

# FOREST ENHANCEMENT PROGRAM

## Making the right start

Proper planning, planting and maintenance are key for growing flourishing trees that will provide long lasting enjoyment. Simply putting a tree in the ground is not enough. Careful thought must be given to the purpose of the planting, location of the planting, tree selection and how the trees will be cared for once they are in the ground.

### What do you want to accomplish?

For **Aesthetics** or **Community Revitalization**, consider trees that provide:

- shade (*elms, maples*)
- interesting foliage and colour (*amur maple, chokecherry, tamarack*)
- showy blossoms and fruit (*apples, mountain ash*)

For **Windbreaks** and **Screens**, consider trees that are:

- low maintenance (*poplars, willows*)
- suited to extreme wind and weather conditions (*poplars, willows*)
- drought tolerant (*oak*)

For **Shade**, consider trees that have:

- a long life span (*spruce, oak, basswood*)
- known sturdiness and disease resistance (*oak*)
- large or spreading crowns (*basswood, lindens*)
- or a crown shape that suits your needs

For **Energy Conservation**, consider trees that provide wind protection and shade. Your trees should:

- have long life spans (*pine, spruce, basswood*)
- be hardy for the local setting (*spruce, maple*)
- have tall, spreading crowns (*conifers, maple, poplar hybrids*)

For **Education**, decide on a theme that integrates:

- site characteristics
- tree life cycle
- planting method
- short and long-term maintenance needs

## Considering local soil and climate conditions

The Forest Enhancement Program suggests planting trees in the spring before bud break or fall when the trees are dormant and less likely to suffer transplant shock.

- Trees need soil with adequate nutrient levels, organic matter and good drainage.
- Select trees that are suitable for the soil found at the site.
- Seek advice from your local nursery.

Be aware of the following when selecting tree species:

- **Annual rainfall:** is the planting site normally wet or dry?
- **Wind exposure:** will the trees be sheltered from prevailing winds?
- **Amount of direct and indirect sunlight:** will seedlings or young trees be shaded?
- **Good drainage** is important for almost all landscape trees.
- **Monitor** the planting site for drainage patterns.
- **Avoid planting** in low areas.

Select the stock type and size of tree based on:

- **Planting site:** sites with a lot of foot traffic or young children may require larger size tree stock.
- **Capability** of the people planting the trees.
- **Availability of equipment:** tree spade, backhoe, shovels.
- **Survival rate:** bare root, potted, balled in burlap.
- **Hardiness:** select species that are hardy for your region.
- **Species diversity:** be sure to include two or more species based on their suitability as both a seedling and a mature tree.
- **Growth rate:** a fast growing tree species may be weaker than a slow growing tree.
- **Salt tolerance:** consider salt tolerance of a tree species when planting on boulevards or near moderate to high-traffic routes. Silver maple, ash, Russian olive, poplar, willow, lilac, European larch and Colorado spruce are some species that demonstrate better salt tolerance than others.
- **Drought tolerance:** species native to an area of low annual moisture are well suited to local growing conditions.
- **Maintenance:** select a species knowing the amount and type of care required.

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Compare cost and overall stock quality to find the best supplier. Remember, cheaper is **not** always better! To ensure high quality stock is purchased, inspect and select the trees prior to purchase.

## Selecting tree species

Experience from Manitoba Hydro's Forest Enhancement Program suggests that the following trees have good survival rates:

Species	Zone	Species	Zone
Hoopsi blue spruce	2B	Cherries**	1B,2A,2B
Blackhills spruce	2A	Amur maple	1A
White spruce*	1B	Basswood/Lindens	2B,3A,3B
Colorado spruce	2A	Silver maple**	2B,3A
Fallgold ash	2A	Manitoba maple	1A
Patmore ash	2A	Paper birch	1A
Green ash	1B	Siberian larch	1B
Black ash	2A	Tamarack	1A
Mancana ash	3A	Showy mountain ash	2A
Manchurian ash	3A	Aspens**	1B,2A
Bur oak	2A	Poplars**	1A,1B,2A,3A
Willows**	2A/2B/3A	Apples**	1B,2A,2B,3A,3B

\*Manitoba's provincial tree.

