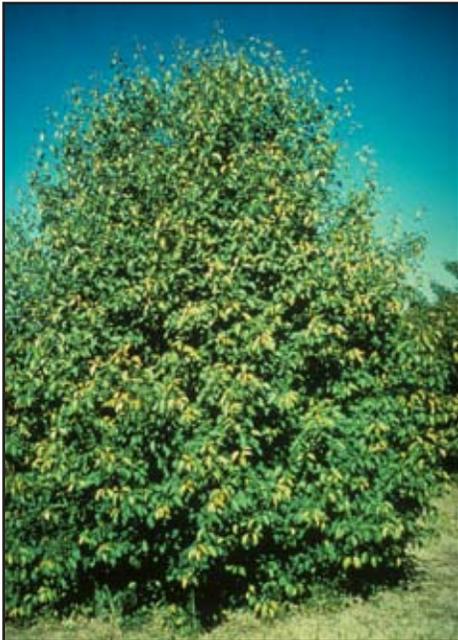


'McDermant' Ussurian pear

USDA Natural Resources Conservation Service, Plant Materials Center, Bismarck, North Dakota



'McDermant' Ussurian pear
Pyrus ussuriensis

McDermant Ussurian pear, *Pyrus ussuriensis* Maxim, is a seed-propagated cultivar recommended for use in multi-row farmstead and single row field windbreaks, wildlife habitat, and recreational, urban, industrial development and transportation corridor plantings. The vigorous, dense growth makes it useful for windbreaks and screen plantings. The attractive flowers and yellow-orange autumn color enhance its aesthetic value.

McDermant was released in 1990 by the USDA Natural Resources Conservation Service (formerly the Soil Conservation Service) in cooperation with the State Agricultural Experiment Stations of North Dakota, South Dakota, and Minnesota.

Description

Ussurian pear, also known as Harbin pear or Manchurian pear, is a hardy, medium-sized tree, 24 to 40 feet tall, native to northeast Asia. Twigs are yellowish-brown. Short, stubby branches, that are thorn-like, may form before developing into another branch. They are called spurs. The leaves are simple



and ovate, semi-glossy and dark green. Fall color is orange to yellow. The flowers are white with five petals. The fruit is about 1 1/2 inches in diameter, and very firm until a frost. Deer may eat them.

Accession ND-14, PI-478004, was collected by John McDermant, Soil Conservation Service, Bismarck, North Dakota, on the Agriculture Canada Research Station, Morden, Manitoba, Canada, in 1954. The Research Station received the seed from Dr. N.E. Hansen, Horticulture Department, Agricultural Experiment Station, Brookings, South Dakota, in the 1930s. The original seed collection was made by Dr. Hansen near Harbin, Manchuria, in 1924.

Establishment

Eliminate all competing perennial vegetation by cultivating the planting site and keeping it fallow for at least one year before planting. Plant the seedlings in the spring as soon as the ground thaws and soil moisture is high. The recommended within-the-row spacing is 6 to 10 feet.

Plant two-year-old seedlings that are 12 to 24 inches in height and have a stem diameter of 3/16 to 1/2 inch just above the root collar. Plant the bareroot seedling to the root collar, being sure the roots are well dispersed within the hole. Control weeds by mechanical cultivation or recommended herbicides for a minimum of 5 years.



Propagation

The propagation of McDermant is from open pollinated seed. The fruit ripens in September, after which it can be harvested and processed. Fifty pounds of fruit will yield about one pound of seed. Seed may be planted in the fall or stratified seed may be planted in the spring. If spring planted, seed should be stratified for 90 days in damp sand or peat moss at 35 to 40 degrees F. Stratified seed should be planted as early as possible in the spring. Seed should be planted at a rate of 20 to 25 seeds per linear foot, and covered with 1/2 to 1 inch of soil. Two-year-old seedlings can be field planted.

Adaptation

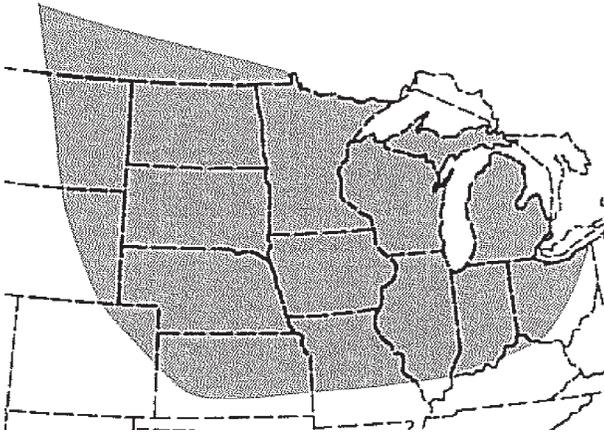
McDermant Ussurian pear is well-adapted to most soil types except heavy, poorly drained, and high lime soils. It has

performed very well on sandy soils with good to excellent weed control and 25 inches of precipitation. The area of adaptation appears to be from the northern limit of hardiness zone 3A southward to hardiness zone 6B. The most limiting factors to survival and growth rates are weed control, animal damage, and soil moisture.

Observations at some North Dakota test locations have shown damage from the bacterial disease, fireblight *Erwinia amylovora* (Wescott 1950). Susceptibility to the disease appears to be related to stress caused by drought followed by severe winter conditions. The disease can be fatal to seedlings and saplings up to 4 years of age. Older trees exhibit slight symptoms of the disease, but are able to overcome it with little adverse effect.

The results of these studies and others in adjacent states indicate that McDermand Ussurian pear is adapted to North Dakota, South Dakota, Minnesota, Nebraska, Kansas, Missouri, Iowa, Illinois, Michigan, Wisconsin, Indiana, and Ohio. Its performance outside of this area has not been adequately tested.

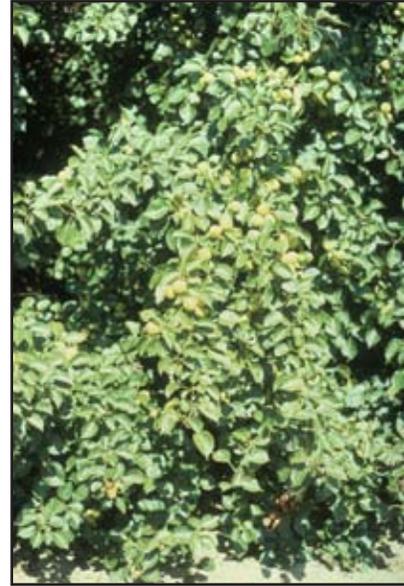
Projected Area of Adaptation



Availability

The USDA NRCS Plant Materials Center, 3308 University Drive, Bismarck, North Dakota 58504, maintains breeder seed of McDermand Ussurian pear.

For more information on availability and use of McDermand Ussurian pear, contact your local NRCS office.



For more information, contact:
USDA-NRCS Plant Materials Center
3308 University Drive
Bismarck, ND 58504
Phone: (701) 250-4330
Fax: (701) 250-4334
or
Plant Materials Specialist
USDA-NRCS
P.O. Box 1458
Bismarck, ND 58502
Phone: (701) 530-2075

<http://Plant-Materials.nrcs.usda.gov>

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