Shelterbelt Plant Selection Guide

Click on the plant species below for more information.

Evergreen Trees

Black Hills Spruce
Eastern Red Cedar
Norway Spruce
Pitch x Loblolly Hybrid Pine

For difficult soils
Shortleaf Pine
Virginia Pine

If irrigation is possible
'Green Giant' Arborvitae

Deciduous Trees

Autumn Blaze Maple
Bald Cypress
Hackberry
Pin Oak
Silver Maple
Swamp White Oak

Shrubs

Arrowwood Viburnum
Blackhaw
Buttonbush
Chokeberry
Common Lilac
Cranberrybush Viburnum
Elderberry
Forsythia 'Northern Sun' or 'Meadowlark'
Fragrant Sumac
Gray Dogwood
Indigo Bush
Japanese Cornel Dogwood
Leatherleaf Viburnum
Ninebark
Silky Dogwood
Smooth Sumac

Grasses

Big Bluestem
Eastern Gamma Grass
Giant Miscanthus
Indian Grass
Prairie Cordgrass
Switchgrass

Evergreen Trees

Black Hills Spruce *(Picea glauca 'Densata')*

Mature height: 40 ft.
Growth Rate: Medium
Recommended Planting Spacing: 10-15 ft.
Special Soil Requirements: N/A
General Description:

- Slower growing but adaptable

Back…

Eastern Red Cedar *(Juniperus virginiana)*

Mature height: 30 ft.
Growth Rate: Medium
Recommended Planting Spacing: 8-12 ft.
Special Soil Requirements: N/A
General Description:

- Provides a dense screen
- Heat and drought tolerant
- May spread outside of planting area

Back…

Norway Spruce *(Picea abies)*

Mature height: 60 ft.
Growth Rate: Medium
Recommended Planting Spacing: 10-15 ft.
Special Soil Requirements: N/A
General Description:

- Adaptable
- Dense crown

Back…

Pitch x Loblolly Hybrid Pine *(Pinus rigida x taeda)*

Mature height: 80 ft.
Growth Rate: Fast
Recommended Planting Spacing: 10-15 ft.
Special Soil Requirements: N/A
General Description:

- Very fast-growing, hardy, long-needled
- susceptible to tip moth

Back…

Shortleaf Pine *(Pinus echinata)*

Mature height: 75 ft.
Growth Rate: medium
Recommended Planting Spacing: 10-15 ft.
Special Soil Requirements: N/A
General Description:

- Slower growing, but adaptable
- Native to S. Missouri
- susceptible to tip moth

Back…

Virginia Pine *(Pinus virginiana)*

Mature height: 40 ft.
Growth Rate: medium
Recommended Planting Spacing: 10-15 ft.
Special Soil Requirements: N/A
General Description:

- Slower growing,
- tolerates clay soil

Back…

'Green Giant' Arborvitae *(Thuja plicata)*

Mature height: 50 ft..
Growth Rate: Fast
Recommended Planting Spacing: 8-12 ft.
Special Soil Requirements: N/A
General Description:

- Fast growing
- Need irrigation in drought

Back…

Deciduous Trees

Autumn Blaze *(Fremanii)* Maple *(Acer rubrum x saccharinum)*

Mature height: 50 ft.
Growth Rate: Medium
Recommended Planting Spacing: 10-20 ft.
Special Soil Requirements: N/A
General Description:

- Fast growing
- Excellent fall color

Back…

Bald Cypress *(Taxodium distichum)*

Mature height: 60 ft.
Growth Rate: fast
Recommended Planting Spacing: 10-20 ft.
Special Soil Requirements: N/A
General Description:

- Tolerates moisture extremes
- Drops needles in fall

Back…

Hackberry *(Celtis occidentalis)*

Mature height: 50 ft.
Growth Rate: Medium
Recommended Planting Spacing: 10-20 ft.
Special Soil Requirements: N/A
General Description:

- Stress tolerant
- tolerates wet sites

Back…

Pin Oak *(Quercus palustris)*

Mature height: 60 ft.
Growth Rate: Fast
Recommended Planting Spacing: 15-20 ft.
Special Soil Requirements: pH <7
General Description:

- Fast growing
- Tolerates clay soil
- Good for wildlife

Back…

Silver Maple *(Acer saccharinum)*

Mature height: 80 ft.
Growth Rate: Fast
Recommended Planting Spacing: 15-20 ft.
Special Soil Requirements: N/A

- large crown
- Susceptible to ice damage
- Tolerates wet soils

Back…

Swamp White Oak *(Quercus bicolor)*

Mature height: 60 ft.
Growth Rate: Medium
Recommended Planting Spacing: 10-20 ft.
Special Soil Requirements: N/A
General Description:

- Adaptable
- Tolerates clay soil
- good for wildlife

Back…

Shrubs

Arrowwood Viburnum *(Viburnum dentatum)*

Mature height: 10 ft.
Growth Rate: Medium
Recommended Planting Spacing: 6-8 ft.
Special Soil Requirements: N/A
General Description:

- Rounded form
- Glossy leaves
- Drought tolerant

Back…

Blackhaw *(Viburnum prunifolium)*

Mature height: 12 ft.
Growth Rate: Medium
Recommended Planting Spacing: 6-8 ft.
Special Soil Requirements: N/A
General Description:

