

Horticulture 2017 Newsletter

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Video of the Week: When to Pick Tomatoes

<http://kansashealthyyards.org/component/allvideoshare/video/when-to-pick-tomatoes?Itemid=101>

UPCOMING EVENTS

July 25 K-State Bedding Plant Field Day, Olathe

For more information,

<http://hnr.k-state.edu/events/KState%20Bedding%20Plant%20Field%20DayTuesday.pdf>

You won't want to miss our industry field day this year. Many cultivars in the trial are handling our growing conditions like champs. Over the winter we added drainage under the trial site and mounded the beds by 10-inches to eliminate problems we have had in the last few years with too much water from spring rains. Our efforts seem to be working.



Unfortunately, however, this is the last year for the Prairie Star Flowers program. We are proud of the bedding plant trial work we've done for horticultural industries in Kansas and surrounding states over the last 23 years. Certainly we are ending on a high note in 2017 with more than 500 cultivars submitted to the trial. Make sure to come and mark the ones you like!

July 29 Open House, K-State Research & Extension Center, Olathe

<http://www.johnson.k-state.edu/lawn-garden/horticulture-field-day.html>

Come see the hottest and newest plants while enjoying cool classes in air-conditioned comfort and ice cold water while wandering the field trials. Learn about the latest and greatest before it ever hits the garden centers. It's all here at the K-State Research and Extension Horticulture Center's Field Day.



It's your chance to peek behind the scenes, talk with the experts and learn about the latest varieties and methods for achieving growing success. This year we are celebrating 20 years of the research center in its current location.

Admission is \$5 per person, which includes ice cold bottled water, seminars, classes and demonstrations.

K-State Research and Extension horticulture research develops its list of recommended grasses, flowers or vegetable varieties through university research conducted in Olathe to determine what grows best in our landscapes.

August 3 Turf & Ornamentals Field Day, Wichita

The field day program is designed for all segments of the turf industry - lawn care, athletic fields, golf courses, and grounds maintenance. Included on the program are research presentations, problem diagnosis, commercial exhibitors, and equipment displays. There will be time to see current research, talk to the experts and get answers to your questions.



Pesticide recertification is available in 3A & 3B, as well as GCSAA education points.

For more information and to register, go to:

<http://www.kansasturfgrassfoundation.com/annual-ktf-field-day.html>

FRUIT

Watering Fruit Plants During the Summer



When temperatures exceed 90 degrees F, fruit plants lose water quickly. When this happens, moisture is withdrawn from the fruit to supply the tree. Stress from high temperatures, along with a moisture deficit in the root environment, may cause fruit to drop or fail to increase in size. The stress may also reduce the development of fruit buds for next year's fruit crop. If you have fruit plants such as trees, vines, canes, and such, check soil moisture at the roots. Insert a spade or shovel or a pointed metal or wood probe -- a long screwdriver works well for this. Shove these into the soil about 8 to 12 inches. If the soil is hard, dry, and difficult to penetrate, the moisture level is very low, and plants should be irrigated to prevent drooping and promote fruit enlargement. Water can be added to the soil using sprinklers, soaker hose, drip irrigation, or even a small trickle of water running from the hose for a few hours. The amount of time you irrigate should depend upon the size of plants and the volume of water you are applying. Add enough moisture so you can easily penetrate the soil in the root area of the plant with a metal rod, wooden dowel or other probe. When hot, dry weather continues, continue to check soil moisture at least once a week.

Strawberries have a shallow root system and may need to be watered more often – maybe twice a week during extreme weather. Also, newly planted fruit trees sited on sandy soils may also need water twice a week. (Ward Upham)

VEGETABLES

Blossom Blast on Beans



Beans that blossom but don't set pods are often suffering from a condition known as blossom blast. This is not a disease but is due to excessively high temperatures, not just during the day but also at night. Pollen production is greatly reduced at day temperatures over 90 degrees and night temperatures that remain over 70. The leaves and stems of beans are much more tolerant of heat than the pollen so the plants often look fine. Once temperatures dip below 70 degrees at night, the beans should begin to set.

Pole beans are more tolerant of this condition than bush beans but even they can be affected under extreme conditions.

