

**NATURAL RESOURCES CONSERVATION SERVICE**  
**WASHINGTON PRACTICE SPECIFICATION GUIDESHEET**  
**HERBACEOUS WEED CONTROL - 315**

**DEFINITION AND PURPOSE:**

This specification provides guidance for the planning and implementation of herbaceous weed control. Herbaceous weed control is designed to achieve the optimum level of control of the target herbaceous weeds species and protection of the desired species. Herbaceous weed control is accomplished by mechanical, chemical, biological, or a combination of these techniques. The practice is planned and applied to meet the habitat requirements of fish and wildlife.

Herbaceous weed control applies on all lands except active cropland where the removal, reduction, or manipulation of herbaceous weeds (invasive, noxious and prohibited) is desired. Herbaceous weed control is not for site preparation. If site preparation is necessary use Range Planting, Code 550, Pasture Planting, Code 512, or Forest Site Preparation, Code 490 and do not use Herbaceous Weed Control, Code 315. Critical Area Planting, Code 342 may be used in conjunction with mechanical treatment for rehabilitation of small areas heavily impacted by machinery.

The application of this practice will achieve the management or removal of herbaceous weeds species to create a desired plant community consistent with the ecological site, restore or release desired vegetative cover to protect soils, control erosion, reduce sediment, improve water quality, or enhance stream flow. In addition, herbaceous weed control is used to maintain, modify or enhance wildlife habitat, improve forage accessibility, quality and quantity for livestock and wildlife, and/or manage fuel loads.

**PLANNING AND GENERAL REQUIREMENTS:**

Herbaceous weed control will be planned and applied as part of a Resource Management System (RMS) to address the soil, water, air, plant, animal, and human needs as related to the land manager's goals and objectives. This practice can be a component of Integrated Pest Management-Code 595. If a comprehensive IPM system is not feasible, utilize appropriate IPM techniques to adequately address the source of the resource concern and prevent or mitigate pest management risks for identified natural resource concerns. Weeds are pest and as such should be incorporated in an IPM plan (595) using the Integrated Pest Management Planning Worksheet. The IPM Planning Worksheet is a tool for Land Managers to improve success rate and sustainability of pest management for improving land use economics and environmental quality. The IPM plan is a growing document improves each year as technology, experience, pest populations and new research results develop over time. One goal is to integrate multiple strategies for managing identified pest problems rather than reliance on a single (silver bullet) approach. Integration is important because pest diversity and populations adapt and change. The Prevention, Avoidance and Suppression techniques will impact the site specific resource concerns documented on the NRCS Pest Management 595 conservation practice standard Job sheet and specification.

The land manager's goals and objectives and the resource concerns being addressed will be clearly stated/identified in the site-specific specification (jobsheet) provided to the land manager. Brush management practices shall not proceed to application until a review is made by the individual(s) having appropriate Job Approval Authority for the included management/vegetative practices.

Herbaceous weed control treatments will be used to control, contain, or eradicate undesirable herbaceous weeds. Use Ecological Site Description (ESD) State and Transition model, to determine if proposed actions are ecologically sound and defensible. Base design criteria on best approximation of a desired reference plant community composition, structure, and function. Treatments need to be compatible with dynamics of the ecological site(s) and targeted towards vegetative states that have the potential and capability to support the desired plant community. Herbaceous weed control will not be applied when the desirable functional group(s) of grasses/forbs being released are less than 15% by weight of the plant community. The desirable grass group is usually Perennial Cool Season Mid-Grass Decreasers. Prescribed Grazing shall be applied to ensure desired response from treatments.

The needs of wildlife will be considered when applying herbaceous weed control practices. Species that need to be considered include, but are not limited to; sage-grouse and other shrubland and grassland

nesting birds, pygmy rabbit, mule deer, elk, as well as wetland or aquatic species that are associated with riparian areas, springs, seeps, or meadows associated with the treatment area. Consult with Washington Department of Fish and Wildlife and NRCS Area and State Biologists to identify possible wildlife habitat conflicts within treatment area.

The NRCS must determine if installation of this practice will affect any federal, tribal or state-listed Endangered, Threatened, Proposed or Candidate species or their habitat prior to planning or application. If this action may affect a listed species or result in modification of critical habitat, the NRCS will advise the land user of the requirements of the Endangered Species Act and recommend alternative conservation treatments that avoid adverse effects. Further assistance will be provided only if the land user selects one of the alternative conservation treatments for installation; or at the request of the landowner, the NRCS may initiate consultation with the U. S. Fish and Wildlife Service.

Before any soil disturbance occurs the area of potential effect for each undertaking must be investigated for cultural resources under Section 106 of the National Historical Preservation Act (1966), as amended. If during installation, any cultural resources, historic properties, Endangered, Threatened, Proposed or Candidate species are found, the landowner/lessee agrees to stop all work and immediately notify the NRCS.

