UPCOMING EVENTS

Bedding Plant Field Day
Thursday, July 29
1:00 - 8:00 p.m.
K-State Research & Extension Center, Olathe
Cost: $45.00 (includes barbeque)

K-State Research & Extension Center Field Day
Saturday, July 31
8:00 a.m. - 3:00 p.m.
35230 West 135th St., Olathe
Cost: $5.00 (purchase at the gate)
For more information, go to http://www.johnson.ksu.edu/DesktopDefault.aspx?tabid=681

Kansas Turfgrass Field Day
Thursday, August 5
Rocky Ford Research Center, Manhattan, KS
8:00 a.m. - 1:30 p.m.
Cost: $30.00 (includes lunch)

VEGETABLES

Bacterial Wilt of Cucumber and Muskmelon

We are starting to see cucumbers and muskmelons showing symptoms of the disease bacterial wilt. Squash and pumpkin can also be affected. Initial symptoms appear as individual leaves drooping. These leaves may recover overnight only to wilt the next day. Eventually the whole plant wilts, turns brown and dies.
There is a good diagnostic field test for this disease. Cut a plant near the crown and squeeze sap from the newly cut stem. Heavily infected plants will ooze a milky sap from the cut stem. Regardless of whether you see the milky sap, touch a clean knife to the cut surface and draw the surfaces apart. If you see fine threads stringing from the stem and the knife blade, the plant has bacterial wilt.

Bacterial wilt is carried by the cucumber beetle. The bacteria hibernate in the digestive tract of the beetles. Feeding by these insects results in deep wounds to leaves. Bacteria enter these wounds and, thereby, the rest of the plant through insect feces. The bacteria multiply within the xylem vessels of the plant until water movement is obstructed. Symptoms normally appear six to seven days after infection. Bacteria can survive for one to two months in the dried up plant but cannot survive the winter in any location other than the cucumber beetle's digestive tract.

There are two types of cucumber beetles: striped and spotted. The striped cucumber beetle is the most common. The ¼-inch-long striped cucumber beetles are conspicuously colored with black head and antennae, straw yellow thorax, and yellowish wing covers with three distinct parallel and longitudinal black stripes. Beetles deposit their eggs in the soil around the bases of host plants.

There is no cure for bacterial wilt and, therefore, control is aimed at prevention of infection by the beetles. Since cucumber beetles overwinter as adults, early control measures are essential. Young plants can be protected by the use of row covers, cones, or other types of mechanical barriers. Edges must be sealed to ensure that the beetles do not find a place of entry. Plants will eventually outgrow these barriers or they will need to be removed to allow insect pollination of the flowers. Apply insecticides before beetles are noticed in the planting. Continue to spray until the end of the season on weekly intervals. Homeowners can use permethrin (Bug-No-More Yard & Garden Insect Spray; Eight Vegetable, Fruit & Flower Concentrate; Garden, Pet and Livestock Insect Control; Lawn & Garden Insect Killer, others), Rotenone, or Methoxychlor. Check labels for waiting periods.

Again, there is no cure for the disease. Infected plants should be pulled up and destroyed.

(WU)

How to Pick a Ripe Melon

Telling when a melon is ready to be harvested can be a challenge, or it may be quite easy. It all depends on which type of melon we are considering. Let’s start with the easy one.

Muskmelons are one of those crops that tell you when they are ready to be picked. This can help you not only harvest melons at the correct time but also help you choose good melons when shopping. As a melon ripens, a layer of cells around the stem softens so the melon detaches easily from the vine. This is called “slipping” and will leave a
dish-shaped scar at the point of stem attachment. Therefore, when harvesting melons, put a little pressure where the vine attaches to the fruit. If ripe, it will release or “slip.” When choosing a melon from those that have already been harvested, look for a clean, dish-shaped scar. Also, ripe melons have a pleasant, musky aroma if the melons are at room temperature (not refrigerated).

Watermelons can be more difficult and growers often use several techniques to tell when to harvest.

1. Look for the tendril that attaches at the same point as the melon to dry and turn brown. On some varieties this will need to be completely dried before the watermelon is ripe, and on others it will only need to be in the process of turning brown.

2. The surface of a ripening melon develops a surface roughness (sometimes called “sugar bumps”) near the base of the fruit.

3. Ripe watermelons normally develop a yellow coloration on the “ground spot” when ripe. This is the area of the melon that contacts the ground.

Honeydew melons are the most difficult to tell when ripe because they do not “slip” like muskmelons. Actually, there is one variety that does slip called Earlidew, but it is the exception to the rule. Ripe honeydew melons become soft on the flower end of the fruit. The “flower end” is the end opposite where the stem attaches. Also, honeydews should change to a light or yellowish color when ripe, but this varies with variety. (WU)

**Tomato Cracking**

Tomatoes often have problems with cracking caused by pressure inside the fruit that is more than the skin can handle. Cracks are usually on the upper part of the fruit and can be concentric (in concentric circles around the stem) or radial (radiating from the stem). We don’t know everything about cracking but here is what we do know.

