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Growing Flowering Crabapples



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On January 24, 1978, four USDA agencies—Agricultural Research Service (ARS), Cooperative State Research Service (CSRS), Extension Service (ES), and the National Agricultural Library (NAL)—merged to become a new organization, the Science and Education Administration (SEA), U.S. Department of Agriculture.

This publication was prepared by the Science and Education Administration's Federal Research staff, which was formerly the Agricultural Research Service.

GROWING FLOWERING CRABAPPLES

Flowering crabapples are deciduous (leaf-shedding) trees or shrubs.

Their flowers range from white to brilliant pink and purple.

Fruits, which are pea size to 2 inches in diameter, are green, yellow, or red. Fruits on some varieties drop in the fall; fruits on others cling through winter.

Some flowering crabapples are suited to one-story houses and small yards as well as to large estates, parks, and highway plantings.

Since flowering crabapples require about 50 cumulative days of under 45° F to break their dormancy, many of them do not grow well in areas where winters are mild.

Flowering crabapples grow well in most kinds of soil and often do well on very poor soil. They need good soil drainage, however, and watering during periods of drought.

You can grow flowering crabapples successfully if you—

- Buy nursery-grown trees.
- Plant them in late winter or early spring.
- Prepare planting holes carefully; be sure the planting site is well drained.
- Maintain a mulch around the trees or shrubs.
- Water them during dry periods.

VARIETIES

You can ask a reputable nurseryman in your area to recommend species or varieties; the plants he has

for sale generally are adapted to your area. You also can ask neighbors which kinds have done well for them. Or you can ask your county agricultural agent or your State agricultural college to recommend varieties suitable to your area.

Some of the more commonly grown varieties of crabapples are described in this section. Crabapple flowers are single, semidouble, or double. Single flowers have five petals. Semidouble flowers have 6 to 11 petals. Double flowers have 12 or more petals.

Aldenham

Aldenham (*Malus x purpurea* 'Aldenhamensis') is a spreading shrub or small tree that grows 10 to 15 feet tall.

Its flowers are single and semidouble, red to purplish red, and 1 to 1-1/2 inches across. They bloom annually, except in extreme southern areas.

Its leaves first are reddish or purplish bronze; they turn green.

Fruits are purple to brownish purple and 3/4 inch across.

Arnold

Arnold (*Malus x arnoldiana*) is an upright, spreading shrub or small tree that grows 10 to 15 feet tall.

Its flowers are single, pinkish white to white, and about 2 inches across. They blossom heavier in alternate years.



SINGLE

SEMIDouble

DOUBLE

Fruits are yellow with a reddish tint and up to 1/2 inch across.

Bechtel

Bechtel (*Malus ioensis* 'Plena') is an upright, spreading tree that grows 10 to 15 feet tall.

Its flowers are double, pink or pink rose, and about 2 inches across. They bloom annually, except in extreme southern areas.

Bechtel rarely produces fruits.

Carmine

Carmine (*Malus x atrosanguinea*) is an upright, spreading shrub or tree that grows 10 to 15 feet tall.

Its flowers are single, rose or rose pink, and up to 1 inch across. They bloom annually.

Its leaves are glossy dark green.

Fruits are usually yellow to red, and up to 1/2 inch across.

Dolgo

Dolgo (*Malus* 'Dolgo') is an upright, spreading, and roundheaded tree that grows 10 to 20 feet tall.

Its flowers are single, white, and

about 2 inches across. They bloom heavier in alternate years.

Fruits are red, cone shaped, and 1 to 1-1/2 inches across.

Dorothea

Dorothea (*Malus* 'Dorothea') is an upright, spreading shrub or small tree. It is 10 to 15 feet tall when fully grown.

Its flowers are semidouble or double, rose pink, and about 2 inches across. They bloom annually.

Fruits are yellow to orange yellow, and 1/2 inch across.

Eleyi

Eleyi (*Malus x pupurea* 'Eleyi') is an upright, spreading, and round-headed tree that grows 10 to 20 feet tall.

