

Horticulture 2014 Newsletter No. 18 May 6, 2014

Video of the Week: Selecting the Best Transplant [Selecting the Best Transplant](#)

VEGETABLES

Protecting New Vegetable Transplants from the Wind



New transplants, even those hardened off in a cold frame, may need protection from strong winds when set out. Wooden shingles placed to block the wind used to be the standard recommendation but are now difficult to find. Try a plastic milk jug or a 2-liter soda bottle with both the bottom and top cut off. Push the jug or bottle into the soil far enough so it won't blow away. In windy conditions, it may need to be stabilized with a wooden dowel or metal rod. (Ward Upham)

Fertilizing Grapes



Year of Planting: Apply one-half cup of a 10-10-10 fertilizer per vine as growth begins in the spring. Repeat after one month. Fertilizers should be spread evenly from the trunk out 3 to 5 feet.

Second Year: Apply 1 cup of a 10-10-10 fertilizer per vine as growth begins in the spring. Fertilizers should be spread evenly from the trunk out 3 to 5 feet.

Mature Vines (3 years and older): If the soil test recommends phosphorus and potassium, use a 10-10-10 fertilizer at the rate of 2 cups per mature vine. Fertilizers should be spread evenly from the trunk out 3 to 5 feet.

If, however, there are adequate levels of phosphorus and potassium, add 3/4 cup of a high

nitrogen fertilizer such as a 27-3-3, 29-5-4, 30-3-3 or something similar instead of the 10-10-10. Though recommended for lawns, these fertilizers will also work well as long as they do not contain weed killers or crabgrass preventers. Fertilizers should be spread evenly from the trunk out 3 to 5 feet. (Ward Upham)

Fruit Sprays and Spray Water pH

Two of the common pesticides used in fruit tree sprays are malathion (for insects) and captan (for diseases). Unfortunately, both of these products are subject to alkaline hydrolysis. This is a process whereby certain pesticides will break down when mixed with high pH water. So let's say you mix up your spray mixture by adding malathion and captan to 5 gallons of water. If that water has a pH of 7, the captan will break down so that only half of it will still be present in 8 hours. However, if the water you use has a pH of 10, half the captan will break down in 2 minutes. Malathion isn't nearly as sensitive but still will break down under high pH conditions though it is stable at a pH between 5 and 7. Note that alkaline hydrolysis does not affect all pesticides. Captan is the exception, not the rule. For a listing of common pesticides and their susceptibility to alkaline hydrolysis, see

<http://ecommons.library.cornell.edu/bitstream/1813/5149/1/FLS-118.pdf>

So how do you bring down the pH of your spray water if it is high? Commercial people use buffering agents but that may be difficult for homeowners to find. Food grade citric acid can help. If you have a pH of 8.0, add 2 ounces of this citric acid per 100 gallons of water (1 and 1/4 teaspoons per 10 gallons) to bring the pH down to about 5.5. (Ward Upham)

PESTS

Cabbage Worms



The imported cabbage worm is usually the first cabbage worm species to appear and is a fuzzy, elongated green worm. Larvae come from eggs laid by the white butterfly often seen flitting around the plants. Early control is essential to reduce injury. BT (*Bacillus thuringiensis*) and spinosad (Borer, Bagworm, Leafminer and Tent Caterpillar Spray; Captain Jack's Dead Bug Brew) are effective organic products that are labeled for this pest. BT can be found in Dipel, Thuricide and other similar materials. Direct sunlight deactivates

BT quickly so it is helpful to spray late in the day or on a cloudy day. Conventional insecticides such as carbaryl (Sevin), malathion and methoxychlor are also effective but will kill natural enemies of these pests as will rotenone, an organic product. Be sure to hit the underside of leaves where insects feed. Note that hitting the underside of leaves is easier when using a dust applied with a duster than when using a liquid spray. (Ward Upham)

Asparagus Beetles



Below normal temperatures have kept the asparagus well behind normal but we are finally starting to see some appear. Be on the lookout for asparagus beetles. Both the adult and larvae of asparagus beetles feed on asparagus spears by chewing the tips and spear surfaces, leading to scarring and staining of the spear tips. Asparagus beetles overwinter as adults in trash near the garden. The adults are a blue/black beetle with a red prothorax with yellow spots. The larvae are a soft, greenish grub. Small, elongated, black eggs

— sticking out long ways from the side of asparagus spears — are laid on developing spears.

