

**NATURAL RESOURCES CONSERVATION SERVICE  
CONSERVATION PRACTICE STANDARD**

**CROSS WIND RIDGES**

(Ac.)

CODE 589A

**DEFINITION**

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

**PURPOSE**

Reduce soil erosion from wind.

**CONDITIONS WHERE PRACTICE APPLIES**

This practice applies to cropland.

It is best adapted on soils that are stable enough to sustain effective ridges and cloddiness, 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. Ridge roughness is discussed in the National Agronomy Manual Subpart 502.32 and K values are displayed in Exhibit 502-4 or 502-5, and in Section I Erosion Prediction Wind Erosion of the Nebraska Field Office Technical Guide.

**CONSIDERATIONS**

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

resource management system, in conjunction with other wind erosion control practices. This can include practices such as Windbreaks/Shelterbelt Establishment (380), Cross Wind Trap Strips (589C), Stripcropping (585), and Herbaceous Windbarriers (603) that reduce unsheltered distance. It can also include Conservation Crop Rotation (328), Cover Crop (340) and Residue and Tillage Management (329, 344, 345, or 346), that provide vegetative cover at the appropriate time.

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 standards for Contour Farming (330) and Contour Buffer Strips (332).

**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 Nebraska Conservation Planning Sheets, approved specification sheets, job sheets, narrative statements in the conservation plan or other acceptable documentation.

**OPERATION AND MAINTENANCE**

Ridges shall be established or re-established by equipment such as chisel plows, drills with hoe openers, or other 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

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version of this standard, contact the Natural Resource Conservation Service.

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provide enough cover to protect the soil from wind erosion.

If ridges deteriorate and become ineffective due to weathering, erosion, or change in expected prevailing wind erosion direction, they shall be re-established unless doing so would damage a growing crop.

### **REFERENCES**

[National Agronomy Manual, Third Edition, October 2002, Part 502-Wind Erosion.](#)