

Cross Wind Trap Strips

Conservation Practice Job Sheet

589C

Client Name: _____



Definition

Cross wind trap strips are areas of herbaceous cover resistant to wind erosion, established in one or more strips across fields and perpendicular to the prevailing wind erosion direction.

Cross wind trap strips reduce soil erosion by wind, induce deposition and reduce transport of wind-borne sediment and sediment-borne contaminants downwind, protect growing crops from damage by wind-borne soil particles, and provide food and cover for wildlife.

Where Used

Cross wind trap strips are located on land where crops are grown. Trap strips are applicable wherever it is desirable to trap wind-borne sediment and where conservation objectives include wildlife food, cover, and travel corridors. Strips are located within cropland fields that are susceptible to wind erosion or wind erosion damage, including locations adjacent to watercourses, water bodies, drainage ditches, and other sensitive areas that need protection from wind-borne sediment.

Resource Management System

Cross wind trap strips are normally established concurrently with other practices as part of a resource management system for a conservation management unit. Examples include the residue management practices and cross wind ridges. Practicing residue management within the field can help reduce the movement of wind-borne soil particles and allow a greater distance between trap strips. Cross wind ridges can help reduce the movement of soil particles by creating a rough soil surface that is resistant to erosion by wind.

Cross wind trap strips also can function as an important mitigation technique for other conservation practices, such as pest management. Plant species selected for effective trap strips can function as habitat for beneficial insects and birds, thus reducing pest problems in adjacent crops.

Wildlife

Cross wind trap strips provide excellent opportunities to improve wildlife habitat by creating travel lanes that connect important habitat areas or infield escape cover. For wildlife habitat benefits, select native or other adapted plant species that provide wildlife both food and cover.

Operation and Maintenance

Cross wind trap strips must be inspected periodically for health and effectiveness. Weeds and other pests need to be controlled to enhance the establishment and longevity of the desirable species. Soil fertility must be monitored and fertilizer added as needed. Mowing, grazing, or burning of trap strips must be managed to insure effectiveness of the strips during the critical period(s) for which they were designed. Trap strips may need to be relocated periodically because of sediment accumulation. It may also be necessary to reestablish or relocate the trap strips periodically to maintain the desired plant density and height.

Specifications

Site-specific requirements are listed on the specifications sheet. Additional provisions are illustrated on the job sketch sheet. Spacing of the erosion-susceptible strips is determined using the current NRCS wind erosion prediction technology. Specifications included in this job sheet are prepared in accordance with the NRCS Field Office Technical Guide. See practice standard Cross Wind Trap Strips (589C).

Cross Wind Trap Strips – Job Sheet

Landowner _____ Field number _____

Purpose (check all that apply)			
<input type="checkbox"/>	Reduce soil erosion by wind (requires use of WEPS to determine strip width)	<input type="checkbox"/>	Protect growing crops from damage by wind-borne soil particles (requires use of WEPS to determine width of trap strips)
<input type="checkbox"/>	Induce deposition and reduce transport of sediment and contaminants	<input type="checkbox"/>	Provide food and cover for wildlife (evaluate habitat values using Oregon Biology Technical Note #27)

Individual Trap Strip Layout and Design			
Prevailing Wind Direction (during erosive periods):			
Design (check one):		General Criteria	Determined by use of WEPS (attach)
Vegetation Type:	<input type="checkbox"/> Annual	<input type="checkbox"/> Perennial	Crop Protected:
Planned Vegetation Height (inches):		Trap Strip Width (feet):	
Plant Species:			
Seeding Date:		Seeding Depth (inches):	

Plant Materials Species/Cultivar	Full Seeding Rate (lbs/acre of pure live seed)	% Mix Desired	Rate Per Acre	Acres	Lbs. PLS Needed
Barrier 1:					
TOTALS					

Plant Materials Species/Cultivar	Full Seeding Rate (lbs/acre of pure live seed)	% Mix Desired	Rate Per Acre	Acres	Lbs. PLS Needed
Barrier 2:					
TOTALS					

Trap Strip System Layout	
Distance Between Trap Strips (feet):	Total Number of Trap Strips:
Total Area in Trap Strips (acres):	Total Amount of Seed Required (PLS lbs):

****Attach a map or aerial photo showing the location of the strips****

Trap Strip Establishment
Site preparation and seeding:
Seedbed (<i>Firm and weed free</i>):
Fertilizer:
Mulching:
Other:

Operation and Maintenance
<ul style="list-style-type: none"> • Fertilize strips as needed to maintain plant vigor • Control noxious weeds • Manage mowing or grazing to allow re-growth to the planned height before periods of wind erosion or crop damage are expected to occur • Remove and re-distribute wind borne sediment over the surface of the field as appropriate • Re-establish or relocate strips as needed to maintain plant density and height • When barriers are designed for a wildlife purpose, mowing or pruning is allowed only if their height and width exceeds what is required to meet the wildlife objective, and they become competitive with adjacent land uses. Mowing/pruning is done only during the non-nesting season.
Other Operation and Maintenance:

Additional Specifications and Notes:

589C OR-Specification

CROSS WIND TRAP STRIPS SPECIFICATION SHEET

DESIGN APPROVAL:

Practice Code NO.	PRACTICE	LEAD DISCIPLINE	CONTROLLING FACTOR	UNITS	JOB CLASS				
					I	II	III	IV	V
589C	Cross Wind Trap Strips	BCSD-Agron	1) Precipitation	Inches	Irr.	>17"	12-17"	<12"	All
			2) Area	Acres	160	320	640	All	All

This practice is classified as Job Class _____

Design Approved by: /s/ _____ Date: _____

Job Title: _____

CLIENTS ACKNOWLEDGEMENT STATEMENT:

The Client acknowledges that:

- a. They have received a copy of the specification and understand the contents and requirements.
- b. The following information must be provided to NRCS by the client before this practice can be certified as applied:

Records that include information about site preparation activities to establish the strips such as tillage operations, fertilizer, and pre/post emergent pesticides.

Information about the species planted, rates, number of plants, and the layout of the strips.

Information on mulch or plant protectors used, if required by the design.

- c. It shall be the responsibility of the client to obtain all necessary permits and/or rights, and to comply with all ordinances and laws pertaining to the application of this practice.

Accepted by: /s/ _____ Date: _____

CERTIFICATION:

I have completed a review of the information provided by the client and certify this practice has been applied.

Certification by: /s/ _____ Date: _____

Job Title: _____

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