



Root Concerns

notes from the underground

An E-mail Gardening Newsletter from
Cornell Cooperative Extension of Rensselaer, Albany, Schenectady

Spring



Vol. 3 No. 2 May 2009

Gardeners Go Moonlighting

By David Chinery

The vegetable garden lecture was proceeding smoothly until our speaker dropped a bit of a bombshell. "This year I'm going to plant by the moon," he declared. I felt an inaudible "Huh?" go through the audience as folks fidgeted and he quickly changed topics. A timid soul raised a hand. "Planting by the what?" Thirty-seven inquiring minds needed to know.

Mariners know the gravitational pull of the moon causes the tides to cycle every 24 hours and 50 minutes. Geologists measuring "land tides" have documented the ground rising and falling an average of 12 inches each day across the continental U.S. Meteorologists note that the highest rainfall occurs just after the full and new moons. These known phenomena have had generations of gardeners mooning over the possibility of lunar influences on plants.

Information on moon planting reads like one part "The Old Farmer's Almanac," two dashes from the 1970's science-meets-the-psychedelic-era book "The Secret Life of Plants" plus a touch of Jean Dixon and Luther Burbank thrown in for good measure. In 1930, a gent named Kolisko found that wheat seeds germinated faster and at a higher rate when sown during the full moon, while the new moon gave the poorest results. Brown at Northwestern University showed, while keeping temperature constant, seedlings absorbed more water at the full moon than at the new moon. Tests in a completely dark laboratory, where no sun or moon shown, yielded the same result. Harold Burr, a medical doctor and professor at Yale, measured the voltage patterns (what he called "life fields") around trees on the campus and found that they fluctuated with the phases of the moon. Dino crooned, "When the moon hits your eye like a big pizza pie, that's amore," but to seeds and plants it's a signal to wake up and grow.



Every effort has been made to provide correct, complete, and up-to-date pesticide recommendations. Nevertheless, changes in pesticide regulations occur constantly, and human errors are still possible. These recommendations are not a substitute for pesticide labeling. Please read the label before applying any pesticide. CCE provides equal program and employment opportunities. No endorsement of products is implied.

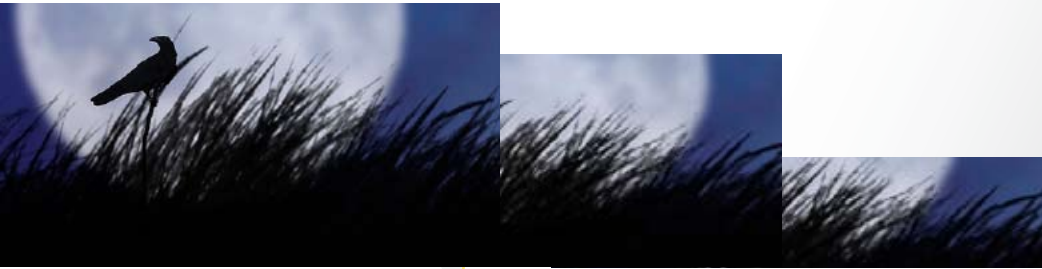


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Next, consider the zodiac. German farmer Maria Thun studied the effect of the position of the moon on yield of vegetables for ten years in the 1950's and 60's. She found that potatoes produced best if planted when the moon was in the constellations Taurus, Capricorn or Virgo (called "root days" or earth signs). The poorest yields came when planting was done under the water signs – Cancer, Scorpio or Pisces. Two English gardeners, Kollerstrom and Muntz, repeated the test in 1976 and got a 45% increase in potato harvest when the crop was planted on root days. If plants had access to newspapers, their favorite feature would be the horoscope.

The waxing and waning of the moon is important, too. A waxing moon is increasing from new (or dark) to full; a waning moon is decreasing from full to new. Planting lawns, roses, and leafy vegetables is best done under a waxing moon, as is grafting, propagating from cuttings, and gathering herbs used for essential oils. Conversely, planting trees and strawberries, dividing perennials, pruning, harvesting seeds and starting a compost heap are most successful when the moon is waning.

It all leaves me moonstruck. Science, the paranormal, utter fiction? You decide.

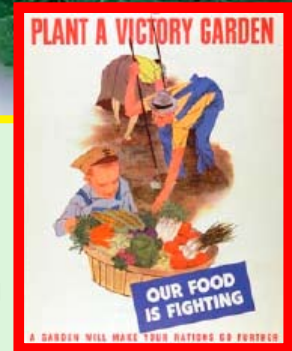


"V" is for Veggie!

By Susan Pezzolla

The "Victory Gardens" of the early and mid twentieth century are about to make-over or at the very least, a re-purposing. During the First and Second World Wars, Americans were encouraged to be part of the war effort by growing their own food. Food rationing for dairy products, coffee, meats and sugar made meal planning a challenge both from a nutritional standpoint and a culinary one. The war diverted people (labor) and dollars and so harvesting crops and getting them to market was greatly impacted. For these reasons the government encouraged people to plant "Victory Gardens." Gardening became a family affair and a way to be part of the war effort, a way to serve. In 1943 nearly 20 million Americans planted a Victory Garden accounting for about a third of all the vegetables consumed in the country that year. The million dollar question is how many Americans will plant a Victory Garden in 2009?

