosity will cause even the toughest of plants to struggle. Organic matter is the solution to almost everything that may be ailing your soil, and can be easily provided with annual applications of compost or using cover crops.

Adapted best to new garden or vegetable garden spaces, cover crops may be grown for up to a year in advance to improve soil structure and add lots of decaying organic material when they are incorporated into the soil. Compost may be purchased or made at home in several different ways. However it's obtained, compost is known as "black gold" for its wonderful benefits to soil.

**RIGHT PLANT, RIGHT PLACE**

Although it's fun to try exotic or unusual plants, for best results use plants adapted to your growing conditions. Learn your planting zone, soil type, sun exposure, and soil moisture and select appropriate plants for your setting.

When selecting plant cultivars, look for those that are resistant to the common problems in your area. Mildew-resistant Monarda and Phlox varieties are available, as are black-spot resistant roses. Some cucumbers resist cucumber beetles and certain squash types are not as attractive to the squash vine borer.

For vegetables and ornamental annuals, it is strongly recommended that you try more than one variety each year to discover the ones that grow best for you.

**PROPER PLANT CARE**

Healthy, well-grown transplants will get your garden off to a good start. Look for well-rooted plants that aren't root-bound, and then acclimate them gradually to their new location.

Protective materials at planting can be especially important when jump-starting the season in the vegetable garden in the spring, or to cool soil and air to get a second crop in the fall.

Adequate moisture is the single most important ingredient to a successful garden. As a rule of thumb, most plants require the equivalent of 1" of moisture per week, whether from rainfall or irrigation.

Supports are important for many plants. They assist with good air circulation, get the plants up off the ground, and result in a much neater-looking garden. Vegetable vine crops, ornamental vines, and many taller plants such as tomatoes, peppers, peonies, and smooth hydrangea will benefit from some type of support.

Mulch in general contributes to even soil moisture and helps to prevent moisture loss. However, there are a few situations where mulch is less desirable, such as around slug-ridden hosta or squash prone to squash bugs.

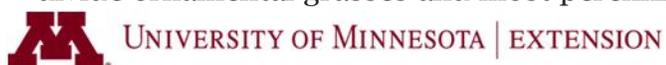
Pinching back plants early in the growing season will make them stockier by the time they bloom (mums, asters, Russian sage, tall sedums, eupatorium, veronica, phlox). It is often wise to pinch off blossoms of new plants so they will put energy into becoming established rather than fruiting (fruit trees for one season, strawberries for one month).

Some plants benefit from deadheading to prolong their bloom time (platycodon, campanula, gaillardia, coreopsis, delphinium, digitalis, phlox, lupine, achillea, rose) while still others show increased plant vigor with consistent removal of spent blooms (most bulbs, true lilies. A great many perennials should be deadheaded to prevent rampant seeding and future crowding of plants (aquilegia, dicentra, centaurea, lamium) but the gardener might want to encourage reseeding by leaving just a few seed stalks on other (hosta, hemerocallis, scilla, puschkinia).

The overall appearance of the garden will often be greatly improved if bloom stalks are removed as soon as the flowers fade (hemerocallis, hosta, iris, astilbe, aruncus, ligularia, oriental poppy) while some prefer to remove bloom stalks as they appear if the flowers are insignificant next to the leaves (heuchera, hosta, stachys, penstemon 'Husker's Red').

Low-growing plants can often be sheared back to encourage fresh new leaf growth when they start looking ragged in mid-season (aegopodium, geranium, artemesia, alchemilla, lamium, euphorbia, phlox subulata, nepeta, phalaris). A few perennials benefit from thinning to provide better air circulation and prevent crowding (phlox, boltonia, monarda, raspberries).

When plants begin to have fewer or smaller blooms, stunted or slowed growth, and an empty spot at the center of the plant it's time to divide them. Late summer/early fall is optimum time for peonies, iris, lilies, oriental poppies, strawberries, and rhubarb. Choose early spring to divide ornamental grasses and most perennials that bloom after mid-June.



Perennials do best over winter if we have lots of snow and if their tops are left standing until spring. However, if you suspect a plant is diseased, remove and discard the tops as soon as they are killed by frost or turn brown. And if we experience an open winter, apply a fluffy layer of mulch such as straw over the tops of perennials once the top inch of soil is frozen.

### **PEST CONTROL**

Healthy soil and healthy plants that have been treated well will usually result in few problems. And the good news is that problems usually start slowly, often offering enough time to plan prevention strategies for the following year.

In the vegetable garden, practice crop rotation as a great tool to prevent the build-up of soil-borne diseases. When insects show up, learn to tolerate some damage and look closely to be sure insect predators aren't nearby. Encourage arachnids, amphibians and reptiles, most of which consume insects.

Once insects appear, consider planting and destroying trap crops to monitor and control numbers. Physical barriers may be effective in keeping insects from your desired plants, and handpicking insects in all their life stages is always an option. Often a good blast of water or spray of insecticidal soap will dislodge them before they do much damage.

Container growing is a good option if soil-borne diseases such as fungal leaf spots become a problem.

Biological sprays such as Bt for brassicas or Spinosad for potatoes can be useful in the early stages of insect infestations. But if all else fails and a chemical treatment is the only practical solution, be sure to read and follow the label instructions. The label is the law.

### **RESOURCES**

1. [www.extension.umn.edu/garden/](http://www.extension.umn.edu/garden/) type in the plant, insect, or disease in the search box for information on problems and their control
2. **COVER CROPS**
3. **"Mulch" by Jackie Smith**

*Jackie Smith – Carver-Scott Extension Master Gardener*

[www.carverscottmastergardeners.org](http://www.carverscottmastergardeners.org)

*CSEMG Help Line 952-466-5308*