



United States Department of Agriculture

# CRP Practice CP43

Natural Resources Conservation Service - Indiana – July 2020

## Prairie Strips Program Specification Sheet



### PURPOSE

Establish strips of diverse, dense, herbaceous, predominately native perennial vegetation designed and positioned on the landscape to most effectively address soil erosion and water quality while providing food and cover for wildlife and beneficial insects. The primary purpose of prairie strips is to reduce soil erosion and pollution transport to protect water quality by intercepting surface and subsurface water flow to remove nutrients, sediment, organic matter, pesticides, and other pollutants by deposition, absorption, plant uptake, denitrification, and other processes. The secondary purpose is to provide wildlife and beneficial insect habitat by establishing diverse plant communities.

### WHERE PRACTICE APPLIES

Apply this practice on fields that meet eligibility requirements for the Conservation Reserve Program (CRP) as determined by the Farm Service Agency (FSA).

### CRP POLICY

Continuous CRP Signup: Prairie strips may be placed:

- around the perimeter or portions of the perimeter of a field
- through the field
- parallel and/or perpendicular to existing grassed waterways if the conservation planner determines that effective filtering will take place in such a location
- in a gradient or level terrace channel, diversion channel or storage area of a water and sediment control basin to intercept water runoff before infiltration or entering an outlet, if determined necessary for filtering.
- strip widths will be a minimum of 30 feet and up to a maximum average width of 120 feet, not to exceed 25% of the cropland area per field.
- Pivot corners of any size may be enrolled as prairie strips if needed to reduce soil erosion or provide water filtering.
- Prairie strips are not eligible to be installed on constructed terraces but may be placed in the channel of a gradient or level terrace. Prairie strips may be used in conjunction with terraces as an overall conservation management system (prairie strip installed between terraces or in a terrace channel) if needed to control erosion and filter runoff on eligible cropland.

### SEEDING RATES AND SPECIES

Prairie strip seed mixes will be designed to control soil erosion and reduce transport of nutrients, while also incorporating plant diversity for wildlife and beneficial insects. Only native graminoids and forbs may be used in CRP CP43. Graminoids will be short-statured bunch grasses, non-competitive sedges and rushes, or tall grasses seeded at very low rates. Grasses will comprise 40-60% of the mix. Forbs will include blooms in early, mid and late growing season, and a minimum of 10 species. Forb diversity will be maximized as much as possible. Seeding mixes should be 15-30 seeds per square foot, including graminoids.

Any pre-packaged mixes must be approved before seeding.

Trees are not an eligible component of CP43 mixes.

### **MACHINERY TRAFFIC**

Limited machinery traffic is allowed on prairie strips located on the perimeter of a field to replace end rows/turn rows and prairie strips located parallel and immediately adjacent to grass waterways to allow for contour farming that requires equipment traffic through the waterway area. Limitations include:

**Note:** In no case will prairie strips be used as travel lanes.

- machinery traffic is allowed on prairie strips planted as field borders and may only be used for equipment turning during normal field operations;
- prairie strips parallel and adjacent to grass waterways may only be crossed with machinery during normal farming operations;
- prairie strips shall not be used for storage of crops or equipment.

### **SELECTION OF RATES AND SPECIES**

The IN Natural Resources Conservation Service (NRCS) Seeding Tool will be used when developing seeding mixes for this practice. Native grass plantings will be planned in the IN Wildlife Seeding Calculator and introduced cool season mixes will be planned in the IN General Seeding Calculator. Any prepackaged mixes must be approved before seeding. Site-specific requirements are listed on the attached Specifications Sheet.

### **SITE PREPARATION**

Site preparation is the most critical step in the establishment of habitat. Even the most well-planned seed mix will fail if the site preparation is not thorough. A well-prepared planting bed will increase the likelihood of establishment and reduce maintenance and management in the future. Weed control efforts should begin as early as 12 months prior to planting and may require multiple applications over the course of one to two years. Pay attention to sites where noxious and potentially invasive species are likely to occur, or areas of sod, such as old fescue pastures. 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.

Site preparation can use a combination of methods, including herbicide treatment, prescribed burning, mowing, and tillage. Each of these methods must be used with the appropriate timing and combination to maximize effectiveness. Disking should be used with caution, as soil disturbance can release additional weed seeds and increase the potential for erosion, creating larger problems. Mowing alone is not likely to be sufficient and should be combined with chemical, prescribed fire or additional mechanical treatments. Non-chemical methods and organic methods are possible but are labor intensive and will likely take longer to get the site ready for planting and are best suited for smaller sites. See Indiana Job Sheet 315 Herbaceous Weed Control- Site Preparation, for more information.

If prescribed burning is used for site preparation, it must meet the IN NRCS FOTG Standard (338) *Prescribed Burning*.

### **COMPANION/NURSE CROPS**

A companion/nurse crop will be used when erosion control and weed suppression are needed. Companion/nurse crops include Winter Wheat (after the Hessian Fly-free dates in Table 2), Oats, Barley, Cereal Rye or Annual Ryegrass; native Wildryes (i.e. – *Elymus sp.* such as Canada, Riverbank, and Virginia Wildrye) and other species are also effective.

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 the 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.

## PLANTING

All seeding must be completed within 12 months of the effective date of the contract 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 planting season.

