WIND STRIPCROPPING 585

CONSERVATION SHEET

AGRONOMY SERIES October 2009

Natural Resources Conservation Service

Michigan

Wind Strip Cropping, Grand Traverse County

What is Wind Stripcropping?

Wind stripcropping is growing crops in strips established across the prevailing wind erosion direction. They are arranged so that strips susceptible to wind erosion are alternated with strips having protective cover that is resistant to wind erosion.

How Strips Work

Wind stripcropping reduces and controls wind erosion. Alternating strips of grass and row crops reduce soil movement by wind and enhance the growing environment on the leeward side of the protective strip.

Where Stripcropping Applies

Wind stripcropping is used on cropland to protect the soil from wind erosion and sensitive crops from wind abrasion. For example: corn and hay, or snap beans and wheat in rotation.

Where to Get More Assistance

Additional assistance may be obtained from the local office of a Michigan Conservation District or the USDA Natural Resources Conservation Service (NRCS) local office at:

_____

_____

_____

Design Criteria

Date: _____

Assisted by: _____

Project location and information:

Client name: _____ County: _____

Township: _____ Section: _____

Farm Name: _____

Tract Number: _____ Field Numbers: _____

1. Conservation crop rotation

Crop	Year

2. Type and width of planting and harvesting equipment:

_____

_____

_____

3. Site Information

Field Number	Soil type	*WEG	*T	Field Width [1]

**WEG (Wind Erodibility group) and T (soil loss tolerance), local NRCS Field Office Technical Guide (FOTG) Section I, Soils Data Mart, Physical Soil properties, NRCS Web Soil Survey or the county soil survey book*

[1] Width of field perpendicular to strips.

Row Direction (N-S E-W)	Barrier Height x 10	Strip Width	Strip Number

Considerations for Design and Layout

1. First, measure the field or aerial photo to estimate the number of strips.

2. At the field, measure the actual distances and record.

3. Discuss workable strip widths and field border offset with farm operator; modify as needed for actual conditions.

4. Set flags or markers on each end of the field and set strip boundary flags to identify strip edges.

5. Marking the field boundaries soon after the strips are established is best. A single bottom plow, the last bottom of a semi-mounted plow, or similar equipment works well.

6. Permanently marking the ends of the strips on the field edge with a painted fence post or similar marker helps to maintain the strip edges. Take care when placing the markers so that they will not be in the way of equipment.

Other Considerations

A number of environmental effects will occur with the design and establishment of a Wind Stripcropping System. A consideration of these effects will allow for incorporation of companion planning elements to achieve an ecosystem-wide conservation plan for the area where the wind strips are to be established.

Effects that may be considered include:

- wind erosion (calculated);
- soil tilth and organic matter;
- excess pesticides in soil;
- decreased sediment deposition;
- improved visibility;
- less restrictive capacity in small water conveyance such as water bodies, streams, lakes and wetlands;
- reduced sediment bound nutrients in surface water;
- less sediment in surface water;
- improved dissolved oxygen in surface water;
- decreased sediments causing safety, health, and property problems;
- reduced wind velocity and movement;
- improved establishment and growth of plants;
- improved plant yield;
- potential to increase overwinter sites for plant pests;
- improved wildlife water and cover;
- increased wildlife species; and
- reduced human stress and health threat via balanced, diverse crop rotations that improve yearly cash flow.