

White Spruce



Tree Type

This tree is an evergreen and will keep its foliage year-around.

Planting

Do not fertilize in the fall as the new growth will not harden off for winter. Refer to back for best planting practices for your bareroot.

Watering

Once established, the tree will have some drought tolerance. Refer to watering guidelines on back for specific watering directions.

Pruning

Little pruning is needed except for the removal of dead or diseased branches which can be cut down to the trunk in the fall.

Preferences

White spruce prefers full sun, meaning it should get at least 6 hours of direct, unfiltered sun each day. The tree grows in acidic loamy, moist, sandy, well-drained and clay soils. Can not handle growing in an urban area.

Attributes

This tree will grow to a height of 40 to 60 ft with a spread of 10 to 20 ft at maturity. White Spruce grows at a moderate rate with height increases between 13 to 24 inches per year. This spruce can withstand wind, heat, cold, drought, crowding and some shade. They work well as rural windbreaks and grows in a pyramidal shape, becoming more columnar with age. Frost heaving and spring frost damage usually affects smaller trees but when the tree reaches 12 to 20 ft in height, the damage becomes negligible.

Wildlife Value

Besides providing nesting sites and shelter, White Spruces provide food for many kinds of wildlife. Crossbills, evening grosbeaks and red-breasted nuthatches prefer the seeds. The foliage is eaten by grouse, rabbits and deer. Red squirrels cut open cones to eat the seeds, and feast upon young, tender spruce shoots.

When newly planted trees go without enough water, growth slows to a crawl. This delays establishment and may even lead to the death of leaves, branches, roots or the whole tree.

For the most part, trees can only take up water from soil that is in direct contact with roots. Even in the best conditions, newly transplanted trees use water from a relatively small volume of soil. To make matters worse, roots of bare root, balled & burlaped, and spaded trees are cut during transplanting.

Within two to three days after spring or summer planting, the soil around the roots of trees dries enough to impede root growth. Newly transplanted trees in the Midwest benefit from daily watering for the first one to two weeks. Apply 1 to 1½ gallons of water for each inch of trunk diameter. After that, water trees every two to three days for the next two to three months and then weekly until established. The more closely you match your watering frequency to the optimum, the quicker trees become established.

Reduce watering in cool, cloudy, or wet weather if the soil is poorly drained (soil drains less than 3/4 inches per hour). Eliminate daily irrigation in poorly drained soil.

After it rains, stop watering until the rainwater drains from the soil. Stop watering in the autumn once leaves fall from trees.

Mulch reduces evaporation and conserves water. An investment in frequent watering helps insure against tree death and the cost of replanting trees.

BEFORE PLANTING

Select the correct tree for your site.
Find help at mndnr.gov/treecare.

Before digging, contact Gopher State One Call at 800-252-1155 or gopherstateonecall.org to check for underground lines.

AFTER PLANTING

Mulching

Applying mulch, such as wood chips, around a tree has many benefits, including:

- Improving growing conditions
- Retaining moisture
- Controlling weeds and grasses
- Adding nutrients
- Insulating soil
- Protecting trunk and roots


Mulch that is applied too deeply and against the tree is harmful. This "mulch volcano" can rot the tree's trunk, lead to insect and disease problems, and deprive roots of oxygen. Use the "3-3-3 Rule" for applying mulch: 3 feet in diameter, 3 inches deep, and 3 inches away from the trunk.

Watering

Watering a tree is critical to its survival during the first three years. During any week in which less than 1 inch of rain falls, provide 15-25 gallons of water, until the ground freezes. After the first few years, continue to water trees during dry times. Tree water bags may make watering easier.

Protecting


A plastic or metal mesh tree guard can be installed around the tree's trunk to protect it from animal, mower, and trimmer injury. The tree guard must be removed or replaced as the tree grows.




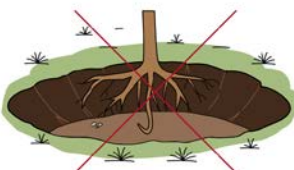
HOW TO PLANT A BAREROOT TREE

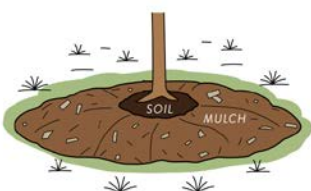
- 1 Keep roots moist at all times. Dry roots die.
- 2 Dig a hole twice as wide as and slightly deeper than root length.
- 3 Place roots in hole so top of first woody root is within 1 inch of soil surface.
- 4 Distribute roots evenly, making sure roots are straight and not doubled over or "J" rooted.
- 5 Keeping tree straight, backfill hole up to top of first woody root.
- 6 Heel in soil with foot over entire backfill area to remove air pockets from the soil.
- 7 Water entire backfill area.
- 8 Layer 3 inches of mulch over backfill area, keeping mulch away from trunk.

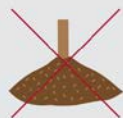
FIRST WOODY ROOT











DON'T CREATE A MULCH VOLCANO. IT CAN ROT YOUR TREE.