In 2008 the numbers of soil samples submitted to the Albany County CCE lab for testing was way up and 2009 seems to be continuing the trend. People are submitting more samples for flower and vegetable gardens than lawns and that is a big turnaround from the past. The calls to the help line with vegetable gardening questions have increased as have calls about organic methods of gardening. Looking at the gardening catalogs it is clear that there is more market share devoted to vegetables than ever before; suddenly vegetables are "sexy" and taking over the centerfold from the perennials. Who knew there were so many kinds of eggplant, and heirloom tomatoes, well, that is another chapter in the vegetable diaries.



In March of this year the “New York Times” ran an article on the Victory Garden that was breaking ground at the White House. Fifth graders from the Bancroft School in Washington, DC helped Mrs. Obama to turn over the first shovels of soil for the first Victory Garden since Eleanor Roosevelt’s time in the White House during World War II. The Bancroft School has had a vegetable garden since 2001 and they along with White House staff will help the first family to tend the 1,100 square foot garden. Organic seedlings for 55 varieties of vegetables and herbs were started in the Executive Mansion greenhouses. The garden will have raised beds fertilized with White House compost, crab meal from the Chesapeake Bay, lime and green sand. Charlie Brandts, the White House carpenter who is also a beekeeper, will tend two hives for White House honey. All the horticultural bases are covered.



Mrs. Obama said that she wanted a garden to educate children about healthful, locally grown food at a time when obesity and diabetes have become a national concern. She herself has never had a garden and so she is very excited about the experience for herself and for her girls. The example that this first family Victory Garden sets for the country is huge but Mrs. Obama is realistic about what many families can accomplish and she hopes that many will eliminate processed foods and incorporate more fruits and vegetables into their diets. That change alone would be a great step towards better nutrition and better health.

The “Victory Garden” of 2009 may be motivated by different factors than those of the last century; a desire to eat more locally, reduce a family’s carbon footprint, or to have more control over how one’s food is grown. For some it may be a desire to get back to nature or to be a part of nature, or perhaps it is a desire to eat better for less money. Whatever the motivation, those of us who have gardened for many years welcome the company!

Sources:

www.livinghistoryfarm.org

www.revivevictorygarden.org

www.sustainabletable.org/issues/eatlocal



New Purplish-red Douglas-firs

By Chuck Schmitt

Have you seen the new Douglas-fir with the purplish-red cast to it? Many are showing up in the Capital District this spring. These Douglas-firs appear to have changed color coming out of winter. How can this be? Unfortunately it is not a new cultivar but the tell-tale signs of a serious needle disease.

Wet spring weather always brings a host of fungal diseases to our valuable landscape plants. So far this spring has been dry, but now we are paying the price for last year’s wet weather. Two of the most common and serious fungal diseases of Douglas fir, Rhabdocline and Swiss needlecast, are more pronounced when wet weather is prominent from one season to the next. Once only a problem for Christmas tree growers, these diseases are now becoming commonplace in the landscape. I have seen both diseases in the office with some regularity this season. To determine if your trees are at risk scout them on a cloudy overcast day.

Symptoms of Rhabdocline are a conspicuous purple/brown color cast over the tree on previous year's needles easily observed from a distance. New fungal spotting usually does not show up until early spring (i.e. March or April). These spots have distinct margins which help separate an infection from winter injury. Just before bud break, the fungus sporulates, rupturing the underside of the needle, causing a brownish orange blister. This blister is diagnostic and indicates the time to begin treatments. The first application of a protectant fungicide is recommended when the new shoots are ½ inch long. Two to three applications, depending on the weather, may be necessary to protect the new foliage. Chlorothalonil or Spectro 90 WDG can be applied at 3-4 week intervals until July 1. After the infected needles are done sporulating they will be dropped or cast from the tree.

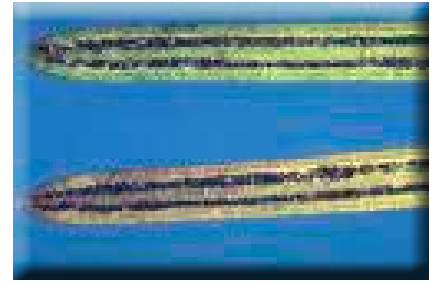


Photo: Cornell University;
Branching Out IPM Newsletter



Photo: Cornell University;
Dept. of Plant Pathology

Swiss needlecast is more subtle in appearance. Yellowing needles, particularly near the base of the tree, are the easiest place to find spores. Turn over the individual needle and look for two rows of fuzzy black fruiting bodies. The needles will have a sooty-like appearance. Like Rhabdocline, the spores infect the current season's growth. However, unlike Rhabdocline it does not kill the needles for 2-3 seasons. Timing of fungicide treatments is the same as for Rhabdocline. Use mancozeb, chlorothalonil or Spectro 90 WDG at 3-4 week intervals until July 1st.

