

SHELTERBELT SPECIES QUICK FACTS 2026

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Municipal District of
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mdgreenview.ab.ca/departments/agricultural-service



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SHELTERBELT SPECIES QUICK REFERENCE TABLE

CONIFERS

DECIDUOUS

BERRY

Species	Zone	Height	Spread	SPACING	
				In-Row	Between Row
Colorado Spruce (Blue Spruce)	2a	27 m	6 m	3-4 m	5 m
White Spruce	1a	25 m	6 m	3 m	5 m
Scots Pine	2a	15 m	5 m	3-4 m	5 m
Lodgepole Pine	1a	30 m	6 m	3-4 m	5 m
Siberian Larch	1b	20 m	8 m	3 m	5 m
Laurel Leaf Willow	2b	15 m	8 m	2.4-3 m	5 m
Manitoba Maple	2a	15 m	12 m	2.4-3 m	5 m
Okanese Poplar	2a	18 m	8 m	2.4-3 m	5 m
American Elm	2a	30 m	15 m	2.4-3 m	5 m
Red Osier Dogwood	2a	2.7 m	1.8 m	0.9 m	5 m
Snowball Viburnum	3b	3 m	3 m	0.9 m	5 m
Golden Willow	2a	15 m	15 m	2.4-3 m	5 m
Villosa Lilac	2a	5 m	2.7 m	0.9 m	5 m
Honeywood Saskatoon	2a	5 m	3 m	0.9 m	5 m
Common Lilac	2a	5 m	2.7 m	0.9 m	5 m
Kent Strawberry; Perennial Berry	2a	20-30 cm			
Aurora Haskap; Shrub	2a	1.5-2 cm			
Borealis Haskap; Shrub	2a	1.2-1.5 cm			
Boyne Raspberry; Shrub	2a	1.2-1.5 cm			
Carmine Jewel Cherry; Dwarf Cherry Tree	2a	1.5-2 cm			



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PLANNING AN EFFECTIVE SHELTERBELT

The **first step** in planning an effective shelterbelt is to make sure it is located correctly. Shelterbelts should be oriented so they are **perpendicular to the prevailing winds**. This means that in the prairies where the prevailing winds typically come from the north and west the shelterbelt rows should be located along the north and west sides of the farmyard.

It is also important to ensure that the shelterbelt is **not too close to buildings and driveway**, otherwise drifting snow may become an issue. Make sure that **the inside row of the shelterbelt which is closest to the farm yard is at least 100 feet (30 meters) from any structures or roads**.

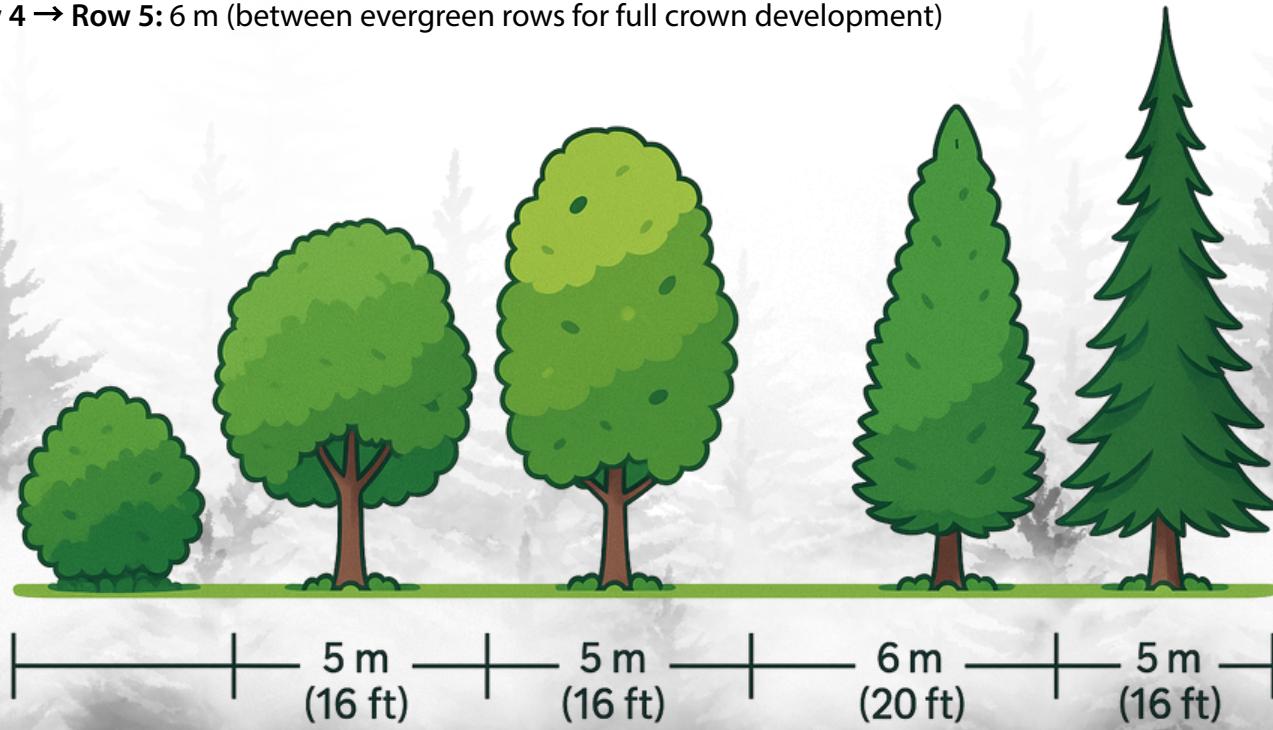
The **next step** is to **decide on how many rows** your shelterbelt will require in order to provide **adequate wind protection** for the farmyard. Shelterbelts can contain anywhere from 3 to 5 rows depending on the amount of space you have and the level of wind protection you desire.

