



United States Department of Agriculture

# CREP Practice CP21 Filter Strips

Natural Resources Conservation Service - Indiana – March 2016 (ver. 1.5)

## Filter Strip Program Job Sheet



Photo courtesy of USDA NRCS

### WHAT IS A CREP FILTER STRIP?

A narrow band of grasses, legumes, and forbs used to limit sediment, nutrients, pesticides, and other contaminants from entering water bodies. In addition, filter strips can provide valuable winter cover, nest sites, nectar and pollen for pollinating insects, and food for wildlife.

Filter strips are typically located on cropland immediately adjacent and parallel to streams, lakes, ponds, ditches, sinkholes, wetlands, or groundwater recharge areas.

### Where Practice Applies

On fields that meet eligibility requirements for the Conservation Reserve Enhancement program (CREP) as determined by the Farm Service Agency (FSA).

### CREP POLICY

CREP Filter Strips will be installed according to the Filter Strip (393), Conservation Cover (327), or Riparian Herbaceous Cover (390) standard in the local Field Office Technical Guide (FOTG).

CREP Filter Strips are only eligible on **Cropland** that is adjacent and parallel to streams, sinkholes and karst areas, wetlands, and permanent bodies of water such as lakes/ponds.

The minimum width of the filter strip depends upon the slope of the field, the soil type, and the pollutants contained in the runoff. **For the Conservation Reserve Enhancement Program, Filter Strips will**

**be a minimum of 35 feet from the edge of the eligible body of water, and a maximum of 120 feet from the edge of the eligible water body.** NOTE: An average maximum width of 300 feet is allowed when the area to be enrolled involves a predominance of alluvial soils. If the site already contains existing vegetation, these acres will be included in the calculation of maximum width and included in the CREP Plan, but will not be eligible for payments.

Vegetation for filter strips will generally have stiff, upright growth characteristics, and will be adapted to the site conditions and meet the standards in the local FOTG. Only viable, high quality seed will be used.

For CREP in Indiana, **Native Grasses** (Big Bluestem, Switchgrass, Virginia Wild Rye, etc.) **&/or Non-Native grasses & legumes considered wildlife friendly** (timothy, redbud, orchard grass, clover, alfalfa, etc.) **will be encouraged.**

### PLANTING

Plant the vegetation according to the attached plan/design sheet. Any changes to these specifications should be approved by NRCS.

All construction and seeding must be completed within 12 months of contract approval to remain in compliance. If circumstances beyond the landowner's control prohibit completion within the first 12 months, the local FSA County Committee may approve an extension to the next construction and planting season.

**Site Preparation:** It is very important to plant the vegetation into a weed-free seedbed. Use herbicides and/or tillage to eliminate competing vegetation. Weed control efforts should begin as early as 12 months prior to planting, and may require multiple applications or operations in both the fall and spring prior to planting.

Pay particular attention to sites where noxious and potentially invasive species are likely. Many of these species are perennials that spread through seed and roots, and many have rhizomatous root systems that will persist and negatively impact the planting.

Cool season weeds (i.e. - Canada thistle, quack grass) are best controlled in the fall (mid September – early November) with a translocation herbicide. Plants should be actively growing at the time of application. Avoid herbicide application after 3:00 pm if over night temperatures are expected to drop below 50 degrees.

Warm season weeds (i.e. - Johnsongrass) are best controlled just prior to flower with a follow-up application prior to first frost.

Contact your local Purdue University Cooperative Extension Service for specific herbicides to use.

**Apply all herbicides according to the label.**

**Lime and Fertilizer:** Lime and fertilizer will be based on a current soil test (less than four years old). Apply enough N, P and K to raise fertility to a level needed for a 1 ton/ac yield goal. Do not apply any nitrogen (N) for warm season grasses.

If the pH is 6.0 or less, apply enough lime per acre to bring pH to meet the tolerance range of the planned plant species. Soil amendments will be incorporated during seedbed preparation, or applied before planting if a no-till drill is used.

## SEEDING DATES

Selected species will be planted within the dates in the specification sheet that will be provided for the site.

