Horticulture 2012 Newsletter
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Video of the Week:  Secret Design Elements

UPCOMING EVENTS

RetailWorks: Spring Training for Garden Centers
Friday, February 17, 2012
Capitol Plaza Hotel, Topeka
For more information, go to
http://www.hfrr.ksu.edu/RetailWorks2012

TURFGRASS

Lawn Calendar for Cool-Season Grasses

The following suggestions are for cool-season grasses such as Kentucky bluegrass or tall fescue. Zoysiagrass, bermudagrass, and buffalograss are warm-season grasses and require a different maintenance regime. A warm-season grass calendar will be covered in a later newsletter.

March
Spot treat broadleaf weeds if necessary. Treat on a day that is 50 degrees or warmer. Rain or irrigation within 24 hours of application will reduce effectiveness.
April  
Apply crabgrass preventer when redbud trees are in full bloom, usually in April. The preventer needs to be watered in before it will start to work. Remember that a good, thick lawn is the best weed prevention and may be all that is needed.

May  
Fertilize with a slow-release fertilizer if you water your lawn or if you receive enough rainfall that your turf normally doesn’t go drought-dormant during the summer. If there are broadleaf weeds, spot treat with a spray or use a fertilizer that includes a weed killer. Rain or irrigation within 24 hours of application will reduce effectiveness of the weed killer, but the fertilizer needs to be watered in. If you are using a product that has both fertilizer and weed killer, wait 24 hours after application before watering in.

June through Mid-July  
Apply second round of crabgrass preventer by June 15 – unless you have used Dimension (dithiopyr) or Barricade (prodiamine) for the April application. These two products normally provide season-long control with a single application. Remember to water it in. If grubs have been a problem in the past, apply a product containing "Merit" or "Mach 2” during the first half of July. This works to prevent grub damage. It must be watered in before it becomes active.

Late-July through August  
If you see grub damage, apply a grub killer that contains Dylox. Merit and Mach 2 are effective against young grubs and may not be effective on late instar grubs. The grub killer containing Dylox must be watered in within 24 hours or effectiveness drops.

September  
Fertilize around Labor Day. This is the most important fertilization of the year. Water in fertilizer.

November  
Fertilize. This fertilizer is taken up by the roots but is not used until the following spring. Water in fertilizer. Spray for broadleaf weeds even if they are small. Broadleaf weeds are much easier to control in the fall than in the spring. Spray on a day that is at least 50 degrees. Rain or irrigation within 24 hours reduces effectiveness. Use label rates for all products! (WU)

FLOWERS

Fertilizing Spring-Flowering Bulbs

The best time to fertilize spring-flowering bulbs is when foliage emerges in the spring rather than at flowering. Traditionally, gardeners have applied fertilizer during bloom or a bit after, but because bulb roots start to die at flowering, fertilizer applied at bloom is wasted. Roots are active when
the foliage first pokes through the ground. Nutrients applied then help the plant produce flowers the following year. If bulbs have been fertilized in the past, there is often plenty of phosphorus and potassium in the soil. It is best to use a soil test to be certain. If the soil needs phosphorus and potassium, use a complete fertilizer (such as 10-10-10, 9-9-6, etc.) at the rate of 2.5 lbs. per 100 square feet. This would equal 1 rounded teaspoon per square foot. If phosphorus and potassium are not needed, blood meal makes an excellent fertilizer. It should be applied at the rate of 2 lbs. per 100 square feet or 1 teaspoon per square foot. Lawn fertilizers such as a 27-3-3 or 30-3-3 can be used, but cut the rate by a third. Remember to leave the foliage until it dies naturally. The energy in the foliage is transferred to the bulb as the foliage dies and will help bloom next year. (WU)

**VEGETABLES**

**What's New in Tomatoes?**

Many new varieties of tomatoes are available. For several years we have been conducting statewide Master Gardener observational and limited yield trials on them. Several outstanding varieties have been identified. One of the interesting types has been the development of the “hybrid heirloom” class. These are vigorous, disease-resistant plants that produce a heavy yield (like a hybrid) of large, ribbed fruit with a rich flavor (like an heirloom). These are all large-vined, indeterminate plants, so be prepared to provide support at least 6 feet tall.

Some tomatoes are listed as “heat-set” types. These cultivars can continue to set fruit at slightly higher temperatures than other varieties. They are not necessarily more heat- and drought-tolerant overall than others. Last summer, the extreme heat wave of many days over 100 degrees was far beyond that at which most tomatoes continue to set fruit. The plants grew and even bloomed (if well-watered), but the blossoms shriveled and fell off, with no tomatoes forming until the temperature moderated a bit.

In the “hybrid heirloom” class, Conestoga, Country Taste, and Grandma’s Pick have all performed very well, while Mr. Ugly did not. In the hybrid indeterminate, long-vined class, old dependable Jetstar continues to be a favorite because of its crack resistance and good yield over an extended season. It is a low-acid tomato, thus must have lemon juice added to make it safe for canning unless it will be mixed in with a majority of other varieties. Beef and Jetsetter are two others of this type that have done well.

