



# CRP Practice CP33

Natural Resources Conservation Service - Indiana – July 2020 (ver. 1.0)

## Habitat Buffers for Upland Birds Program Sheet



### PURPOSE

Habitat buffers for upland birds are strips of vegetation established around the edges of crop fields to provide habitat for bobwhite quail, ring-neck pheasant, and other upland birds. Many of these birds have suffered population declines due to loss of habitat. These buffers can provide important nesting, brood rearing and escape cover while also serving as travel corridors between areas of suitable habitat. In addition to habitat for upland birds, these buffers may provide habitat for other animals and may limit sediment, nutrients, pesticides and other contaminants from entering streams and other water bodies.

By diversifying vegetation in these buffers, desirable habitat will develop. The growth forms of a variety of species, combined with management to increase open cover, will provide food sources in the forms of seed, insects and soil invertebrates. Shrubs may be included to diversify cover and food but are optional.

**It is highly recommended that a Biologist be consulted for technical assistance.**

It is important that site selection and layout, seeding mixture selection, and other critical planning issues be performed correctly in order to maximize population gains.

### 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

Buffers can be established around field edges on any eligible cropland. Buffers can be planted along one or more sides of a field, however establishing a buffer around the entire field should be considered and is highly encouraged. CP33 is considered year-round habitat, and as such, should be considered “hands off” from any farming operations.

- CP33 should be designed to be adjacent to cropland and is not intended as a whole field retirement practice. The “infeasible to farm” rule does not apply. See the FSA Handbook 2-CRP for additional guidance.
- CP33 can be established through either natural succession, or through planting a mixture of native warm season grasses (WSG), legumes, and forbs.
- Only native cool season grasses may be used in CP33 plantings (no introduced cool season grasses) and be used in combination with native warm season grasses, when appropriate. For instance, a wetter spot in the field, or shaded area by a woodlot may warrant the use of cool season species.
- Limited tree and shrub plantings, on up to 10% of the practice acreage, are allowed.
- Shrub rows will be six (6) feet apart and spaced three (3) to four (4) feet apart within each row.
- Buffer widths will be a minimum of 30 feet and up to a maximum average width of 120 feet (measured from the edge of the field).

- Habitat buffers for upland birds do not include food plots. Food plots will not be established within habitat buffers for upland birds.
- **Habitat buffers will not be grazed, hayed, or mowed during the life of the contract, unless authorized by FSA.**
- Habitat buffers for upland birds will not be used as turn rows, lanes, roads, or for storage of crops or equipment.
- Grassland bird populations (especially quail) will be monitored on some of CP33 practices to evaluate the success of this practice. These activities will be conducted by the IDNR Division of Fish and Wildlife. Landowners are strongly encouraged to cooperate in this effort.

**SELECTION OF RATES AND SPECIES**

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

When northern bobwhite are the target species:

- In native plantings, short-statured communities will be emphasized. At least two species of short-statured graminoids (grasses, sedges, or rushes) will be included in all mixes. Only limited use of the following tallgrass species is permitted: Big bluestem (*Andropogon gerardii*), Switchgrass (*Panicum virgatum*), Indian Grass (*Sorghastrum nutans*) and Prairie Cordgrass (*Spartina pectinata*). These species individually will not exceed 5% of the grass component of the mix, or 15% of the grass component of the mix combined. Prairie dropseed (*Sporobolus heterolepis*) is strongly encouraged.

When ring-necked pheasant or other upland birds are the target species.

- Plantings may include a larger proportion of tall grass species but should not be exclusively native tall grasses. Consider including some shorter species in the mix.

**NATURAL SUCCESSION**

A unique feature of CP33 is that it allows natural succession to be used as an establishment method.

- Agricultural management practices will be terminated to allow natural plant succession to occur.
- Spot spraying will be used where noxious weeds, such as Canada thistle and Johnsongrass, or other invasive species exist.
- Natural succession will be planned for the least erosive parts of fields and will not be planned where gully formation is a problem.
- See the NRCS job sheet *CRP Mid-Contract Management: Inter-seeding* for additional guidance on inter-seeding legumes (and forbs).
- Consider including a light legume seeding to enhance the wildlife value. See table below.



Legumes	
Species	Rate (lbs./ac)
Alfalfa	3
Alsike Clover	1
Ladino Clover	0.5
Red Clover	2.5
Annual Lespedeza <sup>1</sup>	2.5

<sup>1</sup> Best suited for sites south of Interstate 70.

**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:**

1. **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.
2. **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.
3. **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).

#### **Tree Planting**

Bare rooted stock (seedlings) should be planted in the spring after the ground thaws, but no later than June 1; or planted in the fall using dormant seedlings (usually after November 1). Container stock may be planted between September 15 - June 1 as local soil moisture and weather conditions permit.

All planting stock shall not be planted when the soil is frozen or dry and will be planted with the root collars approximately at or slightly below the ground line.

Planting stock will be protected from desiccation prior to and during planting. Planting stock should be planted immediately upon delivery to the site. If planting is delayed stock will be stored in accordance with NRCS Practice FOTG (612) Tree/Shrub Establishment

#### **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.

**Weed Control in Tree/Shrub Plantings:** Weed control is also important to ensure survival and maximum growth of the trees after they are planted. Nine (9) ft<sup>2</sup> around each tree should remain weed-free to maximize tree growth. Mowing is not recommended for weed control for trees. CRP cost share is authorized for one weed control application within 24 months after planting.

#### **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.

**Operation and Maintenance in Tree/Shrub Plantings.** Check survivability of planted tree/shrub species after three (3) years to ensure that the desired stocking rate for the site is present, usually 70% survival of the planted rate. Additional planting will be completed if it is determined that additional natural regeneration will not be sufficient to colonize the site within an acceptable time frame (usually 5 years) so that 300 acceptable woody plants per acre are established.

## MANAGEMENT ACTIVITIES

Management Activities are required on areas planted to grasses/forbs, but not on areas planted to trees/shrubs. 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:

1. Concentrated flow areas,
2. Critical areas,
3. Within the first 20 feet of a practice that borders a water resource to avoid water quality resource concerns, and
4. 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.