VEGETABLES

Setting out New Vegetable Transplants

Plants moved directly from a warm, moist greenhouse to the more exposed and cooler conditions outside may undergo transplant shock. Transplant shock causes plants to stop growing for a time. Plants can be acclimated to outside conditions by placing them outdoors in a location protected from wind and full sunlight such as the side of your house for a few days before transplanting. If you can, check several times during the day to make sure they don’t become too dry. The leaves will develop more of a waxy cuticle during the hardening process so that they can better withstand our Kansas winds.

New transplants, even those hardened off, may need protection from stronger than normal Kansas winds when set out. Wooden shingles placed to block the wind used to be recommended 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. Remove once the winds subside. (Ward Upham)

'Staggering' Sweet Corn Planting

Sweet corn is one of those crops that is only "good" for a few days. If you want longer periods of production, consider staggering the planting. In other words, plant a small block, wait a period of time, and then plant the next block. Though it is tempting to follow a calendar schedule, such as planting a small block every week, it is better to use crop development as a trigger. If you plant on a calendar schedule, you may have noticed that later plantings often catch up with earlier ones. Instead, plant the next block of sweet corn when the previous one is one-half to one inch tall. (Ward Upham)
Be on the Lookout for Peach Leaf Curl and Plum Pocket

Peach leaf curl is a fungus disease that causes developing peach leaves to become puckered and distorted and show a reddish-green hue. A similar disease called plum pocket may develop on American and sand hill plums. Plum pocket results in formation of distorted, light green, bladder-shaped fruit. Asian and European plums are not susceptible to the local strain of plum pocket. Unfortunately, it is too late to control any of these diseases with fungicides this year.

Trees that are severely infected with peach leaf curl are likely to lose many leaves. If trees are healthy, new leaves will grow. Indicators of a healthy tree are large, deep green leaves and last year's growth being at least 18 to 24 inches long. If these tree vigor indicators are not present, especially if there was only 12 inches or less of growth last year, then a fertilizer application would be helpful.

The fertilizer should be spread on the soil under the branch area. Apply 1 and 1/3 to 2 cups of a 13-13-13 fertilizer under the branch area. If a soil test indicates that only nitrogen is needed, use 1/3 to 1½ cups of nitrate of soda (16-0-0) instead of the 13-13-13. You may also substitute a high nitrogen fertilizer such as a 27-3-4, 30-5-4 or something similar for the 13-13-13, but use only half the amount used for nitrate of soda. The sooner fertilizer is applied, the more immediate benefit it will have in promoting new leaf growth. Both peach leaf curl and plum pocket can be controlled with a single fungicide application applied this fall after leaf drop or early next spring before bud swell.

Effective fungicides include Bordeaux mixture and chlorothalonil (Bravo, Daconil and others). Be sure to cover the entire tree including the bark and trunk. (Ward Upham)

PESTS

Cabbage Worms

This is the time of year we normally start seeing damage from 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 (Monterey Garden Insect 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), malathon and methoxychlor are also effective but will kill natural enemies of these pests. 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
How to Avoid Getting “Bored” By the Ash/Lilac Borer

Now is the time to take “action” to prevent damage from the ash/lilac borer (*Podosesia syringae*). Ash/lilac borer adults are typically active from late-April through June, although activity is contingent on temperature. Adults are brown, clearwing moths that look-like paper wasps. Adult females lay tan, oval-shaped eggs in cracks and crevices, or wounds at the base of plant stems. One female can live for approximately one week and lay up to 400 eggs. Below are nine points associated with the life history and management of ash/lilac borer:

1. The larvae are responsible for causing plant damage by tunneling and feeding within the bark (cambium). Larvae can also tunnel further into the wood and feed within the sapwood and heartwood.

2. Larval feeding restricts the flow of water and nutrients; thus resulting in shoot or branch dieback. Ash/lilac borer larvae feed at the base of plant stems causing swollen areas or cracks, and they also feed where major branches attach to the trunk.

3. The presence of light-colored sawdust (frass) accumulating at the base of infected trees or shrubs (Figure 2) is evidence of larval feeding.

4. Ash/lilac borer overwinters as a late-instar larva located in feeding tunnels or galleries.

5. Trees or shrubs infested with ash/lilac borers will have brown papery pupal cases protruding from the bark (Figure 3), which is where adults emerge from.

6. There is generally one generation per year in Kansas.

7. The primary means of avoiding problems with ash/lilac borer is to avoid ‘plant stress’ by providing proper cultural practices including: irrigation (watering), fertilization, pruning, and mulching. In general, stressed plants are more susceptible to attack by ash/lilac borer than ‘healthy plants.’ A two to three-foot wide mulched area around the base of trees and shrubs prevents injury from lawn mowers and weed-trimmers that can girdle trees and shrubs leading to ‘stress.’ Moreover, avoid pruning plants in late spring through early summer (under usual weather conditions) as this is when adults are typically present and the volatiles emitted from pruning cuts may attract adult females.

