



CONSERVATION ENHANCEMENT ACTIVITY

E512I

CONSERVATION STEWARDSHIP PROGRAM

Establish pollinator and/or beneficial insect and/or Monarch habitat

Conservation Practice 512: Forage and Biomass Planting

APPLICABLE LAND USE: Pasture, Associated Ag Land, Farmstead

RESOURCE CONCERN: Animals

ENHANCEMENT LIFE SPAN: 5 years

Enhancement Description

Establishing adapted and/or compatible species, varieties, or cultivars of herbaceous species that can provide nectar for Monarch butterflies and/or pollinators and forage and other habitat values for wildlife and livestock, particularly at times when targeted nectar, forage supply and quality, cover, and shelter are not available in other pastures.

Criteria

- This enhancement is acceptable for use when converting from degraded pastureland sites that require NRCS Conservation Practice Standard Forage and Biomass Planting (Code 512) in order to stabilize the site to address a resource concern.
- Select native, perennial, grass/forb/legume plant species and their cultivars based on climatic conditions, soil condition, landscape position and resistance to disease and insects, and will meet the nectar needs of specified, pollinating insects (and/or Monarch butterflies) at times when they will be present and foraging. These plants need to also provide forage or other habitat values for wildlife and livestock.
- Recommendations for planting rates, methods, depths, and dates from land grant/research institutions, plant materials program, extension agencies, or agency field trials will be followed.

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- Seeding medium that does not restrict plant emergence will be provided, and planting will take place when soil moisture is adequate for germination and establishment.
- Federal, state, or local noxious species will not be planted.
- Plant nutrients and/or soil amendments for establishment purposes will be applied according to a current soil test. Legume seed will be pre-inoculated or inoculated with the proper viable strain of Rhizobia immediately before planting.
- Plants will be selected that help meet nectar requirements for Monarch butterflies during times that the Monarch will be present. Plant selection will help to increase scores on the state's approved NRCS Monarch butterfly habitat evaluation.



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Documentation Implementation Requirements

Participant will:

- Prior to implementation, select a perennial forage species or grassland mixture for establishment. *If livestock are included in the system, forage species selected will meet the desired level of nutrition for the kind and class of the livestock to be fed.* (NRCS will provide technical assistance, as needed.)

Species	Forage category (grass, legume, forb)

- Prior to implementation, select planting technique, seeding rates and timing appropriate for the site and climatic conditions. (NRCS will provide technical assistance, as needed.)

Planting date	
Planting method	
Seeding rate	

- If livestock are included in the system, prior to implementation a grazing plan must be developed to keep grazing periods sufficiently short to allow for forages to recover before re-grazing occurs.*
- If livestock are included in the grazing system, during implementation in areas where animals congregate, establish persistent species than can tolerate close grazing and trampling.*



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- During implementation, keep the following documentation:
 - Records and photographs of planting preparation and any materials purchased or materials on hand used for the implementation of the enhancement.
 - Documentation of seed (Pure Live Seed) and any fertilizer or soil amendments used for the implementation of the enhancement.
 - If livestock are included in the grazing system, documentation and photographs of turn in/turn out grazing records for each field.*
- After implementation, make the forage planting and grazing records available for review by NRCS to verify implementation of the enhancement.

NRCS will:

- Prior to implementation, complete the state's approved NRCS Wildlife Habitat Evaluation Guide (WHEG). **Target Pollinator Species:** _____
WHEG score before implementation: _____
WHEG score after implementation: _____
- Prior to implementation, provide and explain NRCS Conservation Practice Standard Forage and Biomass Planting (Code 512) as it relates to implementing this enhancement.
- As needed, prior to implementation, NRCS will provide technical assistance:
 - Planning site preparation and establishment specifications meeting NRCS Conservation Practice Standard Forage and Biomass Planting (Code 512).
 - Prepare specifications for applying this enhancement for each site using approved specification sheets, job sheets, technical notes, and narrative statements in the conservation plan, or other acceptable documentation.
 - If livestock are included in the system, develop a grazing plan to keep grazing periods sufficiently short to allow for forages to recover before re-grazing occurs.*

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- During implementation, evaluate any planned changes to verify they meets the enhancement criteria.
- After implementation, verify the planned perennial grassland mixture was established to specifications developed for the site.

