



**CONSERVATION ENHANCEMENT ACTIVITY**

**E327136Z2**

**CONSERVATION STEWARDSHIP PROGRAM**

Establish Monarch butterfly habitat

Conservation Practice 327: Conservation Cover

**APPLICABLE LAND USE: Crop (Annual & Mixed); Crop (Perennial); Associated Ag Land; Farmstead**

**RESOURCE CONCERN ADDRESSED: Fish & Wildlife Inadequate Habitat**

**ENHANCEMENT LIFE SPAN: 5 years**

Enhancement Description

Seed or plug milkweed (*Asclepias* spp.), and high-value monarch butterfly nectar plants on marginal cropland, field borders, contour buffer strips, and similar areas.

Criteria

- Habitat areas must be at least 0.5 acres.
- Establish and maintain habitat for monarch butterflies as described below:

**A. Monarch butterflies**

- Lists of larval host plants and nectar plants suitable for monarch butterfly habitat are provided in the NRCS Field Office Technical Guide (FOTG).
- A grass component to a monarch habitat planting is commonly needed for ecological stability, weed control, and fuel for prescribed burning. The FOTG provides information on the grass/forb ratio for monarch habitat plantings.
- To provide food (nectar and pollen) for adult monarch butterflies, at least 60% of the forb seeds (pure live seed) in the mix shall be from the monarch butterfly planting list (FOTG). Milkweed seeds are included in meeting the 60% minimum because milkweeds

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are excellent nectar plants. The FOTG provides information on the required number of forb species per bloom period (early, mid, or late season) for monarch habitat plantings. Bloom periods are to coincide with monarch presence in the area.

- To provide food for monarch butterfly larvae, plantings shall include at least one species of milkweed (*Asclepias* spp.) from the FOTG monarch butterfly planting list. All milkweed species used in the mix must be from this list and shall represent at least 1.5% of the total seeds in the mix. The total seeds include pure live seed from both grass and forbs. Tropical milkweed (*Asclepias curassavica*) shall not be planted in the continental United States due to potentially disrupting the migration of Monarch butterflies and increasing the rate of disease transmission.

*Waiver: In some regions, a commercial source of native Asclepias species is limited or not available. In these situations, the NRCS state conservationist may apply for a waiver, and only require that plantings include monarch nectaring species. In this situation, milkweed seed or plugs are still encouraged to be planted, if possible. If such a waiver is granted, the mix will result in at least 80% of the seed being from the state’s monarch nectaring plant list.*

- Any other use of the monarch butterfly habitat area must not compromise its intended purpose.
- If a Monarch Butterfly Wildlife Habitat Evaluation Guide (WHEG) is available for use in the state, a minimum planned Monarch WHEG rating of “excellent” will be obtained for the planted area.

### B. Planting criteria for monarch butterfly habitat

- Site selection should consider existing weed pressures and available methods of control. Delay planting and conduct an additional growing season of weed control if high weed pressure requires aggressive treatment.
- Site preparation and plant establishment shall be accomplished according to the state’s specifications for NRCS Conservation Practice Standard Conservation Cover (Code 327).

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- Successful establishment is when the planting is providing at least 80 percent soil cover, visually estimated, and that the resultant cover consists of at least 500 milkweed plants per acre (approx. 1 stem per each 100 sq. ft.), and successful establishment of at least two targeted nectar plants per bloom period when monarchs are present in the state. A milkweed plant is defined as a single stem emerging from the ground.
- Insecticides should not be used in the habitat planting area, nor be allowed to drift onto the habitat (this drift includes dust from seeds coated in insecticides).
- Herbicides are allowed during site preparation (prior to planting) when it is necessary to eliminate competing weeds from a planting area in order for nectar and pollen producing plants to establish.
- After a monarch habitat enhancement has been planted, herbicides may be spot-sprayed to remove broad-leaf weeds, or grass-selective herbicides may be applied to larger areas to eliminate persistent weedy grasses. Similarly, in the first year post-planting, the entire site may be mowed 8 to 10 inches high to reduce annual or biennial weeds that persist (site should be mowed just before dominant annual weeds flower).

### C. Operation and maintenance for monarch butterfly habitat

- Management and/or maintenance activities such as mowing, haying, burning, or grazing must be conducted outside of the season when monarch larvae or adults are present. Maintenance should be done on less than 1/3 of the acreage during any given year, except during the first year post-planting.
- Insecticides should not be used in the habitat planting area. If adjacent crop areas are located within 100 feet of the monarch habitat planting, protect the monarch planting from insecticide drift by obtaining a minimum target index score of 20 from Table 3 in the NRCS 190 Technical Note-AGR-9 (Preventing or Mitigating Potential negative Impacts of Pesticides on Pollinators using Integrated Pest Management and Other Conservation Practices).
- The planted habitat areas must be regularly inspected for invasive and/or noxious plants or other plants that may compromise the purpose of this enhancement.

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Undesirable species should be controlled using the least damaging method, for example, spot-spraying with herbicide or physical removal.

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## Documentation and Implementation Requirements

Participant will:

- Prior to implementation, provide a map showing the location of proposed habitat areas with notes on land use adjacent to proposed habitat areas to discuss with NRCS staff.
- During implementation, purchase specified seed mix or plant materials that meets monarch-specific seeding or planting requirements provided by NRCS.
- During implementation, follow habitat establishment guidance provided by NRCS in the state specifications for NRCS Conservation Practice Standard Conservation Cover (Code 327).
- After implementation, provide a list of management and/or maintenance activities carried out to manage the habitat areas and the dates on which those activities occurred.
- After implementation, provide photo documentation of monarch habitat areas.

NRCS will:

- Prior to implementation, assess habitat condition using a monarch Wildlife Habitat Evaluation Guide (WHEG) to calculate current WHEG score and anticipated WHEG score after implementation of Enhancement. **Benchmark WHEG score = \_\_\_\_\_ Planned Post Implementation WHEG score = \_\_\_\_\_**
- Prior to implementation, provide participant with suitable larval host plants and nectar plants lists
- Prior to implementation, provide and explain State specifications for NRCS Conservation Practice Standard Conservation Cover (Code 327).
- Prior to implementation, provide participant with a recommended seed mix and planting specifications per above criteria (grass/forb ratio; number of forb species per bloom period for monarch habitat plantings)
- After implementation, verify successful establishment (per planting criteria above).



**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.

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Participant Name \_\_\_\_\_ Contract Number \_\_\_\_\_

Total Amount Applied \_\_\_\_\_ Fiscal Year Completed \_\_\_\_\_

\_\_\_\_\_  
NRCS Technical Adequacy Signature

\_\_\_\_\_  
Date

