United States Department of Agriculture

CONSERVATION ENHANCEMENT ACTIVITY

CONSERVATION STEWARDSHIP PROGRAM

E327A

Conservation cover for pollinators and beneficial insects

Conservation Practice 327: Conservation

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

RESOURCE CONCERN: Animals

ENHANCEMENT 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. 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 Biologist.

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

A. Pollinators

1. NRCS at the state level will develop lists of plants suitable for pollinator habitat.

   The lists must emphasize as many native species as practical.

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.

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

B. Beneficial insects

1. Identify pest species and associated beneficial insects targeted for control.

2. 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.

3. Plant selection should be matched to attract identified beneficial insects.

4. 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.

5. NRCS at the state level will develop lists of plants suitable for beneficial insect habitat. The lists must emphasize as many native species as practical.

C. Planting criteria for both pollinators and beneficial insects

1. Site selection should consider existing weed pressures and available methods of control, delay planting if high weed pressure requires aggressive treatment.

2. Site preparation and plant establishment shall be accomplished according to the appropriate NRCS conservation practice and specifications.

3. Successful establishment is when the planting provides at least 80% soil cover

when visually estimated and the resultant cover consists primarily of the early, mid, and late blooming species planted for pollinators and/or other beneficial insects.

4. Insecticides should not be used in the habitat planting area.

5. 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.

6. 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).

D. 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 period. Maintenance should be done on less than 1/3 of the acreage during any given year, except during the first year post-planting.

2. Insecticides should 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 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.

Documentation and Implementation Requirements

CONSERVATION STEWARDSHIP PROGRAM

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:

CONSERVATION STEWARDSHIP PROGRAM

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

2024 CSP ENHANCEMENTS – GUIDANCE & PERFORMANCE CERTIFICATION

E327A – Conservation Cover for Pollinators and Beneficial Insects

Conservation Practice 327: Conservation Cover

BRIEF DESCRIPTION OF ENHANCEMENT: This enhancement will be used to plant mixes which will be excellent pollinator and beneficial insect habitat.

Some important things to note:

- A minimum of one-half acre (1/2 ac) of planting must be completed for every 40 acres of land in the CSP application. (1.25% of total acres)
- To ensure adequate sunlight for successful planting, area to be seeded shall have a minimum of 30 feet in width between trees if planted beneath mature tree cover.
- Select plants from the attached plant list. Three must be planted from each bloom period, with a total of 9 plants to be planted. Two of the 9 plants must be those designated as preferred for beneficial insects. Those are designated on the plant list with two asterisks (**).
- Area should be treated with appropriate herbicides prior to establishment of pollinator habitat if johnson grass, cogon grass or other hard to eradicate species such as bahia or Bermuda are present.
- If the area to be treated has stumps and/or logging debris at the time of practice planning, then the area must be de-stumped and cleared prior to planting and subsequent practice check out.
- NO fertilizer will be applied to the site at planting.
- Maintenance shall be completed on these areas beginning the second winter after establishment. Some form of maintenance must be completed on all acres at least once every 3 years. The best regime is to implement maintenance on 1/3 of the acreage annually. Prescribed burning is the recommended form of maintenance, however, mowing high (12 inches) acceptable. Mowing could allow a duff layer to develop and potentially limit pollinator plant growth and survival. Therefore, if mowing is the main form of maintenance, then either fire or light disking must be used at least once every 3rd maintenance cycle to break the duff layer. Light disking means scratching the surface of the soil, but not going deeper than 3 inches at any one point.
- Spot spraying to stop invasives and woody plant encroachment is recommended during the life of the practice but ensure herbicide label directions are followed.

ATTACH COPIES OF REQUIRED DOCUMENTS AS NOTED BY THE ENHANCEMENT JOB SHEET. CHECK THE BOX OR OTHERWISE IDENTIFY THE SUPPORTING DOCUMENTATION.

- ☐ MAPS OF THE AREA or LOCATION(S) WHERE THIS PRACTICE WAS APPLIED

- ☐ SEED INVOICE SHOWING TYPE AND AMOUNT PURCHASED FOR THIS PRACTICE.
- ☐ REPRESENTATIVE DIGITAL IMAGES/PHOTOS OF THE AREA AND INDICATE AREA ON MAP
- ☐ DATES OF COMPLETED ACTIVITY

The attached documents support the full implementation of this Conservation Stewardship Enhancement.

_____ _____

CSP Participant Name Date

Conservation Security Program

Pollinator & Beneficial Insect Habitat Plant List

Choose a Minimum of 9 Plants. (3 Per Flowering Period)

Early Flowering Species

Smooth Beardtongue (*Penstemon digitalis*)	$^{3}/_{16}$ pound pls* per acre
Butterfly Weed** (*Asclepias tuberosa*)	$^{1}/_{4}$ pound pls per acre
Lanceleaf Tickseed** (*Coreopsis lanceolata*)	½ pound pls per acre
Blue False Indigo (*Baptisia australis)*	1 pound pls per acre
Common Milkweed** (*Asclepias syriaca*)	$^{1}/_{4}$ pound pls per acre
Plains Coreopsis** (*Coreopsis tinctoria*)	$^{3}/_{16}$ pound pls per acre
Purple Prairie Clover (*Dalea purpurea*)	$^{3}/_{16}$ pound pls per acre
Pale Purple Coneflower (*Echinacea pallida*)	$^{1}/_{4}$ pound pls per acre
Spotted Beebalm (*Monarda punctata*)	⅛ pound pls per acre
Black-Eyed Susan** (*Rudbeckia hirta*)	$^{1}/_{4}$ pound pls per acre