### Seeding Dates

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

### Seed preparation

Inoculate legume seed with the proper rhizobia bacteria for the species no more than 60 days prior to seeding or as specified on the seed / inoculant tag. Inoculant left in the sun, even for a short period of time can significantly reduce the viability and effectiveness. Pre-inoculated seed will have a coating that changes the pure live seed per pound and thus the bulk seeding rate per acre.

Be aware that blending seed of varying size, shape and weight can make calibration of equipment and seeding uniformity difficult.

Some seeding mixtures contain seed that is extremely small and thus have very low seeding rates. This may make it difficult to set seeding equipment to uniformly seed these low rates. To add enough volume to the mix for proper metering, a **carrier** or coated seed may be desirable. The carrier should be no larger than the largest seed species and have similar shape, density and texture to the majority of seeds in the mix. The carrier can be an inert material (i.e. cracked corn) that does not have abrasive properties that may cause damage to the equipment or the seed. Inexpensive seed (unimproved varieties) that will have no significant negative impact on the purpose of the seeding may also be used.

### Planting Methods

**No-Till seeding:** Use a no-till drill with seven (7) inch or less row spacing. Ensure the drill is designed to handle the type of 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 (see table below). 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 three (3) to four (4) inches. Use a drill with seven (7) inch or less row spacing, or a culti-packer seeder designed for the seed to be planted. Seed should be drilled uniformly at a proper seeding depth for the desired species.

**Broadcast Seeding:** Seed may be broadcast if completed in a uniform manner. Pre-mix the seed with 200 pounds per acre of pelletized lime if using an airflow applicator. Seedbeds should be worked to a minimum depth of three (3) inches and firmed before seeding. The seedbed should be culti-packed before and after seeding. It is acceptable to see up to one-third ( $\frac{1}{3}$ ) of the seed on the soil surface. Wind speed should be 15 miles per hour or less when broadcasting.

### Inter-seeding:

- Legumes/Forbs (frost seeding):** No-till drill or broadcast as above into existing vegetation or residues. Broadcasting relies on freeze/thaw cycles, rain and/or snow to incorporate the seed. This method does not include a seedbed preparation. This is most commonly used during the dormant seeding period.
- Cover Crops:** No-till drill or broadcast as above into existing vegetation or residues. Broadcasting relies on freeze/thaw cycles, rain and/or snow to incorporate the seed. Inter-seeding does not include a seedbed preparation. This method can be used to establish cover crop species or combination mixes into relatively light (e.g. soybean) and weed free crop residues, or to establish vegetation into standing crops.
- Grasses:** No-till drill into existing covers only if prior-treated with herbicides or tillage, or if existing cover is diminishing (i.e. – older alfalfa plantings).

### Weed Control during Establishment

**Weed Control in introduced and native grass plantings:** Control competing vegetation as needed until established or a Final Status Review is issued. *Mowing multiple times during this establishment period is critical to the success of the native grass planting.* Mow when competing weeds are taller than the planted vegetation, and at a height above the planted vegetation. Use selective herbicides and/or spot spraying to protect the desired species, or for

problem perennial weeds. Refer to the Purdue/Ohio State *Weed Control Guide for Ohio and Indiana* for herbicide timing and treatment.

## HAYING AND GRAZING

Exclude all acres from haying and grazing year-round, unless authorized by the Farm Service Agency beforehand and all CRP policies and standards are met. Fences may need to be constructed and maintained to exclude livestock throughout the entire year. See the attached *CRP Implementation Requirements - Grazing & Haying* plan addendum for more details.

## OPERATION AND MAINTENANCE

Operation and maintenance is required and begins with the purchase of the seed. Purchase seed from reputable dealers that is tested and verified to not contain noxious or other species that may become a problem such as Palmer Amaranth. Do not plant seed from unknown sourcing or with weeds, as it could result in long-term management problems. Throughout the life of the contract, noxious weeds and other undesirable plants, insects, and pests will be controlled, including such maintenance as necessary to avoid detrimental effects to the surrounding land.

*After* the Final Status Review, maintain the planting according to your CRP conservation plan - See the attached *CRP Operation and Maintenance* for more details. 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 (allowed on a spot basis only) 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. **Mowing for generic weed control or for cosmetic purposes is prohibited.**

The contract area cannot be used for field roads or other uses that will damage or destroy the cover.

## MANAGEMENT ACTIVITIES

Management Activities are required on this practice. If the CRP acres are less than 5 acres, the entire acreage can be managed in a single year; otherwise, the maximum amount that can be disturbed during any one year is ½ of the contract acreage. For maximum habitat value, disturb no more than 1/3 of the contract acreage in any given year.

Areas devoted to grass have the following options:

- Prescribed Burning
- Strip Disking
- Strip Spraying
- Inter-seeding forbs/legumes/pollinator habitat

Avoid Environmentally sensitive areas as marked on the plan map including:

- a) Concentrated flow areas,
- b) Critical areas,
- c) Within the first 20 feet of a practice that borders a water resource to avoid water quality resource concerns, and
- d) Other areas where gully erosion is likely.

Grassland areas must be established for a minimum of three (3) years before initiating Management Activities

Management Activities will not be performed from April 1 through August 1 to protect the primary nesting period for grassland bird species. It is also recommended, but is not required, to delay Management Activities until after August 15 to reduce the chance of harming fledgling birds and other young wildlife.

Management Activities will be performed along field contours, or across the slope, when practical.

Strips will parallel brushy or woody escape cover when feasible.