- Small native tree with white flowers, blue fruit
- good fall color

Back…

Buttonbush *(Cephalanthus occidentalis)*

Mature height: 6 ft.
Growth Rate: Medium
Recommended Planting Spacing: 6-8 ft.
Special Soil Requirements: Moist
General Description:

- Good choice for continually wet areas

Back…

Chokeberry *(Aronia arbutifolia or A. melanocarpa)*

Mature height: 6 ft.
Growth Rate: Medium
Recommended Planting Spacing: 6-8 ft.
Special Soil Requirements: N/A
General Description:

- Highly adaptable
- Attractive flower, foliage, fruit

Back…

Common Lilac *(Syringa vulgaris)*

Mature height: 8 ft.
Growth Rate: Medium
Recommended Planting Spacing: 6-8 ft.
Special Soil Requirements: N/A

- attractive flowers

Back…

Cranberrybush Viburnum *(Viburnum trilobum)*

Mature height: 10 ft.
Growth Rate: Fast
Recommended Planting Spacing: 6-8 ft.
Special Soil Requirements: N/A
General Description:

- Adaptable
- Attractive flower, fruit

Back…

Elderberry *(Sambucus canadensis)*

Mature height: 8 ft.
Growth Rate: Medium
Recommended Planting Spacing: 6-8 ft.
Special Soil Requirements: N/A
General Description:

- Adaptable
- Attractive flower, fruit
- suitable for wetter areas

Back…

Forsythia ‘Northern Sun’ (shown) or ‘Meadowlark’

Mature height: 10 ft.
Growth Rate: Fast
Recommended Planting Spacing: 6-8 ft.
Special Soil Requirements: N/A
- attractive flowers

Back…

Fragrant Sumac *(Rhus aromatica)*

Mature height: 8 ft.
Growth Rate: Medium
Recommended Planting Spacing: 6-8 ft.
Special Soil Requirements: N/A
General Description:
- Adaptable
- Good bank stabilizer

Back…

Gray Dogwood *(Cornus racemosa)*

Mature height: 15 ft.
Growth Rate: Fast
Recommended Planting Spacing: 8-10 ft.
Special Soil Requirements: N/A
General Description:
- Adaptable small tree/large shrub

Back…

Indigo Bush *(Amorpha fruticosa)*

Mature height: 10 ft.
Growth Rate: Fast
Recommended Planting Spacing: 6-8 ft.
Special Soil Requirements: N/A
General Description:
- Highly adaptable
- Purple flowers

Back…

Japanese Cornel Dogwood *(Cornus officinalis)*

Mature height: 15 ft.
Growth Rate: Medium
Recommended Planting Spacing: 8-10 ft.
Special Soil Requirements: N/A
General Description:

- Attractive flowers and fruit

Back…

Leatherleaf Viburnum *(V.X rhytidiphylloides 'Allegheny)*

Mature height: 10 ft.
Growth Rate: Fast
Recommended Planting Spacing: 8-10 ft.
Special Soil Requirements: N/A
General Description:

- Heat and drought tolerant
- Good flowers and fruit
- Semi-evergreen

Back…

Ninebark *(Physiocarpus opulifolius)*

Mature height: 6 ft.
Growth Rate: Fast
Recommended Planting Spacing: 6-8 ft.
Special Soil Requirements: N/A
General Description:

- Highly adaptable native
- Attractive flower

Back…

Silky Dogwood *(Cornus amomum)*

Mature height: 8 ft.
Growth Rate: Medium
Recommended Planting Spacing: 6-8 ft.
Special Soil Requirements: N/A
General Description:

- Attractive flowers and fruit

Back…

Smooth Sumac *(Rhus glabra)*

Mature height: 8 ft.
Growth Rate: Fast
Recommended Planting Spacing: 6-8 ft.
Special Soil Requirements: N/A
General Description:

- Tolerates poor soil
- Good fall color

Back…

Grasses

Big Bluestem *(Andropogon gerardii)*

Mature height:7 ft
Growth Rate: moderate
Recommended Planting Spacing: 3-6 ft.
Special Soil Requirements: N/A

- Active summer growth
- Attractive in all seasons
- Good drought tolerance

Back…

Eastern Gamma Grass *(Tripsacum dactyloides)*

Mature height: 6 ft.
Growth Rate: fast
Recommended Planting Spacing: 3-6 ft.
Special Soil Requirements: N/A

- Active summer growth
- Low drought tolerance

Back…

Giant Miscanthus *(M. floridulus)*

Mature height: 12 ft.
Growth Rate: Fast
Recommended Planting Spacing: 4-8 ft.
Special Soil Requirements: N/A

Back…

Indian Grass *(Sorghastrum nutans)*

Mature height: 7 ft.
Growth Rate: moderate
Recommended Planting Spacing: 3-6 ft.
Special Soil Requirements: N/A
General Description:

- Attractive in all seasons
- Active summer growth
- moderate drought tolerance
-

Back…

Prairie Cordgrass *(Spartina pectinata)*

Mature height:6 ft.
Growth Rate: Medium
Recommended Planting Spacing: 3-6 ft.
Special Soil Requirements: N/A
General Description:

- For wetland areas
- Good for wet sites

Back…

Switchgrass *(Panicum virgatum)*

Mature height: 6 ft.
Growth Rate: Fast
Recommended Planting Spacing: 3-6 ft.
Special Soil Requirements: N/A
- suitable for wet areas

- Active summer growth
- moderate drought tolerance
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Back…