

‘Good Growing with the Garden Gal’ Program #008 November 2017

Put Garden to Bed; Make a Root Cellar/Solar Tunnels/Winter Squash

TO DO THIS MONTH –

PUT GARDEN TO BED

- Remove and burn or bury diseased plants, especially potatoes and tomatoes (because of late blight)
- Get a soil test and add lime, rock powders etc. as recommended
- Cover the soil! If a cover crop hasn't been planted already, mulch (shredded leaves, spoiled hay, and even straw) can help keep soil organisms fed and healthy over the winter. They also prevent erosion.
- Consider delaying clean-up of non-diseased plants until spring. Seed heads from flowers, weeds, and grasses benefit birds, and some hollow plant stalks provide shelter for over-wintering pollinators. In the spring, do remaining garden clean-up after several days where the temperature reaches 50°F - this gives pollinators a chance to move out of their over-wintering sites.

MAKE A ROOT CELLAR

Many root crops keep very well over the winter at temperatures of about 40°F and high humidity. Here's a simple option:

- Dig a pit 2' deep, lay vegetables in it to a depth of 1', cover with 1' of soil, and then a layer of straw. Be sure to mark where this is so you can find it in the snow! Dig deeper if your experience tells you that the soil freezes at a depth below 1'.

* * * * *

IN THE KNOW – How passive solar tunnels work

Solar tunnels are basically unheated green houses that are made with hoops (of wire or pipe) covered in plastic. They can prolong the harvest season by several months. We have harvested head lettuce in late December – three months after the first frost.

- Heat from the sun (even on a cold winter day) can be absorbed when light comes through something translucent and hits something dark (soil, black barrels, etc.). Example – solar shower, dark rug near a window
- Multiple layers, such as a coldframe inside a low tunnel, can provide even greater protection from the cold
- If you want something that will stand up to snow, use electrical conduit for the hoops. Or, provide center support for PVC pipes.
- If you are only using it in the fall and winter, you can get away with 6 mil construction plastic for the covering. At other times of the year, the sunlight is intense enough that you need something that has been treated to be UV resistant or you will have a mess of plastic fragments on your hands.
- Edges of the plastic must be fastened securely or buried so that winds don't rip or blow the plastic off.
- The taller the structure, the more warmth they seem to hold, and the more even the temperature.
- On sunny days when the outdoor temperature is 50 degrees or more, you will need to vent these or the plants will overheat.
- Cold tolerant crops such as spinach, lettuce, chard, anything in the cabbage family can be harvested even into the winter. Perhaps new to listeners are mache and claytonia (miner's lettuce)
- When there is only 10 hours of daylight, plants stop growing (Nov. 5 in Cadillac, Nov. 2 in Newberry, Nov. 4 in Decatur). Because of that, time plantings so that crops are 75% mature by that date, and you can continue to harvest crops until the very bitter (zero degrees) temperatures arrive. It will likely require some trial and error for you to learn the timing of various crops.
- Inside the tunnel, cover crops with a layer of row cover fabric.

- Harvest when temperatures inside the tunnel are above freezing.
- Tunnels can also be used in the spring to get a jump on the growing season, but be sure to set them up and warm the soil before setting out plants.

***CROP OF THE MONTH* – Winter Squash**

KEY ASPECTS

- Winter squashes are those with hard rinds. They generally keep for several months at basement temperatures. They come in many shapes, sizes, and colors.
- If you live north of U.S. 10, consider starting your plants indoors and setting them out with protection (cut off milk jugs, floating row covers) when they are one week old.
- Ripeness can be difficult to judge. In general, leave on the vine as long as possible, but do not let them be hit by a frost.
- Cure by exposing harvested squash to the sun (you can leave them in the field) for 5–7 days; or, if there is a threat of hard frost, cure the fruits inside for 5–7 days at 80°F with good air ventilation. The curing process will improve storage potential by toughening the skin.

Best Time for Eating / Storage Length of Different Varieties

- Delicata, Sweet Dumpling, Acorn: Ripe when there is an orange ground spot. Spaghetti is also in this category, and is ripe when it turns bright yellow. Best eating time is harvest to 3 months later.
- Buttercup and Kabocha: They are ripe when they have a dry, corky, stem. Best eating time is 2 – 4 months after harvest.
- Butternut: Ripe when fully tan with no trace of green. Best eating time is 3 – 6 months after harvest.

MANAGING INSECTS

- Squash Bugs - use piercing mouth parts to suck the sap out of leaves. This can disrupt the flow of water and nutrients and cause wilting.
- Squash Vine Borers - resembles a wasp, but has an orange abdomen with black dots. Larva bore into the stems and disrupt flow of water and nutrients. Use any container (e.g. pan, pail, bowl) colored yellow and filled with water to trap insects. Because squash vine borer adults are attracted to yellow, they will fly to the container and be trapped when they fall into the water. Place traps by late June.
- Cucumber beetles - spread bacterial wilt. There is no treatment for this disease – prevention!
- Best strategy for all three insects is to cover the squash plants with floating row covers and bury the edges as soon as they are set out and keep the covers in place until female blossoms are formed. Important – this only works if you are rotating where the crops are grown. If not, you could end up trapping the insects inside the covers with your plants.

MANAGING DISEASE – Powdery Mildew

- PREVENTION IS THE BEST STRATEGY. Choose resistant varieties, keep plants healthy, and space them so that there is good airflow
- There are organic spray options. These should be started as soon as the fruit starts to set.
- Organic sprays generally fall into one of three categories: elements (sulfur & copper), bacteria, or plant oils. Try alternating between these three types every seven to 10 days.

Next Month:

Things to Do: survey the forest; evaluate the season

In the Know: Interplay of temperature and light as they affect plants

Crop of the Month: Brussels sprouts