Proper herbaceous 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 garlic mustard and teasel. By reducing the competition around mast producing trees/grasses/forbs and removing low quality species, herbaceous management increases mast food production, improves wildlife habitat, and improves native species diversity.

It is recommended that the species targeted in the herbaceous management practice be chemically treated (foliar sprayed), cut and treated, or a combination of these practices. The time to do this is when the targets are actively growing. Follow all label directions. This process will also release nutrients to the remaining native species.

**Exotic Control Recommendations**

To create optimum growing conditions for the next generation of trees/prairie, an exotic species control is needed. The exotic control should be carried out in the following manner: Cool season grasses such as fescue and brome make good cattle feed, but have little value for wildlife. The dense mats with little ground exposure as well as out-competing other native species leaves areas of little wildlife value. In order to convert these areas back to native species, herbicide must be applied to the specified areas. Several treatments may need to be applied in order to get a complete kill of the target species.

**Target Species**

Garlic mustard, teasel, phragmites (non-native), Sweet clover, crown vetch, Canada thistle, purple loosestrife, brome, fescue, sericea lespedeza Johnson grass, Reed canary grass, Japanese stilt grass, orchard grass, 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 Spray Method
3. Prescribed burning/Native Grass Conversion
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. This treatment is generally used for herbaceous management. Cut spray methods are very time consuming but can 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.

**Foliar Spraying**

- Spot spraying is most effective in most instances
- Multiple Treatments May be needed
Native Conversion

2nd treatment conducted in spring after green up

Prescribed Burning

Spray in fall and burn late winter/early spring

Plant into it after the 2nd treatment
**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. **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 (Triclopier). Other chemicals may be used. Please contact your local chemical dealer about other chemicals. Follow all label directions for the chemicals selected.

b. **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 a 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.

c. **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 invasive species can be pulled by hand or easily sprayed.

Other Useful information is available at:

http://web.extension.illinois.edu/cfiv/downloads/26622.pdf
http://www.rtrcwma.org/SILinvasiveplants.pdf
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
https://dnr.state.il.us/Stewardship/cd/srs/control.html