

TREE PLANTING TIPS

DO'S AND DON'TS

1. **Have a plan.** Proper planning, implementation, and follow-up are the keys to success. You will invest time, money, considerable effort, and a piece of your property, whether or not your project is successful. Consider your short-term and long-term objectives as your first step to planning – wildlife habitat, erosion control, shoreline management, better use of idle land, improving property values, windbreaks, etc. Be sure you are contributing to your overall property plans. Several of the Extension Notes series provided by the Landowner Resource Centre provide a considerable amount of information on planning and other aspects of tree planting.
2. **Know your site / soil** and how they affect productivity and species selection. What are the site's characteristics and limiting factors?
 - High and dry?
 - How deep to the zone of permanent saturation? Is it a site that is often saturated well into late spring or early summer?
 - Tall, thick vegetation? This will provide significant competition to your planted trees and will need to be accounted for.
 - Shallow soil over bedrock?
 - Low fertility? Note the competition already present on the site – if the vegetation present is sparse, then your trees will probably not flourish on that site either.
 - Slope and aspect. Is your area on the top half of a hill, facing south? If so, most of the topsoil has probably washed downhill, and the site will be susceptible to drought. Be happy with 25-50% survival – you will contribute to its rehabilitation.
 - Soil type – sandy, silt, clay, or a combination of all three, i.e. a loamy soil. The sandier the soil, the drier it tends to be, i.e. drains faster in the spring, but tends to be more drought prone in the summer.
3. **Ploughing and cultivating** before planting can make planting easier, but also provides an **excellent growing opportunity for the weed seeds** present in the soil. If you are planting conifer species in an area of established grasses, (e.g. an old pasture field with some goldenrod, wild aster and milkweed), a minimal disturbance is best. It is usually best to plant the trees in the sod, and then deal with the competition that directly affects each tree, i.e. approximately 12-15 inches on each side. Treatment can include spot spraying with herbicides, cutting of the grasses, or applying a thick layer of mulch after the soil warms up.
4. **Avoid planting hardwoods except for** specialized planting in small, select areas. Hardwoods require intensive follow-up on an annual basis for 8-10 years, i.e. cultivation or chemical vegetation control, or alternate controls such as utilization of Tubex type tree guards, vegetation blankets, or mulches. Damage from rodents and rabbits is often a limiting factor.
5. **The most appropriate species for reforestation on the widest range of sites** are white spruce, Norway spruce, white pine, white cedar and European larch. Acidic soils to a depth of 2-3 feet are usually perfect for red pine.

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6. **Avoid planting alternate rows of different species.** In principle this sounds good, but in reality one species is usually more suitable to each site and will outgrow the other species on either side. Those species that grow under the competition of a more successful species will never grow satisfactorily. If you wish to plant 2 or more species on your property, plant them in separate blocks (e.g. 5-6 rows for each species), or in patches.
7. **Maintain good tree handling practices.** Nursery studies have shown that each of these poor practices can decrease survival by 2-3%, as well as growth:
 - Don't throw or drop bags of trees.
 - Don't put tree bags into the open back of a pick-up truck and drive in the open sun for any length of time.
 - Don't pack tree bags more than 2 high when transporting or storing.
 - Have a cool, sheltered place to store your trees until the time you plant.
 - Do not open the bags until just before you plant.
 - Prior to planting, dip the roots in a tub of water for a minute or two. Then place the number of trees that can be planted over the next 15-20 minutes in a deep field carrying container. Place some saturated peat moss or a piece of wet burlap bag in the bottom of the container / around the roots.
 - Do not carry a tree in your hand when you are digging the hole. Fine root tips can start to dry out in 20-30 seconds.
 - Dig a good hole large enough to accommodate the greatest part of the root system in a spread out manner. Don't let the soil dry out – plant the tree immediately after the hole has been dug.
8. **Monitor periodically** for outbreaks of defoliating insects. Although this will happen very seldom, infestations in young plantations tend to progress at a very fast rate. If caught in time, they can usually be controlled by hand picking or spraying an insecticide selectively with a hand spray bottle.
9. **Lack of follow-up is a key factor in failure.** Aftercare needs to be considered in your planning. For example, if you have little or no time for follow-up, plant a moderate number of conifer species, such as spruce.
10. **Watering.** If you have the capacity to water planted trees after an extended drought, especially those trees most important to you, do so. **Mulching** is a means of minimizing the impact of drought, especially after a rainfall or watering.
11. **Planting in or around an existing woodland.** These are unique situations, with some additional considerations:
 - Utilize tree planting as a means of increasing the diversity of species in your woodland, e.g. black cherry, red oak, butternut, bitternut hickory, white pine.
 - Most species that are rare or absent in your woodlands (see above) are intolerant of shade. Plant in larger openings (at least 20 metres across) and be prepared to deal with the competition as required.
 - Consider establishing a 2-3 row conifer windbreak on the north-western and southern edges of smaller, exposed woodlots. Greater exposure to wind, sun, and climate change are creating warmer and drier conditions within these small woodlands – windbreaks may help offset these effects.
 - Forest interior is a specialized type of habitat (greater than 100 metres from any edge) required by many small songbirds. More interior habitat can be created by reforesting "open bays" that extend into existing woodlands.