United States Department of Agriculture

CONSERVATION ENHANCEMENT ACTIVITY

E595E

CONSERVATION STEWARDSHIP PROGRAM

Eliminate the use of chemical treatments to control pests and to increase the presence of dung beetles

Conservation Practice: Integrated Pest Management - 595

APPLICABLE LAND USE: Pasture; Range

RESOURCE CONCERN: Animals

ENHANCEMENT LIFE SPAN: 1 Year

Enhancement Description

Pests and parasites can have a significant impact on the economic viability of livestock operations by affecting the performance and health of animals. The use of broad-spectrum insecticides, pour-ons and avermectins have been shown to have a detrimental effect on dung beetle populations. Having a healthy population of dung beetles facilitates the recycling of nutrients and promotes soil and grassland health. By eliminating the application of broad-spectrum insecticides, pour-ons, and avermectins, including injectable avermectins, for pest control in and on livestock along with rotational grazing and higher stock densities has shown to increase the dung beetle population. Use of natural or alternative methods of pest control over multiple years is encouraged.

Criteria

- Determine the chemical treatments that are harmful to the dung beetle population and eliminate use. Rotational grazing management and the use of natural treatments for pest control will be implemented. Follow all land grant university recommendations and methods of evaluations.

- A written grazing plan for matching the forage quantity and quality produced with the grazing and/or browsing demand will be followed.

- Maintain diversity of pastureland and rangeland plants to optimize delivery of nutrients to the animals by incorporating the intensity, frequency, timing and duration of grazing and/or browsing needed as determined by a planning process that includes:
    - A resource inventory with ecological site description or reference sheet and structural improvements and existing resource conditions,
    - Grazing plan that provides for 45 days or more recovery period between grazing events
    - All potential contingency plans

- Supplemental feed and/or minerals will be balanced with the forage consumption to meet the desired nutritional level for the kind and class of grazing and/or browsing livestock.

Documentation Requirements

Participant will:

- ☐ Prior to implementation, provide documentation for review showing producer's record of integrated pest management meeting Conservation Practice Standard Integrated Pest Management (CPS 595) general criteria.

- ☐ During implementation, keep documentation, such as records, plans, receipts, showing the implementation of the activities selected including:

  - Written documentation of what chemical treatment(s) that were replaced by non-harmful alternative method(s).

  - A written plan for matching the forage quantity and quality produced with the grazing and/or browsing demand will be followed.

  - Record of rotational grazing.

- ☐ After implementation, make documentation available for review by NRCS to verify implementation of the enhancement.

NRCS will:

- ☐ Prior to implementation, provide and explain NRCS Conservation Practice Standard Integrated Pest Management (CPS 595) as it relates to implementing this enhancement.

- ☐ As needed, provide technical assistance to the participant as requested.

- ☐ After implementation, verify implementation by reviewing records kept during enhancement implementation.

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 Acres Applied _____ Fiscal Year Completed _____

_____ _____

NRCS Technical Adequacy Signature Date

ALABAMA – E595E Supplement- Eliminate the use of chemical treatments to control pests and to increase the presence of dung beetles

Requirements:

1. Written conservation plan that includes producer goals, objectives and resource concerns. Plan map will show and label all fences, feeding/watering areas, and sensitive areas. Livestock should be restricted from sensitive areas.

2. Average annual livestock dry matter needs will be balanced with available forage without deficiency for the yearly summary. The Forage/Animal Balance Worksheet will be completed to document.

3. Livestock will be rotated between at least 3 pastures in a particular functional-group (e.g. warm season pastures or cool season pastures) to facilitate prescribed grazing. **This enhancement requires 45 days or more recovery period between grazing events.** Fences and water sources should be in place so that trails do not occur and concentrated livestock areas are minimized. Starting and ending grazing periods will meet the guidelines in the table below. Pastures will be sized and stocked to facilitate meeting the requirements for grazing heights and resting periods. It is anticipated that with a three-pasture rotation that each pasture would rest about 66 percent of the grazing cycle. Additional pastures are preferred and will enable more forage rest.

4. A contingency plan will be developed denoting the use of sacrifice areas for pasture management during drought or other weather-related events. These areas will be labeled on the conservation plan map.

5. Any avermectin type dewormer use must be discontinued.

6. Document which chemical treatments were discontinued or replaced.

7. Perform a soil test annually for each field with different soils and/or management and apply lime and fertilizer according to soil test results. If manure or by-products are applied, follow Phosphorus Index and Nitrogen Leaching Index limitations according to the Nutrient Management Standard (590).

8. Maintain grazing records to include pasture or field number, acres, forage type, animal type and number, forage height in and out-with dates. Records should be submitted quarterly along with the Pasture Condition Score.

Grazing will be managed according to the Prescribed Grazing (528) Standard.
The days of rest needed for plant recovery and regrowth range from 7 to 45 days, depending on the forage species (see below table). Stocking rates and growing conditions can also affect the forage growth. Grazing systems should be designed to meet the rest requirements of a specific forage as well as the needs of the livestock. For example, by using four pastures with 14 days of grazing per pasture, the grazing cycle is 56 days and each pasture rests 75% of the time or 42 days.

FORAGE GUIDELINES FOR PRESCRIBED GRAZING SYSTEMS

Common Forages	Begin Grazing (in)	End Grazing (in)	Usual days of Rest
Alfalfa grazing types	10	4	35 - 40
Bahiagrass	6	2	10 - 20
Bermudagrass common	5	2	7 - 10
Bermudagrass hybrid	6	3	7 - 10
Big Bluestem	18	10	30 - 45
Dallisgrass	6	3	7 - 15
Eastern Gamagrass	15	8	30 - 45
Tall Fescue	6	3	15 - 30
Indiangrass	12	6	30 - 40
Orchardgrass	8	3	15 - 30
Switchgrass	18	10	30 - 45

Grazing Management Records

Keeping accurate records is a continual and critical process in effective pasture and livestock management.

Pasture ID		Pasture acres		Forage type			
Soil test date		Lime/ Fertilizer rate		Lime/ Fertilizer type		Date applied	

Livestock		Date in	Forage height	Date out	Forage height	Notes (fertilizer applied)
Type	Number					

Pasture ID		Pasture acres		Forage type			
Soil test date		Lime/ Fertilizer rate		Lime/ Fertilizer type		Date applied	

Livestock		Date in	Forage height	Date out	Forage height	Notes (fertilizer applied)
Type	Number					