

NATURAL RESOURCES CONSERVATION SERVICE
CONSTRUCTION SPECIFICATIONS

CROSS WIND TRAP STRIPS

1. Scope

The work shall consist of growing and maintaining annual vegetation, permanent vegetation, or standing residues in one or more strips to offset adverse wind effects.

2. Field Layout

The strip(s) will be laid out downwind of the contributing area and upwind of the area intended to protect. They should be located at an angle from 65 to 90 degrees to the direction of the prevailing erosive winds during the critical wind erosion management period, and as shown on the drawing and specified on the Form KS-ECS-589C, Cross Wind Trap Strips.

A strip along the upwind edge of a field will be laid out as specified on the Form KS-ECS-589C.

The width of strips shall not be less than the width specified on the Form KS-ECS-589C. The minimum width will be at least 15 feet wide when the standing vegetation is at least 1 foot tall. The minimum will be 25 feet when the standing vegetation will be less than 1 foot tall.

Calculate needed in-field strip widths by either varying the strip width or the contributing area to the intended level of erosion control, as described in the National Agronomy Manual, Part 502, or utilizing Wind Erosion Prediction System (WEPS) to meet the wind erosion control and/or the crop tolerance (Table 502-1 of the National Agronomy Manual) objectives. The maximum allowable soil loss after the installation of this practice, including all management considerations will not be greater than the Soil Loss Tolerance (T) value for the soil being managed.

For a strip next to an elevated road, calculate the width by adding 10 feet to the minimum width for each foot of elevation rise the road has above the field.

The maximum width for a field edge strip, excluding next to an elevated roadbed, will be 50 feet.

3. Vegetative Cover

Annual vegetation grown in the trap strip will be stiff, erect-stemmed species capable of enduring the effects of wind during the critical wind erosion period. Annual vegetation will be established in time to reach at least the designed height and be maintained during the determined critical wind erosion management period(s). For establishing growing annual covers for trap strips, refer to Conservation Practice 340, Cover Crops, for plant adaptability and characteristics.

Crop residues will be standing and undisturbed by tillage through the critical wind erosion management periods.

Perennial species will be established according to Conservation Practices 512, Pasture and Hay Planting, or 550, Range Planting. See Table 1 for plant characteristics relevant to this specification.

When the predicted wind erosion for the contributing area is greater than twice the T, refer to Conservation Practice 342, Critical Area Planting.

To establish perennial species that will enhance wildlife consult Conservation Practice 645, Upland Wildlife Habitat Management, for additional desired species.

Documentation of vegetative cover establishment will be completed on Form KS-ECS-4, Grass Seeding.

4. Maintenance

Strips shall be established and/or maintained each year in a manner that provides the designed widths and vegetative covers during the critical wind erosion period(s) specified on the Form KS-ECS-589C.

When trap strips become elevated more than 6 inches above the original field, the sediments will be removed to prevent the formation of a ridge or dune and the cross wind trap strip re-established.

5. Other Requirements

The owner, operator, contractor, and other persons shall conduct all work and operations in accordance with proper safety codes for the type of equipment and operations being performed with due regard to the safety of all persons and their property.

Operations shall be done in a manner that soil erosion and air pollution are minimized and held within legal limits.

Table 1
PLANT CHARACTERISTICS

NAME	NATIVE (N)	MAXIMUM HEIGHT	POROSITY ¹ WINTER	POROSITY ¹ SUMMER	SHAPE ²
Alfalfa		4	P	M	E
Big Bluestem	N	6	P	D	E
Birdsfoot Trefoil		3	P	M	D
Blue Grama	N	1	P	M	E
Buffalo Grass	N	0.5	P	P	D
Fourwing Saltbush	N	4	M	M	SE
Indiangrass	N	6	P	D	E
Intermediate		4	P	D	E
Little Bluestem	N	3	P	D	E
Smooth Brome		4	P	D	E
Perennial Ryegrass		2.3	P	D	E
Pubescent Wheatgrass		5	P	D	E
Sand Bluestem	N	6	P	M	E
Sand Dropseed		2	P	P	E
Sand Lovegrass		3.5	P	D	E
Sideoats Grama	N	3	P	D	E
Sweetclover		5	P	P	E
Switchgrass	N	5	D	D	E
Tall Wheatgrass		6	P	D	E
Western Wheatgrass		2	P	M	SE
White Clover		2	M	M	P
Winterfat	N	2	M	M	E

¹ Porosity—**D** = Dense Growth, **M** = Moderately dense growth, **P** = Porous

² Shape—**D** = Decumbent (prostrate and turned up on the ends), **E** = Erect, **P** = Prostrate, **SE** = Semi-Erect