



E512L

CONSERVATION STEWARDSHIP PROGRAM

Diversifying forage base with interseeding forbs and legumes to increase pasture quality

Conservation Practice 512 (L): Pasture and Hay Planting

APPLICABLE LAND USE: Pasture, Associated Ag Land

RESOURCE CONCERN: Animals

ENHANCEMENT LIFE SPAN: 5 years

Enhancement Description

Establishing adapted and/or compatible species, varieties, or cultivars of perennial, herbaceous species that increases the diversity to enhance livestock, forage supply and quality, not available in other pastures.

Criteria

- Select perennial, forbs and legume plant species and their cultivars based on compatibility with established forage species, climatic conditions, soil condition, landscape position and resistance to disease and insects.
- Recommendations for planting rates, methods, depths, and dates from land grant universities (LGU), plant materials program, extension agencies, or agency field trials will be followed.
- Utilize seed and planting materials that will meet State quality standards.
- Inter-seeding method will not restrict plant emergence or leave the site vulnerable to erosion.
- When planting legumes, use pre-inoculated seed, inoculum coated seed, or inoculate with the proper viable strain of rhizobia immediately before planting.

E512L – Diversifying forage base with interseeding forbs and legumes to increase pasture quality	April 2021	Page 1
--	------------	----------



E512L

CONSERVATION STEWARDSHIP PROGRAM

- Select plants that will help meet livestock forage demand during times that normal forage production is not adequate.
- Use forage species that will meet the desired level of nutrition (quantity and quality) for the kind and class of livestock to be grazed or fed.
- Select species mixtures with similar palatability to avoid selective grazing.
- Select species with low or not toxic effects on grazing livestock. If two species for consideration provide similar forage quality, with one providing added benefit to wildlife and pollinator species, the wildlife beneficial species should be selected.
- In areas where animals congregate, consider establishing persistent species that can tolerate close grazing and trampling.
- Refer to NRCS Conservation Practice Standard (CPS) Nutrient Management (Code 590) for details for managing nutrients.
- 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.

Documentation and Implementation Requirements

Participant will:

- Prior to implementation, select a perennial forb and/or legume 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	Species type (grass, legume, broadleaf)

- 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	
---------------	--



E512L

CONSERVATION STEWARDSHIP PROGRAM

Planting Technique	
Seeding rates	

- *Prior to implementation when livestock are included in the system, modify the grazing plan that maintains grazing periods sufficiently short to allow for forages to recover before re-grazing occurs.*
- *Prior to implementation, a current (within 3 years of the proposed planting date) soil sample analysis is required when soil amendments will be added.*
- *During implementation, exclude livestock until the overseeded species are well established and have reached the full start grazing heights or recommended cutting heights before the first grazing or cutting begins. Refer to Conservation Practice Standards (CPS) 511 Forage Harvest Management and (CPS) 528 Prescribed Grazing for more information.*
- *During implementation, keep the following documentation:*
 - *Records, seed tags and photographs of planting preparation and any materials purchased or materials on hand used for the implementation of the enhancement.*
 - *Documentation of seed rate basis (Pure Live Seed) and any fertilizer or soil amendments and rates used for the implementation of the enhancement.*
- *During implementation where livestock are included in the grazing system, documentation and photographs of turn in/turn out grazing records for each field are required.*
- *As needed, provide technical assistance to meet the criteria of the enhancement.*
- *Prior to implementation, provide and explain NRCS Conservation Practice Standard Pasture and Hay Planting (Code 512) and all supporting implementation requirements and specifications as it relates to implementing this enhancement.*
- *Prior to implementation where livestock are included in the system, modify the grazing*



E512L

CONSERVATION STEWARDSHIP PROGRAM

plan to keep grazing periods sufficiently short to allow for forages to recover before re-grazing occurs and maintain sufficient height to protect from soil erosion.

- As needed, prior to implementation, NRCS will provide technical assistance:
 - Planning site preparation and establishment specifications meeting NRCS Conservation Practice Standard Pasture and Hay Planting (512).
- During implementation, evaluate any planned changes to verify they meet the enhancement criteria.
- After implementation, verify the planned perennial forbs/ legumes or mixture was established to specifications developed for the site.

E512L – Diversifying forage base with interseeding forbs and legumes to increase pasture quality	April 2021	Page 4
--	------------	----------



CONSERVATION STEWARDSHIP PROGRAM

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.

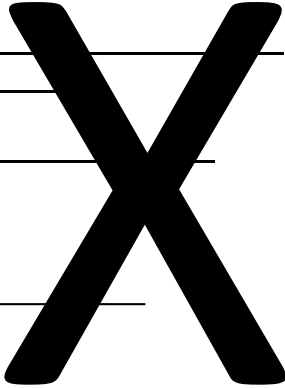
Participant Name _____

Contract Number _____

Total Amount Applied _____

Fiscal Year Completed _____

NRCS Technical Adequacy Signature



Date

*Sign and certify in the Oregon-Acknowledgment & Certification supplement below.

E512L – Diversifying forage base with interseeding forbs and legumes to increase pasture quality	April 2021	Page 5
--	------------	----------



OREGON SUPPLEMENT TO CONSERVATION ENHANCEMENT

CONSERVATION STEWARDSHIP PROGRAM

ACTIVITY E512L

Additional Criteria for Oregon

- In addition to the criteria specified in the National job sheet E512L the following additional criteria apply in Oregon:
 - This enhancement is applicable to cropland that receives an average of at least 16 inches of precipitation each year or is irrigated. If site conditions are less than 16 inches per year contact the Basin or State Rangeland Management Specialist to discuss options and alternatives.

Additional Documentation Requirements for Oregon

- In addition to the documentation requirements specified in the National job sheet E512L the following additional documentation requirements apply in Oregon
 - Recommended a minimum of 3 species for the seeding mix that includes different structural and functional groups.
 - Planner must complete a Pasture and Hay Planting Implementation Requirement (512 IR) to accompany this enhancement.
 - Livestock will be excluded from new seedings until they are well established –typically 1 to 2 growing seasons after planting and should be documented with an Oregon Prescribed Grazing Implementation Requirement (528 IR)
 - These seeding recommendations assume that the seedbed is clean, firm, and weed-free and that the seeding is performed with a drill. Broadcast seedings will require twice as much seed.
 - Seedling density for a successful planting will be at least 3 seeded plants per square foot at the end of the second growing season after planting.
- References include:
 - [Oregon – Washington Guide for Conservation Seedings and Plantings, 2000, USDA-NRCS Intermountain Planting Guide](#)
 - [Grass, Grass-Like, Forb, Legume, and Woody Species for the Intermountain West](#)

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