

PICEA. SPRUCE.

Among the Spruces are found some of the most valuable evergreen trees for the North-west plains.

Picea alba, Link. White Spruce.

This is a very handsome evergreen tree which, when grown in open places, assumes a compact pyramidal form, branching almost to the ground. It is found in all parts of eastern Canada, from Gaspé to north of Lake Superior. In Manitoba it is very common on the sand hills which margin the first prairie steppe. Macoun says: 'Occasional trees are met with in the Saskatchewan valley and in the Cypress Hills.' It has also been found on the Athabasca river in latitude 54°.

When trees of this species are grown from seed produced in eastern Canada and sent to Manitoba or the Territories they are usually tender, and if planted in exposed situations a large proportion of them die the first winter. If, however, they are brought from the sand hills on the first prairie steppe in the neighbourhood of Sewell and north and south of that point where young trees can be found in great abundance, they are perfectly hardy. Many hundreds of these trees have been planted at the Experimental Farms at Brandon and Indian Head, and no injury from winter has ever occurred to them. At Brandon one of the finest hedges on the farm is white spruce. See Plate III. fig. 2. This is one of the most valuable trees for planting in the North-west, provided the specimens set out are native. In transplanting these or any other evergreen trees great care should be taken to keep the roots moist during the time they are out of the ground. If the root fibres are permitted to dry the young trees will be very much injured. To prevent this the roots should be well wet as often as is necessary and covered with wet moss or wet sacking during time of removal. With the exercise of due care, the white spruce, provided the trees are small, may always be transplanted successfully. Well grown bushy specimens, from 1½ to 2 feet high, are quite large enough. Attempts to transplant trees from 4 to 6 feet high are almost always a partial if not an entire failure.

Picea nigra, Link. Black Spruce.

This is said to have a wider range than the White Spruce, and to extend from northern Labrador to Lake Athabasca (lat. 59°). It is very much like the White Spruce in appearance, and the two species are frequently confounded. They may, however, be distinguished by the length of the cones, which are shorter in the Black Spruce, seldom an inch long, while in the White Spruce they are longer, and never under an inch in length. The needle-like leaves of the Black Spruce are also usually shorter than those of the white variety. The Black Spruce is said to form the great bulk of the spruce trees which furnish the large stretches of timber found in many of the northern parts of Manitoba, west of Lake Winnipeg, and in the northern parts of the Territories.

The Black Spruce also makes a very handsome tree, see Plate VI. fig. 4, and is quite hardy if grown from seed ripened in the North-west. Many young trees have been brought from the vicinity of Rat Portage to both the North-west Experimental Farms, and have succeeded well.

P. Engelmanni, Engelm. Englemann's Spruce.

This species grows in abundance in the Rocky and Selkirk Mountains, where it attains a height of 100 to 150 feet, with the trunk sometimes four feet in diameter. Three young trees were brought from Glacier in 1895 and planted at Indian Head, where they have proven hardy.

Picea excelsa, Link. Norway Spruce.

This handsome and well known evergreen is a native of the mountains of Northern Europe, and has repeatedly been tested at Brandon and Indian Head dur-