

NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD
HERBACEOUS WEED CONTROL

(Ac.)

CODE 315

DEFINITION

The control or removal of herbaceous weeds including invasive, noxious, undesirable and prohibited plants.

PURPOSE

Enhance accessibility, quantity, and quality of forage

Restore or release native plant communities, facilitate the creation of desired plant communities and wildlife habitats consistent with historic natural communities.

Protect soils and control erosion

Reduce fine-fuels fire hazard and improve air quality

CONDITIONS WHERE PRACTICE APPLIES

On all lands, except active cropland, where the removal of herbaceous vegetation is desired.

For the restoration of wildlife habitat where invasive species (See South Carolina Major Invasive Species of Concern for a list of herbaceous invasive species that apply) need to be removed and where a plan to establish Conservation Cover (327) using native species has been developed.

This practice does not apply to removal of herbaceous vegetation by prescribed fire (use Prescribed Burning - 338) or removal of herbaceous vegetation to facilitate a land use change.

CRITERIA

General Criteria Applicable to All Purposes

Herbaceous weed control will be applied in a manner to achieve the desired control of the target species and protection of desired species. This will be accomplished by

mechanical, chemical, burning or biological methods either alone or in combination. When burning is used as a method, the Prescribed Burning standard (338) will also be applied.

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.

Bio-control and chemical recommendations will follow the guidelines prescribed by university weed management guides (Clemson or Georgia) or USDA ARS standards.

NRCS may provide clients with current acceptable references to achieve desired management objectives.

When herbicides are used, environmental hazards and site-specific application criteria listed on pesticide labels and contained in extension service and other approved pest management references must be followed.

Win-PST analysis will be run to assess the potential effects of any herbicide to be used. The South Carolina Pesticide mitigation work sheet will also be used to analyze mitigation needs.

Herbaceous weed control will include post treatment measures as needed to achieve resource management objectives.

Livestock and human access will be controlled based on management methods applied and restrictions as listed on the chemical labels.

Manage and/or dispose of treated plant material in a manner that will prevent the spread of herbaceous weeds to new sites. Contact an NRCS Biologist for guidance on weed material disposal.

NRCS South Carolina
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Additional Criteria to Enhance Accessibility, Quantity, and Quality of Forage and/or Browse

Herbaceous weed control will be applied in a manner to minimize negative impact to forage and/or other non targeted plants. Timing and sequence of control shall be planned in coordination with specifications developed for Prescribed Grazing (528) or Forage Harvest Management (512).

Win-PST analysis will be run to assess the potential effects of any herbicide to be used. The South Carolina Pesticide mitigation work sheet will also be used to analyze mitigation needs.

Additional Criteria to Restore or Release Native Vegetation or Create Desired Plant Communities and Wildlife Habitats Consistent with the Native Plant Community Type

Apply herbaceous weed control in a manner to protect the health and vigor of native or desired plant species.

Base specifications on the best approximation of the desired plant community composition, structure, and function by referencing the following publications:

“A Guide to the Wildflowers of South Carolina” by Richard Porcher and Douglas Rayner; pages 65 through 106, in each field office, or

Natural Communities of South Carolina found at the link below:

<http://www.dnr.sc.gov/wildlife/publications/pdf/natcomm.pdf>

Treatments should compliment the dynamics of the target (wiregrass savannah, native warm season grasses and forbs, etc) natural community.

Treatments will be conducted during periods of the year when weed species are most vulnerable and will promote restoration of the native or desired plant communities.

Apply herbaceous weed control in a manner that maintain or enhance important wildlife habitat requirements. If a combination of mechanical and herbicide treatment is required, the mechanical treatment will not be during the nesting season (April 1 – September 1)

Treatments will be conducted during periods of the year that accommodate reproduction and other life-cycle requirements of target wildlife and pollinator species.

Apply treatments that maintain or enhance plant community composition and structure to meet the requirements of target wildlife species.

Additional Criteria to Protect Soils and Control Erosion

Apply herbaceous weed control to minimize soil disturbance and soil erosion.

Additional treatments will be applied to protect soils and prevent erosion.

Additional Criteria to Reduce Fine-Fuels Fire Hazard and Improve Air Quality

Treat weed species in a manner that creates a native or desired plant community which reduces the potential for accumulating excessive fuel loads and increased wildfire hazards.

Apply treatment methods in a manner that minimize the potential for unintended impacts to air resources, e.g., smoke, chemical drift etc.

CONSIDERATIONS

Consider using Integrated Pest Management (595) in support of herbaceous weed control. Consider soil erosion potential and difficulty of vegetation establishment when choosing a method of control that causes soil disturbance.

Consider the appropriate time period for treatment. Some herbaceous weed control activities can be effective when applied within a single year; others may require multiple years of treatment(s) to achieve desired objectives.

Consider impacts to wildlife species, in general, treatments that create a mosaic pattern may be the most desirable.

Consider impacts to wildlife food supplies, space, and cover availability when planning the method and amount of herbaceous weed control.