An **effective shelterbelt** should **contain a combination of shrubs, fast growing trees, and dense long lived trees**. The **outside row** of a shelterbelt should generally be a **dense shrub** that will act to reduce wind near the ground and act as a snow trap. The **next row** should consist of a **fast growing tree species** that will allow the shelterbelt to quickly gain height. The **third row** should be made up of **long lived trees** that will allow shelterbelt to remain effective for a long time. The **fourth and fifth rows** that would be closest to the yard should be made up of **tall dense crowned trees** that retain their foliage throughout the year.

Should you have limited space, drop the third and fifth row and go with a **three row shelterbelt**.

Recommended distances between each row to allow for maximum wind protection and tree growth:

- Row 1 → Row 2: 3 m (shrubs to fast-growing trees)
- Row 2 → Row 3: 4 m (fast-growing to long-lived trees)
- Row 3 → Row 4: 4 m (long-lived trees to first evergreen row)
- Row 4 → Row 5: 6 m (between evergreen rows for full crown development)



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PLANNING AN EFFECTIVE SHELTERBELT

The following table provides recommendations on species that could be planted in the various rows.

Zone	Species	In-Row Spacing
Row 1 (Outside)	Common Lilac	0.9 m
	Villosa Lilac	0.9 m
	Pincherry	0.9 m
	Red Osier Dogwood	0.9 m
	Honeywood Saskatoon	0.9 m
Row 2	Laurel Leaf Willow	2.4-3 m
	Golden Willow	2.4-3 m
	Okanese Poplar	2.4-3 m
Row 3	Manitoba Maple	2.4-3 m
	American Elm	2.4-3 m
Row 4	Colorado Spruce (Blue Spruce)	3-4 m
	White Spruce	3 m
	Scots Pine	3-4 m
	Lodgepole Pine	3-4 m
	Siberian Larch	3 m
Row 5	Colorado Spruce (Blue Spruce)	3-4 m
	White Spruce	3 m
	Scots Pine	3-4 m
	Lodgepole Pine	3-4 m
	Siberian Larch	3 m

GREENVIEW PLANT HARDINESS ZONES	
VALLEYVIEW	3b
DEBOLT	3b
GROVEDALE	3a
GRANDE CACHE	2a

What does a plant hardness zone mean?

"The hardiness zones are an essential tool for gardeners, as they help them choose plants that are suitable for their local climate, thereby increasing their chances of success in the garden or in cultivation."

<https://canadian-gardening.ca/climate-gardening/hardiness-planting-zones-canada.html>



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Colorado Spruce (Blue Spruce)

Zone: 2a | Height: 27 m | Spread: 6 m
Moisture: Dry, Normal | Light: Full Sun
Growth Rate: Slow | Life Span: Long
Maintenance: Low | Suckering: None
Pollution Tolerance: High

White Spruce

Zone: 1a | Height: 25 m | Spread: 6 m
Moisture: Dry, Normal | Light: Partial Shade, Full Sun
Growth Rate: Medium | Life Span: Long
Maintenance: Low | Suckering: None
Pollution Tolerance: Medium



Scots Pine

Zone: 2a | Height: 15 m | Spread: 5 m
Moisture: Dry, Normal | Light: Full Sun
Growth Rate: Medium | Life Span: Long
Maintenance: Low | Suckering: None
Pollution Tolerance: Medium



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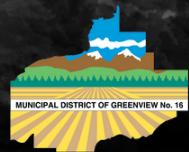


