

How to Grow Spruce From Seed

Alaska Department of Natural Resources / Division of Forestry / Community Forestry Program
550 W. 7th Avenue, Suite 1450 / Anchorage, AK 99501-3566 / 269-8465/8466 / www.dnr.state.ak.us/forestry

The easiest way to acquire spruce trees is to find small spruce, one inch to three feet tall, and transplant them. Use seedlings on your property or ask for permission to take them from another landowner. However, if you would like to grow spruce from seeds, follow the steps below. Collect seed from the site where you are going to plant or from an area with the same growing conditions and of similar elevation. Information on planting and caring for seedlings and trees is available from the Division of Forestry.

1. During the first or second week of September, gather new cones and place them in a paper bag. Let them dry in the bag for one to two months -- until the cones open and the seeds fall out of the cone when the bag is shaken.
2. Store the dry seed in a sealed plastic bag in a freezer.
3. About April 1, soak seeds in water until they are saturated — about 24 hours.
4. Place seeds in a wet paper towel inside a sealed plastic bag and put in the refrigerator — not the freezer — for about six weeks.
5. Remove seeds from the bag and put them in a shallow dish with water just covering the bottom. Seeds should be moist but not covered by water. Seal the dish with plastic wrap to maintain moisture.
6. Watch for seed to germinate. Germination will begin in about five days and continue for up to 20 days.
7. Use tweezers to place the germinated seeds in two-gallon pots of soil. Cover with $\frac{1}{4}$ inch of coarse sand or finely crushed rock. Do not cover seed with soil.
8. Place potted seedlings near a window and water twice daily.
9. When seedlings are about one inch tall, begin to fertilize twice a week using a balanced fertilizer. For a 20-20-20 fertilizer, use one teaspoon of fertilizer per gallon of water or follow directions on the container. Apply to saturate the soil. Wash the foliage with clean water after fertilizing. In mid-July, switch to a low nitrogen fertilizer, such as 8-32-16, or stop applying fertilizer.

Please note that fertilizer recommendations for seedlings are different from those for trees. Applying too much fertilizer can damage or kill seedlings.
10. In the summer, and after seedlings are at least one inch tall, they can be moved outside. Harden off seedlings as other garden plants by placing in a shady spot out of the wind and gradually increasing their time outdoors.
11. Seedlings should be left outdoors over winter. In the fall, bury pots level with the soil where they will receive snow cover.
12. Seedlings can be planted out when they are 10 to 12 inches high.

