



CP5A - Field Windbreaks

50

percent, or more, reduction in wind speed

10
day increase of the growing season

ECONOMIC

ADVANTAGES

42% of the erosion damage occurring in Michigan annually is caused by wind erosion.

Windbreaks can extend the growing season by sheltering crops from frost conditions resulting in increased crop development and earlier crop maturity.

Only 1 - 5% of the land base is needed to protect crops from damaging winds.

For more information:

Contact:

Just the basics

Field windbreaks are narrow rows of trees and shrubs that are strategically placed between fields to reduce the effects of damaging wind. Field wind breaks can be implemented to meet multiple objectives including:

- · Reduce soil erosion from wind
- Protect plants from wind related damage
- Manage snow deposition
- Provide wildlife corridors and nesting sites
- Provide noise and visual screens
- Increase carbon storage in biomass and soils

CREP policy guidelines

- Field Windbreaks must be installed according to the Windbreak/Shelterbelt Establishment (380) standard in the local Field Office Technical Guide (FOTG).
- Maximum width and spacing will be the minimum needed to achieve 40% density, the level needed to effectively reduce wind erosion.
- Must be placed perpendicular to the troublesome wind.
- Must contain a minimum of one row of trees and two rows of shrubs, and a maximum of two rows of trees and three rows of shrubs.







What is the life cycle of a field windbreak?

SITE PREPARATION

Sample the soil at least six months prior to planting.

Soil testing should be done by an accredited laboratory with the North American Proficiency testing program when and MSU laboratory is not used.

Existing vegetation can be removed using mechanical and/or chemical methods prior to planting.

If the field is currently in cropland, weed control should occur prior to planting with tillage or herbicide.

If the site is currently in sod, weed control with a broad-spectrum herbicide in the fall and again in the spring prior to green up and planting.

Contact MSU Extension for herbicide recommendations.

Pre-planting weed control must comply with CPS Tree/Shrub Site Preparation (490) FOTG. Refer to the Tree/Shrub Site Preparation job Sheet for additional considerations.

PLANTING GUIDE

Bare-root stock and non-rooted cuttings should be completed in the spring after the ground thaws, but no later than June 1st. Fall planting should occur no later than October 1st, or until the ground freezes.

Containerized, balled, and burlap stock may be planted between October 1st and June 1st.

Direct seeding may occur between Oct. 1 - April 30 as weather permits.

Tree and shrub selection are determined by soil and site conditions. Species selection is limited to those listed in Section II of the FOTG:
Conservation Tree/Shrub Suitability
Groups (CTSG).

Until establishment, a 9ft. sq. area around each tree should remain weed-free.

Post-planting weed control must comply with CPS Herbaceous Weed Treatment (315). Refer to the Herbaceous Weed Treatment job sheet for additional considerations.

DESIGN

CONSIDERATIONS

Species shall be adapted to soil, ecological sites, and climate conditions that are suitable for the planned purpose and site conditions and the accommodation of needed growing space and maintenance equipment.

Spacing between rows

- Shrubs and/or small trees (10-25" ht.): 12' - 20' feet.
- Shrubs and/or small trees (10 25' ht.) and a row of tall trees (<25' ht.): 16' 20'
- Rows of large trees (>25' ht.): 20'

Spacing within rows

- Shrubs less than 10' in ht.: 4' 8'
- Shrubs and small trees from 10' to 25' in ht.: 5' - 10'
- Trees greater than 25' in height: 8' 18'

Planting stock size requirements can be found in Windbreak/Shelterbelt Establishment (380) job Sheet found in the FOTG.

A 4% increase in field windbreak habitat increases pheasant counts by 22% in prime habitat locations.

Develop a Conservation Plan with USDA approved conservationist. Perform periodic management activities according to the conservation management plan. Replacement costs of dead trees and shrubs when less than 80% of the plants are living. Maintenance of field windbreaks according to the conservation management plan. Complete practice within 12 months of the effective date of the contract Will maintain practice without additional cost-share

payments

LANDOWNER

CONTRACT

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Complete a soil test to determine which trees and shrubs are best suited to site conditions.
Complete the Implementation Requirements windbreak/shelterbelt sheet with client to outline installation requirements and obtain necessary permits.
Documentation of operation and maintenance for at least the first three years.
Develop written plans, including sketches and drawings to adequately describe the practice installment.
Order needed equipment, such as disk, for site