



CONSERVATION ENHANCEMENT ACTIVITY

E512I

CONSERVATION STEWARDSHIP PROGRAM

Establish pollinator and/or beneficial insect and/or Monarch habitat

CONSERVATION PRACTICE: 512 - Pasture and Hay Planting

APPLICABLE LAND USE: Pasture; Associated Ag Land; Farmstead

RESOURCE CONCERN: Animals

ENHANCEMENT LIFE SPAN: 5 years

Enhancement Description

Establishing adapted and/or compatible species, varieties, or cultivars of herbaceous species that can provide nectar for Monarch butterflies and/or pollinators and forage and other habitat values for wildlife and livestock, particularly at times when targeted nectar, forage supply and quality, cover, and shelter are not available in other pastures.

Criteria

- This enhancement is acceptable for use when converting from degraded pastureland sites that require NRCS Conservation Practice Standard Forage and Biomass Planting (Code 512) in order to stabilize the site to address a resource concern.
- Select native, perennial, grass/forb/legume plant species and their cultivars based on climatic conditions, soil condition, landscape position and resistance to disease and insects, and will meet the nectar needs of specified, pollinating insects (and/or Monarch butterflies) at times when they will be present and foraging. These plants need to also provide forage or other habitat values for wildlife and livestock.
- Recommendations for planting rates, methods, depths, and dates from land grant/research institutions, plant materials program, extension agencies, or agency field trials will be followed.
- Seeding medium that does not restrict plant emergence will be provided, and planting will take place when soil moisture is adequate for germination and establishment.



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- Federal, state, or local noxious species will not be planted.
- Plant nutrients and/or soil amendments for establishment purposes will be applied according to a current soil test. Legume seed will be pre-inoculated or inoculated with the proper viable strain of Rhizobia immediately before planting.
- Plants will be selected that help meet nectar requirements for Monarch butterflies during times that the Monarch will be present. Plant selection will help to increase scores on the state's approved NRCS Monarch butterfly habitat evaluation.

Documentation and Implementation Requirements

Participant will:

- Prior to implementation, select a perennial forage species or grassland mixture for establishment. If livestock are included in the system, forage species selected will meet the desired level of nutrition for the kind and class of the livestock to be fed. (NRCS will provide technical assistance, as needed.)

Species	Forage category (grass, legume, forb)

- Prior to implementation, select planting technique, seeding rates and timing appropriate for the site and climatic conditions. (NRCS will provide technical assistance, as needed.)

Planting date	
Planting method	
Seeding rate	

- If livestock are included in the system*, prior to implementation a grazing plan must be developed to keep grazing periods sufficiently short to allow for forages to recover before re- grazing occurs.



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- If livestock are included in the grazing system, during implementation in areas where animals congregate, establish persistent species that can tolerate close grazing and trampling.
- During implementation, keep the following documentation:
 - Records and photographs of planting preparation and any materials purchased or materials on hand used for the implementation of the enhancement.
 - Documentation of seed (Pure Live Seed) and any fertilizer or soil amendments used for the implementation of the enhancement.
 - If livestock are included in the grazing system, documentation, and photographs of turn in/turn out grazing records for each field.
- After implementation, make the forage planting and grazing records available for review by NRCS to verify implementation of the enhancement.

NRCS will:

- Prior to implementation, complete the state's approved NRCS Wildlife Habitat Evaluation Guide (WHEG).
Target Pollinator Species: _____
WHEG score before implementation: _____
WHEG score after implementation: _____
- Prior to implementation, provide and explain NRCS Conservation Practice Standard Forage and Biomass Planting (Code 512) as it relates to implementing this enhancement.
- As needed, prior to implementation, NRCS will provide technical assistance:
 - Planning site preparation and establishment specifications meeting NRCS Conservation Practice Standard Forage and Biomass Planting (Code 512).
 - Prepare specifications for applying this enhancement for each site using approved specification sheets, job sheets, technical notes, and narrative statements in the conservation plan, or other acceptable documentation.
 - If livestock are included in the system, develop a grazing plan to keep grazing periods sufficiently short to allow for forages to recover before re-grazing occurs.
- During implementation, evaluate any planned changes to verify they meet the enhancement criteria.



- After implementation, verify the planned perennial grassland mixture was established to specifications developed for the site.

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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



WASHINGTON SUPPLEMENT TO CONSERVATION ENHANCEMENT ACTIVITY

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512 - Pasture and Hay Planting References:

NOTE – Only eastern Washington (east of the Cascade Range) is suitable for Monarch butterfly Habitat.

CAUTION – Although grazing animals do not normally consume it, milkweed is poisonous to livestock. Consumption of milkweed indicates that adequate amounts of good forage are in short supply. Do not plant milkweed in high livestock use areas or where it could be mixed in with hay.

Biology Technical Note 29: Eastern Washington Monarch Butterfly Wildlife Habitat Evaluation Guide (updated 2022); note that one will need both the datasheet (XLS) and instructions/appendices (PDF) documents. These are located in FOTG Section 1/Reference Lists/Technical Notes by discipline/Biology.

