



CONSERVATION ENHANCEMENT ACTIVITY

E420A

CONSERVATION STEWARDSHIP PROGRAM

Establish pollinator habitat

Conservation Practice 420: Wildlife Habitat Planting

APPLICABLE LAND USE: Crop (Annual and Mixed), Crop (Perennial), Forest, Associated Ag Land, Farmstead

RESOURCE CONCERN: Animals

ENHANCEMENT LIFE SPAN: 1 Year

Enhancement Description

Seed or plug nectar and pollen producing plants to establish or improve pollinator habitat. These areas may include, but are not limited to, field borders, vegetative barriers, contour buffer strips, shelterbelts, hedgerows, windbreaks, conservation cover, and riparian forest and herbaceous buffers.

Criteria

- A Wildlife Habitat Evaluation Guide (WHEG), must be used to show that 0.5 planning criteria has been met for the inadequate wildlife habitat resource concern. The WHEG used to meet this criterion does not need to be specific to pollinator habitat. (If WHEG score is less than 0.5, consider E327A.)
- A WHEG specific to pollinator habitat must be used to show that, post implementation, the Enhancement is expected to result in the establishment of suitable pollinator habitat or will improve the habitat value of existing pollinator habitat. The following may be used to meet this criterion:
 - [For circumstances where planning criteria for pollinator habitat is currently below 0.5] Post implementation, planning criteria for pollinator habitat is equal to or greater than 0.6.

OR

- [For circumstances where planning criteria for pollinator habitat is at

E420A – Establish pollinator habitat	May 2023	Page 1
--------------------------------------	----------	----------



CONSERVATION STEWARDSHIP PROGRAM

0.5 or greater] Post implementation, planning criteria for pollinator habitat increases at least 0.1

- 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. The NRCS State Biologist must agree to habitat areas less than 0.25 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 as described below:

A. Planting Criteria

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, and / or shrubs. Plants that produce toxic nectar will not be planted.
3. Any other use of the pollinator habitat area must not compromise its intended purpose.
4. Site selection should consider existing weed pressures and available methods of control. Delay planting if high weed pressure requires aggressive treatment.
5. Suppression of weeds and plant establishment will be accomplished according to the appropriate NRCS conservation practice standards and specifications.
6. Successful establishment is when the planting is providing at least 80% canopy cover, visually estimated, and that the resultant cover consists primarily of the early, mid, and late blooming species planted for pollinators.
7. Insecticides should not be used in the habitat planting area.
8. 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.
9. After a pollinator enhancement has been planted, herbicides may be spotsprayed to remove broad-leaf weeds, or grass-selective herbicides may be applied to larger areas to eliminate persistent weedy grasses. Similarly, the



CONSERVATION STEWARDSHIP PROGRAM

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). Mowing height must not be too short so as to compromise the planting. A general guideline is 8 to 10 inches.

B. Operation and maintenance

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 as described in A 9 above.
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:
 - i. Create insecticide free buffers in the first 25 feet of crop area,
 - ii. Use application methods that minimize drift to the adjacent habitat,
 - iii. 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 that is least likely to inadvertently impact pollinators. For example, spot-spraying with herbicide or physical removal of undesirable plants.
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.



CONSERVATION STEWARDSHIP PROGRAM

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 Wildlife Habitat Planting (Code 420).
- 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 during blooming periods.



CONSERVATION STEWARDSHIP PROGRAM

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 Wildlife Habitat Planting (Code 420).
- Prior to implementation, use WHEG to document 0.5 five planning criteria for the terrestrial habitat resource concern. The WHEG does not need to be a pollinator WHEG.
- 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.

Participant Name _____ Contract Number _____

Total Amount Applied _____ Fiscal Year Completed _____

NRCS Technical Adequacy Signature

Date



OREGON SUPPLEMENT TO CONSERVATION ENHANCEMENT ACTIVITY E420A

CONSERVATION STEWARDSHIP PROGRAM

Additional Documentation Requirements for Oregon

In addition to the documentation requirements specified in the National E420A Enhancement Activity, the following additional documentation requirements apply in Oregon:

Prior to implementation, complete the Oregon Pollinator or Oregon Monarch Wildlife Habitat Evaluation Guide (WHEG). Planned WHEG score must meet or exceed 0.75. Enhancement parameters should target addition/augmentation with plant species that address a period of inadequate bloom (nectar and/or pollen) or other resources (i.e. nesting habitat) as identified by the WHEG.

Target Pollinator Species: _____

Present WHEG Score: _____

Planned WHEG Score: _____

[eFOTG: Section 3: Oregon Conservation Planning Documents: Wildlife Habitat Inventory Documents:](#)

Document seed mix and planting dates in the in the table below

Seed Mix and Rate					
Site Preparation:					
Seeding Method:			Seeding Equipment:		
Seeding Date:			Seed Carrier/Filler:		
Seeding Conditions:					
Species	Base Seeding Rate (lbs/ac)	% of Mix	Seeding Rate (lbs/ac)	Bloom Period	Total lbs/field
Total:					

Document in the practice specification how this enhancement will establish pollinator habitat..

Statewide

- [Oregon & Washington Guide for Conservation Seedings and Plantings](#)
- Use the Oregon Flora Garden portal - <https://oregonflora.org/garden/> - to select potential species to use and see photos and descriptions of the species. Start by selecting, on the left-side panel, the characteristics that you need for your planting, in this case, "wildlife support" - select pollinator and/or beneficial insects. Also, select the ecoregion of your project site and select any other parameters that fit the project site. The plant selections on your right will narrow as you select attributes on the left-hand panel. This site only includes native plants.
- [Oregon Plant Materials Technical Note Note 13 - Plants for Pollinators in Oregon](#)

Western Oregon:

- Native Plants for Willamette Valley Yards Booklet. 2018. Metro. : <https://www.oregonmetro.gov/native-plants-willamette-valley-yards-booklet>
- For MLRAs 1, 2, 4, and 5, refer to: [420 OR OTH Wildlife Habitat Planting Files](#)
- [Enhancements for Native Bees in Western Oregon and Washington Cranberry Production](#)

Eastern Oregon

- [Description, Propagation and Establishment of Wetland Plant Species and Grasses for Riparian Areas in the Intermountain West](#)
- [Conservation Plant Species for the Intermountain West](#)
- [Plants for Pollinators in the Inland Northwest](#)
- [Monarch Butterfly Habitat: Development and Maintenance](#)
- For MLRAs 6, 7 and 8, refer to: [327 OR GD](#)

Xerces Monarch Nectar Plant Guides

Milkweeds are best established from rhizomes, plugs, or container plants. It is difficult to establish milkweeds from direct seeding. Please refer to information about milkweeds that occur in Oregon and which are suitable to the region of your project in "A Guide to the Native Milkweeds of Oregon" at: <https://www.xerces.org/publications/id-monitoring/guide-to-native-milkweeds-of-oregon>

Very little information is currently available that documents the use and importance of various flowers as nectar resources for adult Monarch butterflies across the Northwest region. The following tables show best estimates for good nectar plants for monarch habitat. Below you will find estimates on seeding rates and plant spacing when using bare-root, plugs or container plants. If planting small areas, highest success and shortened site preparation timing (although higher plant costs) will occur by planting plants (bare-root, plugs, container plants) over seeding areas. When establishing large plantings, seeding is the most economical way to establish habitat. If funds are available, planting higher rates of plants or seeds is advised.

All plant materials used to establish Monarch habitat should originate within the ecoregion where the project will occur (or from an adjacent ecoregion with harsher climate).

Please refer to the Xerces monarch Nectar plant guides for **general information** about recommended plants for:

The Maritime Northwest:



<https://xerces.org/publications/plant-lists/monarch-nectar-plants-maritime-northwest>

The Inland Northwest:



<https://xerces.org/publications/plant-lists/monarch-nectar-plants-inland-northwest>

Or the Great Basin:



<https://xerces.org/publications/plant-lists/monarch-nectar-plants-great-basin>

Design Approvals & Acknowledgements:

Design Approval	Date	Job Approval Authority
Designed by:		
Approved by:		

Client's Acknowledgement Statement:

The client acknowledges:

- I have received a copy of the specification and understand the contents and requirements.
- It is my responsibility to obtain all necessary permits and/or rights and to comply with all ordinances and laws pertaining to the application of this practice.
- I will not begin installation of this practice until I have received appropriate approval to do so. I understand NRCS also has Federal and state laws to comply with that may take some time to address (e.g. cultural resources).

Client's Signature	Date

Certification Documentation:

	Field Evaluation: Post-treatment inventory, measurements, notes, as-built, and supporting documentation (document completion in conservation plan), as required.
	Map(s): Including field numbers, fields treated, and units treated (may document on conservation plan map), as required.
	Photos or other supporting documentation (e.g., seed tags, soil tests, receipts, invoices, spray records, fertilizer records, etc.)
Brief Description of Work Accomplished (types of equipment used, date of application, extents and quantities installed, etc.)	

Certification Statement:

The employee certifies the implementation of this conservation practice:

- Meets the purpose, general criteria, and any required additional criteria as documented in the conservation practice standard and/or enhancement sheet.
- Meets the specifications contained herein and is complete.
- Conforms to my existing Job Approval Authority controlling factors and levels.

Name	Date	Job Approval Authority

Field Level Certification – For multiple applications of this design.				
Land Unit/ Contract Item Number	Date	Unit(s)	Amount Installed	Certifier