Lodgepole Pine

Zone: 1a | Height: 30 m | Spread: 6 m
Moisture: Dry, Normal | Light: Full Sun
Growth Rate: Fast | Life Span: Very Long
Maintenance: Low | Suckering: None
Pollution Tolerance: Medium

Siberian Larch

Zone: 1b | Height: 20 m | Spread: 8 m
Moisture: Normal, Wet | Light: Partial Shade, Full Sun
Growth Rate: Slow | Life Span: Medium
Maintenance: Low | Suckering: None
Pollution Tolerance: Low



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Laurel Leaf Willow

Zone: 2b | Height: 15 m | Spread: 8 m

Moisture: Normal, Wet | Light: Partial Shade, Full Sun

Growth Rate: Fast | Life Span: Medium

Maintenance: Low | Suckering: Medium

Pollution Tolerance: High



Golden Willow

Zone: 2a | Height: 15 m | Spread: 15 m

Moisture: Normal, Wet | Light: Full Sun

Growth Rate: Fast | Life Span: Medium

Maintenance: Low | Suckering: Medium

Pollution Tolerance: High



Okanese Poplar

Zone: 2a | Height: 18 m | Spread: 8 m

Moisture: Any | Light: Full Sun

Growth Rate: Very fast | Life Span: Medium

Maintenance: Low | Suckering: High

Pollution Tolerance: High



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Manitoba Maple

Zone: 2a | Height: 15 m | Spread: 12 m
Moisture: Any | Light: Any
Growth Rate: Fast | Life Span: Medium
Maintenance: Medium | Suckering: Medium
Pollution Tolerance: High



American Elm

Zone: 2a | Height: 30 m | Spread: 15 m
Moisture: Any | Light: Full Sun, partial shade
Growth Rate: Fast | Life Span: Very long
Maintenance: Low | Suckering: Medium
Pollution Tolerance: High



Honeywood Saskatoon

Zone: 2a | Height: 5 m | Spread: 3 m
Moisture: Normal | Light: Full Sun, partial shade
Growth Rate: Fast | Life Span: Medium
Maintenance: Medium | Suckering: Low
Pollution Tolerance: High



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Red Osier Dogwood

Zone: 2a | Height: 2.7 m | Spread: 1.8 m

Moisture: Normal, wet | Light: Full Sun, partial shade

Growth Rate: Fast | Life Span: Medium

Maintenance: Low | Suckering: Medium

Pollution Tolerance: High

Snowball Viburnum

Zone: 3b | Height: 3 m | Spread: 3 m

Moisture: Normal | Light: Full Sun, partial shade

Growth Rate: Medium | Life Span: Medium

Maintenance: Low | Suckering: Low

Pollution Tolerance: High



Pin Cherry

Zone: 2a | Height: 9 m | Spread: 5 m

Moisture: Normal | Light: Full Sun

Growth Rate: Fast | Life Span: Short

Maintenance: Medium | Suckering: Low

Pollution Tolerance: Medium



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Villoso Lilac

Zone: 2a | Height: 5 m | Spread: 3 m
Moisture: Dry, Normal | Light: Full Sun
Growth Rate: Medium | Life Span: Medium
Maintenance: Low | Suckering: Low
Pollution Tolerance: High

Common Lilac

Zone: 2a | Height: 5 m | Spread: 2.7 m
Moisture: Dry, Normal | Light: Full Sun
Growth Rate: Fast | Life Span: Medium
Maintenance: Low | Suckering: Medium
Pollution Tolerance: High



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Kent Strawberry

Type: Perennial Berry | Zone: 2a
Height: 20–30 cm | Spread: 30–45 cm
Moisture: Normal | Light: Full Sun
Growth Rate: Fast | Life Span: Several Years
Maintenance: Medium

Aurora Haskap

Type: Shrub | Zone: 2a
Height: 1.5–2 m | Spread: 1.2–1.5 m
Moisture: Normal | Light: Full Sun
Growth Rate: Medium | Life Span: Long
Maintenance: Low



Borealis Haskap

Type: Shrub | Zone: 2a
Height: 1.2–1.5 m | Spread: 1.2–1.5 m
Moisture: Normal | Light: Full Sun
Growth Rate: Medium | Life Span: Long
Maintenance: Low



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Boyne Raspberry

Type: Shrub | Zone: 2a
Height: 1.2–1.5 m | Spread: 1.2–1.5 m
Moisture: Normal | Light: Full Sun
Growth Rate: Fast | Life Span: Medium
Maintenance: Medium

Carmine Jewel Cherry

Type: Dwarf Cherry Tree | Zone: 2a
Height: 1.5–2 m | Spread: 1.2–1.5 m
Moisture: Normal | Light: Full Sun
Growth Rate: Medium | Life Span: Long
Maintenance: Low



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