

CRP Practice CP21 Filter Strips

Indiana –May 2009 (ver. 1.4)

Filter Strip Program Job Sheet



Photo courtesy of USDA NRCS

WHAT IS A CRP 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 program (CRP) as determined by the Farm Service Agency (FSA).

CRP POLICY

CRP Filter Strips will be planned according to the resource needs, the land owner's objectives and within the Farm Service Agency –CRP policy. CP-21 will be installed according to the Filter Strip Standard (393), Conservation Cover (327), or Riparian Herbaceous Cover (390) in the local Field Office Technical Guide (FOTG).

CRP 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 Program, Filter Strips will be a minimum of 20 feet from the edge of the eligible body of water, and a maximum of 120 feet from the edge of the eligible water body.** If the site already contains existing vegetation, these acres will be included in the calculation of maximum width and included in the CRP 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 CRP in Indiana, **Native Grasses** (Big Bluestem, Switchgrass, Virginia Wild Rye, etc.) **&/or Non-Native grasses & legumes considered wildlife friendly** (timothy, redtop, 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:

Species/Mix	IN Seeding Dates	Dormant Seeding Dates*
Cool Season Grasses	3/1-5/15 or 8/1-9/15	12/1-3/1
Legumes	3/1-5/15 or 8/1-9/15	12/1-3/1
Warm Season Grasses	4/1-6/15	12/1-4/1
Forbs	4/1-6/15	12/1-4/1

*Increase seeding rates by 25% when dormant seeding. Broadcasting of warm season grasses should only be done into a prepared seedbed with protection from erosion as a consideration.

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 three (3) years (whichever comes first), maintain the planting according to your CRP 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 CRP 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 inches, and non-native grasses lower than four (4) inches.

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

Although not required for CP-21, CRP contracts may have mid-term contract management activities scheduled that will ensure plant diversity, wildlife habitat, and protection of soil and water resources. Management activities that will ensure these benefits include: prescribed burning (according to an approved burn plan), strip disking, strip spraying, and interseeding of forbs and legumes. All management activities must be performed according to NRCS Standards and Specifications as found in the FOTG, and CRP policy. **Mid-management job sheets can be found at:**

<http://www.in.nrcs.usda.gov/programs/CRP/crphomepage.html>.

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 August 1 - August 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 six (6) inches. Level and re-establish sheet flow. Re-seed if necessary.

**Mid-Contract Management Starting In Year:
(Not a Requirement for CP-21)**

The Specific Mid Contract Management Activity may be decided by the participant in the scheduled year based on condition of the vegetation, site considerations, capabilities of the participant, etc.

Treatment will not occur more than once every three (3) years on the same acreage. Reimbursement will be dependant on the activity(s) performed based on local FSA Not-To-Exceed rates.

**For CRP Mid-contract Management job sheets see:
<http://www.in.nrcs.usda.gov/programs/CRP/crhomepage.html>**

LOCATION AND LAYOUT SKETCH & ADDITIONAL INFORMATION

ADDITIONAL INFORMATION: