

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE GENERAL SPECIFICATIONS**

CROSS WIND TRAP STRIPS

(Ac.)

CODE 589C

GENERAL SPECIFICATIONS

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.

GENERAL DESIGN AND 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 as close to perpendicular to the prevailing erosive wind direction during the critical wind erosion management period, and as shown on the drawing and specified on the Conservation Practice Job Sheet 589C, Cross Wind Trap Strips.

A strip along the upwind edge of a field will be laid out as specified on Job Sheet 589C.

The width of strips shall not be less than the width specified on the Job Sheet 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, Section 502.34, or utilizing the Wind Erosion Prediction System (WEPS) to meet the wind erosion control and/or the crop tolerance (Table 502-4 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.

When considering the edge of field strip width to be beneficial for wildlife, the minimum width will be 30 feet.

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

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 Standard 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 Plant Materials Technical Note OK-21 and Critical Area Planting (342) specifications. Specific varieties, areas of adaptation, methods of seeding, seeding dates, seeding rates and seedbed preparation guidelines are found in Plant Materials Technical Note OK-21 (http://efotg.sc.egov.usda.gov/references/public/OK/planmat_ok-21vegtn_82011.pdf)

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

Documentation of vegetative cover establishment will be completed on Certification Sheet 589C.

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 Job Sheet 589C.

Haying, mowing, or grazing of trap strips shall be done only during periods when wind erosion or crop damage will not occur. The design height shall be maintained during the erosive wind periods. Height requirements for haying or mowing shall be in accordance with Table 1 in the Oklahoma NRCS Forage Harvest Management (511) Standard and Specification. Grazing shall be in accordance with the Oklahoma Prescribed Grazing (528) standard and specification. Grazing heights shall be maintained one inch higher than the heights listed in the continuous use column (table 1 of the Prescribed Grazing (528) standard and specification).

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.

ADDITIONAL 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 applicable legal limits.

TABLE 1 ^{1/}

ESTIMATED TOLERANCE OF CROPS TO WIND AND/OR BLOWING SOIL

Tolerant (5 tons/ac/yr)*	Moderate Tolerance (2 tons/ac/yr)	Low Tolerance (1 ton/ac/yr)	
Barley	Alfalfa (Est.)	Broccoli	
Buckwheat	Corn	Cabbage	Asparagus
Flax	Onions (>30days)	Cotton	Cantaloupe
Grain Sorghum	Soybeans	Cucumbers	Carrots
Millet	Sunflowers	Garlic	Celery
Oats	Sweet Corn	Green Beans	Eggplant
Rye		Lima Beans	Flowers
Wheat		Peas	Lettuce
		Peanuts	Muskmelons
		Potatoes	Onion seedlings
		Sweet Potatoes	Peppers
		Canola	Spinach
			Squash
			Strawberries
			Beets
			Tomatoes
			Watermelons

^{1/} Data in Table 1 extracted from Table 502-1 (pg. 502-2) National Agronomy Manual.

*Crops will tolerate wind erosion equal to or greater than 5 tons/ac/yr soil loss.

The crops listed above are generally in the seedling to very young growth stage unless otherwise stated.

Crop tolerance values are expressed as tons/ac/yr. The system should be designed to prevent soil loss from exceeding the crop tolerance level the year the crop is grown. Values are estimates.