New Deadly Walnut Disease

A new and deadly disease is affecting black walnuts across the western United States. Thousand Cankers Disease (TCD) is actually an insect and disease complex. It is caused by a tiny insect, the walnut twig beetle (Pityopthorus juglandis), which carries spores from a Geosmithia fungus as it goes about its feeding and breeding activities. The fungus causes many small cankers, or dead spots, to form, hidden underneath the bark. Eventually, the thousands of cankers coalesce and kill the main trunk of the tree.

For years, the walnut twig beetle was known only in the southwest where it fed on the twigs of the Arizona walnut. Because this walnut was resistant to the Geosmithia fungus, the beetle only damaged small branches and caused little damage to the tree itself. But beginning in the late 1990s, the walnut twig beetle expanded its range and is now found in several western states. As the beetle colonized new areas, it found black walnut that had been planted in many locations beyond its native range. The Geosmithia fungus the beetle carried is deadly to black walnut, and to make matters worse, the beetle began attacking the main trunk of black walnut trees, resulting in death. TCD is also established in California walnut orchards.

Most alarming to Kansas, is that TCD is killing trees in several Colorado communities. K-State Research and Extension, the Kansas Forest Service, and the Kansas Department of Agriculture are working on plans to keep this disease from becoming established in our state. The walnut
industry in the eastern United States is also concerned that Kansas could serve as a gateway to the spread of this devastating disease to the rest of the country.

To help with prevention, do not buy walnut firewood, logs, or burls from Colorado, New Mexico, or California, and cooperate with officials working on this problem. You will be hearing much more about Thousand Cankers Disease in the coming months as quarantines are developed. (CJB)

FRUIT

What Fruit Trees to Plant?

If you’re pondering that question, here are some comments on fruit trees commonly grown in Kansas. Fruit trees are a long-term investment requiring careful thought before purchase. Begin by choosing fruit you will eat, not fruit that looks good in the catalog. Other considerations are outlined below. Space doesn’t allow for a complete list in this newsletter. For more choices, go to: http://www.oznet.ksu.edu/library/hort2/mf1028.pdf

You may also request the publication "Small- and Tree-Fruit Cultivars" from your local K-State Research and Extension office.

Apples: Though we can grow a wide variety of apples in Kansas, pest-free fruit requires an extensive and expensive spray program. Apples are normally sprayed from March (dormant spray) until about 2 weeks before harvest. Sprays from April on are applied at least every two weeks. You need two different varieties of apples to get fruit. Recommended varieties include Jonathan, Gala, Empire, Delicious, Golden Delicious, Jonagold and Granny Smith.

Cherries: Sweet cherries (such as Bing) are not well adapted to Kansas, but sour (pie) cherries are. Cherries are borne in June, so relatively few sprays are needed. Only one tree is needed for fruit on sour cherries. Recommended sour cherries are Montmorency, Meteor and North Star.

Apricots: Apricot trees are quite ornamental, which is fortunate because late spring frosts usually eliminate fruit. On average, assume you will get fruit about once every 5 to 10 years. Only one tree is needed for fruit though two varieties will increase production. Recommended varieties include Moorpark, Goldcot, Manchu and Superb.

Peaches: Usually a relatively short-lived tree (10 to 12 years) that needs a great deal of pruning to keep productive. Peaches have the same problem with late frosts that apricots do but may not be quite as bad. Only one tree is needed for fruit. Try Intrepid, Early Redhaven, Redhaven,
Harken and Reliance. Intrepid blooms later and has flowers that are more cold-hardy than the other peaches listed and so is less likely to be damaged by frost. It would be a good first choice.

**Pears:** Pears are tough and often one of the few trees that survive on an old homestead. Though trees should be sprayed, the chance of getting good fruit without spraying is much better than it is with apples. Usually, two trees are needed to get fruit. Proven pears include Seckel, Moonglow and Duchess.