Other causes of poor pod set include too much fertilizer and too much or too little water. (Ward Upham)

Tomatoes Slow to Ripen?



The extremely hot weather we have had recently not only interferes with flower pollination (see July 11 newsletter) but also can affect how quickly fruit matures. The best temperature for tomato growth and fruit development is 85 to 90F. When temperatures exceed 100 degrees, the plant goes into survival mode and concentrates on moving water. Fruit development slows to a crawl. When temperatures moderate, even to the low to mid 90s, the fruit will ripen more quickly.

Tomato color can also be affected by heat. When temperatures rise above 95 degrees F, red pigments don't form properly though the orange and yellow pigments do. This results in orange fruit. This doesn't affect the edibility of the tomato, but often gardeners want that deep red color back.

So, can we do anything to help our tomatoes ripen and have good color during extreme heat? Sure, there is. We can pick tomatoes in the "breaker" stage. Breaker stage tomatoes are those that have started to turn color. At this point, the tomato has cut itself off from the vine and nothing will be gained by keeping it on the plant. If tomatoes are picked at this stage and brought into an air-conditioned house, they will ripen more quickly and develop a good, red color. A temperature of 75 to 85 degrees F will work well. (Ward Upham)

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 Spring, Mountain Pride, Mountain Fresh, Floralina and Sun Leaper are smaller-vined types that have shown good resistance to cracking. (Ward Upham)

Tomato Sunscald



Extreme heat and bright sunlight can sunscald tomato fruit, leaving a light yellow to white sunken spot that resembles a blister. Eventually this area may allow black mold to invade and cause the tomato to rot.

Sunscald most often happens to fruit that is exposed to full sun after losing foliage to disease, hail or tomato hornworms. Exposed fruit may be shaded with cheesecloth to prevent injury. Fruit can also be harvested as the tomato starts to turn color so they can ripen inside. Tomatoes picked at this stage will be just as sweet as those left to ripen on the vine. Remove affected fruit to encourage more fruit set.

Sunburned fruit are rarely usable if the damage is extensive. Tomatoes with little damage can be used if sunscalded areas are cut out. (Ward Upham)

FLOWERS

Dividing Iris



Bearded irises are well adapted to Kansas and multiply quickly. After several years, the centers of the clumps tend to lose vigor, and flowering occurs toward the outside. Dividing iris every three to five years will help rejuvenate the planting and increase flowering.

Iris may be divided from late July through August, but late July through early August is ideal. Because iris clumps are fairly shallow, it is easy to dig up the entire clump. The root system of the plant consists of thick rhizomes and smaller feeder roots. Use a sharp knife to cut the rhizomes apart so each division consists of a fan of leaves and a section of rhizome. The best divisions are made from a double fan that consists of two small rhizomes attached to a larger one, which forms a Y-shaped division. Each of these small rhizomes has a fan of leaves. The rhizomes that do not split produce single fans. The double fans are preferred because they produce more flowers the first year after planting. Single fans take a year to build up strength.

Rhizomes that show signs of damage due to iris borers or soft rot may be discarded, but you may want to physically remove borers from rhizomes and replant if the damage is not severe. It is possible to treat mild cases of soft rot by scraping out the affected tissue, allowing it to dry in the sun and dipping it in a 10 percent solution of household bleach. Make the bleach solution by mixing one-part bleach with nine parts water. Rinse the treated rhizomes with water and allow them to dry before replanting.

Cut the leaves back by two-thirds before replanting. Prepare the soil by removing weeds and fertilizing. Fertilize according to soil test recommendations or by applying a complete fertilizer, such as a 10-10-10, at the rate of 1 pound per 100 square feet. Mix the fertilizer into the soil to a depth of 6 inches. Be wary of using a complete fertilizer in areas that have been fertilized heavily in the past. A growing number of soil tests show high levels of phosphorus. In such cases, use a fertilizer that has a much higher first number (nitrogen) than second (phosphorus). (Ward Upham)

Contributors: Ward Upham, Extension Associate

To view Upcoming Events: <http://hnr.k-state.edu/events/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.

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Knowledge forLife

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