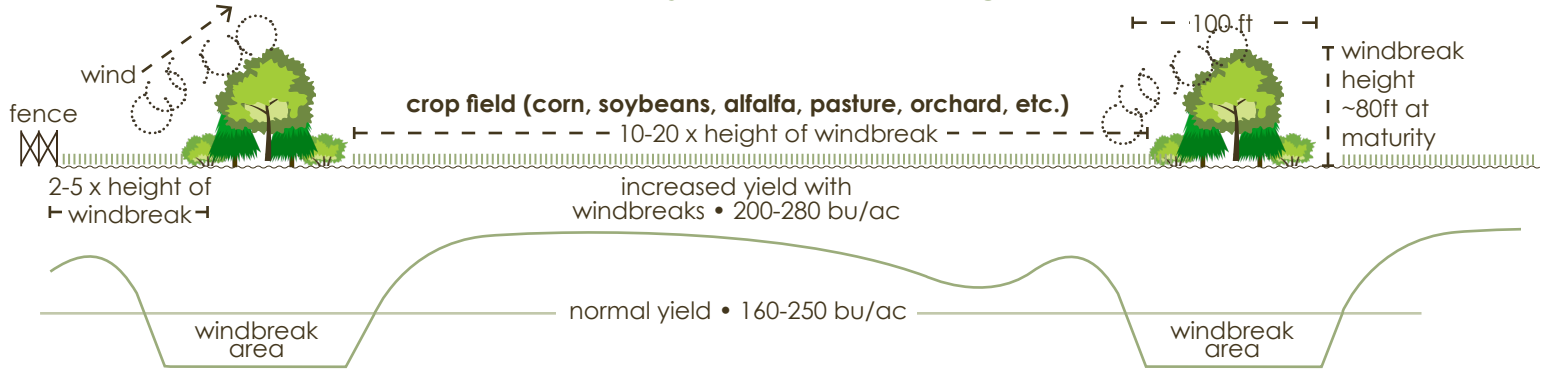


Windbreaks

WINDBREAKS & YIELD

TILE & TREES

Increase Crop Yield with Properly Spaced & Managed Field Windbreaks*



Field Windbreaks Yield Many Benefits

- Slower wind speed on crops means less water lost to evapotranspiration and less energy devoted to holding plants upright.
- 10-15% increase in crop yields.
- Timber, fruit, and nut production potential.
- Mitigation of herbicide drift on crops.
- Increased biodiversity, habitat for beneficial insects, birds, and small mammals.

Challenges of Windbreak Establishment

- Requires up-front investment of trees, shrubs, and labor.
- Takes time for crop yield increase to cover cost of the land removed from crop production.
- Management is needed to mow and spray herbicides around trees and shrubs during establishment.
- Success is dependent on choosing appropriate species for each site's soil, climate, drainage, and pest pressure.

**Adapted from ISU Forestry Extension Publication PM-1716.*

Windbreaks

WINDBREAKS & YIELD

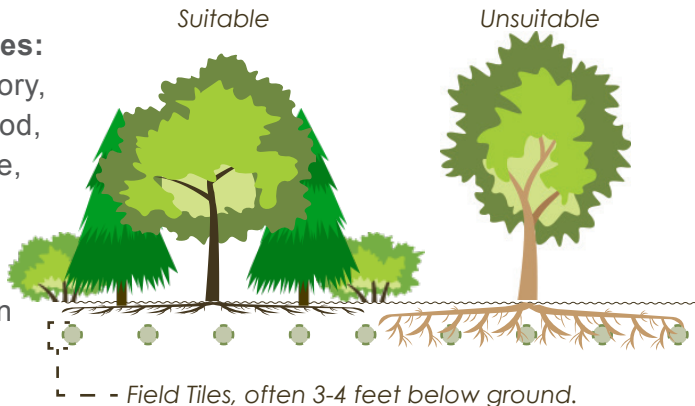
TILE & TREES

Windbreak Interactions with Field Tile

Trees Safe for Tiles:

Oak, Walnut, Hickory,
Chestnut, Basswood,
Pine, Cedar, Maple,
Hackberry, Cherry

About half of a
tree's roots grow in
the top 6 inches
of soil.



Trees that Can Disrupt Tiles:

Cottonwood, Willow

If cottonwood or willow are planted in a
windbreak, nearby perforated drainage
tiles will need to be cleared and replaced
more often.

Avoiding Tile Trouble

Increase distance between trees and tiles with shrub
rows or prairie.

If windbreaks will not be kept free of problem species
such as cottonwood and willow, non-perforated tile
should be installed within 125 feet of the windbreak.