State issued licenses may be required when using chemical pesticide treatments.

For air quality purposes, consider using chemical methods of herbaceous weed control

that minimize chemical drift and excessive chemical usage and consider mechanical methods of herbaceous weed control that minimize the entrainment of particulate matter.

Adjacent land uses must be considered before chemicals are used.

PLANS AND SPECIFICATIONS

Prepare plans and specifications for each field or treatment unit according to the criteria included in this standard. **At a minimum, the herbaceous weed control practice plan shall include:**

A statement that clearly documents the goals and objectives of the landowner or participant.

A summary sheet from the South Carolina Wildlife Habitat Index Guide (WHIG) that identifies invasive species as a limiting factor to the wildlife habitat quality.

Plan map and soil map for the site.

Pre-treatment cover or density of the target plant(s) documented with photos of the area to be treated.

Identification of the target natural community type planned.

The treatment plan must include the planned post-treatment cover, density and desired amount established. At a minimum, the post treatment plan **must** include the application of Conservation Cover (327) Native Species for Wildlife. The post treatment plan **must** include the establishment of native warm season grasses and forbs.

Maps, drawings, and/or narratives detailing or identifying areas to be treated, pattern of treatment (if applicable), and areas that will not be disturbed.

A monitoring plan will include the location of the site treated, an annual report which documents annual scouting of the treated area for regeneration of the invasive plants, photos of the site treated and an inventory of the native warm season grasses and forbs established after 1 year

For Mechanical Treatment Methods. Plans and specifications will include items above, plus the following:

Type of equipment to use for management

Dates of treatment for effective management.

Operating instructions (if applicable)

Techniques and procedures to be followed.

For Chemical Treatment Methods. Plans and specifications will include items above, plus the following:

Acceptable chemical treatment references for containment and management of target species

- Document techniques to be used, planned dates and rates of application
- Evaluation and interpretation of herbicide risks associated with the selected treatment(s) using WIN-PST or other approved tools.
- Any special mitigation, timing considerations or other factors (such as soil texture and organic matter content) that must be considered to ensure the safest, most effective application of the herbicide
- Reference to product label instructions

For Biological Treatment Methods. Plans and specifications will include items above, plus the following:

Acceptable biological treatment references for the selected biological agent used to contain and manage the target species, based on recommendations prescribed by university weed management guides (Clemson or Georgia) or USDA ARS standards.

- Document release date, kind, and number of agents
- If grazing is planned, then a Prescribed Grazing Plan must be developed that includes wildlife habitat improvement as part of the objective of the plan.
- Desired degree of grazing or browsing use for effective management of target species
- Maximum allowable degree of use on desirable non-target species
- Special mitigation, precautions, or requirements associated with the selected treatment(s)

OPERATION AND MAINTENANCE

Operation. Herbaceous weed control practices shall be applied using approved materials and procedures. Operations will comply with all local, state, and federal laws and ordinances.

Success of the practice shall be determined by evaluating re-growth or reoccurrence of target species after sufficient time has passed to monitor the situation and gather reliable data. Length of evaluation periods will depend on the herbaceous weeds species being monitored, proximity of propagules (seeds, plant materials and roots) to the site, transport mode of seeds (wind or animals) and methods and materials used.

The operator will develop a safety plan for individuals exposed to chemicals, including telephone numbers and addresses of emergency treatment centers and the telephone number for the nearest poison control center. The National Pesticide Information Center (NPIC) telephone number in Corvallis, Oregon, may also be given for non-emergency information: **1-800-858-7384**

Monday to Friday

6:30 a.m. to 4:30 p.m. Pacific Time

The national Chemical Transportation Emergency Center (CHEMTRAC) telephone number is: 1-800-424-9300

- Follow label requirements for mixing/loading setbacks from wells, intermittent streams and rivers, natural or impounded ponds and lakes, and reservoirs.
- Post signs, according to label directions and/or federal, state, tribal, and local laws, around fields that have been treated. Follow restricted entry intervals.
- Dispose of herbicide and herbicide containers in accordance with label directions and adhere to federal, state, tribal, and local regulations.
- Read and follow label directions and maintain appropriate Material Safety Data Sheets (MSDS). MSDS and herbicide labels may be accessed on the Internet at: <http://www.greenbook.net/>

- Calibrate application equipment according to recommendations before each seasonal use and with each major chemical and site change.
- Replace worn nozzle tips, cracked hoses, and faulty gauges on spray equipment.
- Maintain records of plant management for at least two years. Herbicide application records shall be in accordance with USDA Agricultural Marketing Service's Pesticide Recordkeeping Program and state-specific requirements.

Maintenance. Following initial application, some re-growth, re-sprouting, or reoccurrence of herbaceous weeds may be expected. Spot treatment of individual plants or areas needing re-treatment must be completed as needed. The timing of the spot treatment should be immediately upon discovery of the regenerating invasive species.

Review and update the plan periodically in order to incorporate new IPM technology; response to grazing management and complex weed population changes; and avoid the development of weed resistance to herbicide chemicals.

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