

**Animal Enhancement Activity – ANM03 - Incorporate native grasses and/or legumes to 15% or more of herbage dry matter productivity**



**Enhancement Description**

Improve pasture by increasing native grasses and/or legumes to 15% of herbage dry matter (productivity by weight) using adapted species and varieties, appropriate seeding rates, and timing of seeding. Pastures containing about 15% native grasses and/or legumes by weight dry matter are approximately equal to 30% foliar cover.

**Land Use Applicability**

Pasture

**Benefits**

Enhancing existing pasture by incorporating native grasses and legumes can provide:

1. Improved forage quality and quantity
2. Improved soil fertility (legumes fix nitrogen in the soil), increase organic matter
3. Increased plant diversity and promote wildlife habitat
4. Additional forage during seasonal slump periods
5. Extended grazing season
6. Food source for pollinating insects

**Conditions Where Enhancement Applies**

This enhancement only applies to acres of pasture land use that DO NOT currently have a mixed stand of native grasses and/or legumes.

**Criteria**

A written grazing management plan that outlines specific goals and objectives, including:

1. Utilize adapted species, seeding rates and seeding dates according to local NRCS practice standards.
2. Determine species composition before and after seeding. Species composition must be 15% or more of native grasses and/or legumes.
3. If legumes are incorporated, a current soil test is required. Apply lime and fertilizer to facilitate establishment and persistence of legumes as required by the current soil test report.
4. Livestock stocking rates that will allow for proper forage utilization.

**Note:** Bloat can be a risk to grazing livestock where legumes make up greater than 50% of the total forage. Legumes with the highest likelihood to cause bloat include white clover, alfalfa, annual medics and Persian clover. Red clover, crimson clover and subterranean clover would be classified as moderately likely to cause bloat, while berseem clover and arrowleaf clover are low risks for causing bloat. Legumes that don't cause bloat are birdsfoot trefoil, sainfoin and



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crownvetch. Livestock producers grazing alfalfa aftermath in the fall months should be cautioned of bloat, especially following a killing frost. The recommendation for grazing frost killed alfalfa is to wait 5 to 7 days after the killing frost (less than 28 degrees Fahrenheit) before grazing. This will allow the live tissue to fully break down, minimizing the soluble leaf proteins, and making a much safer feed base for ruminant livestock. If bloat is a concern, there are several precautions that can be taken. (A technical reference sheet will be available to address these issues).

### **Adoption Requirements**

This enhancement is considered adopted when the subject pasture acre(s) contain 30% or more foliar coverage of native grasses and/or legumes.

### **Documentation Requirements**

1. A written planting specifications plan identifying:
  - a. Plant species' to be seeded,
  - b. Seeding rates and dates,
  - c. Site preparations and planting method, and
  - d. Amounts of fertilizer and lime to be applied.
2. Map showing locations where seeding activity is applied.
3. Copy of the grazing management plan.

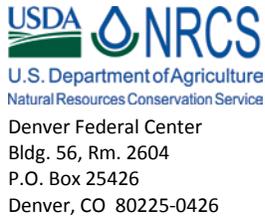
### **References**

Ball, D.M., C.S. Hoveland and G.D. Lacefield. 2007. Southern Forages, 4<sup>th</sup> Edition. International Plant Nutrition Institute, Norcross, GA.

Bartholomew, P.W. 2005. Comparison of Conventional and Minimal Tillage for Low-input Pasture Improvement. Online-Forage and Grazinglands – Plant Management Network.

Ruffin, B.G. 1994. Controlling Bloat in Cattle. Alabama Cooperative Extension System, Pub. ANR-148.

USDA-NRCS. 2010. Conservation Practice Standard: Forage and Biomass Planting-Code 512.



## Colorado Supplement

to

National CSP 2014 Enhancement Activity Job Sheet: ANMO3

**Incorporate native grasses and/or legumes to 15% or more of herbage dry matter productivity**

### Criterion #1

Select adapted species based on MLRA, soils and landscape position per Colorado [Plant Materials Technical Note 59](#), Plant Suitability and Seeding Rates for Conservation Plantings in Colorado, Table 6, Suitability.

Seeding Plan - Record site-specific seeding specifications including site preparations and planting method, adapted species, seeding rates and seeding dates, and required inoculants, in a Colorado [CO-ECS-05, Grass Seeding Planned and Applied worksheet](#).

Seed Source - The use of Certified named varieties is required. If "Certified Seed" is not available from a commercial source or a seed producer, request a variance from the State Resource Conservationist to use named varieties or common seed.

### Criterion #3

Develop a nutrient management plan consistent with the Colorado [Nutrient Management 590 Job Sheet](#), when legumes are included in the seed mix. Planned nutrient application rates will be based on Colorado State University fertility recommendations.

Annual soil and manure sampling and analysis is required for systems that receive organic nutrient applications.

Soil tests for mineral systems that do not receive organic nutrients must be less than three years old.

Acceptable soil test labs are those that meet the requirements of the [North American Proficiency Testing Program – Performance Assessment Program](#) (NAPT-PAP).

Acceptable manure testing labs are those that meet the requirements of the [Minnesota Department of Agriculture, Certified Manure Testing Labs Program](#).

**Criterion #4**

Complete the following Prescribed Grazing worksheets to plan proper forage utilization.

Colorado [Prescribed Grazing 528 Inventory Worksheet](#)

Colorado [Prescribed Grazing 528 Livestock Forage and Feed Worksheet](#)

Colorado [Prescribed Grazing 528 Schedule Worksheet](#)

**Additional Documentation Requirements**

Provide completed copies of the following to certify practice application.

Before and after plant species inventories by weight (productivity by weight)

CO-ECS-05, Grass Seeding Planned and Applied worksheet, including all seed tags

Nutrient management plan including soil and organic nutrient analysis, and timing and rates of application for applied nutrients, as applicable

Prescribed Grazing 528 Inventory Worksheet

Prescribed Grazing 528 Livestock Forage and Feed Worksheet

Prescribed Grazing 528 Schedule Worksheet