

HELPFUL HINTS FOR A HEALTHY GARDEN

Slide # Comments

- 5 Healthy soil is porous yet retains moisture, and provides most nutrients needed by plants for good growth.
- 6 Almost all soil issues can be corrected by adding organic matter. Droughty soil will hold water. Heavy soil will become lighter. Barren soils will hold more nutrients.
- 7 Organic matter may be added with cover crops. Depending on species, some grow in spring, some in summer, some in fall, and some year-round. All add enormous amounts of organic matter when incorporated into the soil
- 8 Heavy "green manure" crop cover in late fall also holds soil in place through winter winds and spring snowmelt.
- 9 Compost, purchased or homemade, is another great source of organic matter
- 10-11 Plant scraps may be composted in situ by digging trenches or holes near plants and filling with plant material and covering with soil as you fill.
- 12 Crops themselves may be incorporated into the soil to decompose.
- 14 Obviously a palm isn't a good choice for a Minnesota patio. We live in zone 4, but some of us have sand while others have clay. Some plants prefer full sun while others do well in dappled shade. Some tolerate wind, and some do well without as much water as the majority. Find out your plant needs and locate it accordingly.
- 15-22 If you know or suspect you have a certain problem, look for plants that are resistant
- 18 Cucumber 'County Fair' among others is bitter-free and thus not of interest to cucumber beetles. While the beetles themselves aren't a big problem, they spread bacterial wilt which can kill the plants in a matter of days.
- 19 Butternut squash has solid stems rather than the hollow stems that vine borers prefer. "Sweet Mama" buttercup squash is a vine borer magnet, along with the super-sweet "Honey Bear" acorn squash.
- 20 Seed packets won't often tell you about the tightness of the husks, but experience will show you which varieties have better resistance to corn earworm. In my garden, the later triple sweet varieties such as Honey Select or Serendipity have proven themselves.
- 21 If you have trouble keeping spinach through the hot summer months, consider basella as a substitute. A tropical vine, it produces leaves and vine tips that can be used like spinach in salads or stir-fries.
- 22 Don't give up on cabbage if you suffer from cabbage worms. Direct-sown Chinese (or napa) cabbage seldom suffers from these pests.

- 23 Tomatoes can be found that are resistant to almost every disease, except Septoria Leaf Spot. Unfortunately, that's the fungal leaf disease that is most prevalent in our area. But Early Blight (*Alternaria*) is also a problem, so finding an A in the alphabet soup of letters after a variety name can be an advantage. Be aware that "resistant" isn't the same as "proof" If disease pressure is high enough, any plant can succumb, but resistant varieties will take longer to be infected.
- 24 What does well for me, may not do as well for you. Instead of planting an entire row of one kind of bean, why not plant a half row each of two kinds, and do your own variety tests. Pick the better of the two to plant again next year with a new variety and in a few years you'll have a really good idea of what works and what doesn't.
- 26 When growing your own seedlings, provide as bright light as possible. Florescent lights work well as long as they are held within 2-4" above the plants for about 15 hours a day.
- 27 Harden off seedlings before planting outdoors by exposing them to outdoor conditions gradually over a 1-2 week period. Do the same for plants purchased from a greenhouse, unless you know they've been outside for several days.
- 28 For further protection, individual covers can help transplants through the first few days, especially if the weather is windy or frost threatens.
- 30 If you try transplanting corn, time your sowing so the young plants stay in containers for no more than two weeks. Longer than that and the root disturbance can set them back a lot.
- 32 You can cool soil by setting bales of straw on it a week or two before planting, and then cover the young seedlings with shade cloth supported by a frame. This works well to plant cool-loving plants, such as lettuce, in the heat of the summer
- 33 Best flavor and growth for many plants is best if they mature in cool weather of fall. Time your planting accordingly, especially for brassicas and cool-lovers such as spinach
- 34 The spinach patch under the snow is alive and well. We traditionally harvest leaves for salad on Christmas Day, and then cover the plants back up where they survive until spring thaw allows them to resume growth.
- 35 The most important feature for plant growth is moisture. In this photo, the hose didn't reach the rows on the right, but was long enough to water those on the left (drought of 1987)
- 36 Air circulation is critical to preventing fungal diseases. One trick is to provide support to get plants up off the ground (cucumber). Another is to thin plants

