## Windbreak/Shelterbelt Establishment
### (CPS 380)

**Payment Rate:** $1.22/Ft; $1.78/Ft with fence

Windbreaks or shelterbelts are single or multiple rows of trees or shrubs planted in linear configurations, to reduce soil erosion from wind; protect crops, livestock, and farmsteads from wind and related microclimate effects; and improve air quality by intercepting drifting chemicals and odors.

**Co-benefits**
- Increases carbon storage in biomass and soils
- Reduces soil erosion from wind
- Protects plants from wind related damage
- Alters the microenvironment for enhancing plant growth
- Provides shelter and enhances wildlife habitat
- Provides noise and visual screens
- Improves air quality by reducing and intercepting air borne particulate matter, chemicals and odors
- Improves irrigation efficiency

### Example Windbreak/Shelterbelt Project Description

XX Farm is a small family-farm that raises pasture eggs from about XX chickens and grazes XX beef cows on XX acres in Marin County. *The XX Farm is one of twenty Carbon Farm Plans written by the Marin Carbon Project collaborative (not required).* The proposed project is to install XX California native trees (mostly evergreen) and shrubs to create a XX linear-foot long windbreak/shelterbelt along the west border of the ranch. The mixed species planting will consist of locally-adapted California native trees and shrubs, which will be selected based on what is best for the site (determined by the soil, water, wind and light conditions of site) and what is available at local native plant nurseries or other appropriate sources. This project will be in collaboration with XXX (MRCD/MALT/NRCS), which provides planning, design and implementation assistance to landowners. XXX (MRCD/MALT/NRCS) will provide technical assistance and support for this project through the monitoring phase.

### Example Windbreak Project Design

**RePlan Tool**

3. **Species Selection**

   - **Write-ins:** We recommend you write in the following, tailored to the plant types you will be using in your project: "The mixed species planting that has been selected consists of locally-adapted California native trees, shrubs and forbs, which are selected based on what is most..."
suitable for the site (determined by soil, water, wind and light conditions). The plant list may be revised based on what is available at local native plant nurseries or other appropriate sources.” This may allow you some extra flexibility in selecting plant species upon project implementation, if needed.

- **Recommended Species:** See the document in Step 3: Project Design titled Native Plant Species Adapted to Marin County, Listed by Practice for specific local suggestions.

### Planting Project Timeline

**Hedgerow, Windbreak, Riparian Forest Buffer, Silvopasture, Tree and Shrub Establishment**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>Aug</th>
<th>Sept</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source container plants</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collect soil samples</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant container plants</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant willow stakes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintain planting: irrigation, weeding,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Install when dormant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and herbivore protection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Install when dormant*