

Animal Enhancement Activity – ANM 21 – Prairie restoration for grazing and wildlife habitat



Enhancement Description

This activity consists of restoring/renovating prairie habitat by establishing native vegetation and managing the restored plant community.

Land Use Applicability

Cropland, Pastureland, Rangeland

Benefits

Establishing and managing native prairie vegetation will provide food, cover, and nesting habitat for adapted species, especially grassland nesting birds.

Conditions Where Enhancement Applies

This enhancement applies to sites that have soils that indicate it was once a prairie or can sustain native prairie species.

NOTE: this enhancement can only be initiated in the 1st or 2nd year of the contract to ensure the activity has time to establish before the end of the contract.

Criteria

1. The resulting plant community will consist of at least 4 species of native perennial grasses and at least 4 species of native forbs adapted to the soils. In areas where seed availability and site adaptability is an issue, the NRCS State Office can modify the seeding combinations to meet local conditions.
2. Seeding must be done in a properly prepared seed bed as determined by the NRCS State Office.
3. Species appropriate fungal and microbial inoculants will be used during establishment where appropriate. Additional planting conditions may be specified if an ecological site description has been developed for the area.
4. During the establishment phase, weeds shall be controlled on the site.
5. After establishment:
 - a. The site will be protected from grazing and disturbance during the primary nesting and fawning season as defined by the NRCS State Office.
 - b. The site will be deferred from use for up to 3 years.
6. A grazing management plan will be developed and implemented.



United States Department of Agriculture
Natural Resources Conservation Service

2012 Ranking Period 1

Adoption Requirements

This enhancement is considered adopted when the applicant has successfully established the minimum number of native perennial grasses and forbs to the subject area.

Documentation Requirements

Following implementation of this activity, the participant must:

1. Document the list of the species planted,
2. Maintain the receipts for the seeds purchased,
3. Document the seeding dates,
4. Document the area (acres) restored by delineating the location of the restored prairie on a map or aerial photograph, and
5. Document the grazing management plan was implemented.

ANIMAL ENHANCEMENT ACTIVITY

ANM21– OR Prairie Restoration for Grazing and Wildlife Habitat

Description

This Enhancement is for _____ that is _____.

_____.

Oregon Criteria

Species composition will be based on pure live seed in the specified mixture. The criteria and references listed here are to be used in Oregon and are in addition to those listed on the national activity sheet.

1. Proper grazing management is critical to maintenance of native seedings. The grazing management plan for areas seeded to native species will include:

- A deferment from spring grazing (until after seed set) at least one year out of three years.
- Minimum stubble heights will be 4-6 inches in all years.
- No nitrogen fertilizer applications are allowed.

2. Adapted species, seeding rates, and seeding dates for use in Oregon are in tables at the end of this document. These seeding recommendations assume that the seedbed is clean, firm, and weed-free and that the seeding is performed with a drill. Drilled seed will be placed 1/8 – 1/4 inch deep. Broadcast seedings will require twice as much seed. Species with small seeds (indicated by * in the tables) will be

broadcast seeded. Seeding rates for these small seeded species reflect this seeding method (are already doubled).

3. Weeds will be spot treated. Mechanical weed treatment is preferred to avoid detrimental impacts from chemicals on seeded perennial forbs or shrubs.

4. Eastern Oregon seed mixes assume that the site is less than 12% slope, moderately deep to deep soils with a loam or silt loam surface texture. Other site conditions such as shallow depth, swale or draw landscape position will require modified seed mixes. Contact Bob Gillaspay, State Rangeland Management Specialist for NRCS-OR for further guidance.

References

Oregon – Washington Guide for Conservation Seedings and Plantings, 2000, USDA-NRCS

Plant Fact Sheets and Guides - <http://plant-materials.nrcs.usda.gov/intranet/pfs.htm>

USDA NRCS. 2009. Ecological Site Descriptions for Oregon. <http://esis.sc.egov.usda.gov/Welcome/pgESDWelcome.aspx>

