

**NATURAL RESOURCES CONSERVATION SERVICE
DESIGN PROCEDURES**

FILTER STRIP

(393DP)

GENERAL SPECIFICATIONS

- All trees, stumps, brush, rocks, and similar materials that can interfere with installing the filter strip shall be removed. The materials shall be disposed of in a manner that is consistent with standards for maintaining and improving the quality of the environment and with proper functioning of the filter strip.
- The filter strip shall be shaped to the grade and dimensions shown in the plan or as staked in the field. If necessary, topsoil shall be stockpiled and spread to the required grade and thickness. Excess spoil shall be disposed of in areas where it does not interfere with the required flow characteristics of the filter strip.

SEED, SEEDING RATES AND MIXTURES

Seed shall meet all requirements of Nebraska seed law. Use certified seed when available. Use adapted species and varieties listed in the Field Office Technical Guide (FOTG), Section II- Pastureland and Hayland Interpretations, and Section IV Range Planting (550) and Pasture and Hayland Planting (512).

Seed mixtures (for all new seedings) must be a minimum of 40 PLS/ft². Warm season seed mixtures must contain at least 60 percent sod-forming, stiff stemmed species (refer to Table 2). All species/varieties used must be adapted to

the site according to the Range Planting Standard 550 or Pasture Planting Standard 512 and the current Certified Grass Variety Guide for Nebraska. Recommended mixtures are listed in Table 1. Other mixtures that follow these guidelines can be substituted.

Species that are resistant to herbicides being applied to adjacent cropland will be used. When Glyphosphate or other non-selective herbicides will be used, a combination of warm and cool season grasses will be used in the seeding mixture. Native and introduced legumes/forbs adapted to the site may be added above and beyond the grass in seeding mixtures where appropriate (See Table 1 – **Recommended forbs/legumes**).

ESTABLISHMENT OF VEGETATION

Refer to FOTG Section IV – Range Planting (550) - Herbaceous Vegetation Design Procedures (550DP) for guidance on establishment of vegetation.

All areas disturbed during construction shall be vegetated.

To aid in the establishment of vegetation, prevention of surface water runoff from entering the filter strip through the use of temporary diversions should be considered until vegetation is established to a minimum height of 4 inches and 90 percent ground cover.

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version of this standard, contact the Natural Resource Conservation Service.

Table 1 VEGETATIVE MIXTURES FOR FILTER STRIPS

Perennial Mixtures T = atrazine tolerant	%	PLS Pounds/Ac	Comments
Big bluestem T	40%	4.2	Warm season native mixture for Tallgrass Prairie Sites
Switchgrass T	35%	1.6	
Indiangrass T	25%	2.5	
Switchgrass T	60%	2.7	Cool/Warm season native mixture
Big bluestem T	20%	2.1	
Western wheatgrass T	20%	3.2	
Big bluestem T	40%	4.2	Cool/Warm season native mixture (wildlife food benefits)
Switchgrass T	40%	1.8	
Canada wildrye	20%	3.0	
Big bluestem T	40%	4.2	Cool/Warm season native mixture for non-sandy sites
Switchgrass T	35%	1.6	
Sideoats grama T	15%	1.4	
Western wheatgrass T	10%	1.6	
Big bluestem T	30%	3.2	Cool/Warm season native mixture for non-sandy sites
Switchgrass T	25%	1.1	
Indiangrass T	20%	2.0	
Sideoats grama T	15%	1.4	
Western wheatgrass T	10%	1.6	
Pubescent wheatgrass	30%	5.2	Cool/Warm season native mixture for non-sandy sites
Western wheatgrass T	30%	4.8	
Switchgrass T	40%	1.8	
Sand bluestem T	20%	3.1	Cool/Warm season native mixture for sandy sites
Sideoats grama T	10%	0.9	
Prairie sandreed T	20%	1.3	
Sand lovegrass T	10%	0.1	
Switchgrass T	20%	0.9	
Western wheatgrass T	20%	3.2	
Western wheatgrass T	20%	3.2	Native cool season mixture for wet sites, good for nesting
Canada wildrye	40%	6.1	
Virginia wildrye	40%	9.6	

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Table 1 VEGETATIVE MIXTURES FOR FILTER STRIPS (Continued)

Perennial Mixtures T = atrazine tolerant	%	PLS Pounds/Ac	Comments
Sand bluestem T	30%	4.6	Cool/Warm season native mixture for sandy sites
Switchgrass T	10%	0.5	
Indiangrass T	20%	2.0	
Western wheatgrass T	30%	4.7	
Sand lovegrass T	10%	0.1	
Sand bluestem T	30%	4.6	Cool/Warm season native mixture for sandy sites
Prairie sandreed T	30%	1.9	
Western wheatgrass T	40%	6.3	
Pubescent wheatgrass	35%	6.1	Cool season mixture, good for nesting.
Western wheatgrass T	35%	5.5	
Intermediate wheatgrass	30%	5.9	
Intermediate wheatgrass	40%	7.9	Cool/Warm season mixture.
Switchgrass T	30%	1.4	
Big bluestem T	30%	3.2	
Recommended forbs/legumes: (added above and beyond the grasses from above when appropriate based on landowner or program objectives e.g. CRP, WHIP)			
Illinois bundleflower	5%	1.45	For predominantly native grass mixes. Add both species.
Maximilian sunflower	5%	0.58	
Alfalfa	12.5%	1.1	For both native and introduced grass mixes. Add both species.
Red clover	12.5%	0.8	

Table 2 STIFF-STEMMED SOD-FORMING SPECIES Utilize if developing alternative mixtures not in Table 1

Species	Warm/Cool Season	Aggressive (yes/no)	Native/Introduced Species
Switchgrass	Warm	No	Native
Big bluestem	Warm	No	Native
Indiangrass	Warm	No	Native
Prairie sandreed	Warm	Yes	Native
Prairie cordgrass	Warm	Yes	Native
Western wheatgrass	Cool	Yes	Native
Pubescent wheatgrass	Cool	No	Introduced
Intermediate wheatgrass	Cool	Yes	Introduced