

State Acres for Wildlife Enhancement (SAFE) Permanent Native Grasses Program Job Sheet



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PURPOSE

The purpose of this practice is to restore native grassland habitat for Ring-necked Pheasant and grassland songbirds and maintain the cover in a diversity of successional stages that meet the nesting and brood rearing requirements of those species.

WHERE PRACTICE APPLIES

On fields that meet eligibility requirements for the State Acres for Wildlife Enhancement (SAFE) Initiative of the Conservation Reserve Program (CRP) as determined by the Farm Service Agency (FSA). Fields must be located within the counties identified on the Pheasant Priority Area map.

CRP POLICY

All new Permanent Native Grass plantings will consist of native grass, legume and forb mixes. Existing CRP CP2, CP4D, and CP25 contracts meeting the above criteria are also acceptable for enrollment.

SEEDING RATES AND SPECIES

The Indiana (IN) Natural Resources Conservation Service (NRCS) [Seeding Tool](#) using Field Office Technical guide (FOTG) Standard (327) [Conservation Cover](#) (primary purpose wildlife) or tables in the IN FOTG [Rare and Declining Habitat \(643\) Standard](#) will be used when developing seeding mixes for this practice. Commonly

used, suitable species can also be found in the [IN Biology Technical Note - Upland Wildlife Habitat](#).

To encourage the forb component, it is strongly encouraged to sow the seeding mixture during the dormant season (12/1 to 4/1). If sown during the dormant season, the seedling rates will be increased by 25%.

Any prepackaged mixes must be approved before seeding. Site-specific requirements are listed on the attached Specifications Sheet.

Up to 10% of the area may be allowed to revert to trees through natural succession.

Consider the generic seeding mixes below for landowners also interested in quail or pheasant.

Quail Seeding Mix

Species	Rate (per acre)
Little Bluestem	2.0 (lbs.)
Big Bluestem	0.25 (lbs.)
Sideoats Grama	1.25 (lbs.)
Canada Wildrye	0.50 (lbs.)
Partridge Pea	4.0 (ozs.)
Annual Lespedeza ¹ , <u>or</u> ½ to 1 lb. forb mix (min. 5 species)	2.0 (lbs.)

¹ Best suited for sites south of Interstate 70

Pheasant Seeding Mix

Species	Rate (per acre)
Little Bluestem	2.0 (lbs.)
Big Bluestem	1.00 (lbs.)
Indiangrass	0.50 (lbs.)
Switchgrass	0.25 (lbs.)
Partridge Pea	4.0 (ozs.)
Forb mix (min. 5 species)	½ to 1 (lb.)

PLANTINGS

A) 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), Oats, Barley, Cereal Rye or Annual Ryegrass; native Wildryes (i.e. – *Elymus sp.* such as Canada, Riverbank, and Virginia Wildrye) 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 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.

B) Lime and fertilizer

Lime and fertilizer typically will not be needed, but that decision should be based on a current soil test (less than four years old). In areas with existing vegetation that shows signs of nutrient deficiencies, or if the soil test shows phosphorus (P) and potassium (K) are in the low to very low range, apply enough fertilizer (organic or inorganic) to raise N, P and K to a level needed for a 1 ton/ac yield goal. Do not apply any nitrogen (N) for warm season grasses. Use Purdue University recommendations from the [Crop Fertilizer Recommendation Calculator](#), or the Indiana NRCS Seeding Tool – [Indiana Fertilizer Calculator](#).

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. Apply lime according to [Tri-State Fertilizer Recommendations - PU AY-9-32](#), Extension Bulletin E-2567, or Indiana NRCS Seeding Tool – [Indiana Fertilizer Calculator](#).

C) 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 to early November) with a translocation herbicide. Plants should be actively growing at the time of application. Avoid herbicide application after 3:00 pm if overnight temperatures are expected to drop below 50 degrees (F).

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

prior to first frost. Plants should be actively growing at the time of application. Contact your local Purdue University Cooperative Extension Service for specific herbicides. **Apply all herbicides according to Label.**

Use a nurse/companion crop to control potential weed issues and/or a temporary cover for erosion control.

If prescribed burning is used for site preparation, it must be conducted according to IN NRCS FOTG Standard (338) [Prescribed Burning](#).

D) Seeding Dates

Selected species will be planted within the dates specified in the table below.

Planting Dates

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

* Increase seeding rates by 25% if dormant seeding.

E) 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 or beyond dates 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.

F) 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. Incorporate lime and fertilizer during seedbed preparation. 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.

Seeding Depth Guidance

Groups	Seed Size (seeds/lb.)	Optimum (inches)	Max. (in.)
Brassicas, clovers, small seeded legumes & grasses, native forbs	150,000 – 500,000	¼	½
Vetches, sorghums, wildryes, trefoils, native legumes, radishes	50,000 – 150,000	½	¾
Cereal grains	12,000 –50,000	¾	1
Beans, peas, corn	1500 –12,000	1 ½	2

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 (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).

G) Weed Control during Establishment

Control competing vegetation as needed until a Final Status Review is issued or three (3) years (whichever comes first). Mow, burn, or apply herbicides as needed to control unwanted vegetation for up to three (3) years after 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. Refer to [2013 Weed Control Guide for Ohio and Indiana](#) for herbicide timing and treatment.