NRCS Documentation Review:

I have reviewed all required participant documentation and have determined the participant has implemented the enhancement and met all criteria and requirements.

Participant Name _____ Contract Number _____

Total Amount Applied _____ Fiscal Year Completed _____

NRCS Technical Adequacy Signature

Date

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SOUTH DAKOTA (SD) SUPPLEMENT TO CONSERVATION ENHANCEMENT ACTIVITY

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E512I

Additional Criteria for SD:

In addition to the criteria specified in the national job sheet E512I, the following additional criteria apply in SD:

- Consult the local Natural Resources Conservation Service (NRCS) office to determine proper seedbed preparation, seeding methods, rates, and dates.
- To determine which native perennial plants are suitable to the site consult the local NRCS office.
- Consult the local NRCS office to determine the wildlife and/or pollinator requirements. Wildlife life-cycle requirements are found in Biology Technical Note No. 15, including attachments. The local NRCS office shall follow and use the species or guild habitat requirements as identified in Biology Technical Note No. 15 and its attachments.
- April through October is the general growing season/bloom period. For species that can bloom in multiple months, these species may be counted more than once.
- Site conditions and location will dictate whether or not flowering species bloom in April and/or October. Seed may not be readily available for some April or October blooming species.
- Acceptable pollinator and beneficial insect forb species and bloom periods: See “Bloom period of Common SD Native Plants” chart on pages 77 and 78 in Biology Technical Note No. 15 found in Section 1 under Technical Notes in eFOTG. **(A minimum of 0.15 PLS lbs per acre of milkweed is required for this enhancement. Common Milkweed (*Asclepias syriaca*) and Showy Milkweed (*Asclepias speciosa*) are the only appropriate milkweed species for this enhancement. Refrain from using Cicer Milkvetch as this species has been found to be invasive in native rangeland and other native landscapes.**
- Protection from direct application and drift of insecticides, fungicides, and herbicides should be addressed by site selection and ongoing management. If pollinator plantings are next to a treated crop/area (including treated seed and insecticide, fungicide, or herbicide applications)



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a 30 foot buffer is required, 100 foot buffers are recommended. Buffers should be maintained as flower free areas. Leaving 30-100 foot of crop rows untreated near pastures with pollinator/beneficial insect and/or Monarch butterfly habitat can serve as a buffer.

- The Wildlife Habitat Evaluation Guide in SD is the SD-CPA-19 located at: https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/sd/home/?cid=nrcs141p2_036610

Criteria related to the written grazing management plan:

- Start of grazing period will be changed by a minimum of two weeks in each pasture/paddock each year during the growing season.
- Adequate recovery periods must be provided:
 - Minimum of 30 days between grazing events on pasture, 45 days on range.
 - Longer recovery periods will be needed during slow growth period and during drought.
- Maximum utilization will not exceed 50 percent (%) by weight of the total current year's growth.
- Grazing should not commence before the following minimum heights are reached:
 - 4 inches: little bluestem, sideoats grama;
 - 8 inches: big bluestem, Indiangrass, intermediate wheatgrass, pubescent wheatgrass, prairie sandreed, sand bluestem, tall wheatgrass;
 - 12 inches: switchgrass;
 - 6 inches: all other species.

Additional Documentation Requirements for SD:

In addition to the documentation requirements specified in the national job sheet E512I, the following additional documentation requirements apply in SD:

- Complete the SD Grazing Tool (SD-CPA-39 Forage/Animal Inventory, Grazing Schedule using the SD-CPA-15 or similar form, and SD-CPA-16 or similar grazing records document), if applicable.



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- Complete a drought contingency plan using the SD Drought Tool or provide the participant with a copy of the example drought contingency plan located within the SD Prescribed Grazing Technical Note if applicable.
- Complete the SD Seeding Tool (SD-CPA-4).
- Complete the SD Wildlife Habitat Quality Rating Worksheet (SD-CPA-19).