



United States Department of Agriculture

Soil Conservation Service

Program Aid Number 1338

'Midwest' Manchurian crabapple



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'Midwest' Manchurian crabapple is an excellent tree for windbreak, wildlife habitat, and recreational plantings. It is suitable for single-row field windbreaks where a medium-height tree is desired and width is not a factor. It is also suitable for farmstead windbreaks when planted between the central and outside rows of multiple-row plantings.

Wildlife, especially some songbirds and game bird species, waxwings, and squirrels, consume the small fruit readily. In addition, the tree provides good nesting and ground cover. It provides browse for rabbit and deer. Since the fruit dries ('raisins') on the trees, a winter supply of food is available.

Description

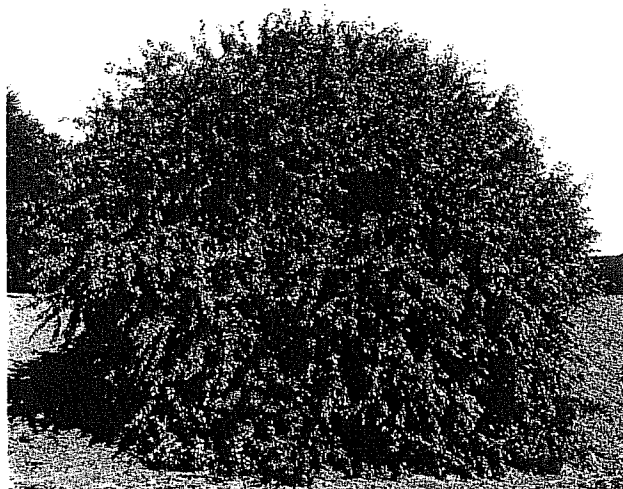
Midwest Manchurian crabapple, *Malus baccata* (L.) Borkh. var. *mandshurica* (Maxim.) Schneid, is a moderately rapid growing medium-size tree. It is densely branched and oval shaped. This tree is extremely winter hardy and disease resistant, making it well suited to the harsh climatic extremes of the upper Midwest and Great Plains.

Midwest may reach a height of 20 feet in 16 years. The dense and rounded growth form is very desirable. When

planted in single-row windbreaks and given sufficient growing room, it maintains its branches close to the ground. It is one of the earliest species to leaf out in the spring and is fully leafed before blooming. The blossoms are snowy white. Fruit size ranges from 1/4 to 1/2 inch in diameter. Young trees will grow rapidly at first, as much as 2 feet a year, but the growth rate slows in 7 or 8 years. The leaves are alternate, simple, ovate to oval, finely serrated to irregularly toothed or lobed, and usually dark or olive green above and paler green below. The bark is ridged to scaly and dark gray or reddish gray.

Midwest has proved to be insect and disease resistant. Occasionally, fire blight will affect a few leaves, but the infection has never been severe. This tree cannot tolerate chemical sprays, and heavy drift may cause stunting or deformed trees.

The Bismarck Plant Materials Center released Midwest in April 1973 after evaluating it in field plantings beginning in 1954 when the Center received seed from the Canada Department of Agriculture in Morden, Manitoba. The tree performed well in these tests under accession number PM-ND-282. The seed was originally collected from Echo, Manchuria by A. F. Woeikoff in the early 1920's.



'Midwest' crabapple provides good nesting, ground cover, and food for wildlife.



'Midwest' crabapple can be used in farmstead windbreaks.

Establishment

Midwest is easy to grow from seed and produces vigorous seedlings. Field plantings are also easy to establish. Spacing should be from 6 to 10 feet for windbreaks. Planting should be done in the spring when moisture conditions are best. Weeds should be controlled the first few years of establishment, preferably by cultivation. Irrigation may be needed to ensure early survival on drier sites. If animal populations are high, the trees should be protected or the deer and rabbits should be controlled until the trees are large enough to withstand the browse.

Propagation

The propagation of Midwest is from open-pollinated seed because large quantities are needed for farm and ranch plantings. Commercial production will be the same in most cases. The seed is picked and cleaned in the fall and stored until 30 days before planting. It is then mixed with damp, fine sand and kept at temperatures of 34 to 36 °F. A close watch must be maintained the last few days to determine



when it breaks dormancy. Seed is then planted about 1/2 inch deep in beds or rows and mulched lightly, and the surface is kept moist until seed emerges. The planting stock used should be two-year-old seedlings that are not in containers. The plants should be 12- to 24-inches high before they are transplanted.

Availability

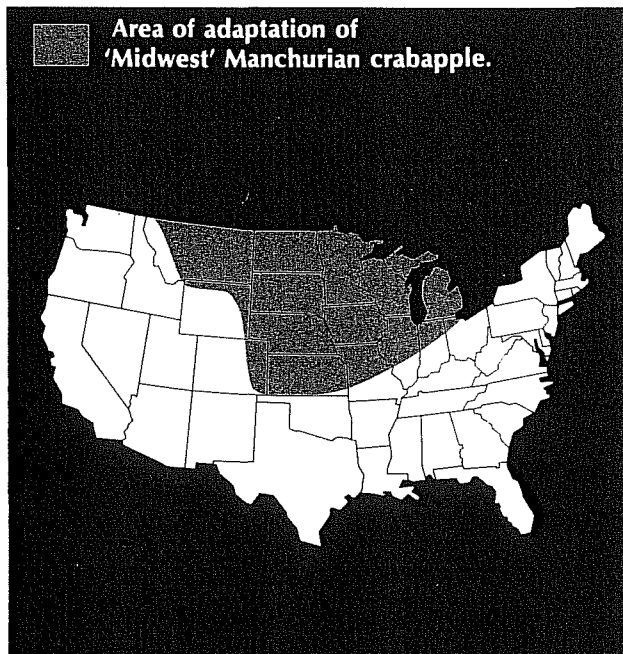
Seed is available from the United States Department of Agriculture, Soil Conservation Service (SCS), Plant Materials Center, P.O. Box 1458, Bismarck, North Dakota, 58502. Breeder seed and foundation stock of Midwest Manchurian crabapple are maintained there. Certified seed (selected class) is available from growers approved by the State Certified Seed Departments. Standards for all classes of seed are published in the North Dakota Tree and Shrub Certification Standards.

For more information on where you can buy Midwest Manchurian crabapple and how to use and plant it, contact your local SCS office listed in your telephone directory

under United States Government, Department of Agriculture, Soil Conservation Service.

Adaptation

Midwest has a wide range of adaptability from Wisconsin to Montana and south to Kansas and Indiana (see the adaptation map); it has not been adequately tested beyond this area. Survival is good on well-drained soils. The tree is drought tolerant, but better adapted to deep, well-drained, loam soils that have good to excellent weed control. It is very winter hardy, often surviving -40 °F temperatures with no dieback.



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