Legumes can be seeded in the fall but Ladino, Alsike, White Dutch and Red Clover germinate best as a spring planting.

All cool season grasses can be planted either in the fall, dormant or spring; however Redtop, has the best success when planted in the spring.

Warm season grasses can be seeded in the dormant or spring seeding period except Prairie Dropseed, which should be dormant-seeded within 6 months of its seed harvest.

**Seed preparation:** Inoculate legume seed before seeding with the proper Rhizobia bacteria specific for the species. Re-inoculate seed if it was pre-inoculated more than 60 days prior to seeding. Be careful not to blend seed of varying size, shape and weight as this can make calibration of equipment and seeding uniformity difficult.

**Companion/Nurse Crops:** A companion/nurse crop will be used when erosion control and weed suppression are needed. Companion/nurse crops include Oats, Winter Wheat (after the Hessian Fly-free dates), Barley, Cereal Rye or Annual Ryegrass; native Wildryes (i.e. – *Elymus sp.* such as Canada, Riverbank, and Virginia Wildrye) are also effective, especially for native seedings.

Companion crops will be clipped after jointing, but before seed head pollination unless otherwise directed (control of Wildrye species is not necessary so that they persist as part of native seedings). A second and subsequent clipping is necessary if re-growth provides competition. Clipping height should be above developing seedlings. Where excessive growth has accumulated, the vegetation will be chopped rather than swathed.

**No-Till seeding:** Use a no-till drill with 7" or less row spacing. Ensure the drill is designed to handle the type seed being planted (especially important for native

grasses). Set the no-till drill to provide good seed to soil contact and a planting depth preferred for the desired species to be planted. Generally this does not exceed 1/4 inch. Seeding native grasses deeper than 1/4 inch will lead to potential failure. Soils that are too wet or too dry can also cause improper seed placement.

**Conventional Seeding:** Prepare a fine firm seedbed to a depth of 3 to 4 inches. Incorporate lime and fertilizer during seedbed preparation. Use a drill with 7" or less row spacing or a culti-packer seeder, designed for the seed to be planted. Grass seed should be drilled uniformly at a proper seeding depth of 1/8 to 1/2 inch.

**Broadcast Seeding:** Seed may be broadcast if completed in a uniform manner. Pre-mix the seed with 200 lbs. per acre of pelletized lime if using an airflow applicator. Seedbeds should be worked to a minimum depth of 3 inches and firmed before seeding. The seedbed should be culti-packed before and after seeding. It is acceptable to see up to 1/3 of the seed on the soil surface. Wind speed should be 15 m.p.h. or less when broadcasting.

**Weed Control During Establishment Period:** Mow, burn, or apply herbicides as needed to control unwanted vegetation until a **Final** Status Review is issued, or for a maximum of 3 years after planting. Mow when competing weeds are taller than the planted vegetation, and at a height above the planted vegetation.

## OPERATION AND MAINTENANCE

Noxious weeds and other undesirable plants, insects, and pests shall be controlled, including such maintenance as necessary to avoid detrimental effects to the surrounding land.

**After** the Final Status Review or 3 years (whichever comes first), maintain the planting according to your CREP conservation plan. Maintenance activities are allowed only on a spot basis and only if necessary to maintain stand health, maintain stand diversity, or control pests that will damage the CREP cover or adjacent lands. Burning must be in accordance with a prescribed burn plan. MOWING and other maintenance activities are not authorized between April 1 to August 1 to protect ground-nesting wildlife (i.e. - the Primary Nesting and Brood-Rearing season). If maintenance activities are needed during these times, the FSA County Committee **must** approve the maintenance activity **prior to** the activity occurring. Native grasses will not be mowed lower than 12", and non-native grasses lower than 4".

**Mowing for generic weed control or for cosmetic purposes is prohibited.**

Limited use of the filter strip as a turnrow or crossing area is authorized if this activity is conducted as part of

the planting, cultivating, or harvesting of a crop in an adjoining field. Do not use filter strips as a travel way, cropland headland or a lane for livestock or farm equipment.