Tomatoes have a root system that is very dense and fibrous and is quite efficient in picking up water. Unfortunately, the root system can become unbalanced with the top of the plant. Early in the season it may be small in relation to the top growth resulting in blossom-end rot during hot dry weather. Later it may be so efficient that it provides too much water when we get rain or irrigate heavily after a dry spell. This quick influx of water can cause the tomato fruit to crack. Therefore, even, consistent watering can help with cracking. Mulching will also help because it moderates moisture levels in the soil. However, you can do everything right and still have problems with cracking in some years.

We have evaluated varieties for cracking during our tomato trials at K-State. It takes several
years worth of data to get a good feel for crack-resistant varieties but we have found some real
differences. Some varieties crack under about any condition and others are much more resistant.
The difference seems to be pliability of skin rather than thickness — the more pliable the skin the
more resistance to cracking.

The old variety Jet Star has been the most crack resistant of any we have tested including the
newer types. Unfortunately, Jet Star is an indeterminate variety that puts out rampant growth.
Newer varieties with more controlled growth are often more attractive to gardeners. Mountain
Fresh, Floralina and Sun Leaper are smaller-vined types that have shown good resistance to
 cracking. (WU)

FLOWERS

Peony "Measles"

The weather this summer has resulted in may peonies catching the "measles." This is a disease,
also known as red spot, that causes distinct, reddish-purple spots on the upper leaf surfaces.
These spots often coalesce and become large, reddish purple blotches on the upper leaf surfaces
but are a light brown color when viewed from the underside of the leaves. The spots on stems will
merge and form streaks that are reddish brown.

Sanitation is the best control for this disease. Remove all diseased tissue, including stems, at the
end of the growing season. Mulch that contains plant debris should also be discarded and then
replaced with fresh mulch. Reducing the source of the inoculum will reduce the chances of
another severe outbreak next year. (WU)

PESTS

Bagworms

Nearly a month ago I was jumpy about bagworms. At that time, I noted there were some Eastern red
cedar and Junipers already showing signs of bagworm. I recommended applying sprays to
reduce bagworm populations that seemed to already be overwhelming their hosts.

Before leaving Kansas July 11, I noted numerous Eastern red cedar and junipers needing treatment,
including those in my backyard, which I sprayed. If you have yet to spray, inspect trees to see if you
Bagworms are like the proverbial snowball that starts small at the top of the mountain, but rapidly becomes bigger as it nears the bottom — bigger bagworms consume greater amounts of foliage and pose a bigger threat to evergreens with each passing day. Once bagworm populations are minimized, regrowth will eventually restore a tree’s healthy, green appearance. (BB)

Note: Insecticides commonly used for controlling bagworms include spinosad (Conserve, Fertilome Borer, Bagworm, Leafminer & Tent Caterpillar Spray, Captain Jack’s Dead Bug Brew), acephate (Acephate, Orthene), cyfluthrin (Tempo, Bayer Multi-Insect Killer) and permethrin (numerous trade names). (WU)

**Annual White Grubs**

Grub control can be approached in either a preventative or rescue mode. Preventative options include long-residual systemic insecticides or short-residual contact insecticides. For systemic products, there is a wider application window because active ingredients imadacloprid (Merit), clothianidin (Arena), thiamethoxam (Meridian) and chlorantraniliprole (Acelepryn) are taken up by the grass roots upon which grubs feed. Many people may already have applied one of these materials. But if not, there is adequate time for use.

Using contact insecticides requires that people be more precise with the timing of their application. A 10-day application window is optimal based on beetle flight peaks. The rule of thumb is that carbaryl (Sevin) and trichlorfon (Dylox, 24-Hour Grub Control) products should be applied 30 to 40 days after flight peak. This coincides with the time all eggs should have hatched and 90 percent of grubs will be small 1st and 2nd instar individuals.

To determine this 10-day window, chafer flight patterns can be monitored using a blacklight trap to capture a night’s activities. Over many years of trapping, I’ve determined that flight peaks frequently occur around July 4. There is, of course, some variation by year and among locations in Kansas.

This year flight peaked the evening of June 25, 10 days earlier than normal. This is probably representative of most of Kansas. That means the 2010 optimum treatment window is between July 25 and August 4. While absolute precision is not paramount, the 10-day difference is substantial.

Here are steps to ensure treatment effectiveness when using carbaryl and trichlorfon insecticides:
1. Calibrate drop spreaders to ensure proper granular insecticide delivery rate.
2. Use a vertislicer, power rake or core aerator to create passageways through thatch.
3. Irrigate before application.
4. Apply insecticide.
5. Irrigate after treatment according to product label. (BB)

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

Horticulture 2010 E-mail Subscription

For questions or further information contact: Hort WebMeister.

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