Its flowers are single, red to purplish red, and about 1-1/2 inches across. They bloom heavier in alternate years.

Fruits are red to purple and 1/2 to 1 inch across. Leaves turn from reddish or purplish bronze to green.

Japanese (Flowering)

Japanese (*Malus floribunda*) is an upright, spreading shrub or tree that grows 10 to 15 feet tall.

Its flowers are single, red to pinkish white, and 1 to 1-1/2 inches across. Blooming is good in southern areas.

Fruits are yellow, brownish or reddish, and about 1/2 inch across.

Katherine

Katherine (*Malus 'Katherine'*) is an upright, spreading shrub that grows 10 to 15 feet tall.

Its flowers are semidouble or double, pink to pinkish white, and about 2 inches across. They bloom heavier in alternate years.

Fruits are greenish yellow and up to 1/2 inch across.

Lemoinei

Lemoinei (*Malus x purpurea 'Lemoinei'*) is an upright, spreading shrub or small tree that grows 10 to 15 feet tall.

Its flowers are single and semi-double, red or purplish red, and about 1-1/2 inches across. They bloom annually, except in the lower South.

Fruits are dark red and 1/2 to 1 inch across. Reddish or purple-bronze leaves turn green.

Midget

Midget (*Malus x micromalus*) is an upright, spreading shrub or small tree that grows 10 to 15 feet tall.

Its flowers are single, pink, and 1-1/2 to 2 inches across. They bloom



Japanese (flowering) crabapple.

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heavier in alternate years and poorly in lower southern areas.

Fruits are yellow, and 1/2 to 1 inch across.

Parkman

Parkman (*M. halliana* var. *Parkmanii*) is a slow-growing shrub or small tree that grows 6 to 7 feet tall.

Its flowers are double, pink to rose pink, and about 1 inch across. They bloom annually.

Fruits are reddish brown, and less than 1/2 inch across.

Pink Weeper

Pink Weeper (*Malus* 'Oekonomierat Echtermeyer') is a weeping shrub or small tree that grows 10 to 15 feet tall.

Its flowers are single, purplish red, and about 1-1/2 inches across. They bloom annually.

Fruits are purple to purplish brown, and about 1 inch across. Leaves turn from reddish or purplish bronze to green.

Prince Georges

Prince Georges (*Malus* 'Prince Georges') is an upright, dense, and roundheaded shrub or small tree that grows 10 to 15 feet tall.

Its flowers are double, rose pink, and about 2 inches across.

Prince Georges does not bear fruit.

Redbud (Crabapple)

Redbud (*Malus zumi* 'Calocarpa') is an upright, spreading tree that grows 10 to 15 feet tall.

Its flowers are single, pinkish to white, and about 1 inch across. In

northern areas, blossoms are heavier in alternate years; blossoming is poor in southern areas.

Fruits are red and up to 1/2 inch across.

Sargent

Sargent (*Malus sargentii*) is a spreading shrub that rarely grows over 7 feet tall.

Its flowers are single, white, and about 1 inch across. They bloom heavier in alternate years.

Fruits are red or purplish red and about 1/3 inch across.

Scheidecker

Scheidecker (*Malus x scheideckeri*) is an upright shrub or small tree that grows 10 to 15 feet tall.

Its flowers are semidouble or double, pink, and 1 to 1-1/2 inches across. They bloom heavier in alternate years.

Fruits are yellow and about 1/2 inch across.

Tea

Tea (*Malus hupehensis*) is an upright, spreading, and V-shaped tree that grows 10 to 15 feet tall.

Its flowers are single, pink to white, and about 1-1/2 inches across. The bloom is heavier in alternate years.

Fruits are greenish yellow with a reddish tint, and about 3/8 inch across.

Van Eseltine

Van Eseltine (*Malus* 'Van Eseltine') is an upright, V-shaped tree that grows 10 to 15 feet tall.



