



Brush Management in Woodlands

Conservation Practice WV Job Sheet

Code 314



Photo by: Nancy Fraley, USDI National Park Service, Bugwood.org

DEFINITION

This practice pertains to the removal of woody vegetation including those that are invasive and noxious in woodlands.

PURPOSE

Landowners can use this practice to create a specific plant community that is consistent with an ecological site. It may also be used to restore or release certain vegetative communities to protect a resource such as soil or water quality. This practice can be used to modify, maintain or enhance fish, wildlife including habitat for native pollinators.

CONDITIONS WHERE PRACTICE APPLIES

This practice applies on all types of lands (except cropland) where it is necessary to reduce, remove or manipulate existing woody vegetation to achieve a desired condition.

This practice does not apply to removal of vegetation where a landuse change is desired. Refer to conservation practice standard (460) Land Clearing.

When the intent is to manage trees for silvicultural purposes, do not use this practice. Refer to conservation practice standard (666) Forest Stand Improvement.

CRITERIA FOR ESTABLISHMENT

Treatments for woodland brush can be either:

- mechanical,
- chemical; or
- biological

They may be used alone or in combination with one another. Control is often more complete and better maintained if two or more treatments are used in combination or concurrently.

NRCS cannot develop biological or chemical treatment recommendations except for biological control utilizing grazing animals. In these cases, refer to (528) Prescribed Grazing or consult the local NRCS field office to ensure that the desired results are achieved and maintained.

NRCS can provide references for some types of biological and/or chemical control where necessary. If chemical application is required, please refer to the NRCS pesticide screening information (Win-PST) provided with this jobsheet if chemical application is required.

Noxious and Invasive Control

If this practice is applied to control woody noxious or invasive woody plant species, apply it in a manner to achieve the desired control of the target plants and protection of desired species. A list of potentially noxious or invasive weeds may be found in Table 1 (below) and Section II of the NRCS Field Office Technical Guide.

Apply this practice according to the desired plant community needs. Base the recommended treatments on the desired species composition, structure and canopy characteristics of the existing vegetative community.

Common Woody Noxious Plants

COMMON NAME	SPECIES	CHARACTERISTIC
multiflora rose	<i>Rosa multiflora</i>	WV Noxious Weed
tree-of heaven	<i>Ailanthus altissima</i>	WV Noxious Weed
autumn olive	<i>Elaeagnus umbellata</i>	WV Noxious Weed
Tatarian honeysuckle	<i>Lonicera tatarica</i>	WV Noxious Weed
Japanese barberry	<i>Berberis thunbergii</i>	Potentially Invasive
paulownia	<i>Paulownia tomentosa</i>	Potentially Invasive
oriental bittersweet	<i>Celastrus orbiculatus</i>	Potentially Invasive

Wildlife Species and Pollinators

When possible apply this practice outside the ground nesting bird season (March 15 – July 15).

In order to preserve those native plant species that most wildlife rely on as food or cover, target only invasive and/or non-native species that threaten those plant communities and pollinator resources (i.e. favor flowering forbs).

If habitat for native pollinators is a principle concern, apply any required herbicide treatment during evening hours or after dark when pollinators are less active.

It should be noted that even species such as autumn olive and multiflora rose provide resources that are attractive to pollinators and other wildlife. If there is a possibility that the target species are being utilized as a primary food source, precautionary steps should be taken. These actions could include: making certain that substitute, native food sources are in close proximity and removing the targeted plants during yearly periods of inactivity (i.e. late fall & winter) to allow for regeneration of indigenous plants to serve as the food supply.

If it is obvious that non-native woody or invasive plants are providing the overwhelming majority of pollen and/or nectar resources in an area considered for pollinator habitat; remove no more than 1/3 of the entire stand in one growing season.

Most pesticides do not discriminate between harmful and beneficial insects. Use formulations that are safest for bees when possible. Utilize the lowest lethal rates in conjunction with the most targeting method to minimize the risk. Avoid broad spectrum herbicides when possible.

Formulation	Hazard Level to Pollinators
Dust	Worst
Wettable Powder	
Flowable	
Emulsifiable Concentrate	
Soluble Powder	
Solution	
Granular	Least

OPERATION AND MAINTENANCE

Safety:

Brush management practices should always be applied using NRCS or EPA approved materials and procedures. Operations must always comply with all local, state, and federal laws and ordinances. Always dispose of herbicides and

herbicide containers in accordance with the label directions and comply with all federal, state and local regulations.

Refer to the results of the Windows Pesticide Screening Tool (Win-PST) risk assessment for the risks associated with pesticides. Pay particular attention to the Pesticide Active ingredient Rating Report or other reports dealing with the soil types located on the property. These reports identify such items as solubility, the ability for the pesticide to move in the soil, toxicity to fish and wildlife and leaching.

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.

SAFETY INFORMATION	
National Pesticide Information Center (NPIC) (Non-Emergency Information)	1-800-858-7384 Monday to Friday 6:30 a.m. to 4:30 p.m. Pacific Time
Chemical Transportation Emergency Center (CHEMTRAC)	1-800-424-9300

Remember to follow all label requirements for any pesticides. Additionally, a large buffer area should be maintained between the pesticide mixing/loading area and any water sources including; wells, intermittent streams, rivers, natural or impounded ponds, lakes, and/or reservoirs.

