

Herbaceous Wind Barriers

Conservation Practice Job Sheet FL-603-JS

Natural Resources Conservation Service, Florida

June 2011



Crop rows between barriers

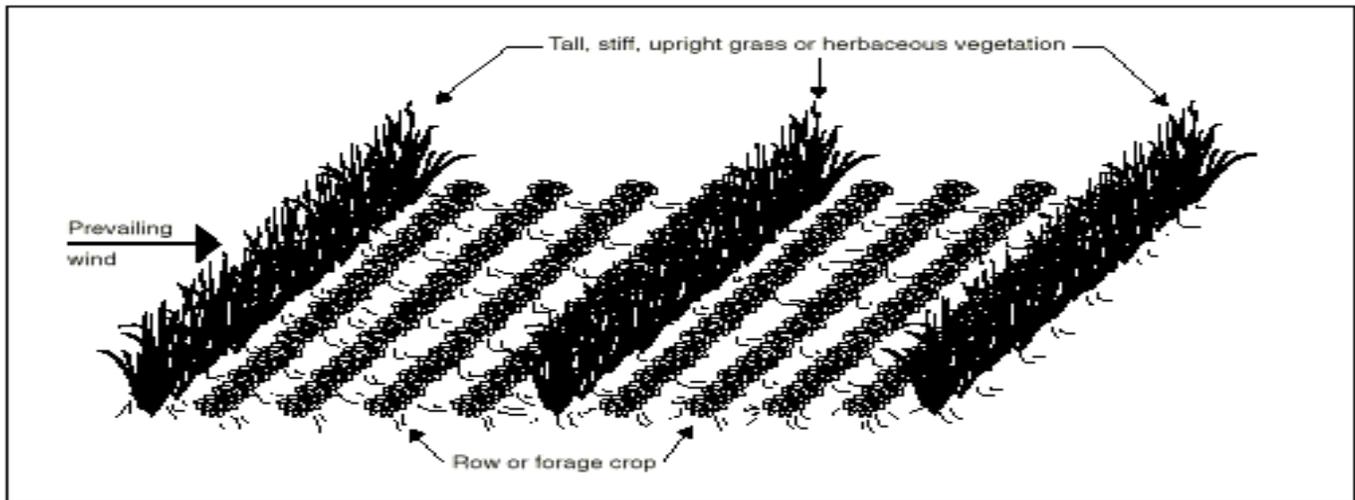
Herbaceous wind barrier is vegetation established in rows or narrow strips in the field across the prevailing wind direction.

The purposes of herbaceous wind barriers are to reduce soil erosion from wind, reduce soil particulate emissions to the air, and protect growing crops from damage by wind or wind-borne soil particles. Soil erosion is decreased due to a reduction in wind velocity at the soil surface. Wind-borne soil particles are trapped by the barriers, thereby reducing the potential for damage to adjacent crops. Some wildlife species use herbaceous wind barriers for food, shelter, nesting, and travel lanes.

Herbaceous wind barriers are normally established concurrently with other practices as part of a conservation plan for a conservation management unit. Examples include the residue management practices, such as no-till/strip till and mulch till and cross-wind ridges. Managing crop residues within the field can help reduce the movement of wind-borne soil particles and allow a greater distance between barriers.

Herbaceous wind barriers can also function as an important mitigation technique for other conservation practices, such as integrated pest management. Plant species selected for effective wind barriers can function as habitat for beneficial insects and other wildlife and, therefore, reduce pest problems in adjacent crops.

HERBACEOUS WIND BARRIERS JOBSHEET



Herbaceous wind barriers reduce wind velocity, which prevents wind erosion, protects crop plants, and influences the deposition of sediment, and other wind-borne material. For optimum effect on wind, the barriers should not be farther apart than 10 to 12 times the height of the barrier vegetation.

Site-specific requirements are listed on the specifications 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 Florida NRCS Field Office Technical Guide. See Florida NRCS conservation practice standard, Herbaceous Wind Barriers, Code 603.

Connecting herbaceous wind barriers with existing perennial vegetation, such as woodlots and woody draws (tree/shrub establishment) or hedgerows (windbreak/shelterbelt establishment), benefits wildlife and aesthetics. Adapted native species that provide wildlife food and cover should be planted.

Both annual and perennial herbaceous wind barriers need periodic operation and maintenance. Annual barriers need to be reestablished each year in a timely manner to insure effectiveness during the critical period(s) for which the barriers were designed. Gaps may develop in perennial barriers. These must be replanted as soon as practical to maintain barrier effectiveness. Herbaceous wind barriers often collect wind-borne sediment that reduces the health and function of the barriers. It is important to move and reestablish barriers periodically to redistribute sediment over the field as appropriate.

This practice can be certified by completing applied sections of the site specific sheet and signing the certified by section.

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HERBACEOUS WIND BARRIERS SITE SPECIFIC SHEET

Client:	County:	Date:		
Farm #:	Tract #:	Field # (s):	Contract #:	
Purpose/Need (check all that apply)				
<input type="checkbox"/> Reduce erosion from wind		<input type="checkbox"/> Protect growing crops from damage by wind or wind-borne soil particles		
<input type="checkbox"/> Reduce soil particulate emissions to the air		<input type="checkbox"/> Other:		
Individual Barrier Layout and Plant Materials Information				
	Planned		Applied	
Vegetation type:	<input type="checkbox"/> Annual	<input type="checkbox"/> Perennial	<input type="checkbox"/> Annual	<input type="checkbox"/> Perennial
Plant species:				
Number of plant rows per barrier:				
Distance (inches) between plant rows (if more than 1):				
Seeding/planting rate (number of pure live seeds/foot of row):				
Seeding date:				
Seeding/planting depth (inches):				
Planned effective barrier height (inches or feet):				
Total width of each barrier (inches or feet):				
Barrier System Layout				
	Planned		Applied	
Total number of barriers:				
Distance between barriers (feet):				
Total area in barriers (acres):				
Total amount of seed/number of plants required (pure live seed – lbs):				
Barrier Establishment				
Site preparation:				
Method of seeding/establishment:				

HERBACEOUS WIND BARRIERS SITE SPECIFIC SHEET

Fertilizer and soil amendments needed:

Mulch material (if required):

Other:

Operation and Maintenance

Additional Specifications and Notes:

Planner/Technical Service Provider:

Designed by

Date

Approved by

Date

Certification

This practice(s) as applied meets Florida NRCS standards and specifications for Herbaceous Wind Barriers, Code 603.

Planner/Technical Service Provider

Date