

Silver Maple



Silver Maple (*Acer saccharinum*)

General Description

A medium to large tree with spreading branches forming a variably rounded to informally spreading crown. A fast-growing tree subject to iron and manganese chlorosis on high pH soils which may cause dieback or eventual death. Often called soft maple because the wood is the softest of the maples used for lumber. The largest tree in North Dakota is 66 feet tall with a canopy spread of 72 feet.

Leaves and Buds

Bud Arrangement - Opposite.

Bud Color - Red to reddish-brown; male flattened, ovoid; female clustered.

Bud Size - 1/8 inch long.

Leaf Type and Shape - Simple, five-lobed with deep sinuses.

Leaf Margins - Ends of lobes sometimes deeply and doubly-acuminate lobed.

Leaf Surface - Smooth, glabrescent below.

Leaf Length - 3 to 6 inches.

Leaf Width - 2½ to 5 inches.

Leaf Color - Medium-green above, silver-white beneath; yellow fall color.

Flowers and Fruits

Flower Type - Borne in dense clusters.

Flower Color - Greenish-yellow to deep orangish.

Fruit Type - Double-winged samara (schizocarp).

Fruit Color - Brownish-tan.

Form

Growth Habit - Upright with strong spreading branches, with semi-pendulous branches which turn up at the ends.

Texture - Medium-coarse, summer; medium-coarse, winter.

Crown Height - 40 to 65 feet.

Crown Width - 30 to 50 feet.

Bark Color - Gray to gray-brown.

Root System - Shallow, vigorous, grass-feeding root system can cause sidewalks to heave and buckle.

Environmental Requirements

Soils

Soil Texture - Performs poorly on tight clay soils.

Soil pH - 4.5 to 7.0. Not adapted to saline/alkaline soils.

Windbreak Suitability Group - 1, 3.

Cold Hardiness

USDA Zone 3.

Water

Susceptibility to drought, winter stem dieback, sunscald injury and chlorosis affected by genetic variability and original seed source.

Light

Full sun.

Uses

Conservation/Windbreaks

Tall tree for farmstead windbreaks and riparian plantings in eastern third of North Dakota.

Wildlife

Browsed by deer and rabbits, seeds eaten by squirrels, fair cover for songbirds.

Agroforestry Products

Wood - Rough lumber, furniture and firewood. Pulpwood production. Twigs boiled to make a black dye by Native Americans.

Food - Sap may be used for maple syrup.

Medicinal - Extracts of some *Acer* species are used in cancer research.

Urban/Recreational

Useful in parks and large landscape areas with moist soils.

Not recommended for streets because of high maintenance from limb breakage.

Cultivated Varieties

Beebe, Skinner and Wier's Cutleaf Maples (*Acer saccharinum* 'Beebe', 'Skinner' and 'Wieri') - Three cultivars with cutleaf foliage, slightly thinner stems and semi-pendulous branches. Blair Maple (*A. saccharinum* 'Blair') - Reported to be stronger branched.

Northline Maple (*A. saccharinum* 'Northline') - Hardier selection introduced at the Morden Research Station, Manitoba.

Silver Cloud Maple (*A. saccharinum* 'Silver Cloud'). New hardy introduction from Manitoba; more compact and upright than 'Northline.'

Silver Queen Maple (*A. saccharinum* 'Silver Queen') - More upright in habit than the species and reported to be essentially seedless.

Related Species

Black Maple (*A. saccharum* var. *nigrum*) - Hardy, including cultivar 'Green Column'.

Boxelder (*Acer negundo*)

Norway Maple (*A. platanoides*) and cultivars - Borderline to non-hardy.

Sugar Maple (*A. saccharum*) - Hardy, but prefers neutral to acid soil pH's and adequate moisture.

Pests

Very subject to iron and manganese chlorosis in alkaline soils. Sensitive to phenoxy herbicides. Extracts of some *Acer* species exhibit toxic effects on insect pests.