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VEGETABLES

New “Kansas Garden Guide” Available

This 80-page publication replaces an older version but is much improved. Updated information and extensive use of photographs and illustrations make the Kansas Garden Guide a must-have for Kansas gardeners. Subjects covered include planning a garden, composting, soil improvement, seeding and planting, watering, pest control, container gardening, season extension and harvesting/storage of crops. Overviews of all common vegetable and herb crops are included. The publication is available as a free PDF or a hard copy may be ordered for $5.30. See http://www.ksre.ksu.edu/library/hort2/S51.aspx for access to the PDF and an order link. (WU)

Onions, Cabbage and Broccoli Can Be Planted Now

Last week we mentioned that these plants could withstand colder temperatures. Here is planting information. As with other vegetables, work fertilizer into the soil first. It is best to have a soil test done to determine what nutrients are actually needed. A nitrogen-only fertilizer is all many soils need. If you don’t do a soil test, use a vegetable fertilizer at the suggested rate.

Normally, broccoli and cabbage are started from seed indoors and transplanted outside this time of year. Acclimated plants can withstand temperatures down to the mid to lower 20s without damage. Plants coming out of a protected environment that have not been acclimated should be gradually exposed to the wind and cold so they develop the toughness necessary to thrive in early spring conditions. This may take up to a week if plants start out “soft.” When planting, use a root stimulator or transplant solution to water plants in after they are set in the ground. About 1 cup of solution per plant is sufficient.
Onions grow from sets (small bulbs) or plants. Usually, plants are more accurately labeled as to variety. Onions can be planted thickly if you plan on harvesting young plants for green onions. Those left to develop bulbs should be spaced 4 to 6 inches apart. Onions are shallow rooted, so be sure to water if the weather turns dry. (WU)

**Remove Fern and Fertilize Asparagus Now**

If you haven’t removed last year’s growth from asparagus plants, now is the time. Asparagus comes up around the first of April in Manhattan but will be earlier in southern Kansas and a bit later further north.

Also, asparagus benefits from a fertilizer application early in the spring. Fertilize according to a soil test or add 1 to 2 pounds of a 10-20-10 fertilizer per 20 feet of row before growth starts. If a soil test shows that only nitrogen is needed, apply 1 pound of a 16-0-0 product or ½ pound of a 30-4-5, 27-3-3 or similar fertilizer per 20 feet of row. Incorporate lightly with a tiller or rake in fertilizer before spears emerge. A second application at the same rate should be applied after the last harvest. (WU)

**Starting Tomatoes Early**

If you would like to have your tomato plants produce earlier in the year, there are certain things to keep in mind. Most people who try to get a jump on the season set their tomatoes out early and hope they do well. However, that is often not a good plan, as tomatoes have to have certain requirements before they will grow well. Those requirements are an acceptable soil temperature for root growth and an acceptable air temperature for both plant growth and fruit set.

**Root Growth:** Tomatoes need a soil temperature of at least 55 degrees to do well. Plastic mulch is most commonly used to warm the soil. Several days may be needed to raise the soil temperature. Check the soil temperature 2.5 inches deep in the soil at about 11 a.m. You may wish to lay a drip irrigation line before installing the plastic to make watering more convenient. See accompanying article on laying plastic mulch.

**Air Temperature:** Plants must be protected from frost. Hot caps or water teepees are placed over the young plants to provide protection as well as a higher average temperature to encourage growth. Eventually the plants will outgrow the cover and start to develop flowers. But if the temperature goes below 55 degrees at night, tomato flowers may not set. The plant is not hurt, but the blossom will not set fruit or, if it does set fruit, the fruit is often misshapen.
So how early can you transplant? I’ve gone as early as the first week in April, but I had trouble with flowers not setting when using that early date. I may try about the middle of April this year. (WU)

TURFGRASS

How Low Should You Go?

We often are asked whether it is good to mow lower in the spring. The answer is yes and no. It doesn’t hurt to mow lower than normal the first mowing or two. As a matter of fact, it can actually speed green-up by removing old, dead grass and allowing the soil to warm up faster. But the mowing height should be raised to normal after the first or second cutting to discourage crabgrass.

Crabgrass seed must have light to germinate, and a high mowing height will shade the soil. Also, root depth and mowing height are related on upright growing grasses such as tall fescue and Kentucky bluegrass — the higher the height of cut, the deeper the root system. A deeper root system means a more drought-resistant turf.

So, how low should you go on the first cutting? On tall fescue and Kentucky bluegrass, you should mow at about 1 to 1½ inches. Be careful you don't go so low that you scalp the turf. Normal mowing height for Kentucky bluegrass is 2 to 3 inches and for tall fescue is 2½ to 3½ inches. (WU).

FLOWERS

Pruning Hybrid-Tea Roses

The best time to prune roses is in the spring before new growth appears and after danger of killing frost. Be sure to remove dead stubs. Otherwise, canker fungi may invade stubs and progress into healthy tissue during the summer. Use sharp shears and make cuts at a 45-degree angle about a quarter-inch above healthy buds. How much to prune after dead wood removal depends on the type of roses.

For shrub roses, pruning consists of removing dead wood. This article focuses on hybrid tea roses. With hybrid teas, there are three pruning styles, each with a specific purpose.
Heavy or severe pruning is done on well-established, vigorous plants to produce large, showy flowers. Prune back to three to four healthy canes with three to six eyes per cane. Canes normally will be 6 to 12 inches long.

