



CONSERVATION ENHANCEMENT ACTIVITY

E327139Z - Colorado

CONSERVATION STEWARDSHIP PROGRAM

Conservation cover to provide habitat continuity for pollinators and beneficial insects

Conservation Practice 327: Conservation Cover

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

RESOURCE CONCERN ADDRESSED: Fish & Wildlife Inadequate Habitat

PRACTICE LIFE SPAN: 5 years

Enhancement Description

Seed or plug nectar and pollen producing plants in non-cropped areas such as field borders, vegetative barriers, contour buffer strips, grassed waterways, shelterbelts, hedgerows, windbreaks, conservation cover, and riparian forest and herbaceous buffers.

Criteria

- Habitat areas must be at least 0.5 acres for each 40 acres of the selected land use.
 - Where the selected land use is less than 40 acres, the required amount of habitat will be reduced according to the ratio of 0.5 acres to 40 acres.
Selected Land Use: ____ acres x 0.0125 = ____ minimum required habitat area.
 - Where the selected land use is greater than 40 acres, the 0.5 acre habitat areas(s) may be a single site or interspersed sites in the larger land use areas as agreed to by the NRCS State Biologist¹.
Selected Land Use: ____ acres / 80 = ____ (rounded to the nearest ½ acre) is the minimum required habitat acres.

¹Provided is the NRCS Colorado State Biologist’s concurrence: The habitat areas may be provided as a single site providing the minimum required habitat acres (as calculated above), or as interspersed sites in the larger land use areas; provided that each site is greater than or equal to 0.5 acres. Blocks of habitat will be preferred over strips. If it is necessary to plant in strips, then each strip must be a minimum of 15 feet wide. Contact the state biologist for any variance requests.



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- Establish habitat for pollinators (A) and beneficial insects (B) as described below:

A. Pollinators

Refer to the [Colorado Biology Technical Note No. 47 – Pollinator Biology and Habitat](#) for guidance on the following criteria.

1. Refer to the Biology Technical Note 47, Plant Tables for a list of pollinator habitat plants pre-approved by the NRCS state office. Any deviation from this list must be PREAPPROVED.
2. The habitat planting will include (as a minimum) three early, three mid, and three late flowering species from the NRCS state list including forbs, legumes, vines, shrubs, and/or trees. Plants that produce toxic nectar will not be planted.

Dates for the three above mentioned bloom periods:

Early Season Bloom Period: April 15th - June 15th

Mid-Season Bloom Period: June 15th - July

Late Season Bloom Period: August - September

3. Any other use of the pollinator habitat area must not compromise its intended purpose.

B. Beneficial Insects

Refer to the [Colorado NRCS Biology Technical Note No. 01, Habitat Development for Beneficial Insects](#) for guidance on the following criteria.

2. Identify pest species and associated beneficial insects targeted for control.
3. Inventory existing conditions on the farm to determine habitat needs of selected beneficial insects, including:
 - (a) Permanent insectary sites,
 - (b) Augmentation of existing hedgerows, field borders or other odd areas adjacent to fields, and/or
 - (c) Trap crop areas.
4. Plant selection should be matched to attract identified beneficial insects.
5. Beneficial insect habitat may include either annual or perennial cover. If annual cover is used, the cover must be replanted each year during the life of the contract.
6. Refer to the Biology Technical Note 01, Appendix 2 for a list of beneficial insect habitat plants pre-approved by the NRCS state office. Any deviation from this list must be PREAPPROVED.

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- Planting criteria for both pollinators and beneficial insects:
 1. Site selection should consider existing weed pressures and available methods of control. Implement weed suppression prior to planting and/or delay planting if high weed pressure requires aggressive treatment.
 2. Site selection should consider seasonal precipitation patterns and drought conditions. Delay plantings until favorable conditions exist for the establishment of the planting.
 3. Site preparation and plant establishment shall be accomplished according to the appropriate NRCS conservation practice and specifications: (327) Conservation Cover or other as determined appropriate by the NRCS conservation planner.
 4. Successful establishment is when the planting is providing at least 80% soil cover, visually estimated, and that the resultant cover consists primarily of the early, mid, and late blooming species planted for pollinators and/or other beneficial insects.
 5. Insecticides will not be used in the habitat planting area.
 6. 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.
 7. After a pollinator 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, the entire site may be mowed in the first year post-planting to reduce annual or biennial weeds that persist (site should be mowed just before dominant annual weeds flower).

Operation and maintenance for both pollinators and beneficial insects

1. Management and/or maintenance activities such as mowing, haying, burning, or grazing must be conducted outside of the growing season or bloom periods (April 15th to October). Maintenance should be done on less than 1/3 of the acreage during any given year, except during the first year post-planting. Consideration must be given to promoting seed reproduction (allowing the seed head to set) and to allowing the bloom to occur (not damaging the bud).

Refer to the [Colorado Biology Technical Note No. 47 – Pollinator Biology and Habitat](#) for additional information.

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2. Insecticides will not be used in the habitat planting area. Even non-synthetic botanical insecticides can harm beneficial insects.

If adjacent crop areas are treated with insecticides all efforts will be made to ensure that any insecticide use on adjoining lands does not drift or otherwise enter (via runoff etc.) the habitat planting areas. Use one or more of the following actions to limit insecticides in the pollinator habitat area:

- (a) Create insecticide free buffers in the first 25 feet of crop area,
 - (b) Use application methods that minimize drift to the adjacent habitat,
 - (c) Apply active ingredients in the evening when most insect pollinators are not active.
3. 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. Undesirable species should be controlled using the method least damaging method, for example, spot-spraying with herbicide or physical removal.
 4. If habitat is part of an organic farming operation, only materials allowed according to the USDA National Organic Program's National List of Allowed and Prohibited Substances may be used.

Colorado Documentation Requirements

- Specifications for this practice shall be prepared for each site. Specification shall be recorded using approved specifications sheets, job sheets, narrative statements in the conservation plan, or other acceptable documentation. Including:
 - Map showing the location and dimension of the habitat area(s).
 - The planting plan, including a list of pollinator or beneficial species planted and the planting rate/density of each; to document the criteria that the site will provide at least 80% soil cover primarily consisting of the species listed in Table 1 or 2.
- List of management/maintenance activities to be carried out to manage the habitat areas. Provide the measures that will be used to ensure site integrity, including acres affected.
- If the site will be grazed after establishment, provide the measures or practices that will be used to ensure that the site will maintain the enhancement's plant community integrity.
- If insecticides are/will be used in the adjoining crops, provide a plan or description of the action(s) that will be used, for the life of this enhancement, to ensure that the site will maintain the enhancement's purpose and integrity.



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Documentation and Implementation Requirements

Participant will:

- Prior to implementation, develop 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 pollinator-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 for review by NRCS 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, take and provide for review photographs as documentation of pollinator habitat area condition.

NRCS will:

- Prior to implementation, discuss with participant the proposed habitat areas to verify they are in locations suitable for the enhancement.
- Prior to implementation, provide participant with suitable plant 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 pollinator habitat plantings)
- After implementation, verify successful establishment (per planting criteria above) by review of documentation and photographs.



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



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