Pollinator Habitat Assessment Form and Guide - Farms and Agricultural Landscapes (Plant Materials Technical Note 23 OR Biology Technical Note 31). This assessment guide will be available in both discipline areas during 2023; see: FOTG Section 1/Reference Lists/Technical Notes by discipline/

Beneficial Insect Habitat Assessment Form and Guide - Farms and Agricultural Landscapes (Plant Materials Technical Note 25 OR Biology Technical Note 30). This assessment guide will be available in both discipline areas during 2023; see: FOTG Section 1/Reference Lists/Technical Notes by discipline/

Biology Technical Note 28: Habitat Planning for Beneficial Insects - Guidelines for Conservation Biological Control. This is located in FOTG Section 1/Reference Lists/Technical Notes by discipline/Biology.

Pasture and Hay Planting (512) Practice Standard and Implementation Requirements (IR's) are located in NRCS Field Office Technical Guide (FOTG) Section 4/Washington Conservation Practices/Pasture and Hay Planting (AC) (512) folder. [FOTG Section 4](#)

Pasture and Hay (pasture) species, with seeding rates, for **Western Washington** can be found in the Extension Publication **EB1870, Pasture and Hayland Renovation** for Western Washington and Oregon. Also provides guidance on site preparation and seeding. <https://s3.wp.wsu.edu/uploads/sites/2079/2015/06/Pasture-and-Hayland-Renovation-for-Western-Washington-and-Oregon-WSU.pdf>

Ecological Site Descriptions and **Forage Suitability Groups** can be found in the **NRCS Field Office Technical Guide** [Washington | Field Office Technical Guide | NRCS - USDA](#) in Section 2. For planning unit ecological sites and forage suitability groups see next item.



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Seedbed Preparation and Seed to Soil Contact, Plant Materials Technical Note 6, can be found in the NRCS Field Office Technical Guide (FOTG) in Section 1/References Lists/Technical Notes by Discipline/Plant Materials.

[Washington | Field Office Technical Guide | NRCS - USDA](#)

Appropriate plant species, and seeding rates for **Eastern Washington** dryland plantings can be found in the **Plant Materials Technical Note 1 Seeding Guide** in the NRCS Field Office Technical Guide in Section 1/Reference Lists/Technical Notes by Discipline/Plant Materials

[Washington | Field Office Technical Guide | NRCS - USDA](#)

In depth information on **pasture** species for the **Intermountain West** can be found in **Plant Materials Technical Note 19**, November 2009, Pasture – Species Selection and Grazing Management Guidelines. This document is found in the NRCS Field Office Technical Guide (FOTG) in Section 1/References Lists/Technical Notes by Discipline/Plant Materials.

[Washington | Field Office Technical Guide | NRCS - USDA](#)

In depth information on suitable **range and pasture species** can be found in **Plant Materials Technical Note 2**, March 2011, Grass, Grass-Like, Forb, Legume, and Woody Species for the **Intermountain West**. This document is found in the NRCS Field Office Technical Guide (FOTG) in Section 1/References Lists/Technical Notes by Discipline/Plant Materials. [Washington | Field Office Technical Guide | NRCS - USDA](#)

Pasture Condition Scoring documents in NRCS Field Office Technical Guide (FOTG) in Section 1/Reference Lists/Technical Notes by Discipline/Pasture folder

[Washington | Field Office Technical Guide | NRCS - USDA](#)

Wildlife References and WHEG:

Washington State's Wildlife Habitat Evaluation Guide (WHEG) is **Biology Technical Note 14 Wildlife Habitat Evaluation Guide (WHEG)**. It can be found in the NRCS Field Office Technical Guide (FOTG) in Section 1/References Lists/Technical Notes by Discipline/Biology folder. [Washington | Field Office Technical Guide | NRCS - USDA](#)

Use the Washington Department of Fish & Wildlife (WDFW) **Priority Habitats and Species (PHS) database** to identify priority wildlife and habitat in your area.

<http://wdfw.wa.gov/mapping/phs/>

Consult Biology Technical Note 24, **Plants for Pollinators in the Inland Northwest, Revised 2016** for appropriate plant species east of the Cascade Mts. and for guidance on establishing pollinator habitat. FOTG Section 1/References Lists/Technical Notes by Discipline/Biology [Washington | Field Office Technical Guide | NRCS - USDA](#)

For west side environments consult **Plant Materials Technical Note 13, Plants for Pollinators in Oregon** [Plants for Pollinators in Oregon](#)

Prescribed Grazing:

Available for use – **Prescribed Grazing (528) Design Worksheet/s**. This document has several useful worksheets for developing grazing plans. It can be found in the NRCS Field Office Technical Guide (FOTG) Section 4/Washington Conservation Practices/Prescribed Grazing 528) folder. [Washington - Field Office Technical Guide](#)

Pasture Technical Note No. 105. **The Western Oregon and Washington Pasture Calendar**, A Pacific Northwest Extension Publication PNW 699. Oregon State University, University of Idaho, Washington State University.

<https://catalog.extension.oregonstate.edu/sites/catalog/files/project/pdf/pnw699.pdf>

Soil information, including productivity, **Ecological Sites and Forage Suitability Groups** for planning unit soils can be found by using the **Web Soil Survey**

<https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>

E512I - Establish pollinator and/or beneficial insect and/or Monarch habitat	July 2022