# Tree Selection Aid: for linear sites with overhead powerlines

When to use:
This tool should be used when trees are planned to be planted along a linear site. A linear site maybe a street, a series of streets, a trail section, or a trail system, etc.

When the aesthetic of a mono-culture boulevard planting is desired but the risks of a mono-culture planting are not desired, use this tool to select tree species and cultivars that will achieve visual uniformity and ecological diversity.

How to use:
Before using this tool, it is important to analyze the conditions of the site to be planted, taking special note of the salinity, compaction, and moisture levels of the soil.

Select a logical starting location along the path, for example a trailhead or intersection. Select beginning at the starting point. This species can be planted in mass for a reasonable distance- the length of a city block, to the next intersection, one quarter mile. As the site and program allows, another species of similar size could be planted on the opposite side of the path.

As the planting plan progresses along the path, select consecutive species from the same or adjacent form category without selecting the same species.

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## Recommended Species Information

<table>
<thead>
<tr>
<th>Genus</th>
<th>Scientific Name</th>
<th>Selection</th>
<th>Common Name</th>
<th>Height</th>
<th>Width</th>
<th>Salt</th>
<th>Compaction</th>
<th>Moisture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cornus</td>
<td>alternifolia</td>
<td>Pagoda dogwood*</td>
<td>15</td>
<td>20</td>
<td>intermediate</td>
<td>intermediate</td>
<td>Mesic</td>
<td></td>
</tr>
<tr>
<td>Corncis</td>
<td>canadensis</td>
<td>Redbud*</td>
<td>20</td>
<td>25</td>
<td>sensitive</td>
<td>intermediate</td>
<td>Dry, Mesic</td>
<td></td>
</tr>
<tr>
<td>Cornus</td>
<td>mas</td>
<td>Corneliancherry dogwood</td>
<td>20</td>
<td>15</td>
<td>sensitive</td>
<td>tolerant</td>
<td>Mesic</td>
<td></td>
</tr>
<tr>
<td>Syringa</td>
<td>pekinensis</td>
<td>'DTR 124' Summer Charm Pekin lilac</td>
<td>20</td>
<td>15</td>
<td>tolerant</td>
<td>sensitive</td>
<td>Dry, Mesic</td>
<td></td>
</tr>
<tr>
<td>Prunus</td>
<td>cerasifera</td>
<td>'Cripoizam' Flowering Plum</td>
<td>20</td>
<td>20</td>
<td>sensitive</td>
<td>intermediate</td>
<td>Dry</td>
<td></td>
</tr>
<tr>
<td>Amelanchier</td>
<td>x grandiflora</td>
<td>'Cole’s Select', 'Princess Diana' Serviceberry*</td>
<td>20</td>
<td>15</td>
<td>tolerant</td>
<td>tolerant</td>
<td>Mesic</td>
<td></td>
</tr>
<tr>
<td>Cornus</td>
<td>caroliniana</td>
<td>American hornbeam/Musclewood*</td>
<td>25</td>
<td>25</td>
<td>intermediate</td>
<td>intermediate</td>
<td>Mesic</td>
<td></td>
</tr>
<tr>
<td>Prunus</td>
<td>maackii</td>
<td>Amur chokecherry</td>
<td>20-30</td>
<td>18-25</td>
<td>tolerant</td>
<td>sensitive</td>
<td>Moist, Mesic</td>
<td></td>
</tr>
<tr>
<td>Amelanchier</td>
<td>x grandiflora</td>
<td>'Autumn Brilliance' Serviceberry*</td>
<td>20</td>
<td>15</td>
<td>tolerant</td>
<td>sensitive</td>
<td>Mesic</td>
<td></td>
</tr>
<tr>
<td>Crataegus</td>
<td>phaenopyrum</td>
<td>Washington hawthorn</td>
<td>25</td>
<td>20</td>
<td>sensitive</td>
<td>intermediate</td>
<td>Mesic</td>
<td></td>
</tr>
<tr>
<td>Crataegus</td>
<td>crusgalli var. inermis</td>
<td>Thorneless Cockspur Hawthorn</td>
<td>20-35</td>
<td>20-35</td>
<td>sensitive</td>
<td>intermediate</td>
<td>Dry, Mesic</td>
<td></td>
</tr>
<tr>
<td>Crataegus</td>
<td>viridis</td>
<td>Winter King Hawthorn</td>
<td>25-35</td>
<td>25-35</td>
<td>sensitive</td>
<td>intermediate</td>
<td>Mesic</td>
<td></td>
</tr>
<tr>
<td>Ostrya</td>
<td>virginiana</td>
<td>American hophornbeam*</td>
<td>30</td>
<td>20</td>
<td>intermediate</td>
<td>sensitive</td>
<td>Moist, Mesic</td>
<td></td>
</tr>
<tr>
<td>Anelanchier</td>
<td>x grandiflora</td>
<td>'Strata' Serviceberry</td>
<td>30</td>
<td>30</td>
<td>tolerant</td>
<td>tolerant</td>
<td>Mesic</td>
<td></td>
</tr>
<tr>
<td>Carpinus</td>
<td>betulus</td>
<td>'Fastigiata' European hornbeam</td>
<td>30-40</td>
<td>30-40</td>
<td>sensitive</td>
<td>tolerant</td>
<td>Moist, Mesic</td>
<td></td>
</tr>
</tbody>
</table>

* = Native to Iowa

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Created by E. Swihart
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Historic encounters with diseases and insects that have left a lasting impact on our urban forest. Luckily, these diseases and insects tend to be species-specific—preferring a single genus or species. As a result, community forests comprised of a variety of species will suffer fewer losses when an outbreak occurs.

As a goal, forest and landscape professionals generally recommend that a community forest be comprised of:

- No more than 10% of any species,
- No more than 20% of any genus, and
- No more than 30% of any family.

As such, it is important to know what trees you have in your town and in what numbers before planning large scale projects.

Site Conditions:
Weather patterns and human responses to weather events can impact tree survival. Winter snow (and salt) can be plowed to the side of the street, drainage patterns can influence water flows, and exposure to wind can challenge the survival of some species.

Soil Conditions:
Soil conditions can be one of the most important factors. Some trees are more tolerant to wet conditions than others, while some will thrive in dry soils.

Hazards:
Prior to ever digging a hole, it is vital to call Iowa One Call. This can prevent the accidental burial of underground gas and electric lines.

Plant Selection Factors:

- Soil conditions:
- Site conditions:
- Hazards:
- Other factors include:
- Drainage patterns:
- Exposure to wind:
- Almighty:
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- Site conditions:
- Hazards:
- Other factors include:
- Drainage patterns:
- Exposure to wind:

Avoid 'Pac-Man': Plant the Right Tree in the Right Place

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