

Plant Enhancement Activity – PLT15 – Establish pollinator and/or beneficial insect habitat



Enhancement Description

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

Land Use Applicability

Cropland, Pastureland, Rangeland, Forestland

Benefits

Increased habitat for pollinators will improve fruit set, size and quality, productivity per acre, biodiversity, beneficial insect populations, and the food base for many

wildlife species. The increased plant diversity of pollinator habitat will enhance wildlife habitat and may increase populations of other beneficial insects, reducing the need for pesticides.

Conditions Where Enhancement Applies

This enhancement applies to all crop, pasture, range or forest land use acres.

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 must be interspersed in the larger land use area. For example, for an 80 acre parcel, the required 1 acre of habitat should not be located in one corner of the 80 acre field.

Criteria

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

A. Pollinators

1. Lists of plants suitable for pollinator habitat will be developed by NRCS at the state level. 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. Site preparation and plant establishment shall be accomplished according to the appropriate NRCS conservation practice and specifications. 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.
4. Insecticides and herbicides should not be used in the habitat planting area. Even natural herbicides and botanical insecticides can harm bees and other pollinators. If adjacent



crop areas are treated 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 minimizing drift to the adjacent habitat,
 - c. Apply active ingredients in the evening when most insect pollinators are not active.
5. 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 least damaging method.
 6. 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, including:
 - a. Permanent insectary sites
 - b. Augmentation of existing hedgerows, field borders or other odd areas adjacent to fields
 - c. Trap crop areas
3. Plant selection matched to attract identified beneficial insect
4. Amount of habitat required based on the beneficial insect dispersal ability and can be either annual or perennial cover
5. Lists of plants suitable for beneficial insect habitat will be developed by NRCS at the state level. 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 weed pressure requires excessive treatment
2. Site preparation and plant establishment shall be accomplished according to the appropriate NRCS conservation practice and specifications
3. Successful establishment is determined by comparing field conditions with published plant density recommendations for the species for the region

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.
2. Insecticides and herbicides should not be used in the habitat planting area. Even non-synthetic herbicides and botanical insecticides can harm beneficial insects. If adjacent crop areas are treated use one or more of the following actions to limit insecticides in the pollinator habitat area:
 3. Create insecticide free buffers in the first 25 feet of crop area,
 4. Use application methods that minimize drift to the adjacent habitat,



5. 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.
6. 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.

Adoption Requirements

This enhancement is considered adopted when pollinator or beneficial habitat has been established that meet or exceed the above criteria, respectively, and the established habitat are maintained and functioning as intended.

Documentation Requirements

1. A map showing the location and dimension of the habitat areas
2. A list of pollinator or beneficial species planted
3. List of maintenance activities carried out to manage the habitat areas

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Reference:

327 – Conservation Cover

- **Biology Jobsheet #16: Native Habitat Development for Pollinators**
- **Plants That Attract Beneficial Insects**

RECOMMENDED FORB SPECIES	Value to Pollinators	Flowering Season Early = April – June Mid = June – August Late = August - October
DRY		
Bush Clover	G	July - August
Dotted Blazingstar	EX	July - September
Purple Coneflower	EX	June - July
Showy Penstemon	EX	May - June
Silky Aster	EX	August - October
Spotted Beebalm	EX	July - September
DRY to MESIC		
Butterfly Weed	G	June - August
Canada Milkvetch	G	June - August
Culvers Root	EX	June - August
Evening Primrose	G	May - August
Ironweed	G	July - September
Leadplant	EX	July - September
Rough Blazingstar	EX	July - September
Showy Goldenrod	G	August - September
Smooth Aster	EX	August - October
Stiff Tickseed	EX	May - August
MESIC to WET		
Bottle Gentian	EX	August - October
Canada Tick Trefoil	G	July - August
Common Ox-eye	EX	June - August
Giant Sunflower	EX	July - October
Golden Alexanders	G	June - July
Great Blue Lobelia	EX	July - October
Mountain Mint	EX	July - September
Partridge Pea	EX	July - September
Tall Blazingstar	EX	July - September
Wild Bergamot	EX	May - August
Yellow Coneflower	EX	July - September

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WET		
Boneset	EX	August - September
Cup Plant	G	July - September
Joe-pye Weed	G	July - September
New England Aster	EX	September - October
Panicled Aster	G	August - October
Sneezeweed	G	August - October
Swamp Milkweed	G	June - July
DRY to WET		
Black-eyed Susan	G	July - September
Common Milkweed	EX	June - August
Cream Gentian	EX	August - October
Giant Hyssop	EX	July - October
Illinois Bundleflower	G	June - August
Purple Prairie Clover	EX	June - August
Maximillian Sunflower	EX	July - October
Stiff Goldenrod	EX	August - September
White Prairie Clover	EX	June - September
Wild White Indigo	EX	June - July
RECOMMENDED WOODY SPECIES		
American Basswood	EX	April - June
American Mountain Ash	G	May - June
American Plum	EX	April - May
Button Bush	EX	June - August
Chokecherry	EX	April - May
Dogwoods, Native	G	May - July
False Indigo	EX	June - August
Maple, Silver	EX	March - April
New Jersey Tea	EX	June - August
Serviceberry	EX	May - June
Wild Rose	EX	June - July
Willow, Native	EX	April - June
RECOMMENDED GRASSES		
Big Bluestem	EX	
Canada Wildrye	G	
Indiangrass	EX	
Little Bluestem	EX	
Prairie Dropseed	EX	
Sideoats Grama	EX	

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