**Pawpaw:** This is a native fruit that can be grown in the eastern third of Kansas. You need at least two trees of different varieties for fruit. The trees need to be close together (within 30 feet) as they are pollinated by insects other than bees. Kentucky State University has an excellent site on growing pawpaws at [http://www.pawpaw.kysu.edu/](http://www.pawpaw.kysu.edu/).

To learn how to control fruit pests see, “Fruit Pest Control for Home Gardens,” at [http://www.oznet.ksu.edu/library/hort2/c592.pdf](http://www.oznet.ksu.edu/library/hort2/c592.pdf) or available from local K-State Research and Extension offices. (WU)

**Pruning Young Fruit Trees**

Young fruit trees should be pruned to begin developing a strong structure of the main or scaffold limbs. This will help prevent limb breakage over the years when the scaffolds carry a heavy fruit load. Apple, apricot, cherry, plum and pear trees generally are trained using the central leader system. The growth pattern for these trees is for a center branch to be dominant.

Peach and nectarine trees are normally pruned using the open center method because they do not have a strong tendency for one shoot or branch to dominate the growth of other shoots or branches. In this system, the tree is pruned to a vase-like pattern with no central leader.

Regardless of the system used, the three to four scaffold branches should:

* Form wide angles (about 60 to 80 degrees) with the trunk.
* Be distributed on different sides of the tree for good balance.
* Be spaced about 6 to 10 inches apart on the trunk with no branch directly opposite or below another. (WU)
FLOWERS

Iris Leaf Spot Control Starts Now

Now is a good time to begin control measures for iris leaf spot by removing old, dead leaves. Iris leaf spot is a fungus disease that attacks the leaves and occasionally the flower stalks and buds of iris. Infection is favored by wet periods during the spring, and emerging leaves eventually show small (1/8- to 1/4-inch diameter) spots. The borders of these spots are reddish, and surrounding tissue first appears water-soaked, and then yellows. Spots enlarge after flowering and may coalesce. The disease tends to be worse in wet weather and may kill individual leaves. Though the disease will not kill the plant directly, repeated attacks can reduce plant vigor so that the iris may die from other stresses. Spores are passed to nearby plants by wind or splashing water.

Since this disease overwinters in old leaves, removal and destruction of dead leaves will help with control. For plants that had little infection the previous year, this may be all that is needed. Plants that were heavily infected last year should be sprayed with chlorothalonil (Bravado Fungicide, Fertilome Liquid Fungicide, Ortho Garden Disease Control, GardenTech Fungicide Disease Control, Bonide Fungonil, Bravo Flowable Fungicide, Gordon's Multipurpose Fungicide) or myclobutanil (Immunox) starting when leaves appear in the spring. Repeat sprays every seven to 10 days for four to six sprays. Iris leaves are waxy, so be sure to include a spreader-sticker in your spray to insure good coverage. (WU)

TURFGRASS

Lawn Calendar for Warm-Season Grasses

Warm-season grasses include bermudagrass, zoysiagrass and buffalograss.

March

Spot treat broadleaf weeds if necessary. Treat on a day that is 50 degrees F or warmer. Rain or irrigation within 24 hours of application will reduce effectiveness.
April
Apply crabgrass preventer between April 1 and April 15, or apply preventer when the Eastern Redbud is in full bloom. If using a product with Barricade, apply two weeks earlier. Crabgrass preventers need to be watered in before they will start to work.

May – August 15
Fertilize with 1 lb. of nitrogen per 1,000 square feet per application. Remember, more applications will give a deeper green color, but will increase mowing and lead to a build-up of thatch with bermudagrass and zoysiagrass.

Bermudagrass – Use two to four applications.
Zoysiagrass - Use one to two applications. Too much nitrogen leads to thatch build-up.
Buffalograss - Use one to two applications.

