Common Hackberry
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(*Celtis occidentalis*)

**General Description**
A medium-sized tree native to North Dakota. A good replacement tree for the American Elm because of its similar form and adaptability. Gray, unique stucco-like bark. The largest tree in North Dakota is 70 feet tall with a canopy spread of 62 feet.

**Leaves and Buds**

Bud Arrangement - Alternate, with no terminal bud. Buds are flattened and pressed against the twig, rather inconspicuous.

Bud Color - Chestnut-brown and downy.

Bud Size - Lateral buds are 1/4 inch long, ovate, and sharp-pointed.

Leaf Type and Shape - Simple, acuminate-tipped, ovate-oblong.

Leaf Margins - Serrate except at the oblique base.

Leaf Surface - Smooth to sometimes scabrous above, glabrous or slightly hairy on veins beneath.

Leaf Length - 2 to 5 inches.

Leaf Width - 1 to 2½ inches.

Leaf Color - Bright-green above, paler below; yellow fall color.

**Flowers and Fruits**

Flower Type - Polygamo-monoecious, with male flowers in clusters, perfect and pistillate flowers, solitary.

Flower Color - Pale-green flowers.

Fruit Type - A rounded, 1/4 inch pitted fruit called a drupe.

Fruit Color - Dark-purple.

**Form**

Growth Habit - Narrow when young, broadening at the top and arching out when mature.

Texture - Medium, summer; medium, winter.

Crown Height - 40 to 60 feet.

Crown Width - 25 to 45 feet.

Bark Color - Grayish with distinct narrow, corky ridges that appear as eroded wart-like projections.

Root System - Spreading, shallow to deep, depending on soils. Occasionally will have a strong taproot.

**Environmental Requirements**

**Soils**

Soil Texture - Performs well on a variety of soils.

Soil pH - 6.0 to 8.0. Somewhat tolerant to alkaline soils.

Windbreak Suitability Group - 1, 1K, 3, 4, 4C, 5.

**Cold Hardiness**

USDA Zone 2.

**Water**

Moderately drought tolerant but does best on moist, well-drained sites. May compensate for droughty conditions by dropping a portion of the leaves when under stress.

**Light**

Full sun to partial shade.

**Uses**

**Conservation/Windbreaks**

Medium to tall tree for farmstead and field windbreaks, riparian plantings and highway beautification.

**Wildlife**

Fruit is eaten by many birds and mammals. Excellent tree for wildlife.

**Agroforestry Products**

Wood - Boxes, crates, and firewood.

Food - Native Americans used fruits to flavor meat in same manner as black pepper.

**Urban/Recreational**

Performs well in relatively dry and windy areas. Excellent for ornamental landscaping, parks, and boulevards.

**Cultivated Varieties**

Oahe Hackberry (*Celtis occidentalis* ‘Oahe’) - Released by USDA-ARS, Great Plains Research Station, Mandan, North Dakota, and USDA-NRCS Plant Materials Center, Bismarck, North Dakota. A cultivar seed strain.

**Related Species**

Sugar Hackberry (*Celtis laevigata*) - Deficient in hardiness and adaptation in North Dakota.

**Pests**

Commonly damaged by browsing rodents, rabbits, and deer. Nipple gall and witches’-broom tend to reduce its foliage/twig aesthetic quality.