

## COMMON HACKBERRY

*Celtis occidentalis* L.  
Plant Symbol = CEOC

Contributed by: USDA NRCS Plant Materials  
Program



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### Uses

**Wildlife:** Birds use the mature trees for nesting sites and feed on the fruit. Young stands also provide shelter for game birds, rabbits, and deer.

**Erosion control:** Hackberry has been used as an ornamental tree and in multi-row windbreaks.

**Livestock:** Grazing understory species can be helpful in reducing weed competition, however if young seedlings are grazed tree defects could occur resulting in low quality timber.

**Timber:** Hackberry has limited value in the manufacture of paneling and furniture.

### Status

Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status (e.g. threatened or endangered species, state noxious status, and wetland indicator values).

### Description

*Celtis occidentalis* L., common hackberry, varies in size from a shrub to a tree in excess of 100 feet tall. It is widespread in the United States east of the Rocky Mountains. Hackberry grows best on moist alluvial soils, and occurs only as scattered trees mixed with other hardwoods. The leaves are 2 ½ to 4 inches long, and 1 ½ inches wide, oval to lance-shaped, and resemble those of the elm but are more sharply pointed. The bark is grayish brown, with characteristic corky warts or ridges becoming somewhat scaly. The fruit is ¼ inch to 1/3 inch in diameter, oval to somewhat round, dark red or purple, ripening in September and October, but remaining on the tree for several months.

### Adaptation and Distribution

Hackberry is commonly found on rich, moist sites along stream banks or on flood plains, but will perform well under more adverse conditions. It tolerates alkaline or acid soil conditions, full sun, and wind. It grows in winter hardiness zones 2 through 8. New growth is subject to spring frost injury. Common hackberry requires at least 14 inches annual precipitation.

Hackberry is distributed throughout the eastern and midwestern United States. For a current distribution map, please consult the Plant Profile page for this species on the PLANTS Website.

### Establishment

Bareroot seedlings of hackberry grown under standard nursery practices exhibit a degree of dormancy. Planting material should be spring lifted followed by sweat treatments for one week at 60 °F, just prior to planting. The sweating procedure involves placing the seedlings in moist sand or peat moss and covering with plastic. Conservation grade stock can be either 1 or 2 years old and 12 to 24 inches tall, with a caliper of 3/16 to 1/2 inch.

### Management

Grazing should be controlled during establishment. Without protective netting, deer and rabbits will

severely damage the young seedlings. Weed competition should be controlled by grazing or by using approved herbicides.

Mature seeds can be hand-picked in September and October. Hackberry seeds exhibit dormancy which can be overcome with stratification in moist sand at 41 °F for 90 days or by fall planting. Fermenting the fruit for 3 days and de-pulping before stratification improves germination.

### **Pests and Potential Problems**

The most common diseases found on hackberry are nipple gall and witches broom gall. These diseases are not fatal, but do affect the appearance and vigor of the plant.

### **Cultivars, Improved, and Selected Materials (and area of origin)**

Seedlings are available at most hardwood nurseries. 'Oahe' (South Dakota) is recommended for use as farmstead, field and wildlife windbreaks in the Northern Great Plains. 'Prairie Pride' was selected in Illinois and is not known to develop witches broom gall.

### **Prepared By & Species Coordinator:**

USDA NRCS Plant Materials Program

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

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