PRUNING FRUIT TREES & OTHER SMALL FRUITS

Pruning can begin in late winter in northern Missouri. This is the best time to prune fruit trees such as apples, pears, plums, peaches, apricots, and others, as well as brambles and grapevines.

Too often backyard growers plant fruit trees and small fruit plants and leave them untended for several years. This neglect results in poor growth and delayed fruiting. Fruit plants require annual pruning and fertilization to be productive.

Apple trees are trained to a modified leader system. The tree should be trained with one central leader or main trunk in the center, with several wide-angled limbs spaced around the leader. The tree should mature to a pyramidal shape. Pruning bearing trees is critical to maintain healthy fruiting wood. Remove weak, diseased or dead wood, water-sprouts and root suckers.

The main objective in pruning a neglected tree is to try and open up the interior to allow good light penetration. Remove all the upright, vigorous growing shoots at their base that are shading the interior. As with the young apple trees, it is necessary to select 3 to 5 lower scaffold branches with good crotch angles and spaced around the tree. Limbs with poor angles, and excess scaffold limbs should be removed at their base.

Pruning is one of the most important and most neglected practices in home plantings of grapes. Grapes need some form of support, and pruning (training) is necessary to develop the plant and to maintain it on the support provided. Regular, purposeful pruning is essential for controlling the number, position and vigor of fruiting canes and the yield and quality of the fruit. Since winter injury of fruiting canes will occur to some extent, late winter pruning generally is preferred. If pruning is delayed until near bud swell, the cuts commonly ooze sap abundantly. Though not desirable, "bleeding" seems to be of minor importance.

MU Extension has guides on pruning fruit trees, grapevines and small fruit plants. Call your county extension office and request the guide for the fruit plant you are needing to prune or go online at http://extension.missouri.edu/, click on Lawn and garden, then Fruits.
2017 ALL-AMERICA SELECTIONS

All-America Selections (AAS) is a non-profit trialing organization for plants that demonstrate great garden performance throughout North America. AAS presents sixteen exciting new winners for the 2017 garden season. Each of the following varieties was trialed in North America by professional, independent, volunteer judges during one growing season. Each was trialed next to comparison varieties that are considered best-in-class among those currently on the market.

The group of AAS Winners for 2017 includes:

**Vegetables**
- Fennel Antaeres F1
- Pepper Mad Hatter F1
- Tomato Chef’s Choice Yellow F1
- Tomato Patio Choice Yellow F1
- Okra Candle Fire F1
- Pea Patio Pride
- Squash Honeybaby F1
- Watermelon Mini Love F1

**Flowers**
- Dianthus Supra Pink F1
- Geranium Calliope® Medium Dark Red
- Penstemon Twizzle Purple
- Verbena EnduraScape™ Pink Bicolor
- Vinca Mega Bloom Orchid Halo F1
- Vinca Mega Bloom Pink Halo F1
- Zinnia Profusion Red
- Celosia Asian Garden

These are all annual plants that can be planted in Missouri. Gardeners should be able to find these AAS Winners for sale for the 2017 gardening season as supply becomes available throughout the chain of distribution. For further information on AAS Winners, go to http://all-americaelections.org/

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2017 PERENNIAL PLANT OF THE YEAR

With all the “buzz” about bees and butterflies, why not celebrate an excellent plant known for its ability to support insects and birds and serve as the primary caterpillar food for a beloved North American native butterfly? The Perennial Plant Association is proud to announce *Asclepias tuberosa* as its **Perennial Plant of the Year™**.

**Hardiness**-USDA Zones 4 to 9

**Light**-Butterfly weed grows best in full sun.

**Soil**-Butterfly weed grows best in well-drained soils and it is drought tolerant.

**Uses**-Butterfly weed is a perfect selection for full-sun meadow or prairie gardens as well as formal to semi-formal urban gardens. Flower arrangers and the plants make long-lasting cut flowers.

**Unique Qualities** *Asclepias tuberosa* are butterfly magnets. Flowers are a nectar source for many butterflies and leaves are a food source for the monarch butterfly caterpillars.

**Maintenance**-Butterfly weed is subject to no serious insect or disease problems. Deer usually avoid butterfly weed.

Commonly known as butterfly weed, this long-lived and striking perennial is native to the continental United States (except for the northeast) along with the Canadian provinces Ontario and Quebec. With vibrant orange/red/yellow owners that seem to jump out, butterfly weed is a great addition to a sunny garden with average to dry soils. As the common name suggests, these plants are butterfly magnets. They also have a medicinal history as treatment for pleurisy, a common ailment in early colonial times, causing wheezing, coughing and great pain due to the inflammation of the pleura round the lungs. *Asclepias tuberosa* reportedly was so effective in treating this ailment it earned another common name, pleurisy root.

Mature plants do not transplant well so proper siting is important. Young plants develop from a single central stem but with age plants will tiller (develop shoots) at the base, sending up multiple erect stems from a large taproot extending down a foot or more. Due to the taproot, division is difficult but can be done in early spring before new growth begins. Butterfly weed is hardy to zones 4-9 and reaches 2-3’ high with about a 2’ spread. Don’t cut back in late fall; rather wait until early spring. Mulching young plants prevents frost heaving. Be patient since butterfly weed is slow to emerge in the spring.

Butterfly weed is often grown from seed. Experts report 50-80% germination if fresh cleaned seed is used. If germination does not occur after 3-4 weeks provide a 2-4 week cooling period. Collected seed will result in flower color variation. To ensure color, purchase seed from a reputable source. Propagation through root cuttings can be used to ensure quality from forms showing merit. Cutting back once, early in growth cycle, will promote compact growth.