Native Seed Network 2009. <http://www.nativeseednetwork.org/index>

MLRA A2 – Willamette Valley

Drilled Seeding Mix		
for		
CSP Enhancement ANM21 – Prairie Restoration Seeding		
western Oregon – MLRA A2 – Upland Prairie		
	Species	PLS lbs/acre in Mix
	Brome, California	1.2
	Oatgrass, California	1.6
	Blue Wildrye	1.2
	Fescue, Roemers	1.0
*	Junegrass, Prairie	0.2
	Gumweed, Puget Sound	0.4
	Lupine, bigleaf	0.4
	Lupine, riverbank	0.4
*	Cinquefoil, slender	0.3
	Selfheal, lance	0.2
*	Western Yarrow	0.5
Approximate cost: \$250 – \$350 per acre for seed		
Seeding Dates: January 1 – February 15 (when soil is dry enough to support equipment and temperatures are cool enough (less than 40°F) for dormant seeding.		

Drilled Seeding Mix		
for		
CSP Enhancement ANM21 – Prairie Restoration Seeding		
western Oregon – MLRA A2 – Wet Prairie		
	Species	PLS lbs/acre in Mix
	Barley, Meadow	0.5
	Oatgrass, California	1.2
*	Tufted Hairgrass	0.9
	Spike Bentgrass	0.4
	Gumweed, Puget Sound	1.0
*	Cinquefoil, slender	0.5
	Selfheal, lance	0.5
*	Compassplant, California	1.0
Approximate cost: \$250 – \$350 per acre for seed		
Seeding Dates: September 1 – October 15 or early spring (when soil is dry enough to support equipment and temperatures are cool enough (less than 40°F) for dormant seeding.		

MLRA B7 – Columbia Basin

Drilled Seeding Mix	
for	
CSP Enhancement ANM21 – Prairie Restoration Seeding	
eastern Oregon – MLRA B7 – 8-10" PZ	
Species	PLS lbs/acre in Mix
Wheatgrass, Bluebunch (beardless)	5.0
Bluegrass, Sandberg	1.0
* Western Yarrow	0.3
* Basin Big Sagebrush	0.2
Approximate cost: \$100 – \$200 per acre for seed	
Seeding Dates: November 15 – December 15 (when soil is dry enough to support equipment and temperatures are cool enough (less than 40°F) for dormant seeding.	

MLRA B8 – Columbia Plateau

Drilled Seeding Mix		
for		
CSP Enhancement ANM21 – Prairie Restoration Seeding		
eastern Oregon – MLRA B8 – 10-12" PZ		
	Species	PLS lbs/acre in Mix
	Wheatgrass, Bluebunch (beardless)	5.5
	Fescue, Idaho	0.3
	Bluegrass, Sandberg	0.2
	Balsamroot, Arrowleaf	0.4
	Silky Lupine	1.75
	Parsnipflower Buckwheat	0.2
*	Wyoming Big Sagebrush	0.2
Approximate cost: \$300 – \$400 per acre for seed		
Seeding Dates: November 15 – December 15 (when soil is dry enough to support equipment and temperatures are cool enough (less than 40°F) for dormant seeding.		

Drilled Seeding Mix		
for		
CSP Enhancement ANM21 – Prairie Restoration Seeding		
eastern Oregon – MLRA B8 – 12-14" PZ		
	Species	PLS lbs/acre in Mix
	Wheatgrass, Bluebunch (beardless)	2.1
	Fescue, Idaho	3.0
*	Prairie Junegrass	0.4
	Bluegrass, Sandberg	0.2
	Balsamroot, Arrowleaf	0.2
	Milkvetch, Basalt	0.1
	Flax, Lewis	0.1
	Biscuitroot	0.2
*	Western Yarrow	0.1
*	Basin Big Sagebrush	0.1
Approximate cost: \$150 – \$250 per acre for seed		
Seeding Dates: November 15 – December 15 (when soil is dry enough to support equipment and temperatures are cool enough (less than 40°F) for dormant seeding.		

MLRA B9 – Palouse Prairie

Drilled Seeding Mix		
for		
CSP Enhancement ANM21 – Prairie Restoration Seeding		
eastern Oregon – MLRA B9 – 14-17" PZ		
	Species	PLS lbs/acre in Mix
	Wheatgrass, Bluebunch (beardless)	1.0
	Fescue, Idaho	4.5
*	Prairie Junegrass	0.1
	Bluegrass, Sandberg	0.1
	Silky Lupine	0.7
	Biscuitroot	0.2
*	Western Yarrow	0.25
Approximate cost: \$150 – \$250 per acre for seed		
Seeding Dates: November 15 – December 15 (when soil is dry enough to support equipment and temperatures are cool enough (less than 40°F) for dormant seeding.		

Drilled Seeding Mix		
for		
CSP Enhancement ANM21 – Prairie Restoration Seeding		
eastern Oregon – MLRA B9 – 17-22" PZ		
	Species	PLS lbs/acre in Mix
	Wheatgrass, Bluebunch (beardless)	1.0
	Fescue, Idaho	4.5
*	Prairie Junegrass	0.1
	Bluegrass, Sandberg	0.1
	Silky Lupine	0.7
	Parsnipflower Buckwheat	0.1
	Biscuitroot	0.1
*	Western Yarrow	0.1
	Rose, Woods	0.2
	Snowberry, common	0.2
Approximate cost: \$200 – \$300 per acre for seed		
Seeding Dates: November 15 – December 15 (when soil is dry enough to support equipment and temperatures are cool enough (less than 40°F) for dormant seeding.		

MLRA B10A – Blue Mountain Foothills : Pumice Region

Drilled Seeding Mix		
for		
CSP Enhancement ANM21 – Prairie Restoration Seeding		
eastern Oregon – MLRA B10A – 10-12" PZ		
	Species	PLS lbs/acre in Mix
	Wheatgrass, Bluebunch (bearded)	2.5
	Fescue, Idaho	1.5
	Bluegrass, Sandberg	0.5
	Balsamroot, Arrowleaf	0.2
	Milkvetch, Basalt	0.1
	Biscuitroot	0.2
	Parsnipflower Buckwheat	0.1
*	Basin Big Sagebrush	0.3
	Antelope Bitterbrush	3.5
Approximate cost: \$300 – \$400 per acre for seed		
Seeding Dates: November 15 – December 15 (when soil is dry enough to support equipment and temperatures are cool enough (less than 40°F) for dormant seeding.		

MLRA B10B – Blue Mountain Foothills : John Day Region

Drilled Seeding Mix		
for		
CSP Enhancement ANM21 – Prairie Restoration Seeding		
eastern Oregon – MLRA B10B – 9-12" PZ		
	Species	PLS lbs/acre in Mix
	Wheatgrass, Bluebunch (bearded)	5.0
	Needlegrass, Thurbers	0.5
	Bluegrass, Sandberg	0.25
*	Western Yarrow	0.2
*	Wyoming Big Sagebrush	0.2
Approximate cost: \$100 – \$200 per acre for seed		
Seeding Dates: November 15 – December 15 (when soil is dry enough to support equipment and temperatures are cool enough (less than 40°F) for dormant seeding.		

Drilled Seeding Mix		
for		
CSP Enhancement ANM21 – Prairie Restoration Seeding		
eastern Oregon – MLRA B10B – 12-16" PZ		
	Species	PLS lbs/acre in Mix
	Wheatgrass, Bluebunch (bearded)	4.5
	Fescue, Idaho	0.5
	Needlegrass, Thurbers	0.5
*	Prairie Junegrass	0.2
	Bluegrass, Sandberg	0.1
	Silky Lupine	2.0
	Balsamroot, Arrowleaf	0.5
*	Basin Big Sagebrush	0.2
Approximate cost: \$300 – \$400 per acre for seed		
Seeding Dates: November 15 – December 15 (when soil is dry enough to support equipment and temperatures are cool enough (less than 40°F) for dormant seeding.		

