



Plant Materials Fact Sheet

USDA Natural Resources Conservation Service

Temple, TX

September 1999

FILTER STRIPS CONSERVATION PRACTICE 393



DEFINITION

Filter strips (FS) are a type of conservation buffer used to intercept and trap nutrients, pesticides, sediments, and pollutants before they are allowed to reach streams or bodies of water. Grasses, legumes, forbs, shrubs and trees planted in various widths around and within fields can be used for vegetative filter strips.

PURPOSE

FS provide a buffer between contaminant sources such as cropland fields and bodies of water. FS slow the velocity of water, allowing the settling out of suspended soil particles. FS provide a place for soluble pollutants to be taken up by plants.

Other practices that are closely related to FS are contour buffer strips, field borders, grassed waterways, alley cropping and stream bank bioengineering.

PLANTING CONSIDERATIONS

- Identify what you are trying to accomplish with this practice. (nutrient uptake, sediment retention, etc.)
- Identify the season of use. (spring, summer, fall, winter, all year), The season(s) of use has an effect on whether cool season plants, warm season plants or a mix of both will give the best protection.
- Identify environmental factors that will have an effect on installation. (soils, topography, precipitation, and seasonal temperatures)
- Identify adapted plants that are available.
- Identify the type of land use (cropland or rangeland), this will have an effect on plant selection and management.

MANAGEMENT

Before establishment apply fertilizer and other soil amendments according to a soil test. Plant into a firm, weed-free seedbed. Inspect FS periodically to insure unwanted weed do not become a problem. Mowing or grazing should be scheduled to encourage dense growth and to accommodate wildlife. Inspect after storm events to ensure the effectiveness of the practice. Restoration may be required after the strip has accumulated so much sediment that it is no longer effective.

The Plant Materials program has looked at several plant species and their use in vegetative filter strips.

The chart below identifies various plant materials and their use in FS.

PLANT SPECIES *1	WILDLIFE USE FOOD(F),COVER(C)	GROWING SEASON	RECOMMEND USES (SEE CODES BELOW)
Switchgrass	F/C	Warm	1,2,3,4,5,6
EasternGamagrass	F/C	W	1,2,4,5
Big Bluestem	C	W	1,2,4,5
Indiangrass	C	W	1,4
*Bermudagrass	C	W	1,2,3,4,5,6
*Old World Bluestem	C	W	1,4
*Tall Fescue	F/C	Cool	1,3,6
*Tall Wheatgrass	F/C	C	1,2,3,4,6
Maximillian sunflower	F/C	W	1,2,5
Commom Reed	C	W	1,2,4,5,6
Canada Wildrye	F/C	C	1,2,5
Virginia Wildrye	F/C	C	1,2,5
*Bahigrass	F/C	W	1,5,9
Plains Bristlegrass	F/C	W	3,6,10
*Dallisgrass	F/C	C	1,2,4,5,8
Illinois Bundleflower	F	W	1,5,6,10
Partridgepea	F	W	1,2,4,10

* Denotes an introduced species.

*1 - Different ecotypes of the same species may have different use codes check local guides for final use.

Recommended Use Codes

- 1 = Nitrogen Uptake
- 2 = Phosphorus Uptake
- 3 = Saline/Alkaline Soils

- 4 = Sediment Retention
- 5 = Adapted for Use Along Streams
- 6 = Adapted to High Water Tables
- 7 = Flood Tolerant
- 8 = Shade Tolerant
- 9 = Resistant to Traffic
- 10 = Drought Tolerant

Contact your local conservation district office for additional information related to the installation and management of each plant type and others that may be locally adapted.



The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice or TDD). USDA is an equal opportunity provider and employer.