- to the distances suggested on the packets (beans). And finally, prune out extra foliage and branches to keep air moving through the plants (tomatoes)
- 37 If you start them yourself, grow pepper plants two to a pot. They will spend their lives as one plant, and will support each other in the garden. Additional support is recommended to keep them from collapsing on the ground when the fruit gets large and heavy. This is the one time those small tomato rings work quite well.
- 38 Uneven moisture in potatoes causes hollow heart when tubers have a sudden growth spurt brought on by rain following a dry spell. Even out the moisture with mulch after hilling soil over the plants to prevent greening. Potato greening is caused by sunlight and is toxic. Small amounts of green on a potato may be cut off and discarded.
- 39-42 Mulch isn't always desirable in the garden. Squash bugs are attracted to mulch, as are slugs, so avoid mulch where they are a problem.
- 43 If you support your perennials, always place the supports early in the season so you don't disturb the plants. They will soon grow through and hide the supports.
- 45 Some perennials benefit from pinching early in the season. General rule of thumb is to pinch plants no later than July 4. Most plants are easily pinched by using the thumb and forefinger on the growing tips. A pruner or hedge shears may be used on larger plants to cut them back by no more than half.
- 46 Fruiting plants benefit from having their blooms pinched off so they can put their effort into growing roots and leaves until established. Remove blooms on strawberries for a month, and for the entire first season on other fruits.
- 47-48 Once plants are done blooming, their blossoms should be removed for aesthetic purposes. For many plants, deadheading (pinching or cutting off the dead blooms) will prolong the bloom.
- 49 A few plants respond with increased vigor in following years if they are deadheaded regularly. True lilies should not be allowed to set seed, but cut off only the seed heads. Bulb size is directly dependent on the amount of leaves that remain to feed the bulb all summer.
- 52 Puschkinia volunteers bloom in an April lawn
- 53-54 Rather than look at unsightly bloom stalks and seeds all summer, it is preferable to cut them back to the crown when bloom is done.
- 55 It is certainly OK to remove bloom stalks when they appear if you don't like their looks. In addition to the ones shown, you may also want to remove the fancy-leaf coral bells blooms that aren't particularly pretty.
- 56-58 Some perennials are happy with a mid-season crew cut. But shearing off the ratty old leaves, new growth is often revealed and soon refreshes the look

- 59 To prevent crowding, reduced bloom, and improve air circulation, some perennials benefit from thinning early in the season. Simply pull or cut back the emerging stems so they stand 4" (phlox) to 12" (raspberries) apart
- 60-62 Watch for these signs as a hint of when your plants need to be divided. Dig, discard the dead center growth, and replant the healthy outer growth after rejuvenating the soil. Extra plants may be used other places in the garden or given away to happy friends.
- 63 If possible, allow plant tops to stand over winter since they help hold snow and provide both winter interest and a seed source for birds. If you need to remove tops, and no snow is present, mulch plant tops with straw after the soil has frozen to about 1 inch. Snow, of course, is a great insulator.
- 64 IPM – integrated pest management is recommended as a thoughtful way to reduce pesticides, especially unnecessary sprays.
- 69 Although recently covered with aphids, this artichoke has been cleaned up by the several lady beetle larvae that showed up in the nick of time.
- 75 A tool in the vegetable garden, row covers will exclude insects, but need to be removed when blossoms need pollination.
- 76 The same row covers are disliked by rabbits (we think they don't like to get it caught in their toenails), and work even just laid on the ground around desired plants.
- 78 Fancy supports not always necessary to keep plants off the ground – simply insert twiggy prunings in the row of peas at planting to keep the plants upright as they grow.
- 79 A good tomato growing system, with plants spaced 3' in rows 6' apart. Soaker hose under the plastic mulch keeps the soil moist, while the plastic keeps soil from splashing on the leaves.
- 80 When soft-bodied insects (aphids) show up, a blast of water from the garden hose will knock them off. Many tougher insects will succumb to a simple insecticidal soap spray or two
- 81 Friendly botanical insecticides to consider are Bt for cabbage worms or Spinosad for potato beetles
- 82 Consider planting susceptible plants in pots while you handle soil-borne disease
- 83 Sanitation is the only way to control diseases once they've shown up in plants. Remove infected parts (branches on trees) or entire plants (zucchini virus, hosta virus) and dispose of properly. DO NOT compost