## **TREATMENT METHODS:**

***NRCS will not develop biological or chemical treatment recommendations except for biological control utilizing grazing animals. NRCS may provide clients with acceptable biological and/or chemical control references.***

### **A. Chemical Treatment**

In accordance with NRCS policy, NRCS personnel are not authorized to provide recommendations for herbicide use. Landowners should contact local Cooperative Extension Service, chemical company representative or an agricultural consultant for specific recommendations.

NRCS personnel will evaluate environmental risk associated with herbicide recommendations relative to treatment site conditions and potential for herbicide to result in significant environmental impacts.

Refer to the following guidance:

- Washington State University Cooperative Extension Service - Weed Control Recommendations
- Pacific Northwest Weed Control Handbook - <http://weeds.ippc.orst.edu/pnw/weeds>

Land users and applicators using chemical herbicides are cautioned as follows:

Read the entire container/product label – Follow all instructions and heed all precautions on the label.

Landowners and applicators should be aware of and adhere to the provisions of local, county, state or federal laws and regulations concerning the use of agricultural chemicals. For product registration information and guidance see Washington Department of Agriculture

Compliance with local, state and federal regulations and permits for use of chemicals shall be the responsibility of the landowner. Permits for use of chemicals will specify legally required setbacks from water courses, ponds, residences, etc.

**Caution cooperators using chemical herbicides as follows:** If pesticides are handled or applied improperly, or if unused portions are not disposed of safely, they may be injurious to humans, domestic animals, desirable plants, and fish or other wildlife, and they may contaminate water supplies. Drift from aerial spraying can contaminate water, nearby crops and other vegetation. Follow the directions and heed all precautions on the container label.

### **B. Mechanical Treatment**

Equipment will consist of mowers or other suitable equipment, as appropriate to the site and target species. The optimum season or date(s) for the treatment selected will be outlined in the specification. Erosion protection needed during and after treatment will be addressed. Specific treatments will list the techniques or procedures to be followed, including the handling of residue.

Time of application is dependent upon the physiological life cycle stage of the species to be controlled, rainfall patterns, and the growth requirements of the species to be restored/enhanced. Herbaceous weed control operations will be timed to prevent the exposure of bare soil for long periods of time and to reduce erosion and sediment transport into adjacent water bodies.

### C. Biological Treatment

In accordance with NRCS policy, NRCS personnel are not authorized to provide recommendations for biological control except when grazing/browsing animals are used. Landowners should contact local Cooperative Extension Service, chemical company representative or an agricultural consultant for specific recommendations.

Grazing with alternative kinds of livestock, particularly browsers such as sheep or goats during critical growing stages of target plants can be effective control for certain species. The hoof action associated with winter-feeding of livestock may also effectively reduce some brush species. Specifications for biological treatment will be developed based on the individual problems of the area, and available research data. Specific treatments will address the kind of grazing/browsing animal to be used; timing, duration and intensity of grazing or browsing; desired degree of grazing or browsing use for effective control of target species; and maximum allowable degree of use on desirable non-target species.

### D. Effective Herbaceous Weed Control Recommendation

Many species are best contained, controlled, or eradicated by a combination of chemical, mechanical, or biological treatments.

## MANAGEMENT:

### A. Pre-treatment

**Rangelands:** If the area is grazed by livestock, the treatment area will be deferred from livestock grazing for the entire growing season (spring green up until seed set of key species each spring and summer) for a ***minimum of one year***

### B. Post-Treatment

**Rangelands and Pastureland:** If the area is grazed by livestock, the treatment area will be deferred from livestock grazing for the entire growing season (spring green up until seed set of key species each spring and summer) for a ***minimum of one year*** if the area receives at least 10 inches average annual precipitation and a ***minimum of two years*** if the area receives less than 10 inches average annual precipitation following the treatment, except for a specific kind of browsing animal being used as a biological control method. Additional periods of livestock deferral may be needed prior to treatment application based on the treatment method used. If chemical methods of treatment are used, all label restrictions concerning grazing, haying, or other uses will be applied.

Drought following treatment, low vigor of desirable grasses, invasion of the treated area by undesirable plants, and/or other abnormal conditions may make it desirable to extend the deferment beyond the above requirements. If any of these conditions exist, the NRCS conservationist will inform the cooperator of required extended additional deferment periods.

A grazing plan will be developed according to 528- Prescribed Grazing standards and specifications for all treated acres prior to application of herbaceous weed control.

### **Monitoring:**

The collection of benchmark and post treatment data is required to determine the effectiveness of the herbaceous weed control application. Minimum data collected will include cover using line-point intercept, photo points, and documentation recording the response of the herbaceous plant community as a result of treatment. Other methods may be desired depending on the treatment objectives.

## OPERATION AND MAINTENANCE:

The life of this practice can be assured or extended by thorough and timely operation and maintenance. A successful operation and maintenance program includes:

1. Prescribed Grazing shall be applied to ensure desired response from treatments.

2. Following initial application, some regrowth, sprouting or reoccurrence of brush should be expected and planned for.
  - Spot treatment of individual plants or areas will be done as needed.
  - In some situations, it may be appropriate to apply a maintenance treatment following a previous herbaceous weed control treatment, to extend the life of the practice and achieve desired long-term objectives.