

Water Quality Enhancement Activity – WQL18 – Non-chemical pest control for livestock



Enhancement Description

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

Pastureland, rangeland and forestland (if the forest is 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. The use of synthetic chemical treatments poses risks to water quality through animal contact and runoff. Farm workers are also exposed by handling chemicals and livestock. 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 affect a higher overall level of management efficiency.

Criteria

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 to monitor 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. Release of wasps that are parasitic to flies or the release of hister beetles
 - b. Traps for house and stable flies such as 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



United States Department of Agriculture
Natural Resources Conservation Service

IDAHO ADDENDUM 2011

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Additional guidance for non-chemical pest control:

Black flies can be a problem in Idaho. Although black flies are highly mobile, biting intensity usually is greatest next to irrigation canals and streams or rivers where the larval stages of this pest live. Pasture your animals as far away from these pest sources as practical. Unlike mosquitoes, black flies generally do not enter buildings or other enclosed, darkened spaces. Simply-constructed shelters consisting of three solid walls and a roof can provide cattle, horses, sheep and hogs with refuge from biting attack in pastures and rangelands. Black fly control for beef and dairy cattle can be enhanced by placing back rubbers at the entrance to shelters to keep flies out. Black fly attack tends to be heaviest during the morning and early evening hours. When practical, keep your animals inside barns during these biting periods.

Other livestock pests include grubs, lice, mites, face flies, horn flies, stable flies, etc. For some flies, release of biological control agents like parasitic wasps, or walk-through fly traps, may be helpful. Proper manure management is essential to reduce pest problems. Indoor and outdoor fly traps can be very effective. Proper sanitation with clean bedding and cleaning spilled feed can also reduce pest problems. Routine monitoring of livestock for pest problems is important.

For additional information, refer to:

ATTRA, Integrated Parasite Management for Livestock.
<http://attra.ncat.org/attra-pub/PDF/livestock-ipm.pdf>

Cornell University, *Integrated Management of Flies in and Around Dairy and Livestock Barns*.
<http://nysipm.cornell.edu/factsheets/dairy/barnflies/barnflies.asp>

Washington State University Cooperative Extension, *Livestock IPM*.
<http://ipm.wsu.edu/livestock/livestock.html>

**This activity may NOT be used with the following enhancements:
ANM23, SQL07**

No potential duplicate practices