



United States Department of Agriculture
Natural Resources Conservation Service
Plant Materials Program

'Midwest'

Manchurian Crabapple

Malus mandshurica

A Conservation Plant Release by USDA NRCS Plant Materials Center, Bismarck, North Dakota



'Midwest' Manchurian crabapple (*Malus mandshurica* [Maxim.] Kom) is a cultivar released in 1973 by the Natural Resources Conservation Service (NRCS).

Description

Midwest Manchurian crabapple 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 ¼ to ½ inch in diameter. Young trees will grow rapidly at first, as much as 2 feet/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.

Source

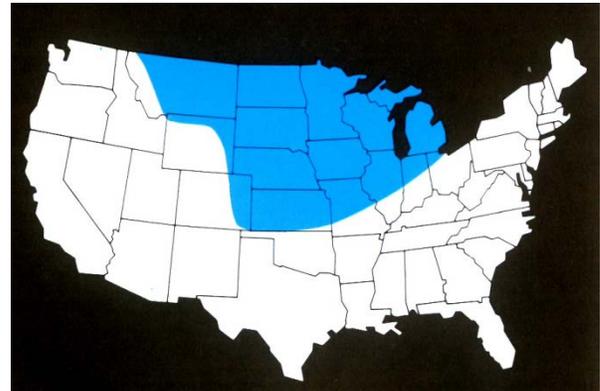
The Bismarck Plant Materials Center released Midwest in April 1973 after evaluating it in field plantings beginning in 1954 when the Center received seed from the Canada Department of Agriculture in Morden, Manitoba. The tree performed well in these tests under accession number PM-ND-282. The seed was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

Conservation Uses

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. Wildlife, especially some songbirds and game bird species, waxwings, and squirrels, consume the small fruit readily. The fruit is especially small and often less than one-half the size of Siberian crabapple. 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.

Area of Adaptation and Use

Midwest has a wide range of adaptability from Wisconsin to Montana and south to Kansas and Indiana (see the adaptation map); but 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.



Establishment and Management for Conservation Plantings

Midwest is easy to grow from seed and produces vigorous seedlings. Field plantings are also easy to establish. Plant spacing should be from 8 to 14 feet for windbreaks. Plant in the spring when moisture conditions are best. Control weeds the first few years of establishment and preferably for the life of the planting. 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 controlled until the trees are large enough to withstand the browse.



Seed and Plant Production

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 ½ inch deep in beds or rows and mulched lightly, and the surface is kept moist until seed emerges. The planting stock should be two-year-old seedlings that are not in containers and are 12 to 24 inches high before they are transplanted.



For more information, contact:
USDA-NRCS Plant Materials Center
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Bismarck, ND 58504
Phone: (701) 250-4330
Fax: (701) 250-4334
<http://Plant-Materials.nrcs.usda.gov>

Availability

For conservation use: Midwest Manchurian crabapple seedlings are available from conservation nurseries in the Upper Midwest. For more information on availability and use of Midwest Manchurian crabapple, contact your local NRCS field office or Bismarck Plant Materials Center.

For seed or plant increase: For the purpose of establishing a seed orchard, limited quantities of seed may be available from the NRCS Plant Materials Center.

Citation

Release brochure for Midwest Manchurian crabapple (*Malus mandshurica*). USDA Natural Resources Conservation Service, Plant Materials Center. Bismarck, North Dakota 58504. Published May 1984, revised June 2013.

For additional information about this and other plants, please contact your local USDA Service Center, NRCS field office, or Conservation District <<http://www.nrcs.usda.gov/>>, and visit the PLANTS Web site <<http://plants.usda.gov>> or the Plant Materials Program Web site <<http://www.plant-materials.nrcs.usda.gov>>

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