

NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD

BRUSH MANAGEMENT

(acre)
 CODE 314

DEFINITION

Removal, reduction, or manipulation of non-herbaceous plants.

PURPOSE

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

- Restore natural plant community balance.
- Create the desired plant community.
- *Reduce competition for space, moisture and sunlight between desired and unwanted plants.*
- *Manage noxious woody plants.*
- Restore desired vegetative cover to protect soils, control erosion, reduce sediment, improve water quality and enhance stream flow.
- Maintain or enhance wildlife habitat including that associated with threatened and endangered species.
- Improve forage accessibility, quality and quantity for livestock.
- Protect life and property from wildfire hazards.
- *Improve visibility and access for handling livestock.*

CONDITIONS WHERE PRACTICE APPLIES

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

CRITERIA

General Criteria Applicable to All Purposes

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, or a combination of these methods.

Brush management will be designed and applied only after determining whether or not the State of Hawaii has a biological control program for the target species so as to avoid injuring beneficials.

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

Additional Criteria for Improving Wildlife Habitat

Brush management will be planned and applied in a manner to meet the habitat requirements of the wildlife of concern.

Brush management will be planned *and applied* in a manner that will not adversely affect *rare*, threatened or endangered species or their habitats.

Additional Criteria for Reducing Wildfire Hazards

Control undesirable woody plants in a manner that creates the desired plant community which reduces wildfire hazard conditions.

CONSIDERATIONS

Timing and sequence of brush management in a pasture and /or the entire operating unit should be planned in coordination with a grazing management plan.

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

Conservationists shall assist the land users in understanding the environmental impacts of brush management, both positive and negative, onsite and offsite by assisting cooperators in considering the following:

- *The expected effect on wildlife habitat, recreation use, historic or cultural resources, wetlands and attractiveness of the landscape.*
- *The technical requirements, possible hazards and costs of the practice.*
- *The grazing management and maintenance measures that will ensure success.*

PLANS AND SPECIFICATIONS

Site-specific specifications for the installation and maintenance of this practice shall be prepared for each pasture, field, or management unit according to this Standard and the Conservation Practice Specification.

The NRCS Hawaii Jobsheet for this practice shall be used to document the site specifications. Other documents (worksheets, maps, drawings, and narrative statements in the conservation plan) may be used in addition to the Jobsheet to document site specifications. These

documents will contain the following data as a minimum:

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

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
- Operating instructions
- Techniques or procedures to be followed

For chemical treatment methods, plans and specifications will include:

- Herbicide name
- Rate of application or spray volumes
- Acceptable dates of application
- 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
- Documentation of the use of environmental risk analysis tools (such as WIN-PST Soil Pesticide Interaction Loss Potential and Hazard Rating Report) in formulating alternatives with the client

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

- 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 regrowth 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 regrowth, resprouting, or reoccurrence of brush should be expected. Spot treatment of individual plants or areas needing retreatment should be done as needed.

REFERENCES

- Larson, J. E. 1980. *Revegetation Equipment Catalog*. U.S.F.S. Equipment Development Center, Missoula, Montana. 198 pp.
- Motooka, P. S. 1981. *Chemical Weed Control in Pastures and Ranges of Hawaii*. Hawaii Institute of Tropical Agriculture and Human Resources, University of Hawaii. Research Extension Series 009. 12pp.
- Motooka, P.S., G. Nagai, L. Ching, J. Powley, G. Teves, and A. Arakaki. 1992. *Woody Plant Control for the Homeowner*. Hawaii Institute of Tropical Agriculture and Human Resources, University of Hawaii. Brief No. 105. 4 pp.