

Black Hills spruce

Picea Glauca v. densata, the state tree of South Dakota, not considered a sub-species by the Forest Service anymore, but just a regional variety of white spruce. Still sold as a distinct variety in the nursery trade. And there are some definite characteristics –shorter, denser needles, slower growth, darker, sometimes more bluish color.

Very similar and closely related to Engelmann spruce. Hybridizes with Engelmann spruce. Some sources also list Engelmann spruce as just white spruce. It is extremely similar to BH spruce and they are sometimes indistinguishable except for where they came from. Alberta spruce is also a white spruce –there seems to be a lot of variety in the family.

Black Hills spruce is a leftover from the last glacial retreat, 10,000-15,000 years ago and exists with other species, twinflower, that are otherwise found further north.

Range: Northern and eastern US and Canada, Dakotas, Wyoming and Montana. Elevation up to about 11,000'. Zones 2-6. Gardening magazine from the Netherlands lists it as a species that can be grown indoors. Doubtful.

Likes cooler growing sites, often riparian. In the Black Hills grows mainly in draw bottoms and N or E slopes from 3,000-5,000' elevation. As elevation increases they take a more dominant position in the forest. Grows in shade to full sun (on riparian sites.) Likes cooler roots.

Likes an acidic soil, but bonsai specimens are often found on limestone outcrops, because of elevation. Newly collected trees are often yellowed and chlorotic and covered in dead twigs. A little iron can deepen the color.

Foliage color typically dark green, sometimes with a bluish tint. Needles usually ½" to ¾" long, sometimes as short as ¼". Foliage is usually dense. New shoots will sometimes sprout right from the trunk.

Size: Typically 50-75' tall with 12-24" trunk. But on good sites can reach over 100' and 36" diameter.

In the Black Hills mature spruce usually only live about 100 years. On bonsai type sites it is very slow growing and specimens can live several hundred years. 2-3" tall specimens can be 30 years old.

Interesting specimen for bonsai because of the contorted trunks and attractive, small foliage. Long lasting jins and shari.

Disadvantages are that the top of the tree tends to grow much faster than the rest and wire scars can quickly develop.

Fairly easy to collect, but good collecting sites are very hard to find. However, a good collecting site usually will have many, many collectable trees on it. Spruce tend to make a thick black spongy muck that their roots grow in. This is very difficult to break up without destroying the fine roots you want to keep.

Young spruce, for forests and grafts, are very easy to find and collect. Often the roots will just be growing in sphagnum moss.

BH spruce are my favorite tree for bonsai. Finding a good, old one is a real treasure.

Aftercare: Roots cleaned, but not bare-rooted. Remove enough soil and duff to make the root system porous enough to pour water through, still retaining original matrix. Sometimes this can be tricky to do, and time consuming.

Not exactly sure what the best soil is. Ron –clay and sand, also, pure mulch. My best luck has been with a very airy soil that will breathe. Currently using: 3 parts screened pumice, 3 parts screened pea gravel, 3 parts screened lava rock, 1 part screened charcoal, 2 parts screened pine bark. Ideally trying to get pea to .BB size particles.

Very common for newly collected trees to just grow roots the first year and not open a bud till the second spring in a pot.

BH spruce prefer a partially sunny and cool location. Morning sun and afternoon shade is good. Water every day in hot weather.

Typically collect in May-June, or July, and keep in a white poly house until new roots appear in mid-late July.

Like a more humid environment. Fertilize regularly and use iron to deepen color on new trees. Leave moss on pots all summer but remove in winter.

Susceptible to pine ips beetle and spruce beetle—use Astro for control. Also gets adelgids and scale. Orthene works well for these, or physical control. Spider mites?

Styling: Even old wood is very flexible and can be easily shaped. Best time for wiring is late winter and early spring, when sap is flowing.

In cultivation typically shed yellow needles in the spring. Can be a sign of poor drainage, or cool, wet weather.

Working on deadwood: Very hard and long-lasting. Resinous. I like to use a rotary wire brush to carve and texture. Jins and shari are often left dark gray, rather than colored. To bring out color I use 1 part Zinsser Bullseye primer mixed w 4 parts water and color as desired. Easy to get, cheap, non-toxic, doesn't smell, less toxic than lime sulphur and it works just as well.

Foliage: Pluck strong buds and terminals when they are at the “fuzzy egg” stage. 3-6 weeks later scissor trim new shoots and remove unwanted buds. Back buds extremely well.

Winter: Very cold hardy. Still, in a pot protect from extreme freezes by mulching. The needles can be delicate if exposed to warm temps during the winter and then a sudden hard freeze (like -20F). I've had all the needles drop off of more than one tree after bringing it inside in January and then moving it back out—but in most cases the tree survived. No problem if it just stays frozen all winter.