



Prairie Shelterbelt Program



Spring Planting and Care of Seedlings

**You have received trees and shrubs through the Prairie Shelterbelt Program.
This plant material is in a dormant state and is perishable.**

Transportation and Storage

Transport the boxes directly to their storage location. Do not expose them to direct sunlight and keep cool during transport. Plant the trees and shrubs as soon as possible. Survival rates decrease as time between shipping and planting increases. If planting must be delayed for a few days, store the boxes in a cool, dark, damp place such as an unheated building. Keep the roots moist and mist with water as required.

If the shelterbelt cannot be planted within five days, "heel-in" the seedlings by planting them into shallow trenches for longer-term storage. Dig the trench in a shady location, deep enough so the soil will cover the entire root system and part of the lower stem. Remove the seedlings from the boxes, gently break the bundles of seedlings apart, and spread them out along one side of the trench. Fill in the trench with loose soil; pack the soil and water as necessary to keep the roots moist. Heeled-in seedlings require water up to twice a week particularly during dry, hot weather. These seedlings should only be moved again when they are dormant, in the fall or following spring.

Planting Care

Site preparation improves soil conditions for tree growth, and ideally should occur the year before planting. Seedlings can be successfully planted by either hand or machine into a well prepared planting site.

Bring only the number of seedlings necessary for a single day of planting to the site. Shield the boxes from the sun during transport. At the planting site, immediately place the boxes in the shade. Close the boxes after removing only the bundles of trees necessary to prevent the remaining seedlings from drying out.

Carefully separate the seedlings in the bundles to minimize damage to the fragile roots. Keep the roots moist and protected from the sun and wind while handling and planting. Soaking the roots prior to planting will remove the protective hydrogel. Hydrogel is applied to bareroot seedlings at shipping to retain moisture on the roots.

When planting bareroot stock, spread out the roots as much as possible to avoid unnatural J-shaped bends. These may be caused by dragging the roots along the furrow or stuffing them into planting holes that are too shallow. Seedlings will be stressed if roots are left exposed above ground level. Seedlings that are not planted properly do not develop properly and are more susceptible to drought, disease and insect attack.

When planting a large area, mechanical tree planters may reduce time and labour but must be operated with care. Proper site preparation is critical because these machines do not operate effectively in unprepared sites. Appoint one person to walk behind the tree planter to straighten crooked trees, cover exposed roots and to determine if adjustments are required for planting depth and the firmness of soil packing around the seedlings.

Poplar and willow are distributed as bareroot seedlings, as peat plugs or as hardwood cuttings. If you have received cuttings, soak them by submerging in water for one day prior to planting. Plant the cuttings by inserting them to their full depth (but not buried) in loose soil, with the buds pointing up (painted ends up). Keep the soil moist for several days to promote rooting. Do not plant cuttings into soil treated with trifluralin.

Spacing

It is important to follow the minimum within row spacing recommendations for each species, to provide sufficient growing space. Also, leave enough room between the tree rows to allow for care and maintenance during the establishment years. Minimum spacing recommendations are listed in Table 1. Between adjacent deciduous rows, keep a minimum distance of 5m (16ft) or, 6m (20ft) between rows of adjacent deciduous and coniferous species.

Table 1. Minimum Spacing Recommendations for Prairie Shelterbelts

Species	Minimum Planting Distance	
	Metres	Feet
Caragana*	0.3	1
Choke Cherry, Hawthorn, Hedge Rose, Red Elder, Red-Osier Dogwood, Sea Buckthorn, Silver Buffaloberry, Snowberry, Villosa Lilac	1	3
Siberian Crabapple, Trembling Aspen	2	6.5
Bur Oak, Cottonwood, Green Ash, Hybrid Poplar, Manitoba Maple, Siberian Larch, Willow	2.5	8
Scots Pine, Spruce	3.5	12

**if planting caragana under plastic mulch, increase planting distance to 0.6m (2 ft)*

Follow-up Care

Eliminate weed competition, water regularly, and protect trees from damage by wildlife and livestock. Early weed control determines tree survival and performance. Weed control methods include mulching, mechanical cultivation and herbicide application. For more information on weed control, please refer to the publication "*Controlling Weeds in Your Agroforestry Planting*".

When watering, soak the soil thoroughly, otherwise shallow rooting will be encouraged. Shallow-rooted trees cannot tolerate drought. More frequent watering is required during the plant establishment years or prolonged periods without precipitation.

Fertilizing is not necessary and is not recommended for newly planted shelterbelts. For farmyard shelterbelts planted adjacent to lawns, avoid using fertilizers on the lawn with weed-killing additives, such as dicamba, that may damage the trees. Use extreme care when applying herbicides on cropland next to shelterbelts to avoid drift damage to the trees.

In late summer, check your shelterbelt to determine what trees have not survived. Record the numbers of replacements required for each species, so you can re-order the following spring. Planting replacements will prevent gaps in the shelterbelt and improve its performance. Applications for Trees are accepted from June 1st until March 15th annually.

Agriculture and Agri-Food Canada
 Agroforestry Development Centre
 PO Box 940 Indian Head, SK S0G 2K0
 Phone: 866-766-2284
 Email: agroforestry@agr.gc.ca
 Internet: www.agr.gc.ca/shelterbelt