Culturally, severely infected branches or trees should be removed before bud break, i.e. by May 1, to prevent infection of newly emerging needles. Throughout the growing season keep weeds from growing up through the base of the tree to promote good air circulation around the trees. Also encourage good tree health through mulching and watering when needed. Call your local Cooperative Extension office if you would like assistance in diagnosing any symptoms you experience.

Oak Wilt Revisited

By Chris Logue

Many gardeners will remember the oak wilt outbreak which was discovered in Glenville late in the summer of 2008. There was a great deal of media coverage surrounding this and quite a response from the media as well as the general public.

Department of Environmental Conservation staff responded quickly to this outbreak and were able to do some extensive survey work to determine the scope of the problem and devise a plan of action which involved removal of a number of trees on private property.

A reminder of some of the attributes of oak wilt and its hosts may be of use to folks at this time. First the most important hosts are members of the red oak group. These include the red oak and pin oak. Members



of the red oak group are the oak trees that have leaves with pointy rather than rounded lobes.

The vector of the oak wilt fungus is the sap beetle. The sap beetle feeds on the fungal mats which develop from the oak wilt fungus. The one thing that will get the sap beetle to move from the fungal mats is a fresh wound on a tree in the red oak group. Gardeners should refrain from pruning red oak trees during the growing season to minimize the possibility of spread of the fungus.



For more information on oak wilt see <http://www.dec.ny.gov/lands/46919.html> or check out the

Hudler Plant Pathology web site at <http://www.plantpath.cornell.edu/Labs/Hudler/index.html>

Moses On Soil

By David Chinery



My lady friends tell me a good man is hard to find. I reply that the same is true for soil. Springtime has gardeners needing soil for low spots in lawns, to put in newly-built raised beds, or to replace that which was scraped up and sold off when their home was built. You don't have to be a dust-bowl farmer to understand that soil is a precious commodity, but knowing a soil worth buying from one unable to grow a simple radish takes following David's Nine Commandments For Buying Soil.

1. Know that there is no legal or official definition for topsoil. Since anything can be dug or collected and labeled as such, the onus is on the buyer to beware.
2. A good soil will be roughly equal parts of sand, silt, and clay, with 6% or more organic matter. If the soil is like beach sand, it is too sandy. If you could throw pots with it, it is too clayey. Pick some up and rub it between your thumb and forefinger. Add a little water to bring out its full character. Getting touchy-feely is OK.
3. Never buy soil without seeing it before delivery. If you find bagged soil, make sure you take a peak inside. My father once bought bags labeled topsoil that contained a half clay, half sand mixture so unworkable it required disposal in a landfill.
4. Color might be a clue. Many good soils are rather dark in color. This is often an indication that they contain a fair amount of organic matter. Subsoils, lower layers of soil that are often short on nutrients and organic matter, are poor for growing and tend to be lighter in color.
5. Does it stink? Good soil smells like the good earth. I've witnessed some material sold locally that reeked like Secaucus at low tide. Even a manufactured soil containing a high amount of well-composted cow or horse manure should have a pleasant odor.



6. A material with a high percentage of woodchips could be cause for suspicion. Soil doesn't contain woodchips, so just what is this stuff? Microbes in the soil want to break down woodchips and they need nitrogen to do it. Your plants need the N, too, so while the mystery mix might work, extra fertilizer will probably be required.
7. Glass and plastic are worse than woodchips. I once bought a load of compost and received with it several pounds of literal garbage. The business is defunct now, the owners having gone into investment banking.
8. Ask for a pH test of the material. A pH test is easy to do, inexpensive, and provides invaluable information. Any soil vendor worth his salt should be able to do the test and share the results.
9. While you are at it, ask for a nutrient analysis. This requires sending a sample to a lab (Cornell's test cost \$15) but shows the vendor is serious about selling soil.

Holy Moses! You're good to grow.



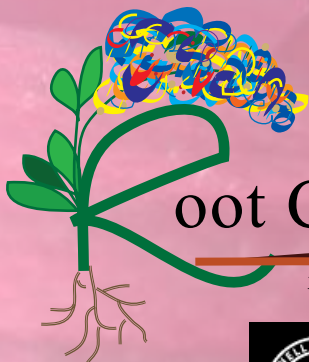
SAVE THE DATE:

Rensselaer County Garden Tour –

Wednesday, July 1, from 4:00 to 8:00 PM.

This year's tour will explore private home gardens in the greater North Greenbush area. Get lots of ideas about the plants that grow well in our area, how to deal with a variety of growing conditions, and what might work in your own backyard.

For more information call the Horticulture Department at 272-4210.



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