

Animal Enhancement Activity – ANM29 – On-farm forage based grazing system



Enhancement Description

A forage based grazing system that supplies all roughage (forage and supplemental hay) requirements for a livestock operation.

Land Use Applicability

Pastureland, Rangeland, Forestland

Benefits

Forage based grazing systems reduce the time that livestock are confined resulting in less manure to store and allows manure to become a fertilizer instead of a pollutant. Management of perennial grass and forbs ground cover improves nutrient and water cycling, soil structure and increases organic matter. Energy conservation is achieved by reducing annual cropping, transport of feed and less reliance on synthetic nitrogen.

Conditions Where Enhancement Applies

This enhancement applies to all pasture, range or forest land use acres.

Criteria

1. Develop a grazing management plan with a forage based grazing system that provides **ALL** livestock feed and nutrient needs for the duration the animals are on the participant's land.
2. Livestock operations include those that produce cattle, sheep, goats, etc.
3. Manage pasture grazing and rest periods to follow NRCS Prescribed Grazing practice standard (528) criteria for recommended maximum (begin) and minimum (end) grazing heights by forage species or Ecological Site Description interpretations. Begin and end grazing heights are followed to maximize forage quality and palatability, as well as to promote rapid recovery and forage regrowth.
 - a. Maintain a livestock watering system that accommodates an appropriate grazing strategy through several different pastures or paddocks during the grazing season.
 - b. Follow NRCS practice standard criteria for Prescribed Grazing (528), Watering Facility (614), Pipeline (516), or other related standards for appropriate supply and travel distance to water.
 - c. Use fencing that is permanent, semi-permanent, and/or temporary to facilitate pasture rotation and/or livestock distribution improvement. Follow the NRCS Fence practice standard (382).

Adoption Requirements

This enhancement is considered adopted when no external forage or hay is utilized in the grazing operation.



United States Department of Agriculture
Natural Resources Conservation Service

2013 Ranking Period 1

Documentation Requirements

1. Provide a copy of the written grazing plan, and
2. Include time and timing of grazing, minimum and maximum grazing heights, season of use, grazing records and monitoring plan of pastures/paddocks in the grazing plan, as appropriate for the land use.

Note: NRCS Pasture Notes, grazers' notebooks, or other record keeping systems for pasture livestock operations can be used to facilitate record-keeping.

References

Ball, D. M., E. N. Ballard, M. L. Kennedy, G. D. Lacefield, and D. J. Undersander. 2008. Extending Grazing and Reducing Stored Feed Needs. Grazing Lands Conservation Initiative Publication 8-01, Bryan TX.

Parish, J. A., J. D. Rivera, H. T. Boland, and R. Lemus. 2010. Beef Cattle Grazing Management. Mississippi State University Extension Service. Publication 2629.

Rayburn, E. B. (editor). 2007. Forage Utilization for Pasture Based Livestock Production. NRAES – Book 173. PALS Publishing, Ithaca, New York.

USDA-NRCS. 2011. Conservation Practice Standard: Livestock Pipeline-Code 516.

USDA-NRCS. 2010. Conservation Practice Standards: Fence-Code 382, Forage Harvest Management-Code 511, Prescribed Grazing-Code 528 and Watering Facility-Code 614.

USDA-NRCS. 2006. Watering Systems for Serious Grazers. NRCS-Missouri Publication, Columbia, Mo.

USDA-NRCS. 2005. Electric Fencing for Serious Grazers. NRCS-Missouri Publication, Columbia, Mo.

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References:

- **528 – Prescribed Grazing**
- **511 – Forage Harvest Management**
- **Grazing Systems Planning Guide**; Blanchet, Moechnig, DeJong-Hughes; 2003

Each year the participant is required to document a complete history of the STORED feed harvested on the farm. An aerial photo with forage fields identified and acres is recommended. Harvest data may be documented in this format:

Program Year _____

Stored Feed Harvested:

FIELD(S)	ACRES	HARVEST DATE	FEED TYPE	UNITS	% DRY MATTER	WEIGHT PER UNIT	TOTAL POUNDS DRY MATTER
4-6	30	5/25/12	Wrapped round bale, baleage	70 bales	50	2,000	70000
1-3	20	6/10/12	Round bale, dry hay	30 bales	90	1,200	32,400
8	50	11/15/12	Round bale, corn stalks	30 bales	90	1,200	32,400
11	20	9/10/12	Corn silage	300 tons	33	2,000	158,400
1-3	20	7/11/12	Haylage	40 tons	50	2,000	40,000

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Livestock Inventory:

Each year the participant should conduct a beginning and ending livestock inventory of the kind and class of livestock and give an estimate of the average weight per head. Following is a Livestock inventory in a suggested format:

Mo/Yr	Kind/Class Stock	# of Head	Ave. Weight	Total Weight
1/12	Dairy Cows	72	1300	93600
	Bred Heifers	34	900	30600
	Open Heifers	41	500	20500
12/12	Dairy Cows	74	1300	96200
	Bred Heifers	32	900	28800
	Open Heifers	42	500	21000

Grazing Records:

During the grazing season the participant may complete the monthly livestock grazing record in this format.

Paddock	Acres	Date In	Date out	Kind/Class Stock	#of stock	Ave Wt.	Forage Height In	Forage Height Out
1	22	6/1	6/4	Cow/calf	40	1400	10	5

Following is a table with recommended heights for starting and ending grazing for common forage species.

Species	Initial grazing height in the early spring	Minimum and optimum height of vegetative growth	Minimum stubble height (inches)	Minimum regrowth before killing frost (inches)
Alfalfa	-	Bud Stage	--	6*
Intermediate Wheatgrass	4-5	8-14	4	6
Meadow Bromegrass	4	8-14	4	6
Meadow Fescue	4	6-10	4	6
Orchardgrass	3-4	6-10	3	6
Perennial Ryegrass	3-4	5-7	3	4**

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Reed Canarygrass	4-5	8	4	6
Smooth Bromegrass	4	8-14	4	6
Tall Fescue	4	6-10	3	6
Timothy	4	6-10	4	5
Big Bluestem	-	10-14	6	6
Indiangrass	-	10-14	6	6
Switchgrass	-	12-20	8	10

***The last harvest for alfalfa should be made 35-45 days before the anticipated date of the first killing frost**

****Regrowth should be grazed down to 2" after the first killing frost and prior to snowfall.
Use the minimum heights for the key grass species in a grass legume mixture.**