One Application: Apply in June
Two Applications: Apply May and July.
Three Applications: Apply May, June, and early August
Four Applications: Apply May, June, July and early August

June
If grubs have been a problem in the past, apply a product containing Merit or Mach 2. Either product should be applied by mid-July. Merit can be applied as early as mid-May if there are problems with billbugs or May Beetle grubs. Both of these are referred to as grub preventers. Actually, they kill the grubs when they are small but are called grub preventers because they kill the grubs before they cause damage. These insecticides are effective and safe. They must be watered in before they become active.
June is a good time to core aerate a warm-season lawn. Core aeration will help alleviate compaction, increase the rate of water infiltration, improve soil air exchange and help control thatch.

Late-July through August
If you see grub damage, apply a grub killer. If Merit or Mach 2 has been applied, this should not be necessary. Grub killers must be watered in immediately.

Late October
Spray for broadleaf weeds if they are a problem. Treat on a day that is at least 50 degrees F. Rain or irrigation within 24 hours reduces effectiveness.

Use the rates listed on the label for all products mentioned. (WU)
Repotting Houseplants

As outdoor plants break dormancy and start to grow in response to the longer days and warmer spring temperatures, houseplants usually put on a spurt of growth as well. Eventually, these indoor plants outgrow their containers and need to be repotted. To check if your plants are becoming root bound and need a larger pot, inspect the root system. First, knock the plant out of its pot. Watering several hours before this operation will allow the plant to be removed more easily. On pots that are 8 inches in diameter or less, place one hand over the top of the pot with the stem of the plant passing between two fingers, and turn the plant upside down. Then rap the edge of the pot against a table. The root ball should come away from the pot. On pots that are more than 8 inches in diameter, a bit more encouragement may be needed. Place the pot on its side and rap the top edge of the pot with a rubber mallet. Turn the plant a few degrees, and repeat the procedure until the root ball releases.

Once the plant is free, take a look at the root ball. If you see a clear network of roots, the plant needs to be moved to a larger pot. If the original pot is less than 10 inches, move up an inch in size; if 10 inches or larger, increase the size 2 inches. If the pot has one or several large holes in the bottom for drainage, cover the holes with pot shards (pieces of a broken clay pot) or gravel so that the potting mix is not washed out during watering.

It is essential that the plant sit at the same level it was in the old pot. Add enough potting mix to the bottom of the pot to ensure this. This mix will need to be firmed before the plant is placed on top of it so it doesn't settle over time. After the plant is placed, fill in around the original root ball with potting soil. Again, firm this soil with a slender stick, or tap the bottom of the pot on the table. If this firming is not done, new soil will be so light and airy that water will tend to move through it rather than through the whole root ball.

Water the plant thoroughly after repotting, but be especially careful not to overwater for about 2 weeks. The new soil tends to stay wet until roots penetrate. Overwatering can lead to rot. Most plants need to be repotted annually though vigorous growers may need to move up sooner. Slow-growing plants may stay in the same pot for more than a year. (WU)
Soil Tests When Soils are Wet

It is still possible to take soil tests when soils are wet though there are precautions. Soil samples should be air-dried before being submitted for testing. Do NOT use artificial means of drying such as an oven or microwave as such treatment may result in inaccurate readings of nutrient levels. Also, be sure to use a clean container to collect the sample. Wet samples are more likely to absorb foreign materials adhering to the container, which may also influence soil test results. For information on how to take a soil sample, see http://tinyurl.com/yfdgpwv. Take the sample into your local extension office. If you don’t know the address for your local, county extension office, see http://www.ksre.ksu.edu/Map.aspx (WU)

Contributors:
Ward Upham, Extension Associate; Charles Barden, Extension Forester

To view Upcoming Events: http://tinyurl.com/fswqe

Horticulture 2010 E-mail Subscription

For questions or further information contact: Hort WebMeister.

Brand names appearing in this publication are for product identification purposes only. No endorsement is intended, nor is criticism implied of similar products not mentioned.

“Knowledge for Life”
Kansas State University Agricultural Experiment Station and Cooperative Extension Service