

Water Quality Enhancement Activity – WQL02 – *Biological Suppression and Other Non-chemical Techniques to Manage Herbaceous Weeds*



Biological Suppression and Other Non-Chemical Techniques to Manage Herbaceous Weeds

The reduction of invasive, herbaceous plants using naturally occurring enemies of the invasive species as well as management techniques to reduce the impact of the plants on agriculture and the environment.

Land Use Applicability

This enhancement is applicable on rangeland,

native or naturalized pasture and forest land.

Benefits

Controlling herbaceous weeds with biological suppression techniques instead of pesticides helps to prevent pesticide contamination and protect water quality. Further, wildlife species such as pollinators may benefit from reduced exposure to toxic active ingredients.

Criteria

- 1) Implementation of this enhancement requires the use of biological pest suppression techniques instead of pesticides. These techniques can include activities such as:
 - Grazing animals (primarily through the use of goats) to target undesirable vegetation.
 - Introduction of beneficial insects to attack undesirable vegetation.
 - Introduction of beneficial micro-organisms to attack undesirable vegetation.
- 2) Biological suppression techniques should be based on techniques recommended by the local Land Grant University.
- 3) Biological suppression must be preceded by an analysis to ensure the proposed biological agent is compatible with the agronomic, ecological and social objectives of the operation.
- 4) Following initial application some regrowth, resprouting, or reoccurrence of brush should be expected. Additional treatment of individual plants or areas needing retreatment should be completed as required to effectively control the targeted species.

Documentation Requirements

Written documentation for each treatment area and year of this enhancement including:

- a. A full description of all biological suppression techniques utilized including the number of animals or insect colonies to be distributed and the planned time frame of the treatment.
- b. A map showing where the activities were applied including treatment acreage.



United States Department of Agriculture
Natural Resources Conservation Service

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Additional State Criteria

The most commonly used biological control measures for managing herbaceous weeds in Nebraska are targeted grazing (generally using sheep or goats) and the release of beneficial insects. Detailed information for selected weed species is available from the University of Nebraska Extension at the following website.

<http://www.ianrpubs.unl.edu/epublic/pages/index.jsp>

Documentation Required:

1. Complete the following table documenting the pastures where the practice was applied.
2. Provide a full description of all biological suppression techniques utilized including the number of insect colonies to be distributed and the planned time frame of the treatment.
3. If targeted grazing is used complete the Prescribed Grazing Jobsheet (NE-ECS-528) for the pasture and/or the entire operating unit showing the number of animals, timing, sequence, and duration of grazing to control the targeted weed species.
4. Provide a map showing where the activities were applied including treatment acreage.
5. Provide a photograph of the treated areas showing the treatment applied.

Tract	Pasture	Plant Species to be Controlled	Description of Control Method	Acres Treated	Dates Applied

I certify that biological suppression technique described above meets specifications and has included the following documentation:

1. A full description of all biological and/or physical suppression techniques utilized.
2. A Prescribed Grazing Jobsheet (NE-ECS-528) if needed.
3. A map showing the location of the acres treated.
4. A photograph of the treated areas.

Certified by: _____ **Date:** _____