

Animal Enhancement Activity – ANM 23 – *Multi-species Native Perennials for Biomass/Wildlife Habitat*



Multi-species Native Perennials for Biomass/Wildlife Habitat

This enhancement consists of establishing native perennial vegetation for biomass production and wildlife habitat.

Land Use Applicability

This enhancement is applicable to cropland, pastureland, and rangeland that can be used to produce biomass and provide wildlife habitat.

Benefits

Establishing multi-species native perennial vegetation and managing for both biomass and wildlife can provide natural resource and financial benefits.

Criteria for Multi-species Native Perennials for Biomass/Wildlife Habitat

- ◆ Biomass fields should be managed for species of conservation concern as identified by the NRCS State Office and State Wildlife Action Plans.
- ◆ After establishment, the field will be protected from grazing and disturbance during the primary nesting and fawning season as defined by the NRCS State Office.
- ◆ A management plan covering the length of the contract will be developed for this enhancement activity. Management actions and their impact on affected wildlife species will be addressed.
- ◆ Harvesting of biomass must be in accordance with a written management plan that minimizes impacts on wildlife species, especially grassland nesting birds. Partial removal in late summer/early fall to allow for re-growth for winter cover should be addressed in the management plan, where winter conditions interfere with late season harvest.
- ◆ Field borders using forbs and grasses should be established and managed to accommodate edge species and pollinators.



Documentation Requirements for Multi-species Native Perennials for Biomass/Wildlife Habitat

Following implementation of this activity, the landowner must document the establishment of multi-species native vegetation suitable for biomass production and wildlife habitat. A brief written description of the actions taken and planned; receipts and dates; and a map or aerial photograph delineating the location of the established vegetation must be provided.

**TENNESSEE SUPPLEMENTAL INFORMATION FOR THIS ENHANCEMENT
ANM23 – Multi-species Native Perennials for Biomass/Wildlife Habitat**

SPECIES	Seeding Rate (PLS) Pounds per Acre ¹	Seeding Date
WARM SEASON GRASSES:		
Big Bluestem	10	4/15 - 7/1
Eastern Gamagrass	13	4/15 - 7/1 12/1 – 3/1
Indiangrass	10	4/15 - 7/1
Little Bluestem	10	4/15 - 7/1
Switchgrass	10	4/15 - 7/1
LEGUMES / FORBS		
Illinois Bundleflower	1	4/15 - 7/1
Purple Prairie Clover	1	4/15 - 7/1
Maximilian sunflower (limit to more productive soils)	1	4/15 - 7/1

¹ Each grass species seeding rate listed is based on a pure stand planting. Grass mixture seeding rates need to be adjusted based on the number of grass species in the mixture. Example: For a 3 grass species mixture, the correct grass seeding rate would be 1/3 the above listed rate for each species in the mixture. Native legume rates in the table are mixture rates to be added directly to the grass seeding rate if a grass/legume mixture is planned.

Method of Planting: Tilled: prepare seedbed no more than one month prior to seeding. Destroy all competing vegetation, cultipack, apply labeled pre-emerge herbicide (eastern gamagrass and switchgrass are not tolerant of imazapic herbicide), seed, cultipack. **No-till:** See NRCS Fescue Eradication Jobsheet.

ESTABLISHMENT GUIDELINES FOR BIOMASS PRODUCTION AND WILDLIFE:

- A minimum of three species of native grasses and one forb or native legume species.
- Favor Indiangrass, little bluestem, and switchgrass in mixtures for higher biomass production.
- Little bluestem in mixture will increase legume production benefitting wildlife while yielding higher N production from the legumes.
- Soil testing is required. Submit sample with code NWSG planting for forage production. Do not apply N at planting or in the fall prior to planting, but apply P2O5, K2O, and lime according to soil test. Begin applying N for production the second year after establishment, at a reduced rate of about 40 pounds per acre, and in later years according to a soil test.
- Field borders at least 20 feet wide (average) are required to be established to pollinator habitat on all sides of biomass production fields.

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MANAGEMENT GUIDELINES FOR BIOMASS PRODUCTION AND WILDLIFE:

- Only one cutting per year.
- Cutting will be in the dormant season.
- Cutting heights can be much lower than the standard 6-8 inch cutting height due to the dormancy of the plant. However, if grazing is to occur in the summer following the cutting, the cutting height must be at least 6 inches.
- Cutting periods may either be in the fall after the first killing frost, or in the spring before green-up.
- No more than 50% of each field may be harvested in the fall, to protect sufficient over-winter wildlife cover.
- Field borders must be maintained for wildlife and not included in the cutting of the field for biomass production. Field borders will be managed in a manner necessary to maintain good plant species richness (high numbers of species).
- Grazing is allowed, but only in the spring prior to the start of the primary nesting season (April 15-August 15). A grazing plan is required and minimum 6 inch grazing heights must be maintained.

ALLOWABLE MIXTURES FOR FIELD BORDER ESTABLISHMENT (POLLINATOR HABITAT)

Mix 1 (Imazapic resistant; moist to dry sites)
(per acre seeding rate)

Sideoats grama	1 lb.
Virginia wildrye	1 lb.
Little bluestem	1 lb.
Partridge pea	3 oz.
Lanceleaf coreopsis	12 oz.
Purple prairie clover	4 oz.
Illinois bundleflower	3 oz.
Pale purple coneflower	6 oz.
Purple coneflower	6 oz.
False sunflower	4 oz.
Gray-head coneflower	5 oz.
Blackeyed susan	2 oz.
Rigid goldenrod	3 oz.

Mix 2 (Not Imazapic resistant; moist to dry sites)
(per acre seeding rate)

Sideoats grama	1 lb.
Virginia wildrye	8 oz.
Little bluestem	1.5 lb.
Butterfly milkweed	1 oz.
Smooth aster	1 oz.
Partridge pea	8 oz.
Lanceleaf coreopsis	8 oz.
Purple coneflower	14 oz.
Canada milkvetch	3 oz.
Gray-head coneflower	4 oz.
Blackeyed susan	5 oz.
Rigid goldenrod	2 oz.
Compass plant	2 oz.

