

# Brush Management

## Control of Woody Invasive Species

### Conservation Practice Job Sheet

**Code 314**



#### Purpose

Landowners should use this practice to completely remove or significantly reduce invasive woody shrub species such as bush honeysuckle (*Lonicera spp.*) or Tree-of-Heaven (*Ailanthus altissima*) to improve wildlife habitat and biodiversity.

#### Conditions Where Practice Applies

Methods described in this jobsheet may also be utilized to control bush honeysuckle or other invasive shrub and woody species such as autumn olive, multiflora rose, or Japanese barberry.

This practice may be utilized to facilitate future silvicultural activities and/or restore and enhance wildlife habitat; and should not be utilized for removal of vegetation where a landuse change is desired or for removal of native woody or herbaceous species.

This jobsheet focuses on the removal of invasives in forested settings. However other woody species in other settings may be suitably treated using these general methods.

#### General

Invasive species (including bush honeysuckle) refer to several species of exotic woody species that have become established in KY. These species are usually spread by seed dispersal from wind, birds or other wildlife and are extremely difficult to eradicate without landowner diligence. These species are usually one of the first plants to have leaves in the

spring and retains its leaves longer in the fall which helps it to out-compete native species. Some plants can produce millions of seeds per plant and may even produce chemicals that prohibit the growth of native species around the invasive plant.

In a forested setting, invasives will envelop and smother the native species that wildlife depend on for food and cover. Early intervention is important to success when fighting any invasive species.

Prescribed treatments may be either:

- mechanical,
- biological; or
- chemical

These treatments may be used alone or in combination with one another. In most situations they are more effective if they are used in combination or concurrently with one another. For example, a combination of mechanical and chemical treatment (cut-stump method) is often recommended for stands of bush honeysuckle.

The best control treatments take into account the amount, age and size of the stand. Bush honeysuckle and some other species can sprout vigorously from the stump once it is cut, so any control measure must kill or remove the stump of the plant.



#### Control Methods

##### A. Mechanical Treatment

Mechanical control is an option for clients that do not wish to utilize chemicals for a variety of reasons. However, this option is very labor intensive and time consuming. Mechanical control involves the physical removal of bush honeysuckle plants by hand-pulling small plants; and removing larger plants with weed wrenches or loppers on larger plants (approximately plants up to 8 feet in height. Plants that are larger or denser may require the use of Weed Eater™ (or similar type equipment) with metal blade, forestry mulcher attachment on skid-steer implements, shears/loppers or similar equipment. Follow up treatment will be required to control re-sprouting.

## B. Biologic Control

NRCS cannot develop biological treatment recommendations except for biological control utilizing grazing animals. Since bush honeysuckle occurs mainly in forest settings, grazing is generally not recommended and the treatment effectiveness is questionable. However if utilized, any grazing recommendation should utilize flash grazing and designed to protect the established native vegetation and other resources. Continual treatment will be required to control re-sprouting.

## C. Chemical Control

The most effective way to control bush honeysuckle and most other invasive species is with herbicides that are applied during the growing season. In most instances treatment requires two herbicide applications.

NRCS does not provide specific chemical recommendations. However, they may be provided by the KY Department of Fish and Wildlife Resources (KDFWR) biologists and/or the KY Division of Forestry (KDF) or the UK Cooperative Extension Service. In addition, NRCS pesticide screening information entitled *Windows Pesticide Screening Tool* (Win-PST) may be provided with this jobsheet if chemical application is planned. If provided, this document assesses the environmental risks associated with pesticides. In certain instances additional practices may be planned to mitigate for high risk pesticides.

If chemicals are used, follow all label requirements including mixing/loading setbacks from wells, intermittent streams and rivers, natural or impounded ponds and lakes, and reservoirs, etc.



*Stumps that are not chemically treated, deadened or otherwise removed will re-sprout quickly.*

Select a chemical that will be effective in the first application. Often times, mechanical treatment

must occur concurrently with chemical application in the initial treatment.

Following the initial application, some regrowth, re-sprouting, or reoccurrence of brush is to be expected. Spot treatment of individual plants or a follow-up foliar treatment should be performed while it is small (< 2 ft. in height) and most vulnerable to the treatment procedures.

## OPERATION AND MAINTENANCE

**Safety:** 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.

SAFETY INFORMATION	
<b>National Pesticide Information Center (NPIC) (Non-Emergency)</b>	1-800-858-7384
<b>Chemical Transportation Emergency Center (CHEMTRAC)</b>	1-800-424-9300

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/> or <http://www.cdms.net>.

**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.

Follow-up treatments and continual monitoring are always necessary. The success of this practice is determined by evaluating post-treatment regrowth after sufficient time has passed.

Also refer to:

**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

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Specifications are prepared in accordance with the NRCS Field Office Technical Guide and are listed on the following pages of this job sheet. This information is considered part of the conservation plan. Use additional sheets as necessary.

<b>Client:</b>	<b>Farm #:</b>
<b>Applicable Field(s):</b>	<b>Tract #:</b>
<b>Planned/Designed By:</b>	<b>Date:</b>

#### PURPOSE (check all that apply)

<input type="checkbox"/> <b>Chemical Control</b>	<input type="checkbox"/> <b>Mechanical Control</b>	<input type="checkbox"/> <b>Biologic Control</b> (specify in the <i>Additional Notes</i> )
<input type="checkbox"/> Control of noxious or invasive bush honeysuckle species in woodland settings	<input type="checkbox"/> Control of other woody invasive species Specify: _____	
<input type="checkbox"/> Control of tree-of-heaven in woodland settings	<input type="checkbox"/> Forest management plan developed by certified forestry TSP or KY Division of Forestry	

#### CONTROL – Complete the following table as applicable for control of undesirable woody species.

<input type="checkbox"/> Also see the attached information	CPU/Field # _____	CPU/Field # _____	CPU/Field # _____
<b>Woody Species</b> (to be controlled)			
<b>Acres to be treated</b>			
<b>Primary or Dominant Soil Type</b>			
<b>Landuse</b> (setting)			
<b>Initial Application Date</b>			
<b>Initial Mechanical Control Treatment</b> (equipment)			
<b>Initial Biologic Control Treatment</b> (specify livestock type)			
<b>Initial Chemical Control Treatment</b> <sup>2</sup>			
<b>Follow-up Application Date</b>			
<b>Follow-up Treatment</b> <sup>1 or 2</sup>			
<b>WIN/PST Risk Assessment attached</b> <sup>3</sup>			

<sup>1</sup> **Mechanical Control Method** – Identify the type of equipment as hand-pulling, weed wrenches, loppers, Weed Eater™ w/metal blade, mulcher, shears/loppers or other. If not needed indicate as N/A.

<sup>2</sup> **Initial Chemical Method** – Describe as *backpack sprayer, spray boom, aerial, spot application/spray, foliar spray* or *other* (describe in the additional procedures section)

<sup>3</sup> **WIN/PST Assessment** – Indicate as YES, NO or N/A. Attach a PAIR report for the dominant soil type if applicable.

List any special mitigation, timing considerations or other factors (such as soil texture, organic matter content or mitigating practice) that must be considered to ensure the safest, most effective herbicide application; or see any attached references. **Follow all label and safety requirements when applying pesticides.** Additional:

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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:**

Certifications			
<b>Job Sheet</b>	Prepared by:	Title:	Date:
	Approved by:	Title:	Date:
<b>Installation</b>	<b>Meets NRCS Standards and Specifications</b>		
	Certification by:	Title:	Date:

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