USDA NRCS
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Natural Resources Conservation Service

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# Brush Management (314) for Controlling Invasive Plants

**Practice Life Span is 10 Years-** meaning only 1 payment for brush management can be made for the land-unit every 10 years. Planners are encouraged to work with landowners and applicators to negotiate 2 sprays in difficult sites before payments are made.

**Purpose of this document:** Is to help land managers make decisions about the most effective ways to control woody invasive plants by considering cost, sensitive environmental conditions and regulations.

### Best Management Practices

- ✓ Encourage slower growing native plants by selectively cutting and/or spraying invasive plants
- ✓ Minimize overstory removal especially in richer soil types near invaded areas
- ✓ Prioritize control for species which are well adapted to the landscape and current site conditions
- ✓ Focus on plants which are in full sun and developing large amounts of seed

**Foliar Application:** applying herbicide directly to the leaves of the plant during the growing season with a backpack sprayer or truck mounted sprayer.

*Above: A backpack sprayer( foliar application)*

*Foliar Application Advantages:*

Cost effective for hedgerows, old fields, and in the forest understory
Herbicides can be applied at lower concentrations than with basal bark or cut stem.

Foliar sprayers can be mounted onto ATVs which can transport larger amounts of herbicide around large fields and can spray much further than typical backpack sprayers. Works well for infested areas.

*Foliar Application Disadvantages:*

Can only be done in the growing season- at least two weeks before a killing frost

Difficult to spray only the invasive plants in dense hedge rows and thickets

Dangerous and difficult to spray overhead in tall thickets

**Cut Stem Application:** cutting woody invasive plants typically > 1 inch in diameter with a chainsaw and immediately applying herbicide to the freshly cut stump.

*Cut Stem Advantages (Difficult-Chemical):*

Eliminates drift to other native plants

Can be done in the winter (dry, non-snow conditions)

For use in thickets where working with a backpack sprayer is not feasible

When most of the foliage is well above head height and spraying vertically with a backpack sprayer is dangerous

Works well for vines such as bittersweet

*Cut Stem Disadvantages (Difficult-Chemical):*

Herbicides need to be mixed at stronger concentrations

Often more expensive than foliar application

Very labor intensive

Cut brush can be difficult to work around and/or dispose of

***Rotary Mowing (light mechanical)*:** Is control method primarily used for old fields with a brush mower for stems less than 2 inches in diameter. The best time to mow is early-August, during droughty conditions, before above ground energy stores are reallocated to the root systems and after nesting birds have fledged.

Rotary mowing every-other-year, will control invasive plants by not allowing them to go to seed and stress the plant but typically not kill them. Be sure to power wash all equipment before mowing other fields.

*Above: A tractor mowing an old field( light mechanical).*

**Brush Saw/Chainsaw *(Medium mechanical)*:** For cutting mature invasive plants in remote locations and on inoperable ground. This scenario is also used in conjunction with herbicide for cut stem applications. Cutting forest understory invasive plants only is not a feasible control.

## Mowing Invasive Plants

*Above (medium mechanical)*

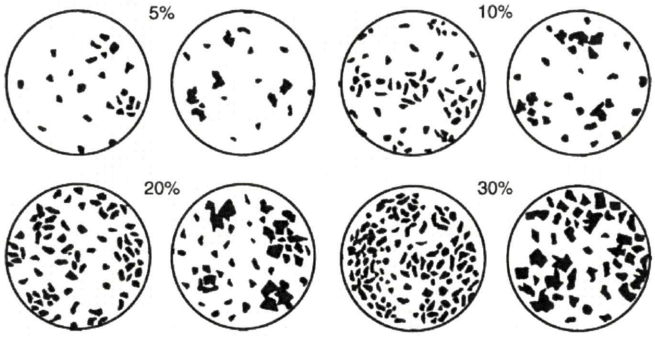
Several declining species rely on shrublands and thickets. Where possible leave islands of native plants and apply herbicide to the re-growth of invasive plants only the following year.

Two scenarios are available for mowing infested areas of invasive plants.

***Average site mowing*** (*Medium-Mechanical*) assumes a piece of equipment which can cut invasive plants > 3 -6" in diameter at 2- 3 acres per day.

***Difficult site mowing*** (*Heavy Mechanical*) is for steep ground with difficult access where plants are > 3 -6" in diameter at 1 acre per day.

## Estimating Cover of Invasive Plants




***Moderate Chemical treatment-*** areas with invasive plants estimated < 20%

***Difficult Chemical treatment*** areas with invasive plants estimated >20%

**General NH Laws for Invasive Plants:**

- All herbicide applications in aquatic habitat need a NH Special Permit
- All applications near public drinking water supplies, surface waters or wells needs a special permit.
- All herbicide applications are set back from wetlands and surface waters 50 feet without a special permit
- All herbicide within the designated shoreland needs a permit.
- All cut invasive plant material should be burned or disposed of on site. Permits are required for transporting invasive plants.
- Applications in the right of way need a permit.

**For Permits & State Regulations Information:**
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