

**NATURAL RESOURCE CONSERVATION SERVICE  
CONSERVATION PRACTICE STANDARD**

**BRUSH MANAGEMENT**

(Ac.)

CODE 314

**DEFINITION**

The control, removal, reduction, or manipulation of non-herbaceous invasive, noxious, undesirable and prohibited plants.

**PURPOSES**

This practice may be applied as part of a conservation management system to accomplish one or more of the following purposes:

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

Maintain or enhance wildlife habitat including that associated with threatened and endangered species.

- Reduce competition for space, moisture, and sunlight between desired plants and undesirable plants.
- Manage invasive and noxious woody plants species
- Restore desired vegetative cover to protect soils, control erosion, reduce sediment, improve water quality and enhance stream flow.
- Improve forage accessibility, quality and quantity for livestock.
- Protect life and property from wildfire hazards.

Pervasive plant species are controlled to a desired level of treatment that will ultimately contribute to creation or maintenance of an ecological site description "steady state," addressing the need for forage, wildlife habitat, and/or water quality.

**CONDITIONS WHERE THIS PRACTICE APPLIES**

On native or naturalized pasture, pasture and hay lands and natural areas where removal or reduction of excessive woody (non-herbaceous) plants is desired.

For the restoration of wildlife habitat where invasive species (See South Carolina Major Invasive Species of Concern for a list of woody invasive species that apply) need to be removed and where a plan to establish Conservation Cover (327) or Tree and Shrub Establishment (612) using native species has been developed.

**CRITERIA**

**General Criteria Applicable For All The Purposes Stated Above.**

Brush management will be designed to achieve the desired plant community in woody plant density, canopy cover, or height.

Brush Management will be applied in a manner to achieve the desired control of the target woody species and protection of desired species. This will be accomplished by mechanical, chemical, biological, prescribed burning or a combination of these methods.

NRCS will not develop biological or chemical treatment recommendations.

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.

On pastureland, Prescribed Grazing shall be applied to ensure

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version of this standard, contact the Natural Resources Conservation Service.

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desired response from treatments.

Additional treatments are planned and will be applied to achieve effective control of pervasive plant species through reapplication.

#### **Additional Criteria For Improving Wildlife Habitat.**

Brush Management will be planned and applied in a manner consistent with the habitat requirements of the target wildlife species life history concern and needs.

Brush management will be planned in a manner that it will not adversely affect threatened or endangered species or their habitats.

Brush management control will be applied in a manner to protect the health and vigor of native or desired plant species.

Treatment specifications will be referenced to 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 will be conducted during periods of the year when woody species are most vulnerable and will promote restoration of the native or desired plant communities.

Apply herbicide brush management 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)

#### **Additional Criteria For Reducing Wildfire Hazards.**

Control undesirable woody plants in a manner that creates the desired plant community which does not provide wildfire hazard conditions.

#### **CONSIDERATIONS**

Timing and sequence of brush management in a pasture and/or the entire operating unit should be planned to ensure needed grazing management.

Consider soil erosion potential and difficulty of vegetation establishment when choosing a method of control that causes soil disturbance.

#### **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 Brush Management practice plan shall include:**

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

Brush canopy and/or species count, transect line locations and percent canopy and/or species numbers per acre of the target plant(s).

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. The post treatment plan **must** include the application of Tree and Shrub Establishment (612) unless there is an adequate seed source present (mature overstory) that will provide for native woody species to regenerate.

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 or trees established after 1 year

**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

As needed, maps or drawings showing areas to be treated and areas to be left undisturbed should be prepared.

For mechanical treatment methods, plans and specifications will include types of equipment and any modifications necessary to enable the equipment to adequately complete the job. Also included should be:

- Dates of treatment (multiple treatments may be necessary)
- Operating instructions
- Techniques or procedures to be followed

For chemical treatment methods, plans and specifications will include:

- Herbicide recommendation based on the Clemson Weed Guide, SCEPPC recommendation or the recommendation of a technical specialist
- Rate of application or spray volumes
- Acceptable dates of application (multiple treatments may be necessary)
- Mixing instructions (if applicable)
- Any special application techniques, timing considerations, or other factors that must be considered to ensure the safest, most effective application of the herbicide
- Reference to label instructions

For biological treatment methods, plans and specifications will include:

- Kind of biological agent or grazing animal to be used
- Timing, duration, and intensity of grazing or browsing or treatment
- Desired degree of grazing or browsing use for effective control of target species
- Maximum allowable degree of use on desirable non-target species
- Special precautions or requirements when using insects or plants as control agents

## OPERATION AND MAINTENANCE

**Operation:** Brush Management 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. Evaluation periods will depend on the methods and materials used.

**Maintenance:** Following initial application, some re-growth, re-sprouting, or reoccurrence of brush should be expected. Spot treatment of individual plants or areas needing retreatment should be done as needed. The timing of the spot treatment should be immediately upon discovery of the regenerating invasive species.

## REFERENCES

Porcher, R and D Rayner 2002, "A Guide to the Wildflowers of South Carolina" pages 65 through 106, University of South Carolina Press

Nelson, John, "Natural Communities of South Carolina", South Carolina DNR  
<http://www.dnr.sc.gov/wildlife/publications/pdf/natcomm.pdf>