

TO DO THIS MONTH – Plant Garlic; Test and Amend the Soil

PLANT GARLIC

- Hard neck varieties are adapted to cold winters.
- Plant in autumn when there is time for root establishment
- Each clove will produce an entire new head of garlic
- Separate cloves, plant bottom side down so that the bottom of the clove is at the bottom of the hole, and the top of the clove is covered with about 3” of soil
- Mulch with a thick layer of straw to prevent frost heaving and to control weeds

TEST AND AMEND THE SOIL

- Soil testing will give you an indication of the nutrient levels of the soil, and by testing in fall, you have time to amend the soil and have it ready to go for planting in the spring. A soil test will tell you pH, and levels of nutrients such as phosphorus and potassium
- In Michigan, soil test kits mailers can be obtained from MSU extension offices, or on-line through the MSU bookstore. Private labs also do testing, and you can often work with your local farmer’s co-op on that.
- In Illinois, the University of Illinois maintains a list of private soil labs that can assist homeowners
- Once you get the results, consider adding **AMENDMENTS** (not fertilizers) this fall so that they have a chance to start breaking down and becoming available before spring
- Amendments are things like lime, rock powders, seaweed, and compost

IN THE KNOW – Biological activity in soils

The soil is teeming with life! Both life forms that you can see, and those that require a microscope.

SMALLER LIFE FORMS

- Good bacteria, fungi, and nematodes all help cycle nutrients and make them available to plants
- Bacteria can take atmospheric nitrogen and convert it into a form that is useable to plants
- Fungi have “threads” (hyphae) that can penetrate plant roots and directly supply nutrients to plants

LARGER LIFE FORMS

- Soil insects and earthworms shred and digest dead plant material into small pieces. After these small pieces go through their digestive system they become “castings”. The nutrients in castings are beneficial to plants.
- **Word of caution – do not introduce worms to your garden.** There are no native worms in our area. Common earthworms are imports from Europe. Although valuable in gardens for decomposing dead plant material, they drastically alter forest ecosystems. Leaf litter in forest is like the forest’s skin – it retains moisture, protects roots, prevents erosion, and deters non-native plants. Earthworms quickly decompose the leaves in a forest, making the forest vulnerable to many problems and inhibiting the germination of native plants.
- There is a new invasive worm from Asia called a “Crazy” or “Jumping” worm that has become established in Wisconsin. This worm essentially pulverizes the soil and makes it unusable.
- A common way invasive worms are spread is by moving leaf piles from one property to another, and by moving potted plants.

CROP OF THE MONTH – Apples

We've all seen apple trees on the side of the road that grew where someone tossed an apple core out of their window as they were driving by. Sometimes these apples are enjoyable to eat, but often they are not. Apples trees that you purchase have all been grafted so that they bear a known variety of fruit.

TYPES OF APPLES –

Determined by scion wood:

- Early / late
- Dessert / cooking
- Use quickly / storage
- Red / yellow/ green / striped / russet
- Disease resistance

Determined by root stock:

- Dwarf, semi-dwarf, standard
- Age when the tree begins to bear fruit
- Soil adaptation
- To some extent hardiness and resistance to fire blight

PLANTING AND PRUNING –

- Two apple varieties are needed for pollination
- Dig a \$50 hole for at \$25 tree. Width is more important than depth.
- If soil tests call for it, amend the soil.
- Prune so that you build strong network of branches that can support the weight of the fruit. This means branch angles that are close to 90 degrees
- Also prune so that there is good air flow and sunlight penetration. This means a very open tree.

MANAGING DISEASES AND INSECTS

Scab is the biggest disease problem.

- PREVENTION IS THE BEST STRATEGY
- Consider planting immune varieties such as Liberty, Nova Spy, Pristine, and Williams' Pride
- Infected leaves that are left on the ground over winter are a source of infection the next spring. After leaf fall, remove or mow leaves, and apply a source of nitrogen to speed up the decomposition of any that you missed.
- If you need to use sprays, spraying needs to be done after every seven to ten days from the time of bud break in the spring until all the spores are discharged, which could be as late as August. Sulfur, lime-sulfur, Bordeaux mixture, potassium bicarbonate, and potassium phosphonate are all options for organic growers.

Apple Maggots and Codling moth are the biggest insect problems, and barrier methods work best for controlling them

- "Surround" clay sprayed on foliage until tree is mostly white. Repeat as needed.
- Footies or bags tied around fruit right after petal fall
- Red spheres coated with "Tanglefoot" to trap adults. One trap per 100 apples