

## **Animal Enhancement Activity – WQL18- *Non-Chemical Livestock Pest Control***



### ***Non-Chemical Livestock Pest Control***

Apply management techniques, devices, and biological agents that control external pests and internal parasites of livestock without the use of synthetic pesticides.

### **Land use applicability**

Pasture, Range and Forest (if livestock are grazed)

### ***Benefits***

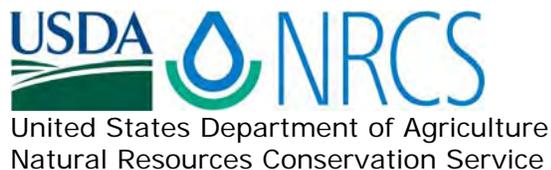
Environmental benefits will be operation specific.

Benefits may include, but are not limited to improved animal health, reduced risk to humans and improved water quality.

Pests and parasites can have a significant impact on the economic viability of livestock operations by affecting the performance and health of animals. Use of synthetic chemical treatments pose risk to water quality through animal contact and runoff and expose farm workers through product handling. An alternative non-chemical pest control option can address these concerns and provide adequate pest/parasite control in many situations. Non-chemical control may also require increased monitoring and enhanced management applications which can effect a higher overall level of management efficiency.

### ***Criteria for Non-Chemical Livestock Pest Control***

1. Prepare a written plan addressing basic management considerations, including:
  - a. pests/parasites to be controlled, including correct species identification
  - b. monitoring process (jug traps, baited cards, on-livestock counts, fecal egg counts, FAMANCHA, etc) to determine when control is needed and control effectiveness
  - c. sanitation, cleaning feed/hay sites, and manure removal to reduce breeding sites
  - d. rotational grazing and how it will be used to disrupt pest life cycles, minimum residual forage height to reduce parasite ingestion
2. Incorporate two or more of the following applications into the plan as appropriate:
  - a. fly parasitic wasp release; hister beetles can additionally be released
  - b. traps for house and stable flies, used with fly tape, paper, ribbons, etc.
  - c. traps for biting flies or face flies
  - d. walk through fly traps for horn flies
  - e. fly vacuums
  - f. bug zappers
  - g. enhance populations of martins, swallows and bats with roost, nesting, breeding sites



3. Incorporate one or more of the following applications into the plan as appropriate:
  - a. provide non-invasive plants with secondary compounds such as tannins and terpenes that can reduce internal parasites when grazed by livestock
  - b. provide for multi-species grazing to disrupt life cycles of host specific parasites
  - c. monitor dung beetle populations and enhance by eliminating or significantly reducing use of detrimental injectable, pour-on, and especially bolus type pesticides
  - d. if dung beetle populations are essentially non-existent, harrow or otherwise mechanically treat manure piles to speed up drying and decomposition.
  - e. incorporate pastured poultry, such as portable poultry wagons, into pasture rotations to eat fly larvae, 2-3 days after livestock leave pasture
  - f. use parasite/pest resistance as a basis for individual genetic selection and culling

***Documentation Requirements for Non-Chemical Livestock Pest Control***

- Written plan that includes basic management consideration and specific selected applications.
- Brief written description of tasks and applications completed, including dates, effectiveness of applications, and other monitoring results.
- Schedule of when grazing occurred on pastures and residual vegetation heights both at start and end of each grazing period.



United States Department of Agriculture  
Natural Resources Conservation Service

NE-WQL18

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**Documentation Requirements**

1. Provide a written plan addressing
  - a. Basic management considerations that includes:
    - i. Pests/parasite to be controlled (include correct species name),
    - ii. Monitoring process used to determine 1) when control is needed and 2) the control effectiveness,
    - iii. Sanitation, cleaning feed / hay sites, and manure removal to reduce breeding sites,
    - iv. Rotational grazing (used to disrupt pest cycles) & minimal residual vegetation height to reduce parasite ingestion;
  - b. Planned specific selected applications (in accordance with enhancement).
2. Provide a brief description of tasks and applications in Table 1 on the following page.
3. Provide grazing schedule and vegetation height information on Table 2 provided on the following page.

**Participant Acknowledgement Statement:**

I agree to apply this enhancement under the terms and conditions of my CSP contract and understand the requirements of the activity.

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

1. Written documentation of the activity performed per documentation requirements (complete Table 1 and Table 2).
2. Copies of dated receipts for equipment or services purchased.

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:** \_\_\_\_\_



Table 1 Task and Application Description					
Tract & Field	Acres	Description of Management Techniques, Devises and Biological Agents Used	Date Employed	Rate Effective (High, Medium, Low)	Comments (additional monitoring)
T1234 & F1	220.3	Rotational grazing – Move every 15 days	5/15/09	medium	Baited cards

Table 2 Grazing Schedule							
Tract	Field	Acres	Number & Type of Animals	Start Grazing Date	Vegetation Height (in.) at Start of Gazing	End Grazing Date	Vegetative Height (in.) at End of Grazing
T1234	F1	220.3	50 cow/calf 2 bulls	5/15/09	10	9/1/09	3