Golden Alexander** (*Zizia aurea*)	$^1/_4$ pound pls per acre

Mid-Season Flowering Species

Large Flower Partridge Pea (*Chamaecrista fasciculata*)	$^1/_4$ pound pls per acre
Small Flower Partridge Pea (*Chamaecrista nictitans*)	$^1/_4$ pound pls per acre
Slender Mountain Mint** (*Pycnanthemum tenuifolium*)	⅛ pound pls per acre
Illinois Bundleflower (*Desmanthus illinoensis*)	½ pound pls per acre
Purple Coneflower (*Echinacea purpurea*)	½ pound pls per acre
Blue Verbena** (*Verbena hastata*)	$^5/_{16}$ pound pls per acre
Yellow Giant Hyssop (*Agastache nepetoides*)	$^1/_4$ pound pls per acre
Golden Wave Tickseed** (*Coreopsis basalis*)	⅛ pound pls per acre
Rattlesnake Master (*Eryngium yuccifolium*)	$^3/_8$ pound pls per acre
White Prairie Clover (*Dalea candida*)	$^1/_4$ pound pls per acre
Boneset (*Eupatorium perfoliatum*)	⅛ pound pls per acre
Roundleaf Thoroughwort (*Eupatorium rotundifolium*)	⅛ pound pls per acre
Lance-Leaved Goldenrod (*Euthamia graminifolia*)	$^1/_{16}$ pound pls per acre

Rosemallow (*Hibiscus moscheutos*)	$^1/_4$ pound pls per acre
Violet Lespedeza (*Lespedeza violacea*)	$^1/_4$ pound pls per acre
Spiked Blazing Star (*Liatris spicata*)	$^1/_4$ pound pls per acre
Lupine (*Lupinus perennis*)	$^5/_8$ pound pls per acre
Bergamot** (*Monarda fistulosa*)	⅛ pound pls per acre
Mexican Hat (*Ratibida coumnaris*)	⅛ pound pls per acre
Greyheaded Coneflower** (*Ratibida pinnata*)	$^1/_4$ pound pls per acre
Clasping Coneflower (*Rudbeckia amplexicaulis*)	$^1/_4$ pound pls per acre
Passion Flower (*Passiflora incarnate*)	½ pound pls per acre
Wild Quinine (*Parthenium integrifolium*)	$^3/_{16}$ pound pls per acre

<u>Late Flowering Species</u>

Joe-Pye Weed (*Eupatorium fistulosum*)	⅛ pound pls per acre
Sweet Joe-Pye Weed (*Eupatorium purpureum*)	⅛ pound pls per acre
Swamp Sunflower** (*Helianthus angustifolius*)	$^3/_{16}$ pound pls per acre

Alabama Supplemental Guidance for CSP Enhancement

Maximilian Sunflower** (*Helianthus angustifolius*)	$^{3}/_{16}$ pound pls per acre
Cardinal Flower (*Lobelia cardinalis*)	⅛ pound pls per acre
Butterfly pea (*Centrosema virginianum*)	⅛ pound pls per acre
Heath Aster** (*Aster pillosus/Symphyotrichum pilosum*)	⅛ pound pls per acre
Wand Goldenrod** (*Solidago stricta*)	⅛ pound pls per acre
Pine Barren Goldenrod** (*Solidago fistulosa*)	⅛ pound pls per acre
Tall Goldenrod** (*Solidago altissima*)	⅛ pound pls per acre
Gray Goldenrod** (*Solidago nemoralis*)	⅛ pound pls per acre
Rough Goldenrod** (*Solidago rugosa*)	⅛ pound pls per acre
Swamp Milkweed** (*Asclepias incarnata*)	$^{3}/_{8}$ pound pls per acre
Smooth Aster** (*Aster laevis*)	⅛ pound pls per acre
Showy Tickseed (*Bidens aristosa*)	$^{3}/_{8}$ pound pls per acre
Tall Tickseed** (*Coreopsis tripteris*)	⅛ pound pls per acre
Florida Beggarweed (*Desmodium floridanum*)	$^{5}/_{16}$ pound pls per acre

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Alabama Supplemental Guidance for CSP Enhancement

Dixie Tick Trefoil (Desmodium tortuosum)	$^{5}/_{16}$ pound pls per acre
Perplexed Tick Trefoil (*Desmodium perplexum*)	$^{5}/_{16}$ pound pls per acre
Pine Barren Tick Trefoil (*Desmodium strictum*)	$^{5}/_{16}$ pound pls per acre
Indian Blanket** (*Gaillardia pulchella*)	$^{3}/_{8}$ pound pls per acre
Sneezeweed (*Helenium autunmale*)	⅛ pound pls per acre
Evening Primrose (*Oenothera biennis*)	⅛ pound pls per acre
Yellow Wingstem (*Verbesina alternifolia*)	$^{5}/_{16}$ pound pls per acre
White Wingstem (*Verbesina virginica*)	$^{5}/_{16}$ pound pls per acre
Iron Weed (*Vernonia altissima*)	$^{3}/_{16}$ pound pls per acre
Alabama Iron Weed (*Vernonia noveboracensis*)	$^{3}/_{16}$ pound pls per acre

*PLS = Pure Live Seed (% purity x % germination = % pure live seed)

Example: Where Purity is 90% (meaning 90% of the weight being purchased is actual seed) and where Germination is 70%, (meaning 70% of the actual seed are guaranteed to be viable). In this Example **PLS** = .90 X .70 = **63 percent**

So, in this example, every 100 pounds of bulk seed you get actually contains 63 pounds in pure, viable seed.

As you can see, PLS is NOT the same as bulk seed. Buyer should ensure pricing is based on pls pounds!

** Denotes plants that make good habitat for beneficial insects. **At least 2 of these should be planted in the mix** of 9 as designated above.

01/17/2021