Moderate pruning is done on well-established, healthy plants and is designed to increase the number of flowers produced rather than increase flower size. Leave five to six healthy canes with at least seven buds per cane. Prune stems to 12 to 18 inches long.

Light pruning rejuvenates plants after years of neglect or may be performed on newly established plants. Leave five to seven canes of about 18 inches or more in length. This helps maximize leaf area for energy production and rejuvenates plants.

If your plants suffered a significant amount of winter damage, they may need to be cut back more severely than even the heavy-pruning style. This will result in a few large flowers but in this case is your only option. (WU)

### MISCELLANEOUS

**Building a Home for Wild Bees**

With the concern for the European honey bee caused by Colony Collapse Disorder, wild bees are becoming more important as pollinators. The following article has been reproduced from “Agricultural Research,” a publication of the USDA’s Agricultural Research Service. The article was taken from the March, 2009 issue and can be viewed at [http://www.ars.usda.gov/is/pr/2009/090320.htm](http://www.ars.usda.gov/is/pr/2009/090320.htm). The totes mentioned in the article were purchased from [www.mailproducts.com](http://www.mailproducts.com) and are listed under “Nestable Totes.” (WU)

*Need Wild Bees? Plastic Totes Make A Superb Bee "Nursery"* (By Marcia Wood - March 20, 2009)

Corrugated plastic bins like the kind sold for handling mail and packages can be quickly and easily converted into a durable "nursery" for wild bees, according to an Agricultural Research Service (ARS) research entomologist.

James H. Cane, with the agency's Pollinating Insects Biology, Management and Systematics Research Unit in Logan, Utah, says that female wild bees will readily use a properly placed, suitably furnished tote as a shelter for their nests. Turned on their long side, the totes can be held firmly in place on a wooden or metal post by means of a lightweight steel chain and a customized metal support frame.

Cane came up with the idea of using corrugated plastic totes—available from suppliers of mail and package handling equipment—as nesting shelters, and has tested them during spring and
summer in California, Oregon, Wyoming and Utah. His experiments show that the lightweight, rectangular bins, each 23-1/2 inches long by 15-1/2 inches wide by 15-1/2 inches high, serve as a sturdy, inexpensive and reusable shelter for protecting bee nests against wind and rain.

Growers, professional and hobbyist beekeepers, and backyard gardeners who want wild bees to live near and work in their fields, orchards, vineyards or home gardens can use the totes to house nesting materials, such as five-sixteenths-inch diameter paper drinking straws enclosed in cardboard tubes and stuffed inside empty cardboard milk cartons. Wild female bees such as the blue orchard bee, Osmia lignaria, can use the straws as homes for a new generation of pollinators.

Wild bees are needed now, perhaps more than ever, to help with jobs usually handled by America's premier pollinator, the European honey bee, Apis mellifera. Many of the nation's honey bee colonies have been decimated by the puzzling colony collapse disorder or weakened by varroa and tracheal mites or the microbes that cause diseases such as chalkbrood and foulbrood.

A single corrugated plastic tote can accommodate as many as 3,000 young, enough to pollinate one-half to one-acre of orchard. And, unlike bulky or stationary shelters, the tote houses can easily be moved from one site to the next.

Corporate collaborator Quiedan Company [15400 Meridian Rd., Salinas, CA 93907, web site www.quiedan.com, phone 800-408-2117], of Salinas, Calif., helped design and now sells the support frame and mounting plate unit.

Cane published the shelter research for the first time in a July 2006 article in American Bee Journal. The totes are now being used in California and for Cane's own research in Oregon.

**Laying Plastic Mulch**

Plastic mulch is sometimes used to start vegetables such as tomatoes and melons earlier than normal. Commercial growers use a machine to lay the mulch but home gardeners must do this by hand. Following are some tips on how this is done.

1. Work the soil so that the bed can be easily shaped.
2. Use a garden hoe to form a trench along all edges of the plastic. The soil should be pulled to
the outside of the bed. The trench should be formed six inches in from the edge of the plastic and
cover both sides and both ends. The trench should be deep and wide enough to bury six inches of
plastic.

3. Lay trickle irrigation tube down the center of the bed. This isn’t absolutely necessary but it
makes it much easier to water. Overhead watering will hit the plastic and roll off.

4. Lay the plastic down and cover the edges with soil. You may need to slit the edge of the plastic
where the trickle irrigation tube enters the end of the bed.

5. Plant when the soil temperature reaches the correct temperature for the crop (55 degrees for
tomatoes and 60 degrees for melons) at a 2.5-inch depth. Check the temperature at about 11 a.m.
to get a good average temperature. Check for several days in a row to ensure the temperature is
stable. (WU)

Setting Up Water Teepees

If you use water teepees to get your tomatoes off to an early start, you have probably struggled
with their tendency to fall over as you try to fill them. An old trick is to use a 5-gallon plastic
bucket to make the process easier.

The bucket works much better if it is modified by taking the handle off and drilling a hole (use a
hole saw bit) in the bottom of the bucket. Place the bucket upside down over the plant you wish
to protect and place the water teepee over the bucket. Now the bucket will support the teepee as it
is filled. Once the teepee is filled, the bucket can be removed by sticking your finger into the hole
and pulling straight up. You may also want to support the teepee after it is filled by using a metal
rod (rebar or an electric fence post) on the inside of the teepee. The metal rod is pushed into the
soil to keep the teepee from collapsing from high winds. (WU)

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