8. Insecticides containing the active ingredients, permethrin, bifenthrin, or chlorantraniliprole can be applied to the bark—at least up to six feet from the base—to prevent ash/lilac borer larvae from entering plants after eggs hatch. After eggs hatch, ash/lilac borer larvae crawl on the bark searching for entry points, which exposes them to insecticide sprays. Once larvae are inside the plant, they are not susceptible to insecticide sprays. Systemic insecticides applied to the soil or injected into trees or shrubs do not provide reliable control of the ash/lilac borer.

9. Commercially available pheromone traps capture adult males, which help estimate when females will be laying eggs. Pheromone traps help appropriately time insecticide applications.
Insecticide spray applications should begin seven to 10 days after capturing the first adults. Check pheromone traps two to three times per week for the presence of newly captured adult males. (Raymond Cloyd)

**ORNAMENTALS**

**Anthracnose on Sycamore, Maple and other Shade Trees**

We are starting to see anthracnose on sycamore. Anthracnose is a fungal disease favored by cool, wet weather. Young leaves may wither and turn black. On older leaves, look for brown areas that follow the major veins of the leaves. In some cases, the petiole (leaf stem) is infected, which causes leaf drop. The leaf may look perfectly fine, so look for browned areas on the petiole.

In severe cases, the tree drops heavily infected leaves and may be completely defoliated. We have had people cut down sycamore trees that have lost all their leaves. DO NOT DO THIS. Healthy trees will leaf out again in a few weeks. Defoliation this early in the year does not affect overall tree health. Trees have plenty of time to produce new leaves and make the energy reserves needed to survive the winter.

Other types of trees that are affected by anthracnose include birch, elm, walnut, oak and especially ash. Anthracnose seldom causes significant damage to trees in Kansas, so chemical controls are usually unnecessary. Also, fungicides do not cure infected leaves. Applying fungicides now will not help. (Ward Upham)

**MISCELLANEOUS**

**Moving Houseplants Outside for the Summer**

It is often helpful to set many houseplants outside for the summer so they can recover from the low light levels endured during the winter months. As soon as night temperatures stay consistently above 55 degrees F, houseplants can be moved to their summer home. Choose a spot that has dappled shade, is protected from the wind and is close to water. A porch or a spot that receives shade from trees or buildings will work well.

Putting houseplants in full sun will cause the leaves to photooxidize or sunburn because the leaves have become adapted to low light levels inside the house. Where possible, sink the pots into the ground to help moderate root temperatures and reduce watering frequency.

If you have a number of plants, dig a trench 6 to 8 inches deep (or deeper if you have larger pots) and long enough to accommodate all of your plants without crowding. Place peat moss under and around the pots. Peat moss holds water, helps keep the pots cool and reduces evaporation from clay pots. About every two weeks, rotate the pots a quarter turn to break off any roots that have
penetrated the peat moss surrounding the pot and to equalize the light received on all sides of the pot. Water as needed. If the potting soil is dry a half-inch deep in the pot, it is time to water. (Ward Upham)

**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.

Another type of barrier is a floating row cover. Though most often used to promote early growth by keeping plants warmer than normal, it can also help protect young plants from insects and wildlife.

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, Orbit and Havahart are suppliers and each is advertised as protecting up to at least 1,000 square feet. Shooting is another possibility when it is safe and legal to do so. (Ward Upham)

**Contributors**: Raymond Cloyd, Entomologist; Ward Upham, Extension Associate

---

For questions or further information, contact: wupham@ksu.edu OR cdipman@ksu.edu
This newsletter is also available on the World Wide Web at: http://hnr.k-state.edu/extension/info-center/newsletters/index.html
The web version includes color images that illustrate subjects discussed. To subscribe to this newsletter electronically, send an e-mail message to cdipman@ksu.edu or wupham@ksu.edu listing your e-mail address in the message.

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

K-State Research and Extension is committed to making its services, activities and programs accessible to all participants. If you have special requirements due to a physical, vision or hearing disability, or a dietary restriction please contact Extension Horticulture at (785) 532-6173.

Kansas State University Agricultural Experiment Station and Cooperative Extension Service K-State Research and Extension is an equal opportunity employer. Issued in furtherance of Cooperative Extension Work, Acts of May 8 and June 30, 1914, as amended. Kansas State University, County Extension Councils, and United States Department of Agriculture Cooperating, Ernie Minton, Acting Dean.