MLRA B10C – Blue Mountain Foothills : Snake River Drainage Region

Drilled Seeding Mix		
for		
CSP Enhancement ANM21 – Prairie Restoration Seeding		
eastern Oregon – MLRA B10C – 9-12" PZ		
	Species	PLS lbs/acre in Mix
	Wheatgrass, Bluebunch (bearded)	3.0
	Needlegrass, Thurbers	1.75
	Bluegrass, Sandberg	0.2
	Silky Lupine	1.5
	Balsamroot, Arrowleaf	0.8
	Biscuitroot	0.4
	Parsnipflower Buckwheat	0.2
*	Wyoming Big Sagebrush	0.4
	Antelope Bitterbrush	1.6
Approximate cost: \$450 – \$550 per acre for seed		
Seeding Dates: November 15 – December 15 (when soil is dry enough to support equipment and temperatures are cool enough (less than 40°F) for dormant seeding.		
Drilled Seeding Mix		
for		
CSP Enhancement ANM21 – Prairie Restoration Seeding		
eastern Oregon – MLRA B10C – 12-16" PZ		
	Species	PLS lbs/acre in Mix
	Wheatgrass, Bluebunch (bearded)	0.7
	Fescue, Idaho	3.0
	Needlegrass, Thurbers	0.7
*	Prairie Junegrass	0.2
	Bluegrass, Sandberg	0.1
	Silky Lupine	0.75
	Balsamroot, Arrowleaf	0.3
	Biscuitroot	0.2
	Parsnipflower Buckwheat	0.1
*	Western Yarrow	0.2
*	Basin Big Sagebrush	0.2
*	Mountain Big Sagebrush	0.4
Approximate cost: \$350 – \$450 per acre for seed		
Seeding Dates: November 15 – December 15 (when soil is dry enough to support equipment and temperatures are cool enough (less than 40°F) for dormant seeding.		

MLRA B11 – Snake River Plains

Drilled Seeding Mix		
for		
CSP Enhancement ANM21 – Prairie Restoration Seeding		
eastern Oregon – MLRA B11 – 8-11” PZ		
	Species	PLS lbs/acre in Mix
	Wheatgrass, Bluebunch (beardless)	3.0
	Needlegrass, Thurbers	2.5
	Bluegrass, Sandberg	0.2
	Balsamroot, Arrowleaf	0.5
*	Wyoming Big Sagebrush	0.25
	Spiny Hopsage	0.5
Approximate cost: \$200 – \$300 per acre for seed		
Seeding Dates: November 15 – December 15 (when soil is dry enough to support equipment and temperatures are cool enough (less than 40°F) for dormant seeding.		

MLRA D21 – Klamath Valleys and Basins

Drilled Seeding Mix		
for		
CSP Enhancement ANM21 – Prairie Restoration Seeding		
eastern Oregon – MLRA D21 – 10-14” PZ		
	Species	PLS lbs/acre in Mix
	Wheatgrass, Bluebunch (bearded)	4.0
	Fescue, Idaho	1.0
	Needlegrass, Thurbers	0.33
	Bluegrass, Sandberg	0.2
	Silky Lupine	1.33
	Parsnipflower Buckwheat	0.1
*	Wyoming Big Sagebrush	0.2
	Antelope Bitterbrush	3.25
Approximate cost: \$300 – \$400 per acre for seed		
Seeding Dates: November 15 – December 15 (when soil is dry enough to support equipment and temperatures are cool enough (less than 40°F) for dormant seeding.		

Documenting the Enhancement

Drilled Seeding Mix		
for		
CSP Enhancement ANM21 – Prairie Restoration Seeding		
eastern Oregon – MLRA D21 – 14-18” PZ		
	Species	PLS lbs/acre in Mix
	Wheatgrass, Bluebunch (bearded)	1.0
	Fescue, Idaho	3.0
	Needlegrass, Thurbers	0.4
	Bluegrass, Sandberg	0.2
	Silky Lupine	1.3
	Biscuitroot	0.4
	Antelope Bitterbrush	6.0
*	Mountain Big Sagebrush	0.33
Approximate cost: \$450 – \$550 per acre for seed		
Seeding Dates: November 15 – December 15 (when soil is dry enough to support equipment and temperatures are cool enough (less than 40°F) for dormant seeding.		

**Conservation Stewardship Program Enhancements
Requiring Cultural Resource Notification**

The enhancements identified below require that a cultural resources request form (OR-EVT-1 CR/TE (6/11) be completed and submitted prior to implementing the enhancement. If producer enhancements are not listed below and only a T&E species list is required, do not check the cultural resources box at the top of the form. If you need a cultural resources review make sure you include the contract number, USGS Quad name, tract number and legal location. Describe the planned action and include equipment to be used and the extent of the disturbance. Do not just list the enhancement code. The enhancements requiring cultural resource review are:

ANM05

ANM11

ANM12

ANM21

PLT05

PLT17

WQL01

FPP02

FRD01

BFO06

Questions: Call Ann Rogers at 503-414-3283; ann.rogers@or.usda.gov