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FRUIT

Reproducing Apple Trees



Every so often we receive a question about how to make apple seeds germinate. Often, the person is looking for a way to reproduce an apple tree that is dying. Unfortunately, apple trees do not come true from seed. In other words, the apple seed produces trees that differ from the parent. It is extremely unlikely that any apple produced from seed will bear quality fruit. About one in every 80,000 apple seedlings will produce commercial quality fruit.

So how do you reproduce an apple that is like the parent? The most common way is by grafting. Grafting is a procedure that joins two plants together. The upper part (or scion) becomes the top part of the tree, while the lower part (or stock) provides the root system or part of the trunk. Apples are relatively easy to graft. How to graft is beyond the scope of this newsletter, but local libraries should have materials that cover the procedure, or you can find an excellent publication on the web at <http://extension.missouri.edu/explorepdf/agguides/hort/g06971.pdf> (WU)

ORNAMENTALS

Small Acorn Crop

Many people have noticed a small to nonexistent acorn crop this year, especially among members of the red oak group (pin, red, black, blackjack, Shumard). We think at least part of the reason was the Easter freeze of 2007. The red oak group takes two growing seasons to develop acorns, and so damage to the newly forming acorns in 2007 would result in a lack of mature acorns now. The white oak group (bur, post, white, chinkapin) takes only one



growing season to mature acorns and so would not be affected by the Easter freeze. However, keep in mind that acorn crops vary from year to year due to weather. This is especially true of trees that are “in the wild” and do not receive supplemental irrigation during dry years. (WU)

Stratification



Most woody plants produce seed that will not germinate immediately after harvest. Normally this is because of one of three reasons:

- The seed is immature and needs more time to develop;
- A mechanical barrier is keeping water from reaching the seed;
- A physiological block is inhibiting germination.

Immature seed needs time to complete development and does not require special treatment. The water barrier and/or physiological block require special treatments to prepare the seed for germination. One such treatment is stratification. Stratification is a process whereby seed is given the moisture and temperature conditions normally found in its natural environment. Seeds that are shed in early fall often require a warm, moist stratification period before the seed will germinate. Those that drop later in the fall may respond to cool, moist conditions. In Kansas, the most common stratification needed is the cool, moist type. The amount of time required for stratification varies with the plant species. For example, apple requires 75 days, red oak needs 30 to 45 days and sugar maple should have 60 to 90 days. All three species require cool, moist conditions. If unsure of the amount of time required for a specific species, 3 to 4 months usually is sufficient.

For cool stratification, temperatures just above freezing are best, with a range between 35 and 45 degrees considered ideal. Temperatures higher and lower than this are less effective. The minimum temperature at which stratification occurs is reported to be 23 degrees, and the maximum is 62 degrees.

Stratification should be done in a medium that is moist but not soggy. If there is too little moisture, the seed coat does not take up the water needed. Too much reduces the amount of oxygen available to the seed. If peat moss is used, a ratio of 1 or 1 1/4 parts water to 1 part air-dried peat moss by weight is recommended. When wetting peat moss, use warm water, which is absorbed more quickly than cold.

Small amounts of seed can be stratified by placing the seed in moist peat moss inside a plastic bag and placing the bag in the refrigerator. Small seeds can be placed between two sheets of cheesecloth so they are not lost in the medium. Larger amounts of seed can be placed in a plastic container or wooden box. Place layers of seed between layers of moist sand or a mixture of sand and peat moss. Bury the container outside so the top is even with the soil surface, and cover with leaves or straw. Alternatively, the container may be placed in an unheated garage or root cellar. (WU)

TURFGRASS

Frost on Lawns



If you have ever walked across a frosted lawn that isn't dormant, you may have noticed your footprints showing up later in the day. Though this is unsightly, it does not kill the turf. Grass blades are damaged but the crown is not. Actively growing turf will often recover after two to four mowings. Damage that occurs late in the fall will continue to show damage until it is masked by the rest of the lawn turning brown due to cold weather. It is believed that the damage is caused by ice crystals killing plant cells when they are forced into the leaf

by the weight of a wheel or foot. Remember to avoid damage by staying off of frosted turf. (WU)

PESTS

Millipede Invasion



Millipedes, or "thousand-legged worms," are an arthropod relative of insects. They can be distinguished from centipedes by the number of legs per body segment. Millipedes have four legs per segment, while centipedes have only two. Also, the millipedes' legs are quite short and may not be seen if viewing the millipede from above. Though usually found in damp locations outside, they can become a problem inside the house and cause homeowners a great deal of concern. Household invasions are often sudden and sporadic.

Millipedes feed primarily on decaying organic material, rarely on living tissue. They do not bite people or damage household furnishings directly, but they will leave a mess and give off an odor if crushed.

Millipedes are worm-like and most often brownish-black in color. The legs ripple as they move. Millipedes often curl up into a "C" shape like a watch spring if touched. Remember you may not see the legs unless viewing the millipede from the side. They defend themselves by releasing a disagreeable odor when disturbed.

Millipedes require high moisture to survive and often die in a day or two after entering a house. Dead millipede bodies can then be vacuumed up and disposed of. Drying out moist areas inside will also help with control. Sealing and caulking around openings in the foundation will help keep populations low. If this is not enough, spraying cyfluthrin (Home Pest Control Indoor/Outdoor Insect Killer), proxopur (Baygon), or resmethrin in a three-foot band around the outside of the house will take care of them before they get inside. (WU)

Multicolored Asian Lady Beetles



As cooler weather becomes more predominant one of the annual insect migrations that seems to get people's attention is that of the multicolored Asian lady beetle. These beetles were introduced into the United States by the USDA in the 70s and 80s to help control aphids. They are very good at this and usually hang out in trees and shrubs feasting on these little plant pests. However, they will feed on other aphid species and in 2004 migrated to soybean fields where they found a ready supply of soybean aphids. In the intervening years

(2005-2007) soybean aphid populations didn't amount to much, but this year populations were more like what we saw in 2004, with an associated increase in Asian ladybeetles. Thus, home invasions by these beetles may be expected in the next 4 to 6 weeks, depending on weather, as they are seeking overwintering sites.

Multicolored Asian lady beetles overwinter as adults in protected areas including homes, barns, and other outbuildings. They may invade a suitable site by the thousands and thus can be a real nuisance. Because they are predators, they do have chewing mouthparts and can bite. Bites are harmless but can be a serious nuisance. These beetles are beneficial in helping to control aphids and other plant pests and therefore there really are no pesticides labeled for lady beetle control. To avoid having thousands of uninvited lady beetles invade your dwelling this fall, start by sealing all cracks around windows, doors, etc., and make sure screens are tight-fitting if window/doors are left open to enjoy the great fall weather. If invasions do occur and you notice beetles starting to gather on the south and west side of your dwelling during the late afternoon, sweep them up with a broom or vacuum and transport them a considerable distance, or they may quickly return. (JW and HD)

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