

Brush Management Grapevine Control

Conservation Practice WV Job Sheet

Code 314



DEFINITION

This practice pertains to the management or removal of woody (non-herbaceous or succulent) plants including those that are invasive and noxious.

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.

CONDITION WHERE PRACTICE APPLIES

This practice applies on all lands except active cropland where the removal, reduction, or manipulation of woody (non-herbaceous or succulent) plants is desired.

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

PRACTICE CRITERIA

Treatments for grapevines can be either:

- mechanical; or
- chemical

They may be used alone or in combination with one another. They are sometimes more effective and better maintained if they are used in combination or concurrently.

NRCS cannot develop chemical treatment recommendations. NRCS can provide some types chemical control references if they are necessary, but at a minimum refer to the NRCS pesticide screening information (Win-PST) provided with this jobsheet if chemical application is required.

GRAPEVINE CONTROL

Grapevines are deadened to stop present damage and reduce or prevent future damage to quality hardwood stands. Grapevine control should be applied in hardwood timber stands with a red oak site index of 60 or higher where growing high quality hardwoods is the primary objective. If the overall quality of the main stand is poor, there is little use in performing improvement practice to increase growth.

More than 5% of the trees (on a per acre basis) or 40 stems per acre in the stand should have grapevines to make this practice practical. This practice should not be applied in stands where codominant trees are less than 15 feet tall and a well developed closed canopy is not present. If a closed canopy is not present, herbicide treatment of the cut vines will be required.

Cut all grapevines one to four feet above the ground line that are attached to tree crowns. Also, sever all grapevines in the crowns of trees surrounding the arbor openings. Apply the grapevine cutting control measures during the dormant season (late fall – winter). Ideally there should be a few inches of snow on the ground. Herbicide application is not necessary if crown shading from a well developed closed canopy exists. It is recommended that a timber harvest not be undertaken on sites receiving vine control for at least three to five years following treatment.



WOODLAND PROTECTION

It is important for landowners to recognize threats to the health and productivity of their woodlands. Some of these threats, especially those posed by damaging wind, drought, and other weather conditions, cannot be controlled by landowners. However, landowners can participate in the protection of their woodlands from insect pests, diseases, uncontrolled fire, and livestock grazing.

Uncontrolled Fire

Uncontrolled fires, or wildfires, may cause considerable damage to unprotected woodlands. In West Virginia, rapidly spreading and dangerous crown fires that kill mature trees outright are usually rare. However, ground fires are prevalent, especially in early spring before trees have foliated and in the

fall after leaves have fallen. Ground fires may kill saplings and damage the bark and trunks of mature trees. Scars, or cat-faces, left on tree trunks by even relatively “cool” fires may significantly reduce the value of timber cut from the trees. Fire damage also reduces tree growth rates and makes trees more susceptible to insects, diseases, and drought.

Livestock Grazing

Livestock grazing may be the most damaging and yet most preventable of all threats to woodland health and productivity. Cattle and other livestock may cause serious immediate damage to seedlings, saplings, and ground vegetation; what is not browsed by livestock will be trampled. In just a few years, the understory may be completely absent or replaced by less valuable species, such as ironwood and hawthorn. At the same time, livestock compact forest soils which in turn damages mature trees. Within 10 years, continued grazing causes weakening and mortality of the trees.

In addition, woodlands make very poor pasture; studies have shown that livestock lose weight when grazed in woodlands. Therefore, grazed woodlands result in loss of both livestock and natural resources values.

WILDLIFE

Grapevines provide wildlife food and habitat. Careful consideration should be given to wildlife benefits when developing stand treatment prescriptions. If wildlife is the primary objective, grapevines should be left as they provide a source of soft mast. If grapevines are removed from a stand, existing grape arbors should be left intact since, in most cases, permanent damage has already occurred and removal of all vines is not practical. Consider retention of selected dead and dying trees, including down material, to enhance wildlife habitat values.



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.

**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 as well as, mixing/loading setbacks from wells, intermittent streams and rivers, natural or impounded ponds and lakes, and 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. 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 post-treatment regrowth of target species after sufficient time has passed to monitor the situation and gather reliable data. Length of evaluation periods will depend on the woody species being monitored, proximity of propagules (seeds, branches, and roots) to the site, transport mode of seeds (wind or animals) and methods and materials used.

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.

Periodic inspections during treatment activities are necessary to ensure that objectives are achieved and resource damage is minimized. Follow-up and ongoing management activities will be needed to obtain desired results. Protect trees and shrubs from destructive grazing.

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.

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| | |
|--|---------------------|
| Client: | Farm #: |
| Field(s): | Tract #: |
| Designed By: | Location: |
| WV Registered Professional Forester No. | |
| Date: | Total Acres: |

PRACTICE SPECIFICATIONS - TO RELEASE DESIRED HIGH QUALITY HARDWOOD TREES FROM GRAPEVINES

This forest stand will be managed for quality hardwood sawtimber production. The stand currently consists of _____ species. The average stand diameter is _____ inches at breast height. The main stand trees are approximately _____ feet in height and a well-developed closed canopy is present. Presently, grapevines affect approximately _____ trees per acre or _____ percent of the stand on a per acre basis. The overall quality of the trees in the main stand is _____. The northern red oak site index for this stand is _____. Deadening grapevines will release tree crowns stopping present damage and reducing and/or preventing future damage. Improved crown health should result in increased tree growth rates in treated areas. Cut all grapevines that are attached to tree crowns at a point one to four feet above the ground line. Apply this practice during the dormant season (late fall – winter). Ideal conditions exist when there are a few inches of snow on the ground. Existing grape arbors should be left in tact since, in most cases, permanent damage has already occurred and removal of all vines is not practical. In addition, grape arbors provide wildlife food and cover. A closed canopy will limit sprouting of cut vines - do not harvest timber in the treated area for three to five years following treatment. **If resprouting is a concern, describe the need for herbicide treatment following cutting below.**

ADDITIONAL NOTES:

HERBICIDE USE

Herbicide Treatment Needed: **YES** **NO**

If **Yes**, the following is required:

| | |
|---|--|
| Primary soil type: | Application dates: |
| Estimated % pre-treatment density: | Second application dates (if applicable): |
| Planned % post-treatment target density: | Target plant growth stage at application: |
| Chemical to be Used: | WIN/PST risk assessment attached or included (To be completed by NRCS) |
| Chemical application method 1: | 1 Chemical Application Method – List as backpack sprayer, spray boom, aerial, spot or other (describe in the additional procedures section) |

List 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 herbicide application; or see the attached references. **Follow all label and safety requirements when applying herbicides.**

OPERATION AND MAINTENANCE

Periodic inspections during and after treatment activities are necessary to ensure that purposes are achieved and resource damage is minimized, e.g., assessment of insects, disease and other pests, storm damage, and damage by trespass. The results of inspections shall determine the need for additional treatment under this practice.

This practice is a pre-commercial improvement treatment. A plan for improved harvesting will need to be developed prior to harvesting in this area.

Follow-up and ongoing management activities will be needed to obtain the desired results. Always wear protective gear and clothing when working in the woods. A hard hat should be worn at all times. Inspect the area during treatment to check for damage to the residual stand and following treatment to monitor growth rates and overall health of the stand.



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

Questions regarding the planning, application or maintenance of the Forest Stand Improvement practice should be directed to:

_____ at _____

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