Woody Invasive Brush Management - NRCS Practice Code 314 –

Refer to: http://www.il.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1081640.pdf

Proper brush management is very important and one of the most cost-effective ways to improve wildlife habitat. Stands may become overcrowded or choked by undesirable species such as bush (Amur) honeysuckle and autumn olive. By reducing the competition around mast producing trees and removing low quality species, brush management increases mast food production, improves understory habitat, and improves native species diversity.

It is recommended that the species targeted in the brush management practice be cut and chemically treated, foliar sprayed, girdled, or a combination of these practices. Similarly, smaller trees should be cut down and their stumps treated. The time to do this is when shrubs/trees are actively growing. This process will also release nutrients to the remaining native species.

Exotic Control Recommendations

To create optimum growing conditions for selected crop trees and prepare for the next generation of crop trees, an exotic species control is needed. The exotic control should be carried out in the following manner:

Target Species

Bush (Amur) honeysuckle, Autumn and Russian Olive, Buckthorn, Burning Bush, Osage Orange (Hedge/hedge apple), Locust (Black and Honey), multiflora rose, and others:

Treatment Methods

There are several ways to remove invasive species from your property. These methods may be used in conjunction with each other over time in order to achieve desired results. The treatment types are:

1. Foliar Spraying
2. Cut Stump Method
3. Basal Bark Spraying
4. Girdling
5. Prescribed Burning

Each method has its advantages and disadvantages. One thing is for certain; all practices will require follow up treatments in order to maintain quality conditions. Foliar spraying is one of the cheapest ways to control an infestation, but several treatments need to be applied in succession in order to ensure eradication. Cut stump method will ensure a higher kill percentage but is hard labor in order to do it this way. Basal bark spraying is a cost effective way to eradicate infestations, but with some species it is hard to get near the stem to spray directly on the bark. Girdling is a cost effective ways to remove vegetation, but areas must also be chemically treated and checked for re-sprouting. Prescribed burning will help reduce non fire tolerant species (i.e. many invasive plants) as well. All of these practices used in conjunction with each other can aid a landowner in returning their property to native species.

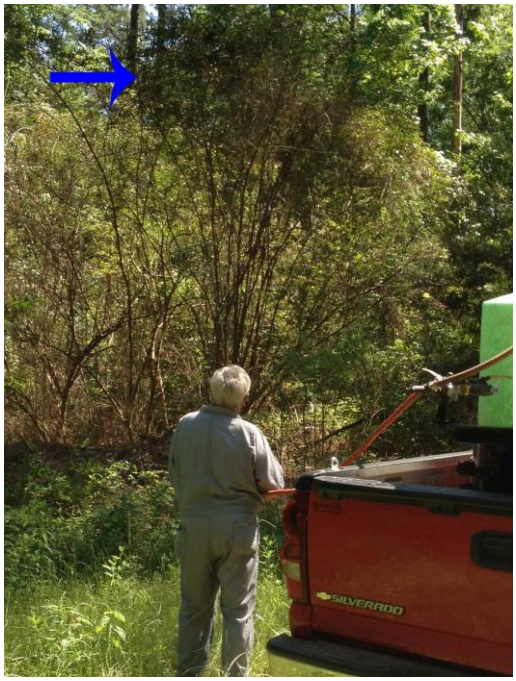
Cut stump method

Foliar Spraying

Above: Week 1 after treatment; Below: Week 5

Above: Week 2 after treatment; Below: Week 5

Ensure complete coverage of target species



Can create wildlife structures with woody debris

Basal Bark Spraying

Girdling

Girdle entire tree and treat chemically

Prescribed Burning

Herbicide selection

Herbicide should be selected based upon the species you are trying to control. We recommend that you contact a local chemical dealer to talk about the alternatives. It is a person's responsibility to read and follow all label directions for a pesticide. Follow all procedures set forth for obtaining and using a chemical applicator's license (if applicable).

It is also important to select a herbicide based on the treatment being conducted on the property. The differing methods may need to have different chemicals in order to manage the plant. Some chemicals can be used for several types of methods. Common chemicals used for each treatment will be shared in the section below. Please consult with a chemical dealer about your management objectives and treatment method before selecting a herbicide.

Conducting Each Treatment

a. **Cut Stump Method –** The cut stump method is conducted by sawing the plant off at the base of the stem and chemically treating the stump with a herbicide. Stems can be cut using a chainsaw, axe, pole saw, or other hand tools. The stumps must be chemically treated within 20 minutes of cutting. Stumps will form a protective covering after that time which will often inhibit chemical from being absorbed by the plant. Common chemicals applied to the stumps are triclopyr (Garlon). There are generic versions of these chemicals as well. Glyphosate (Roundup) can be used for stump treatment. Use a 20% concentration of Roundup on the cut stump to achieve control. Exotics often outcompete native species and WILL inhibit regeneration of desirable species if left untreated. Follow label directions for every chemical used in management.

b. **Foliar Treatment –** Foliar treatments are conducted by spraying the entire surface area of the plant to defoliate it. This treatment should be conducted prior to the flowering of the species each year to prevent additional seed crop from that species. Foliar treatments need to be conducted several years in succession in order to achieve control. Methods used for foliar spraying include hand-pump spraying, back-spraying, or mechanical spraying (ATV sprayer, boom sprayer). This method tends to be less labor intensive than other methods, but more follow up treatments are necessary to achieve control. Chemical often used in foliar spraying include Roundup (Glyphosate) and Garlon 3A (Triclopyr). Other chemicals may be used. Please contact your local chemical dealer about other chemicals. Follow all label directions for the chemicals selected.

c. **Basal Bark Treatment –** Basal bark treatments are conducted by spraying a chemical directly onto the stem of the plant. Often these treatments will require something to be mixed with the chemical to help ensure uptake into the target species. Often basal oil is added. Garlon 4 with basal oil is often used to conduct these treatments. These treatments do not require high pressure sprayers. Avoid high spray pressures to prevent over splash and drift to nearby desirable plants. Please consult with your local chemical dealer to select the appropriate herbicide. Follow all label directions and uses.

d. **Girdling**– Girdling is a way to treat woody species that may be too large to fell safely. Both methods produce wounds in the target species that are then treated with chemical. Girdling is done by taking a chainsaw and cutting a 1 ½" circle all the way around the tree. The wounds are then treated with a herbicide. Generally Garlon, or Round up (all brand names) are used in treating these wounds. Please consult with your local chemical dealer to select the appropriate herbicide. Follow all label directions and uses.

e. **Prescribed Burning –** Prescribed burning is a useful tool in aiding in the reduction of invasive species. Most species are not fire tolerant like many native species are. Prescribed fires are conducted by establishing firebreaks around a pre-determined burn unit and then conducting a burn on the area. It is the landowner's sole responsibility to prepare their property for a prescribed burn. Please see more information on prescribed burning on the prescribed burning and firebreak establishment section.

Maintenance is considered a long term mission. Removing invasive species is important to ensuring the quality of your land well into the future. These treatments will need to be applied several times over the coming years to ensure control of invasive species. After the initial knockback is completed, management should continue in order to ensure another infestation does not take place. Most small invasives can be pulled by hand or easily sprayed.

Other Useful information is available at:

http://extension.missouri.edu/p/g9414
http://wwx.inhs.illinois.edu/research/vmg
http://ipm.illinois.edu/pubs/iapmh/08chapter.pdf
http://web.extension.illinois.edu/forestry/home.html
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