\*\*Hardiness varies by specific plant species/cultivars/source.

## Fruit trees

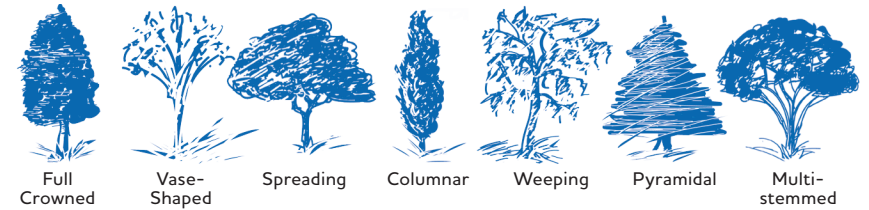
Species	Zone	Source	Height (metres)
Canadian plum*	2B	Native	9 m
Native chokecherry* (not all chokecherry varieties qualify)	1B	Native	5-7 m
Pinchberry*	1B	Native	16 m
Buffalo berry	1B	Native	6 m
Sea-Buckthorn	1B	Introduced	5 m

\*Susceptible to black knot.

## Lilacs\*

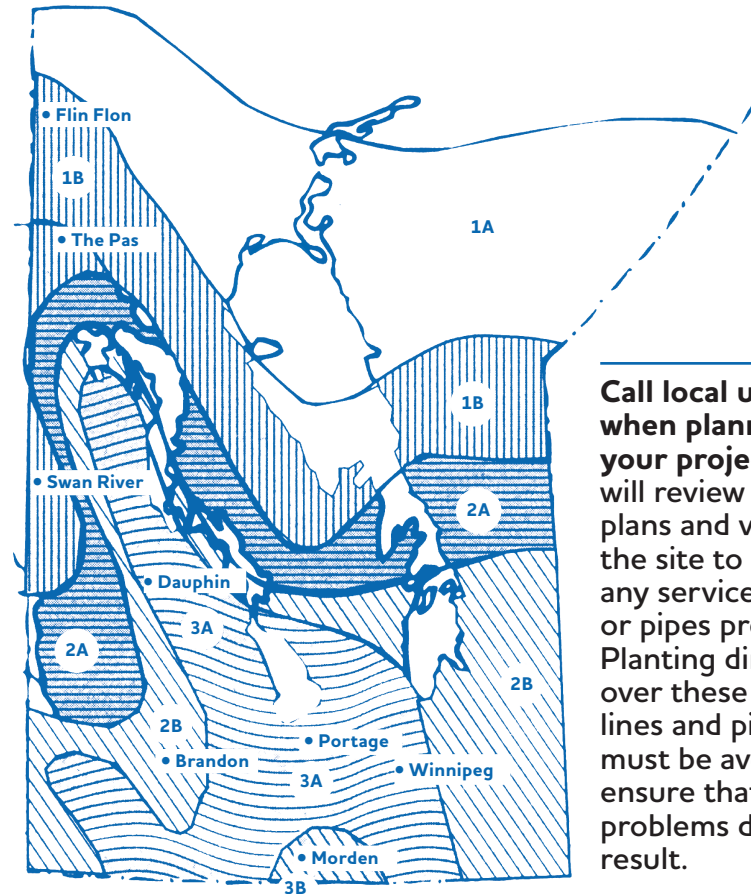
Species	Zone	Height (metres)
Golden Eclipse tree lilac	3B	6 m
Ivory Silk tree lilac	3A	6 m

\*Most other varieties of tall growing lilacs have a mature height of 3 metres.



## Manitoba's hardiness zones

Based on climate conditions, indicating where plant and tree species are most likely to survive and thrive. Consult your nursery supplier.



**Call local utilities when planning your project.** They will review your plans and visit the site to mark any service lines or pipes present. Planting directly over these service lines and pipes must be avoided to ensure that future problems do not result.