

**NATURAL RESOURCES CONSERVATION SERVICE  
CONSERVATION PRACTICE STANDARD**

**CROSS WIND RIDGES**

**(Acre)**

**Code 589A**

**DEFINITION**

Ridges formed by tillage or planting and aligned across the prevailing wind erosion direction.

**PURPOSE**

This practice may be applied as part of a conservation management system to reduce soil erosion from wind.

**CONDITIONS WHERE PRACTICE APPLIES**

This practice applies to cropland, or other land where crops are grown.

It is best adapted on soils which are stable enough to sustain effective ridges, such as clayey, silty, and sandy loam soils.

It is not well adapted on unstable soils such as sands, loamy sands, and certain organic soils.

**CRITERIA**

**Ridge height, spacing, and direction:**

Acceptable combinations of ridge height, spacing, and direction are those having Ridge Roughness K values equal to 0.8 or less during those periods when wind erosion is expected to occur. K values are displayed in the National Agronomy Manual, Exhibit 502.62(a), and in the Soil Conservation Service, Colorado Erosion Handbook, Water and Wind, Ridge Roughness "K", June, 1988.

**CONSIDERATIONS**

Transport of wind-borne sediment and sediment-borne contaminants offsite can be reduced by this practice when used in a conservation management system.

Where water erosion along the furrows formed by ridges is a concern, the hazard can be reduced by farming across the slope according to the Contour Farming practice standard (330).

**PLANS AND SPECIFICATIONS**

Specifications for establishment and maintenance of this practice shall be prepared for each field or treatment unit according to the Criteria, Considerations and Operation & Maintenance described in this standard.

Specifications shall be recorded using approved specification sheets, job sheets, narrative statements in the conservation plan, or other acceptable documentation.

**OPERATION AND MAINTENANCE**

Ridges shall be established or reestablished by normal tillage and planting equipment such as chisel plows, drills with hoe openers, or other similar implements that form effective ridges.

After establishment, ridges shall be maintained through those periods when wind erosion is expected to occur, or until growing crops provide cover to protect the soil from wind erosion.

If ridges deteriorate and become ineffective due to weathering or erosion, they shall be reestablished unless doing so would damage a growing crop.

**REFERENCES**

USDA, Soil Conservation Service, Colorado, Erosion Handbook, Water and Wind, Ridge Roughness "K", June, 1988.

USDA, Natural Resources Conservation Service, Colorado Field Office Technical Guide, Section I, Erosion Prediction, Climate Data Index, March, 1998.