

SHELTERBELT SPECIES

QUICK FACTS 2026

Content provided with permission by © Treetime.ca



Municipal District of
GREENVIEW

VISIT
GREENVIEW
AGRICULTURAL
SERVICES
DEPARTMENT
ONLINE!

mdgreenview.ab.ca/departments/agricultural-service



SCAN
ME!



Municipal District of
GREENVIEW

SHELTERBELT SPECIES QUICK REFERENCE TABLE

	Species	Zone	Height	Spread	SPACING	
					In-Row	Between Row
CONIFERS	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
DECIDUOUS	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
BERRY	Kent Strawberry; <i>Perennial Berry</i>	2a	20-30 cm			
	Aurora Haskap; <i>Shrub</i>	2a	1.5-2 cm			
	Borealis Haskap; <i>Shrub</i>	2a	1.2-1.5 cm			
	Boyne Raspberry; <i>Shrub</i>	2a	1.2-1.5 cm			
	Carmin Jewel Cherry; <i>Dwarf Cherry Tree</i>	2a	1.5-2 cm			



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**.

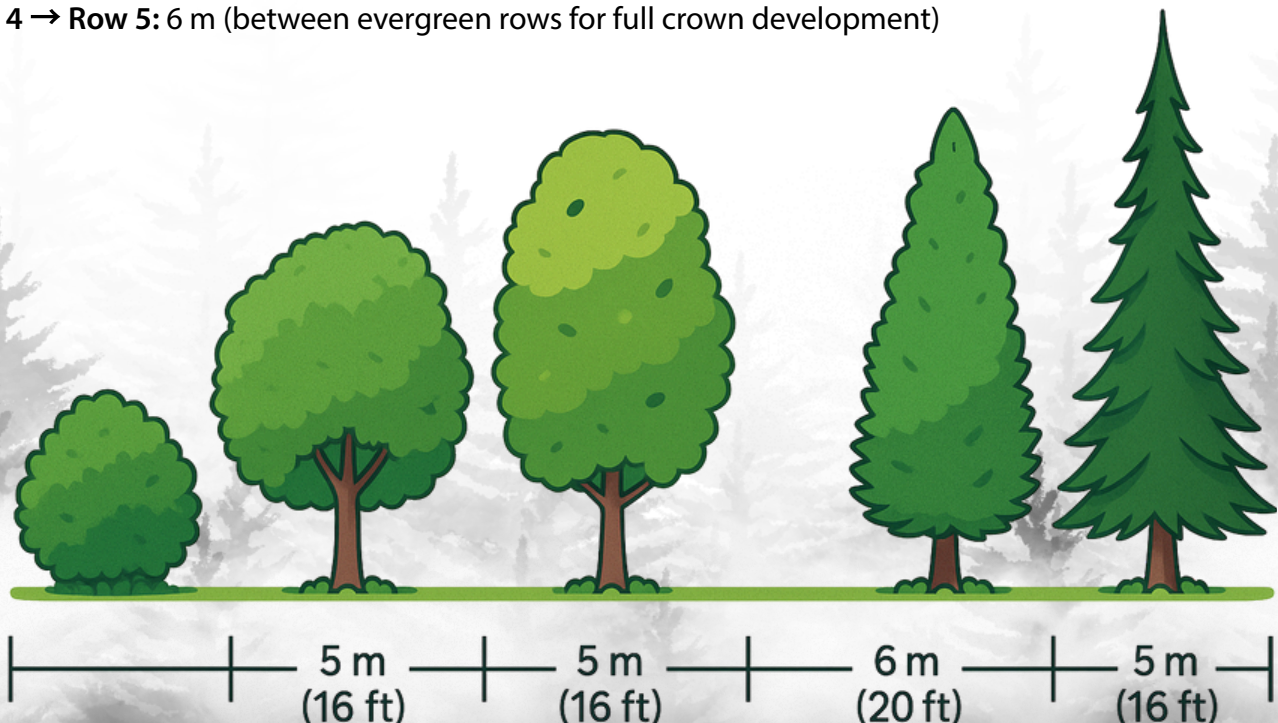
The **next step** is to **decide on how many rows** your shelterbelt will require in order to provide **adequate wind protection** for the farmyard. Shelterbelts can contain anywhere from 3 to 5 rows depending on the amount of space you have and the level of wind protection you desire.

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)



Municipal District of
GREENVIEW

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 HARDNESS ZONES	
VALLEYVIEW	3b
DEBOLT	3b
GROVEDALE	3a
GRANDE CACHE	2a

What does a plant hardiness 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>



Municipal District of
GREENVIEW

SHELTERBELT SPECIES GUIDE



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



SHELTERBELT SPECIES GUIDE



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



SHELTERBELT SPECIES GUIDE



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



SHELTERBELT SPECIES GUIDE



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



SHELTERBELT SPECIES GUIDE



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

SHELTERBELT SPECIES GUIDE



Villosa 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



SHELTERBELT SPECIES GUIDE



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

SHELTERBELT SPECIES GUIDE



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



Greenview Agricultural Services Department

We Are Located At:

3602 – 45 Street, Valleyview, AB T0H 3N0

Office Hours:

8:00 am – 4:30 pm (closed 12:00 – 1:00 pm)

Phone Number:

780-524-7621

Email:

agricultural.services@mdgreenview.ab.ca



Municipal District of
GREENVIEW