**Livestock must be excluded from the filter strip.**

### **MID-CONTRACT MANAGEMENT**

All CRP contracts must include scheduled mid-term contract management activities that are site specific and will ensure plant diversity, wildlife habitat, and protection of soil and water resources. For filter strips, only inter-seeding or prescribed burning (according to an approved burn plan), if needed, applies. All management activities must be performed according to NRCS Standards and CRP policy.

### **OTHER MANAGEMENT CONSIDERATIONS**

For optimum wildlife habitat, plant a diversity of grasses, legumes, and wildflowers. These mixtures will provide winter and nesting cover and food for a variety of wildlife. When mowing is necessary, restrict mowing to Aug 1 - Aug 20 to allow re-growth for winter cover.

### **DESIGN and MAINTENANCE CONSIDERATIONS**

The filter strip will be designed to encourage water to flow in a thin sheet. When water is concentrated, it will be spread across the width of the filter strip.

Filter strips are designed to fill with sediment! To maintain the function and value of filter strips:

1. Any channels or rills must be immediately repaired.
2. Terraces, dikes, berms, trenches, or vegetative barriers can be used to treat concentrated flow areas.
3. Sediment within the filter should be removed before it accumulates to a height higher than 6 inches. Level and re-establish sheet flow. Re-seed if necessary.

# FILTER STRIP PLANTING DESIGN WORKSHEET CREP CP-21

**Landowner:**

**County:**

Farm                      Tract                      Field(s)                      Filter Strip #1 – Width & Ac                      ft /                      ac                      Date  
 Filter Strip #2 – Width & Ac                      ft /                      ac

## RECOMMENDED SPECIES and SEEDING RATE (PLS #/ac = Pure Live Seed Pounds per Acre)

	FILTER STRIP #1 <small>(see map for location)</small>	RATE PLS#/ac	TOTAL = <small>(RATE X Acres)</small>		FILTER STRIP #2 <small>(see map for location)</small>	RATE PLS#/ac	TOTAL = <small>(RATE X Acres)</small>	
<input type="checkbox"/>			0.0	Lb.	<input type="checkbox"/>		0.0	Lb.
			0.0	Lb.			0.0	Lb.
			0.0	Lb.			0.0	Lb.
			0.0	Lb.			0.0	Lb.
			0.0	Lb.			0.0	Lb.
			0.0	Lb.			0.0	Lb.

**NOTES:**

**Recommended Wildflowers include:**

### BEFORE PLANTING in Year:

- Herbicide<sub>1</sub> (per label):                      Dates =
- Herbicide<sub>2</sub> (per label):                      Dates =
- Tillage:                      Dates =
- Temporary Seeding:
- Nurse/ companion :
- Structures, Grading, Leveling, Filling – **See the attached Design Sheet.**
- Fertilizer and lime.**
- Other:

### PLANTING METHOD in Year:

**Planting Method:**

Dates = See Seeding Dates on Page 2

(If unforeseen circumstances prohibit the planting of the grass by this date, please contact our office as soon as possible)

### POST-PLANTING MAINTENANCE for Pest Control

- Mowing: BEFORE FINAL STATUS REVIEW**, or up to 3 years = mow 12" high when the weeds are 12" taller than the planted grasses
  - Native Grass = AFTER FINAL STATUS REVIEW** or 3 years\* = 12" MINIMUM Mowing Height\*
  - Non-Native Grass = AFTER FINAL STATUS REVIEW** or 3 years \* = 4" MINIMUM Mowing Height\*
- Herbicide\* (per label):                       Prescribed Burning\*: According to an approved plan
- Other:\*

**\*NOTE: after the Final Status Review or 3 years, MOWING and other activities will not occur between April 1 to August 1, and will occur on a "spot" basis only, unless prior approval is granted by the County Committee.**

**MID-CONTRACT MANAGEMENT - STARTING IN YEAR:**

see the attached Mid Contract Management for Grassed Waterways Job Sheet for details

For CRP Mid-contract Management specifications see:

<http://www.nrcs.usda.gov/wps/portal/nrcs/detail/in/programs/?cid=stelprdb1119594>

**LOCATION AND LAYOUT SKETCH & ADDITIONAL INFORMATION**

**ADDITIONAL INFORMATION:**

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