BN-30399

Van Eseltine fruits.

Its flowers are double, rose pink to pale pink, and 1-1/2 to 2 inches across. They bloom heavier in alternate years.

Fruits are yellow or red, and 1/2 to 1 inch across.

PLANTING

The best time to plant flowering crabapples is in late winter or early spring before growth begins.

The planting site should be well drained and provide sufficient growing space—at least 150 square feet for the small species and 300 to 500 square feet for larger species.

Dig a planting hole at least 18 inches deep and twice the diameter of the rootball or spread of the roots.

Crabapples often are sold bareroot. When planting, damaged roots and branches should be removed and part of the longer branches cut back to establish a better balance between the crown and root system. The roots

should be spread out in a natural position in a hole of sufficient size. They should not be bent or crowded. If you buy them balled and burlapped, do not remove the burlap before setting the tree or shrub in the hole. After the plant is in place, cut the twine around the top of the rootball and fold back or cut off exposed parts of the burlap.

Plant the tree or shrub so that the roots are slightly higher than they were in the nursery. Then refill the hole with topsoil and press the soil firmly around the roots. Finally, water the plant thoroughly.

After the plant has settled, it should be about the same depth or slightly higher than it was before transplanting.

Stake and brace crabapple trees at planting time. This prevents root damage that often occurs if you drive stakes later.

CARE OF TREES

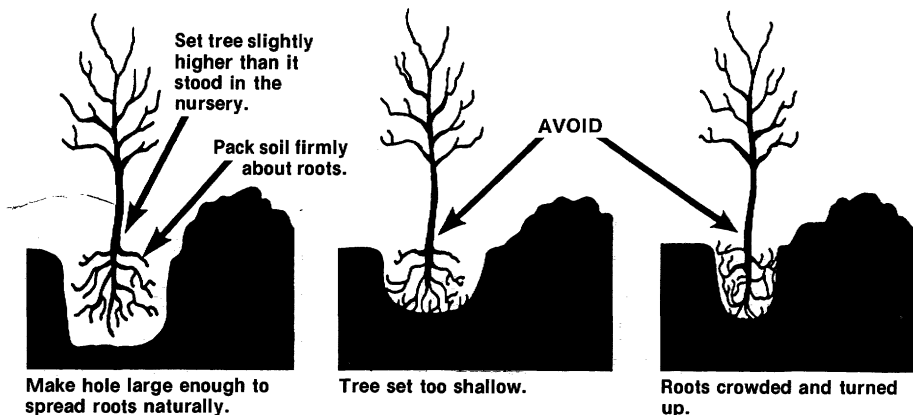
Mulching

After planting, cover the soil under the branches with a mulching material—peat moss, bark, or leaves. Apply a layer about 3 inches deep and add new mulching materials annually to maintain the mulch.

Mulching helps keep the soil moist; and as the mulching material decays, it releases some nutrients for use by the crabapple tree or shrub.

Weeding

If you maintain an adequate mulch around crabapple trees or shrubs, few weeds will grow. Those that do can be pulled easily by hand. Be careful if you use a hoe or other weeding tool around



crabapples; you may harm the shallow roots.

Watering

Crabapples are fairly drought resistant, and 12 to 15 inches of rain during the growing season usually is adequate for good growth. During droughts, however, the plants should be watered at weekly intervals. When you water, soak the root area thoroughly. Be careful that you do not drown trees or shrubs growing in poorly drained soil.

Fertilizing

If crabapples are planted in reasonably fertile soil that is well supplied with organic matter, they seldom need fertilizing.

If you want to stimulate growth of crabapples after they have recovered from transplanting or if they show signs that the soil is infertile (small, pale leaves and annual twig growth of less than 5 inches), apply the same fertilizer that you use for your lawn or garden. Apply it once between late winter and early summer.

Too much available food may

cause excessive vegetative growth at the expense of flower production. Very poor soil will produce unhealthy, disease-prone plants.