In the shorter-vined, determinate class there is an even larger selection. Crista has been our check variety for many years and does consistently well. Cultivars that have sometimes outperformed Crista are Florida 91 and Sunmaster (both heat-set types), Scarlet Red, Primo Red, Mt. Fresh, BHN 602, RFT 6153, and RoadRunner III. Security28 is one of the newer cultivars that has not done well in several years of trials.
We have not extensively trialed many of the new cherry and grape tomatoes, but two that have done very well are Juliet (bears clusters of 1 oz oval grape tomatoes), and Sunsugar, which bears amazing amounts of small (1/2 oz) yellow, very sweet cherry tomatoes. (CJB)

**Soil Temperature and Vegetables**

One of the most neglected tools for vegetable gardeners is a soil thermometer. Soil temperature is a much better measure of when to plant than air temperature or the calendar. Planting when soil is too cool can cause seeds to rot and transplants to sit there.

A number of vegetables can germinate and grow at cool temperatures. For example, peas will germinate and grow well at a soil temperature of 40 F. Though lettuce, parsnips, and spinach can sprout at a soil temperature of 35 F, they prefer at least 45 F for best germination and growth. Radishes also do well at a soil temperature of 45 F.

Warm-season crops such as tomatoes, sweet corn and beans prefer at least 55 F for germination (or transplanting), but others such as peppers, cucumbers, melons and sweet potatoes need it even warmer, about 60 F.

Taking soil temperature accurately is a bit of a science. First, use a metal soil thermometer, which is sold in many garden and hardware stores. Take temperature 2.5 inches deep at about 10 to 11 a.m. Diurnal variations affect soil temperature, with lowest readings after dawn and warmest around mid-afternoon. The late-morning reading gives a good average temperature. Also be sure to get a consistent reading for four to five days in a row before planting, and make sure a cold snap is not predicted.

An excellent guide sheet on this subject is published by the Alabama Cooperative Extension System and is titled “Soil Temperature Conditions for Vegetable Seed Germination.” It can be found at [http://www.aces.edu/pubs/docs/A/ANR-1061/ANR-1061.pdf](http://www.aces.edu/pubs/docs/A/ANR-1061/ANR-1061.pdf) (WU)

**FRUIT**

**Pruning Overgrown Apple Trees**

Apple trees that are not pruned for several years will often produce so many branches that little energy is left for fruit production. Overgrown apple trees are also difficult to harvest and spray. Gardeners who have such a tree are often at a loss as to how to get it back in shape.
Often the best recommendation for such a tree is to make one pruning cut at ground level and start over with a new tree. Trees may have sentimental value that will make revitalization worth the time and effort. Realize that this will be a multi-year process because no more than 30 percent of the tree should be removed in one year. Here are some steps to follow:

1. Remove all dead wood. This does not count toward the 30 percent.

2. Remove suckers from the base of the tree.

3. Choose approximately six of the best branches to keep as scaffold branches. Remove all others. Branches should be cut flush to the branch collar. The collar is the natural swelling that occurs where a branch connects to the trunk or to a larger branch. Removing the collar would leave a larger wound that would take additional time to heal. Do not paint wounds. Wounds heal more quickly if left open.

Candidates for removal include branches with narrow crotch angles, which are more likely to break in wind and ice storms, and those that cross branches you will save. This may be all that is possible the first year if the 30 percent threshold has been reached.

4. Thin the branches on each scaffold branch. Remove crowded branches to open up the tree to light and allow humidity to escape. Shorten each scaffold branch by cutting back to a side branch. When you are through, the tree should have enough wood removed so that a softball can be thrown through the tree.

Severe pruning often will cause an apple to tree to produce vigorous side shoots from the trunk called water sprouts. Main branches will also produce suckers that grow straight up. The suckers and water sprouts should be removed throughout the growing season so the center of the tree stays open. (WU)

**PESTS**

**Fungus Gnats**

Fungus gnats are small insects (1/8 to 1/10 inch long) that are common in high-organic-matter houseplant soils that are kept moist. Though the adults are mosquito-like in appearance, they do not bother humans or pets. It is actually the larvae or maggots that can injure plants by feeding on the roots. Symptoms include sudden wilting, loss of vigor, poor growth, or yellowing of leaves.

Use of sterile media and avoiding overwatering can help prevent infestations. Existing infestations can be controlled with *Bacillus thuringiensis v. israelensis*, which is found in Gnatrol (commercial) and Knock-Out Gnats (homeowner).
Imidacloprid is a systemic insecticide that can also be effective. Homeowner formulations include Bonide Systemic Houseplant and Bayer 3-in-1 Insect, Disease, and Mite Control Concentrate. We also have a biological control via certain nematodes. The species Steinemema feltiae is especially effective in controlling the larvae of fungus gnats. (WU)

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To view Upcoming Events: [http://tinyurl.com/fswqe](http://tinyurl.com/fswqe)

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For questions or further information contact: wupham@ksu.edu

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