Many bees, wasps, ants, butterflies and beetles visit butterfly weed as well as hummingbirds. All members of the milkweed family serve as larval food for the Monarch butterfly (*Danaus plexippus*), Queen Butterfly (*Danaus gilippus*) and the Milkweed Tussock Moth (*Euchaetes egle*). Let them munch on butterfly weed and you will be rewarded with these “flowers of the air.”
Watch for insects on houseplants

This time of the year, aphids and spider mites may become a problem on houseplants, especially if they are grouped close together. You might also see mealy bugs and white flies. Inspect plants closely and on a regular basis to catch insect problems before they become a major issue. Treat aphids and spider mites by holding the plant and pot upside down and submerging the foliage in a sink full of soapy water. Wrap aluminum foil over the soil to keep it from falling out. In severe cases, spray the plant with insecticidal soap. Use a cotton ball with rubbing alcohol to remove mealy bugs. Then wipe plants with water to remove the alcohol that will have a drying effect.

If you have noticed tiny black flies that look like fruit flies around your indoor plants, they are probably fungus gnats. They are annoying when they flit about, but the 1/8-inch-long adult insects are harmless. Their tiny, worm-like larvae feed on organic matter in moist soil, which can include plant roots. To control them, allow the soil to dry out between waterings, use sticky traps, or drench soil with a biological control.

Valentine’s Day Flower Facts

Valentine’s Day is the number one holiday for florists, representing 36% of all fresh flower purchases, for a total of $1.9 billion spent in 2016. The average price of a dozen arranged long-stemmed roses arranged for Valentine’s Day in 2016 was $83 (compared to $65 not arranged), according to a survey by the Society of American Florists. Here in the Midwest, they are less expensive in the rural areas.

Where’s the fragrance? The hybrid roses produced for the Valentine’s Day market are bred for perfect form and longevity in the vase, often at the expense of the fragrance. Not all Valentine’s flowers come from South America. California is the leading producer of domestically produced cut flowers, accounting for about three-quarters of the wholesale value produced.

U.S. Customs and Border Protection protects consumers by screening hundreds of millions of imported fresh cut Valentine flowers for pests and diseases, mostly from Columbia and Ecuador. Commonly intercepted pests include thrips, moths and aphids. The bulk of these flowers enter the U.S. through Miami and Los Angeles during the Valentine season of January 1st through February 14th.

The top 10 cut flower imports during the Valentine season are, in order: Roses, Mixed Bouquets, Dianthus, Pom-pom Chrysanthemum, Mini Dianthus, Rose bouquets, Alstroemeria, Chrysanthemum, Hydrangea and Gerbera daisies.
**GARDENING TIPS FOR FEBRUARY**

**Ornamentals**
- Water evergreens if the soil is dry and unfrozen.
- Inspect summer bulbs in storage to be sure none are drying out. Discard any that show signs of rot.
- Winter aconite (Eranthis sp.) and snowdrops (Galanthus sp.) are hardy bulbs for shady gardens that push up through snow to bloom now.
- Take geranium cuttings now. Keep foliage dry to avoid leaf and stem diseases.
- Sow seeds of larkspur, sweet peas, Shirley poppies and snapdragons where they are to grow outdoors now. To bloom best, these plants must sprout and begin growth well before warm weather arrives.
- Seeds of slow-growing annuals like ageratum, verbena, petunias, geraniums, coleus, impatiens and salvia may be started indoors now.
- Start tuberous begonias indoors now. "Non-stop" varieties perform well in this climate.
- Dormant sprays can be applied to ornamental trees and shrubs now. Do this on a mild day while temperatures are above freezing.

**Fruit**
- Inspect fruit trees for tent caterpillar egg masses. Eggs appear as dark brown or gray collars that encircle small twigs. Destroy by pruning or scratching off with your thumbnail.
- Collect scion wood now for grafting of fruit trees later in spring. Wrap bundled scions with plastic and store them in the refrigerator.
- When pruning diseased branches, sterilize tools with a one part bleach, nine parts water solution in between cuts. Dry your tools at day's end and rub them lightly with oil to prevent rusting.
- Begin pruning fruit trees. Start with apples and pears first. Peaches and nectarines should be pruned just before they bloom.
- Grapes and bramble fruits may be pruned now.
- Established fruit trees can be fertilized once frost leaves the ground. Use about one-half pound of 12-12-12 per tree, per year of age, up to a maximum of 10 pounds fertilizer per tree. Broadcast fertilizers over the root zone staying at least one foot from the tree trunk.

**Vegetables**
- Run a germination test on seeds stored from previous years to see if they will still sprout.
- Start onion seeds indoors now. Sow seeds of broccoli, cauliflower, Brussels sprouts and cabbage indoors now for transplanting into the garden later this spring.
- Season extending devices such as cold frames, hot beds, cloches and floating row covers will allow for an early start to the growing season.
- If conditions allow, take a chance sowing peas, lettuce, spinach and radish.

**Miscellaneous**
- When sowing seeds indoors, use sterile soil mediums to prevent diseases. As soon as seeds sprout, provide ample light to encourage stocky growth.
- Repot root-bound house plants before vigorous growth occurs. Choose a container 1 or 2 inches larger in diameter than the old pot.
- To avoid injury to lawns, keep foot traffic to a minimum when soils are wet or frozen.
- Branches of pussy willow, quince, crabapple, forsythia, pear and flowering cherry may be forced indoors. Place cut stems in a vase of water and change the water every 4 days.
- Maple sugaring time is here! Freezing nights and mild days make the sap flow.

-Missouri Botanical Garden-