## Shelterbelt Plant Selection Guide

Click on the plant species below for more information.

### Evergreen Trees

<table>
<thead>
<tr>
<th>Black Hills Spruce</th>
<th>Eastern Red Cedar</th>
<th>Norway Spruce</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pitch x Loblolly Hybrid Pine</td>
<td></td>
<td></td>
</tr>
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</table>

*For difficult soils*  

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<tr>
<th>Shortleaf Pine</th>
<th>‘Green Giant’ Arborvitae</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virginia Pine</td>
<td></td>
</tr>
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*If irrigation is possible*  

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### Deciduous Trees

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<thead>
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</tr>
</thead>
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</tr>
</tbody>
</table>

### Shrubs

<table>
<thead>
<tr>
<th>Arrowwood Viburnum</th>
<th>Blackhaw</th>
<th>Buttonbush</th>
</tr>
</thead>
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<tr>
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<td>Cranberrybush Viburnum</td>
</tr>
<tr>
<td>Elderberry</td>
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<td></td>
</tr>
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</tr>
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### Grasses

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<th>Giant Miscanthus</th>
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<td></td>
</tr>
<tr>
<td></td>
<td></td>
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</tr>
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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

**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

**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

**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
**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

**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

**‘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

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**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
**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

**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

**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

**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
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

**Common Lilac**  *(Syringa vulgaris)*
Mature height: 8 ft.
Growth Rate: Medium
Recommended Planting Spacing: 6-8 ft.
Special Soil Requirements: N/A
- Attractive flowers

**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

**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
**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

**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

**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

**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

Leatherleaf Viburnum (*V. X rhytidophylloides '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

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

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
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

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

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

Giant Miscanthus  (*M. floridulus*)
Mature height: 12 ft.
Growth Rate: Fast
Recommended Planting Spacing: 4-8 ft.
Special Soil Requirements: N/A
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

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

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