H) Operation and Maintenance

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 if necessary to maintain stand health, or to control pests, noxious weeds or any plant species whose presence or overpopulation may jeopardize the CRP cover, or have detrimental effects to the surrounding land.

The presence of annual weeds (such as foxtail, common ragweed, and perennial forbs) is not a concern, as these plants are important sources of food for wildlife, especially bobwhite quail. Maintenance may be needed to control excessive density of these annuals, especially during the establishment years, but is not intended to eliminate this group of plants.

Maintenance activities will not occur from **April 1 through August 1** to protect ground-nesting wildlife. If maintenance activities are needed during the April 1 – August 1 time frame, the FSA County Committee **must** approve the maintenance activity **prior to** the activity occurring, and it may **only be on a spot basis**.

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

Native grasses will not be mowed lower than eight (8) to 12 inches.

Inspect the vegetation annually and after storm events, and repair any gullies that have formed; remove unevenly deposited sediment and/or crop residues that will disrupt the function or kill desired vegetation; and reseed high mortality and disturbed areas.

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

I) MID-CONTRACT MANAGEMENT

All CRP contracts must have mid-term contract management activities scheduled that will ensure plant diversity, wildlife habitat, and protection of soil and water resources. This practice must have periodic management activities performed during years 4, 5, and 6; plus years 9, 10, and 11 for 15-year contracts. Existing CP25 contracts enrolled into SAFE will have periodic management activities performed during years 2, 3, 4, according to the conservation plan, during the life of the CRP-1 and years 9, 10, 11, for a 15-year CRP-1.

Management activities that will ensure these benefits include: prescribed burning (according to an approved

burn plan), strip disking, strip spraying, and inter-seeding of forbs and legumes. All management activities must be performed according to NRCS Standards and Specifications as found in the Indiana FOTG, and CRP policy. Mid-management job sheets can be found at the Indiana [NRCS CRP web site](#).

The table below shows the maximum amount of area that can be disturbed by MCM activities in a given number of years. However, to maximize wildlife benefits, participants may opt to perform MCM on one-third (1/3) of the area for each of three (3) years if they so choose.

MCM Disturbance Area

	MAXIMUM AREA TO BE DISTURBED
5 acres or more	1/3 of the area each of 3 years
Less than 5 acres	1/2 of the area each of 2 years, <u>or</u> total area in 1 year

Environmentally sensitive areas will be marked on the plan map to ensure Mid-Contract Management activities are avoided on these areas.

Grassland areas must be established for a minimum of three (3) years before initiating MCM activities.

MCM activities will be avoided on environmentally sensitive areas 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.

MCM activities operations will not be performed from April 1 through August 1 for contracts starting in 2008, to protect the primary nesting period for grassland bird species. It is also recommended, but is not required, to delay MCM activities until after August 15 to reduce the chance of harming fledgling birds and other young wildlife.

MCM activities operations will be performed along field contours, or across the slope, when practical.

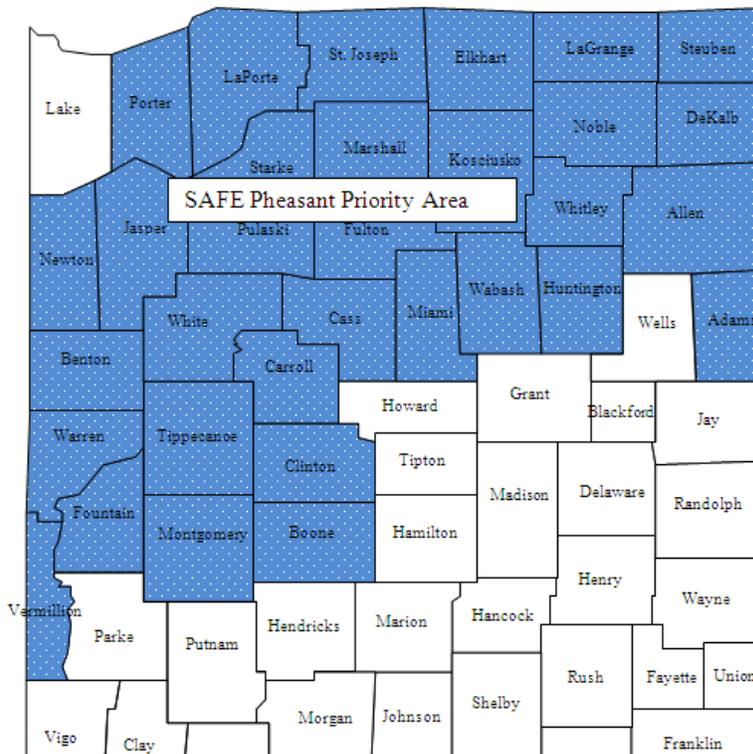
Strips will parallel brushy or woody escape cover when feasible.

Prescribed Burning: Where prescribed burning may be the Mid-contract Management option, the following apply:

1. IN FOTG Standard (338) [Prescribed Burning](#), and [Firebreak](#) (394), will be followed.
2. See CRP Mid-Contract Management Job Sheet: [Prescribed Burning](#) for additional guidance.

J) Managed Haying and Grazing

CP38E plantings will not be used for Managed Haying or Grazing.



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