

## **Plant Resource Enhancement Activity PLT10 - *Intensive Management of Rotational Grazing Enhancement***



### **Intensive Management of Rotational Grazing**

This enhancement is for the intensive management of livestock grazing to increase production, and improve forage quality and livestock health. The grazing system is managed to produce high quality, nutritious forage and maintain plants with sufficient energy reserves to recover quickly when adequate soil moisture is available for regrowth. Generally, livestock are rotated through pastures in the grazing system based on their daily dry matter intake and nutritional requirements, and the physiological growth and

nutritional stage of the forage plants. This enhancement is for rotational grazing systems that consist of multiple paddocks and frequent rotations.

### **Land Use Applicability**

This enhancement is applicable on pasture and rangeland.

### **Benefits**

The main benefits of Intensive Management of Rotational Grazing are efficient resource use with increased forage utilization, improved manure distribution, and nutrient cycling throughout the grazing acreage, and increased carbon sequestration resulting from greater forage production. Optimal environmental conditions are achieved by maintaining healthy, actively growing forage plants that protect the soil surface from erosion, thereby reducing risks to ground or surface water quality.

### **Criteria for Intensive Management of Rotational Grazing**

A prescribed grazing plan is developed and implemented to address the following requirements.

- Manage vegetation to provide sufficient forage intake for the type and class of livestock, ensuring that sufficient vegetative material remains after a grazing event that the plants can recover and regrow. This is accomplished by dividing pastures into multiple smaller units and using short, intense grazing periods followed by periods of non-grazing for regrowth of vegetation. The length, intensity and frequency of grazing will vary depending upon livestock species, location and vegetation and will be determined by NRCS at the state level. In addition, the grazing system must also ensure that plants are left in condition to survive the winter or dormant periods of the year. Follow NRCS Prescribed Grazing (528) or other applicable conservation practice standard for guidance on maximum and minimum grazing heights.



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- Use a fencing system that is flexible enough to control the amount and location of grazing and confine the livestock.
- Provide a sufficient quantity of high quality drinking water based on livestock requirements
- Manage livestock access to riparian areas to prevent pollution of surface and ground waters and to ensure the livestock are not exposed to poor quality drinking water, disease-causing insects and bacteria, and/or injury-prone physical conditions.
- Manage soil nutrients to ensure the grazing vegetation has sufficient nutrients for adequate production and plant health. Frequent rotation of pastures will provide better distribution of manure and urine. However, supplemental fertilization may be needed. Apply additional nutrients based on soil test results, realistic forage yield goals and land grant university recommendations.

### **Documentation Requirements**

- 1) Provide a prescribed grazing plan that addresses the criteria for this enhancement
- 2) Provide a map or aerial photo showing the pastures/paddocks making up the rotational grazing system



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**State Criteria**

Implementation of this enhancement **requires** development and implementation of a prescribed grazing plan that includes rotational grazing to address the following:

- Manage vegetation to provide sufficient forage intake for the type and class of livestock, ensuring that sufficient vegetative material remains after a grazing event that the plants can recover and regrow. This is accomplished by dividing pastures into multiple units and using intense grazing periods followed by periods of non-grazing for regrowth of grazed vegetation.
- The intensity and frequency will allow for the recommended residual forage heights for common pasture species in Nebraska based on NRCS Prescribed Grazing practice standard (528DP) Table 4:

<sup>1/</sup> **Table 4. Recommendations for Beginning and Ending Grazing (Heights and Dates) for Nebraska Pastures**

Species	Begin Grazing		End Grazing	
	<sup>2/</sup> Minimum Height of Vegetative Growth (inches)	Approximate Date*	<sup>2/</sup> Minimum Residual Height (inches)	<sup>2/</sup> Minimum Residual Height Before Killing Frost (inches)
Alfalfa	6	May 15	3	6
Alsike and red clover	6	May 15	3	6
Biennial sweetclover	6	May 1	3	6
Big & Sand bluestem	10	June 1	6	10
Birdsfoot trefoil	6	June 1	3	6
Cicer milkvetch	8	May 20	5	8
Creeping foxtail	6	May 1	3	6
Crested wheatgrass	4	April 20	3	6
Eastern gamagrass	18-20	June 1	8	10
Indiangrass	10	June 1	4	10
Intermediate wheatgrass	6	May 1	5	8
Kentucky bluegrass	4	May 1	2	3
Meadow brome	6	May 1	5	6
Orchardgrass	6	May 1	5	8
Pubescent wheatgrass	6	May 1	5	6
Reed canarygrass	8	May 1	4	8
Russian wildrye	6	May 1	3	4
Smooth brome	6	May 1	4	7
Switchgrass	10	June 1	6	10
Tall fescue	6	May 1	3	6
Tall wheatgrass	7	May 1	4	8
Timothy	6	June 1	4	5
Western wheatgrass	6	May 1	3	6

<sup>1/</sup>Grass and legume mixtures should be grazed in a manner that favors the dominant or desired species. Height is the average height when leaves are lifted in a vertical position.

<sup>2/</sup>All heights listed in Table 4 can be adjusted downward by 25% for all species in Vegetative Zone I in the Panhandle of Nebraska.



- The minimum days of rest per paddock will be 30 days.
- The minimum number of paddocks per herd will be 4.
  - Implementation of this enhancement will require increasing the existing number of paddocks by two. (i.e. If current system includes 3 paddocks, after implementation of this enhancement the number of paddocks in use will be 5 or more.)
  - Use a fencing system that is flexible enough to control the amount and location of grazing and contain the livestock. Use of temporary fencing such as polywire and step in posts may be utilized to achieve the required number of paddocks.
  - The rotational grazing system must alternate which paddocks are grazed first and rotate the order of sequence in each subsequent year.
  - Utilize NE-ECS-62 or equivalent for planning the rotational grazing system.
- Rangeland will typically be a once through grazing system, while introduced pastures may be grazed more than once depending on residual height.
- Provide a sufficient quantity of high quality drinking water based on livestock requirements for each paddock. This may require increasing the number of watering points, movable water or temporary/permanent alleyways.

**Documentation Requirements:**

- Nebraska CSP 2009 Grazing Lands Inventory (CSP Worksheet 2) or equivalent.
- Provide a map or aerial photo showing the paddock(s) making up the system prior to implementing this enhancement and following implementation.
- Planned grazing sequence of paddocks in each grazing system on NE-ECS-62 or equivalent.

Tract	Field(s)	Herd Size/type	Existing number of paddocks for herd	Planned Number of paddocks	Applied Number of paddocks

**I certify that the following information meets specifications and have been provided to NRCS:**

1. Prescribed grazing plan that addresses the criteria listed for this enhancement, Nebraska CSP Worksheet 2 or equivalent.
2. Map or aerial photo showing the pastures/paddocks making up the rotational grazing system including changes in pasture(s)/paddock(s) as a result of this enhancement.
3. Planned grazing sequence on NE-ECS-62 or equivalent.
4. Documented changes in number of paddocks on table above.

I understand that it is my responsibility to obtain all necessary permits and to comply with all laws, regulations and ordinances pertaining to the application of these activities.

**Certified by:** \_\_\_\_\_ **Date:** \_\_\_\_\_