



Arizona Walnut

Juglans major (Torr.) A. Heller

Juglandaceae

Species description

Arizona walnut is a small to medium monoecious, deciduous tree with stout branches and a rounded crown. The bark is dark grey and coarsely ridged. Leaves are alternate, and pinnately compound, and consist of 9-13 lance-shaped leaflets that are serrated on the margins. Arizona walnut flowers are inconspicuous green female and yellow-brown male catkins that appear separately, but on the same tree. Fruit is 1-1.5 inches in diameter with a husk and black, thick, hard shell surrounding the seed or nut. Husks turn from light green to dark brown at maturity.



Natural and cultural history

The species is native to Arizona, New Mexico, Oklahoma and Texas and northern Mexico. In natural habitats, Arizona walnut may be found in riparian areas and low valley flood plains and canyons, alongside streams, washes and riverbanks. They grow at the upper margin of the Sonoran desert-scrub, and in oak and pine woodlands. Native Americans harvested the edible nuts of Arizona walnut.

Planting considerations and propagation techniques



Arizona walnut trees can grow to 30-50 feet in height with a canopy diameter of 30 feet at maturity. They can live up to 400 years. They are hardy to about 0°F. As an overstory tree, Arizona walnut thrives in full sun and alluvial floodplain soils. In natural habitats, Arizona walnuts grow on rocky, coarse and sandy loam soils. They grow at elevations of 2,600-6,500 feet, and can grow as high as 8,200 feet.

The trees are wind pollinated, and male and female flowers occur at different times. Walnuts are self-fertile but the separation in flowering timing promotes out-crossing. Germination of seed increases with seed size. Buried seeds have higher rates than seeds on surface, but seeds need some light to fall on the soil.

Water needs

Arizona walnuts tolerate some drought, but as a riparian species, they do best with regular, deep irrigation during the growing season.

Care

Arizona walnut is highly susceptible to walnut anthracnose, which defoliates trees. This fungus transmits easily to commercial walnut cultivars. Arizona walnut seedlings are susceptible to root and crown rots. As a native tree, Arizona walnuts require minimal pruning, but dead branches should be pruned over time.

Harvesting and processing

The walnuts fall in mid-summer to early fall; the husks dry and crumble off, leaving the round, dark black walnuts exposed. These must be cracked with a hammer, as the shells are very thick. Inside, the very small edible nut meats can be picked out with a sharp awl. The nuts have a distinct, rich flavor. They are wonderful added to baked goods and ice cream.

References and resources

Ladybird Johnson Wildflower Center. Native Plant Database (NPIN). 2015. *Juglans major*.
http://www.wildflower.org/plants/result.php?id_plant=JUMA

Pavek, Diane S. 1993. *Juglans major*. In: Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory (Producer). Available:
<http://www.fs.fed.us/database/feis/>

PFAF (Plants for a Future). n.d. *Juglans major* - (Torr.)Heller.
<http://www.pfaf.org/user/Plant.aspx?LatinName=Juglans+major>

Southeastern Arizona Wildflowers and Plants. n.d. *Juglans major* – Arizona Walnut.
<http://www.fireflyforest.com/flowers/3641/juglans-major-arizona-walnut/>