

Non - Woody Invasive Brush Management - NRCS Practice Code 315 –

Refer to:

<http://efotg.sc.egov.usda.gov/references/public/CO/CO315.pdf>



Proper herbaceous plant management is very important and one of the most cost-effective ways to improve wildlife habitat and land condition. Stands of timber or prairies/pollinator plantings may become overcrowded or choked by invasive species. By reducing the competition around desired species of trees, grasses, and forbs and removing low quality species, herbaceous plant management improves wildlife habitat and native species diversity.

It is recommended that the species targeted in the herbaceous management practice be chemically treated, hand pulled, disked, mowed, burnt, or a combination of these practices. Implementing a prescribed fire regime may reduce invasive species and increase the vigor of fire-adapted natives. The time to complete management is when the target species are actively growing but care must always be taken to mitigate off-target damage.

Exotic Control Recommendations

To create optimum growing conditions for the managed property, invasive exotic species control is needed. The exotic control should be carried out in the following manner: Identify the target specie(s), break the stand into manageable subunits, select your control method based on your target and current land condition, implement the control method, assess the outcome and make necessary adjustments before repeating. Invasive herbaceous plant control is rarely a onetime treatment and oftentimes the desired outcome only comes after follow-up and the utilization of multiple control measures.

Target Species

Phragmites (non-native), Japanese Stiltgrass, Johnsongrass, Reed Canarygrass, Smooth Brome, Orchard Grass, Fescue, Black Swallow-wort, Chinese Yam, Japanese Hops, Kudzu, Garlic Mustard, Purple Loosestrife, Dame's Rocket, Leafy Spurge, Musk Thistle, Canada Thistle, Bull Thistle, Sericea Lespedeza, Creeping Jenny, Lesser Celandine Crown Vetch, Japanese Knotweed, Teasel, Japanese Chaff Flower 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. Hand Pulling
2. Foliar Spraying
3. Cut & Spray Method
4. Prescribed burning/Native Grass Conversion
5. Mowing/Disking

Each method has advantages and disadvantages, and they will not all be applicable in your scenario. Each practice will require follow up treatments in order to maintain quality conditions. Hand pulling can be very labor intensive but requires no equipment and can be completed by anyone capable of identifying the target plant. Foliar Spraying can be one of the most affordable ways to control an infestation, but several treatments need to be applied in succession in order to ensure eradication. Cut spray methods are very time consuming but oftentimes achieve better control on some species. Prescribed burning and conversion 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.

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 an 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 multiple 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 and using herbicide.

Conducting Each Treatment

- a. **Hand Pulling** – Hand pulling of non-native invasive species is completed by removing the entire target plant and oftentimes disposing of it offsite. It is important to remove all or as much of the root system as possible and this practice is easiest when the soil is moist. Always try to time pulling before seeds drop. Hand pulling will require follow up treatment as the seed bed likely carries multiple years of seeds from the target plant. Hand pulling is most effective on new infestations of non-woody invasive species.
- 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. **Cut Spray Method** – The cut spray method is conducted by cutting the seed head off at the base of the bulb and chemically treating the cut with herbicide. Stems can be cut using a knife, axe, clippers, or other hand tools. Exotics often out compete native species and will inhibit regeneration of desirable species if left untreated. Follow label directions for every chemical used in management. Talk to a chemical dealer about different chemicals that would be available to target certain species
- d. **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. Always consult professional help and expect to have to follow up burning with herbicide when vegetation re-flushes.
- e. **Mowing/Disking** – Mowing and disking of non-woody, non-native invasive species is most often completed on dense populations or before large scale native re-establishment efforts in prairie/pollinator plantings. This method is generally followed with herbicidal treatment and may need to occur multiple time during a growing season. Timing a cutting after plants flower but before they produce seed is generally the best approach to this practice.

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 course of your plan to effectively control the invasive species present. After the initial knockback is completed, management must continue in order to ensure another infestation does not take place.

<http://www.invasive.org/species/list.cfm?id=152>

<http://www.dnr.illinois.gov/conservation/InvasiveSpecies/Pages/default.aspx>

<http://www.inhs.illinois.edu/programs/invasive>