Enthusiastic About Evergreens

Norman Ross liked conifers. In his opinion, they were the most valuable trees in a shelterbelt. They offered shelter from the wind in all seasons, and one or two rows of conifers provided the same wind protection as five or six rows of deciduous trees. Their main disadvantage was poor growth in the alkaline soils common throughout much of the prairies.[11] Although conifers did not grow fast initially, Ross found their growth rate equalled that of most deciduous trees after about five years.[12] The nursery recommended mixing conifers with deciduous trees. The faster-growing deciduous trees would provide shelter for the young conifers during the several years it took to establish their robust root system.[13]

Beginning in 1912, the nursery made conifer seedlings available to farmers for a small fee. The nursery set the farmer's cost at one dollar per 100 conifer trees, with a maximum of 500 trees per applicant.[14] Initially, Ross listed white spruce, Colorado spruce *(Picea pungens),* Norway spruce, Scots pine, jack pine *(Pinus banksiana),* and lodgepole pine *(Pinus contorta* var. *latifolia)* as available conifers. Demand was high, and usually all available conifer seedlings were allocated. That first year, just over 58,000 conifers were shipped to farmers, including Norway spruce, white spruce, Colorado spruce, jack pine, and lodgepole pine.[15] By 1915, Norway spruce and Colorado spruce had been removed from the nursery's list, followed by lodgepole pine and jack pine in 1930. In 1937, Ross returned Colorado spruce to the list of conifers available to farmers.

The forest station perfected nursery production of conifers through trial and error but benefited from Ross's forestry training. For white spruce, jack pine, and lodgepole pine seed, Ross relied on First Nations people to collect cones from forest reserves of white spruce and jack pine in southern Manitoba, and lodgepole pine in the Cypress Hills. Before the First World War, Ross sourced Scots pine seed from Germany. Fortunately, by 1918, the Scots pine plantations at Indian Head produced cones, and the nursery became self-sufficient. The production of Scots pine at the nursery increased significantly, mainly due to the supply of good seed.[16]

Conifers were expensive to grow compared with deciduous trees; they took two to three years longer and required more care, including irrigation with good-quality water.[17] From the beginning, conifers were grown two years in seedbeds, then moved to transplant beds, where they remained for two to four more years, depending on species. This growing protocol, implemented by Norman Ross, lasted for over 100 years.

Ross's opinion of conifers for prairie shelterbelts has been validated many times over. Visit shelterbelts planted over a century ago, and the healthiest and most functional surviving tree species are white spruce in the parkland, and Colorado spruce and Scots pine on the southern prairies. These conifers have adapted well to growing outside the forest, and they continue to be the preferred species in prairie farmyard shelterbelts.

A 110-year-old Scots pine growing in a plantation at the former Indian Head Forest Nursery Station, 2012. (Author photo)