Early control of beetles is important to reduce feeding damage later. Sevin will provide control (a one-day wait before harvest is required). Some products with permethrin are also labeled but require a 3-day waiting period between spraying and harvest. (Ward Upham)

Clover Mites



Though clover mites are large by mite standards, they are still smaller than a pinhead. Because they are so small, they can easily invade homes through tiny openings around windows and doors. Though tiny, clover mites are very noticeable due to their reddish color. They are also easily identified by their long front legs, which are about twice as long as the other legs.

Clover mites do not bite people (they are plant feeders) or directly damage home furnishings but can leave unsightly stains on curtains, walls, carpets and other structures if they are crushed. Mites can be removed from inside the home with a vacuum cleaner. Bags should be removed and sealed after use to prevent mites from escaping.

It can also be helpful to try to prevent clover mites from entering the home through the use of physical barriers and miticides. Mites do not readily cross loose, clean, cultivated soil, so a band about 18 to 24 inches wide all around the house, kept free of grass, will help deter potential invaders. Also, clover mites are so small that applying talcum powder, diatomaceous earth, corn starch or baking soda around entry points can stop clover mites by creating a barrier. Even double sticky tape placed on windowsills will catch the small mites when they try to pass. Replace the tape when it fills. Do not crush clover mites as they will leave a rusty stain. Homeowners can also keep mites from entering the home by spraying the outside walls and border areas of the lawn and cultivated soil with effective miticides next to the foundation. Try to treat when daytime temperatures will be at least 60 degrees F because the effectiveness of miticides is greatly reduced by cooler temperatures. Spray outside walls and foundations with lambda-cyhalothrin (Spectracide Triazicide, Scimitar) or bifenthrin (Hi-Yield Bug Blaster Bifenthrin, Hi-Yield Bug Blaster II, Bonide Eight Flower & Vegetable Granules, Talstar). The

house should be sprayed from the lower windowsill down to the ground. Pay particular attention to cracks and crevices in clapboards, shingles, foundation and around basement windows. Be sure to spray up and into the area between the bottom of the house siding and the foundation. (Ward Upham) *Photo courtesy of Rayanne Lehman, Pennsylvania Department of Agriculture, Bugwood.*

MISCELLANEOUS

Rabbits in the Garden



Rabbits in gardens are a perennial problem because of the wide variety of plants they can feed on. This time of year, they gravitate to young vegetables and flowers. But there are some vegetables that are rarely bothered including potatoes, tomatoes, corn, squash, cucumbers, and some peppers. The question is how do you protect other, more susceptible plants? Fencing provides a quick and effective control method. The fence does not need to be tall; 2 feet is sufficient for cottontails. But the mesh must be sufficiently fine

(1 inch or less) so young rabbits will not be able to go through it. Support for the fence can be supplied by a number of products, but electric fence posts work well.

Often fencing is not an acceptable choice because it affects the attractiveness of the garden. Other ways to control rabbits including repellents, trapping and shooting. Repellents are often suggested for control but often do not last long and require frequent reapplication. Also, many are poisonous and cannot be used on plants or plant parts destined for human consumption. Live traps can be used to collect and move the rabbits to a rural area several miles from where they were trapped. A number of baits can be used to entice the rabbit to enter the trap including a tightly rolled cabbage leaf held together with a toothpick. However, rabbits often avoid baits if other attractive food is available.

Another possibility is to use a motion-activated sprinkler. These are attached to a garden hose and release a short burst of water when motion is detected. Contech and Havahart are suppliers and both are advertised as protecting up to 1,000 square feet.

Shooting is another possibility when it is safe and legal to do so. (Ward Upham)

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