Use 2 pounds of fertilizer per inch of trunk diameter. Spread the fertilizer in a band 2 or 3 feet wide under the ends of the branches. (Do not let the fertilizer touch the trunk.) Then thoroughly soak the fertilizer into the ground.

Pruning

Heavy pruning of crabapples can ruin their natural appearance and result in an excessive number of shoots. The only pruning normally needed is to remove (1) shoots at the base of the trunk, (2) shoots at the top of the plant, and (3) branches that are dead, diseased, or broken. The best time to prune crabapples is in winter.

Coat all pruning cuts that are an inch or more across with clear shellac.

DISEASES AND INSECTS

Few diseases and insects attack flowering crabapples, but some can seriously disfigure or kill the trees. Inspect your crabapple trees fre-

quently for signs of diseases and insects described in this section. See your county agricultural agent or State agricultural experiment station for information on how to control diseases and insects.

Diseases

Powdery Mildew

Powdery mildew is a common fungus disease, particularly in humid areas. Crabapples usually survive it without much damage. The disease is characterized by a white moldy growth that disfigures the leaves and stems.

Cedar Apple Rust

Cedar apple rust is a fungus disease that originates on cedar trees and infects flowering crabapples.

The disease appears first as yellow spots on the upper surfaces of leaves. These spots enlarge, turn orange, and develop small black specks in their centers. Blisters form in the leaf tissue under the spots. Severely infected leaves become distorted and fall from the plant.

Fire Blight

Fire blight is a bacterial disease that may severely damage susceptible varieties of flowering crabapple. Some varieties are immune to fire blight.

Infected leaves turn brown or black and eventually dry up; they remain attached to the branch. The bark on infected twigs becomes dark and sunken. A milky or brownish ooze may form on the infection.

Cankers form where the disease enters a large branch or a trunk. The

bacteria overwinter in these cankers and are a source of infection the following year.

Apple Scab

Apple scab is a fungus disease that infects the leaves and twigs. The disease appears on leaves as dark-green, velvety spots. The fungus overwinters in fallen leaves and reinfects trees during rainy weather in the spring.

Insects

Aphids

Aphids, or plant lice, are usually green but may be brown or black. Their presence is frequently accompanied by large numbers of ants.

Usually, aphids attack the leaves of flowering crabapple. They suck juice from the leaves and make them crinkle or curl downward. Sometimes, aphids attack shoots that develop late in the season and water sprouts that grow from the base of the trunk or from below ground. The woolly apple aphid, which is bluish black and has a white wax covering, sometimes is found in cracks or pruning wounds.

Spider Mites

Spider mites are red or greenish-red pests that feed on the underside of leaves. They are barely visible to the naked eye but sometimes can be detected by fine webs on the undersides of leaves.

Infested leaves become yellow, gray, or brownish, and flowers become discolored or faded. Severely infested trees become stunted. Spider mites frequently attack severely during dry years.

Caterpillars

Tent caterpillars and fall webworms attack flowering crabapples.

Tent caterpillars are hairy black worms. They have a white stripe and a row of blue spots on their back and brown and yellow lines along each side. They are about 2 inches long. Tent caterpillars feed on young leaves in the spring. They live in webs in the crotches of trees at night and feed during the day.

Fall webworms are pale green or yellow and have a dark stripe down their back and a yellow stripe along each side. They are about 1 inch long. Webworms feed on leaves from May to September. They form loose, unsightly webs at the ends of branches.

Flathead Apple Tree Borer

The adult borers are metallic olive-gray or brown beetles about 1/2 inch long. They appear on tree trunks in May or June. Larvae are slender, yellow-white grubs about 1-1/4 inches long. They have a broad and flattened body enlargement behind their small brown head.

Larvae tunnel in the bark and sapwood of trees. The bark over tunneled areas becomes discolored and shriveled and finally dies.

Newly transplanted trees that are infested often die the first year after transplanting. Damage to established trees is worst during dry weather, particularly on trunks exposed to the sun after excessive pruning.

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