United States Department of Agriculture
Natural Resources Conservation Service

Plants Enhancement Activity –*PLT01–Establish Pollinator 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
This enhancement is applicable on cropland, pasture land, rangeland and forest land.

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.

Criteria for *Establishing Pollinator Habitat*

Pollinator habitat areas will be at least ½ acre in size for each 40 acres of cropland, pastureland, rangeland or forest land and include a minimum of nine (9) flowering plant species including forbs, legumes, vines, shrubs, and/or trees.

- 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.

- The habitat planting will include (as a minimum) three early, three mid, and three late flowering species from the NRCS state list. Plants that produce toxic nectar will not be planted.

- 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 then 1/3 of the acreage during any given year.

- 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:

  - Create insecticide free buffers in the first 25 feet of crop area,
  - Use application methods that minimizing drift to the adjacent habitat,
  - Apply active ingredients in the evening when most insect pollinators are not active.
- 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.
- Any use of the pollinator habitat area must not compromise its intended purpose.

Documentation Requirements for *Pollinator Habitat Establishment*

- A map showing the location and dimension of the pollinator habitat areas.
- A list of pollinator species planted.
- List of maintenance activities carried out to manage the pollinator habitat areas.

TENNESSEE SUPPLEMENTAL INFORMATION FOR THIS ENHANCEMENT
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APPROVED SEEDING MIXTURES (per acre)

Mix 1 (Imazapic resistant; moist to dry sites)

Sideoats grama	1 lb.
Virginia wildrye	1 lb.
Little bluestem	1 lb.
Partridge pea	3 oz.
Lanceleaf coreopsis	12 oz.
Purple prairie clover	4 oz.
Illinois bundleflower	3 oz.
Pale purple coneflower	6 oz.
Purple coneflower	6 oz.
False sunflower	4 oz.
Gray-head coneflower	5 oz.
Blackeyed susan	2 oz.
Rigid goldenrod	3 oz.

Mix 2 (Not Imazapic resistant; moist to dry sites)

Sideoats grama	1 lb.
Virginia wildrye	8 oz.
Little bluestem	1.5 lb.
Butterfly milkweed	1 oz.
Smooth aster	1 oz.
Partridge pea	8 oz.
Lanceleaf coreopsis	8 oz.
Purple coneflower	14 oz.
Canada milkvetch	3 oz.
Gray-head coneflower	4 oz.
Blackeyed susan	5 oz.
Rigid goldenrod	2 oz.
Compass plant	2 oz.

Mix 3 (Not Imazapic resistant; moist to dry sites)

Sideoats grama	1 lb.
Virginia wildrye	8 oz.
Little bluestem	1 lb.
Indiangrass	8 oz.
Butterfly milkweed	1 oz.
Smooth aster	1 oz.
Partridge pea	8 oz.
Lanceleaf coreopsis	4 oz.
Purple prairie clover	2 oz.
Pale purple coneflower	6 oz.
Purple coneflower	8 oz.
Rattlesnake master	3 oz.
Ashy sunflower	0.5 oz.
False sunflower	4 oz.
Spike blazing star	3 oz.
Blackeyed susan	5 oz.
Rigid goldenrod	1 oz.
Showy goldenrod	0.5 oz.
Golden Alexander	1 oz.

Mix 4 (Not Imazapic resistant; moist to wet sites)

Virginia wildrye	1.5 lb.
Little bluestem	1 lb.
Indiangrass	8 oz.
Swamp milkweed	2 oz.
New England aster	1 oz.
Showy tickseed	9 oz.
Partridge pea	8 oz.
Purple coneflower	11 oz.
False sunflower	5 oz.
Spike blazing star	5 oz.
Blackeyed susan	3 oz.
Rigid goldenrod	2 oz.
Blue vervain	2 oz.

Mix 5 – minimum of ¼ acre of shrubs in combination with mix 1, 2, 3, or 4.

Shrub Planting – An equal mixture of 3 species from the list below (only one sumac species). Consider mixtures that provide the longest bloom period possible through the growing season. All shrubs are planted on an 8x8 foot spacing between 12/1 and 4/1. Many shade tolerant species do well in full sun and will produce more flowers with more light exposure. No more than 50% of the pollinator habitat acres can be shrubs.

Species	Bloom period	Shade tolerance	Site Condition Range **
Crabapple (M. angustifolia)	March-April	Full sun	Moist, well drained
Dogwood, silky (C. amomum)	March-May	Shade tolerant	Moist to poorly drained

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Species	Bloom period	Shade tolerance	Site Condition Range **
Plum, Chickasaw	March-May	Shade tolerant	Dry, well drained
Spicebush (L. benzoin)	April	Prefers shade	Moist, somewhat poorly drained
Plum, American (wild)	April-May	Shade tolerant	Moist, well drained
Chinkapin (C. pumila)	April-June	Partial shade	Dry, well drained
Indigobush (A. fruticosa)	April-June	Full sun	Moist, moderately well drained
Sumac, fragrant (R. aromatica)	April-June	Partial shade	Dry, well drained
Sumac, shining (R. capallinum)	June-July	Full sun	Dry, well drained
Sumac, staghorn (R. hirta)	June-July	Shade tolerant	Dry, well drained
Beautyberry (C. americana)	May-July	Partial shade	Moist, moderately well drained
Elderberry (S. canadensis)	May-July	Partial shade	Moist, somewhat poorly drained
Viburnum, mapleleaf	May-August	Shade tolerant	Moist, well drained to dry

** Moist = wetter than moderately well drained soil; good moisture holding capacity; generally not hydric.
Dry = Drier than a well drained soil, tending toward droughty.
Poorly drained = generally a hydric soil due to persistent high water table sometime in growing season.
Somewhat poorly drained = Wetness limited soil (2w or 3w) but usually not hydric.

Producer Name:		Date:
Tract Number:		County:
Total Cropland Acres in Tract:	Total Forestland Acres in Tract:	Total Pasture Acres in Tract:

Field Number	Planned Habitat Acres	Planned Habitat Type *	Planned Mixture (No.)	Planned Shrub Species	Cropland Insecticide Setback Required? (Y or blank)	Grazing Plan Required? (Y or blank)

* Habitat Types are (1) field border, (2) contour buffer strips, (3) hedgerow, (4) waterway, (5) odd field areas, (6) add to riparian zone.