If applicable you should post signs, according to label directions and/or federal, state and local laws, around fields that have been treated and follow the restricted entry intervals.

Read and follow label directions and maintain appropriate Material Safety Data Sheets (MSDS). MSDS and pesticide labels may be accessed on the Internet at: <http://www.greenbook.net/>

Calibrate any application equipment according to recommendations before each seasonal use and with each major chemical and site change.

Inspect and replace any faulty equipment used to implement this practice (i.e. sprayers, mowers, etc)

Maintenance: Landowners should maintain records of brush control for at least two years. Herbicide application records must be in

accordance with [USDA Agricultural Marketing Service's Pesticide Recordkeeping Program](#) and state-specific requirements.

Remember that follow-up treatments are usually necessary to achieve complete removal..

Following the initial application, some regrowth, resprouting, or reoccurrence of brush is to be expected. Spot treatment of individual plants or areas needing re-treatment should be performed while it is small and most vulnerable to the treatment procedures.

The success of this practice is determined by evaluating post-treatment regrowth of the target species after sufficient time has passed to monitor the situation and gather reliable data. The length of these evaluation periods will depend on the woody species being monitored, the proximity of seeds, branches, and roots to the site, how the seeds are transported (wind or animals) and the methods and materials used. It may be necessary to re-apply this practice depending on a number of factors.

SEE ALSO:

USDA Agricultural Marketing Service, Science and laboratories, Pesticide Recordkeeping Program (PRP) available at: <http://www.ams.usda.gov/>

National Pesticide Information Center - NPIC is a cooperative agreement between Oregon State University and the U.S. Environmental Protection Agency available at: <http://npic.orst.edu/index.html>

The Greenbook Group – Chemical Data Delivery Solutions available at: <http://www.greenbook.net/>

SPECIFICATIONS

Site-specific requirements are listed on the following pages of this job sheet. Specifications are prepared in accordance with the WV NRCS Field Office Technical Guide. Information in this job sheet is considered part of the conservation plan.

Brush Management – WV Job Sheet

Client:	Farm #:
Applicable Field(s):	Tract #:
Designed By:	Date:

PURPOSE (check all that apply)
<input type="checkbox"/> Control woody vegetation in woodland settings for the purpose of timber production. Woody specie(s) to be controlled: _____
<input type="checkbox"/> Restore or release desired vegetative cover to protect soils, control erosion, reduce sediment, improve water quality or enhance stream flow
<input type="checkbox"/> Maintain, modify, or enhance fish or wildlife (including pollinator habitat)
<input type="checkbox"/> Create the desired plant community consistent with the ecological site

CONTROL METHOD			
<input type="checkbox"/> Refer to the attached WVU Cooperative Extension Service Information	Field/Stand #	Field/Stand #	Field/Stand #
Landuse	FOREST/ WOODLAND	FOREST/ WOODLAND	FOREST/ WOODLAND
Acres			
Primary Soil Type			
Target specie(s) to be controlled			
Pre-Treatment: Estimated % vegetation / cover makeup is target specie(s)			
Post-treatment: Planned % vegetation / cover makeup is target specie(s)			
Control method ¹			
Herbicide to be used (if applicable) ²			
Herbicide Application Equipment to be Used (if applicable) ³			
Application dates			
Target plant growth stage at application			
Second application - dates for follow-up foliar sprays (if applicable)			
Herbicide to be used			
Third application – dates for follow-up foliar sprays (if applicable)			
Herbicide to be used			
WIN/PST risk assessment attached or included (To be completed by NRCS)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

¹ **Control Method** – List as cutting, cut and treat stump, basal bark spray, hack and squirt, foliar spray or other method (describe in the additional procedures section)

² **Herbicide to be Used** – **NOTE: ALL PESTICIDES (herbicides) MUST BE USED ACCORDING TO THE LABEL**

³ **Herbicide Application Equipment to be Used** – List as backpack sprayer, hand held sprayer or other (describe in the additional procedures section)

List any special mitigation, timing considerations or other factors that must be considered to ensure the safest, most effective herbicide application; or see the attached references.

FOLLOW ALL LABEL AND SAFETY REQUIREMENTS WHEN APPLYING PESTICIDES (HERBICIDES).

To reduce the herbicide environmental risk:

- **Delay application when significant rainfall events are forecast that could produce substantial leaching or runoff. This will reduce the potential for herbicide transport to ground and surface water.**
- **Spot treatment and directed spraying reduces the amount of herbicide applied.**
- **Combine herbicide treatments with mechanical techniques to reduce the application of a herbicide that poses a hazard to an identified natural resource concern.**
- **Use a 30 foot setback when runoff is a concern.**

Additional techniques, procedures or references to be followed:

Brush Management – WV Job Sheet

If needed, an aerial view, map or a sketch of the practice can be shown below. Other relevant information, complementary practices and measures, and additional specifications may be included.

Operation and Maintenance or Additional Specifications or Notes:

Follow the procedures and methods for Operation and Maintenance as outlined in the section of this document entitled "Operation and Maintenance". **Additional:**

Questions regarding the establishment, operation or maintenance of this practice should be directed to:

_____ at _____

The United States Department of Agriculture (USDA) prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs and marital or familial status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication program information (Braille, large print, audiotape, etc.) should contact the USDA Office of Communications (202) 720-2791. To file a complaint of discrimination write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice or TDD). USDA is an equal opportunity provider and employer.