

# SALT CEDAR MANAGEMENT:

## An IPM Guide for Montana

The following was developed by Montana’s managers in conjunction with the efforts of the Woody Invasives Working Group. These best practices should be utilized to achieve your management goals of suppression, containment, or eradication. Decontamination of equipment should be incorporated to ensure saltcedar is not moved between project sites.



Best Management Practices*	WINTER			SPRING			SUMMER			FALL		
	December	January	February	March	April	May	June	July	August	September	October	November
<b>Seasonal Identification Characteristics</b>	Reddish-pink bark. Leaf scales resemble asparagus.						Feathery, pale green foliage. Flowering pink periodically.			Leaves remain after first frost.		
<b>Manual</b> Suppression only, unless paired with other practices. Effectiveness may vary.	Hand pulling is very effective on first year saplings with removal of full root crown. Most easily conducted in spring with moist soils. Works well when utilizing volunteer help. Mechanical mastication alone is ineffective for control, but useful for clearing high-use areas.											
<b>Herbicide**</b> Effective for containment and eradication objectives with few non-target impacts.	Applications are effective in mild winter conditions.			Foliar applications (plants < 6' tall) must occur in the active growing season.						Lopping/cutting when treated allows for easier follow-up monitoring.		
<b>Cultural</b> Suppression only, unless paired with other practices. Effectiveness may vary.	Use of prescribed fire may be suitable for opening access to dense stands. Could produce intense fire. Goats may graze resprouts; useful in limited access areas. Follow-up grazing in fall. Utilize high-intensity/short-duration.											

\*The northern tamarisk beetle is not currently available for widespread field release, but has been found effective at defoliation of Montana’s hybrid saltcedar.

\*\*See next page for herbicide recommendations and considerations.

## FOLLOW-UP MANAGEMENT ACTIONS ARE CRITICAL FOR SUCCESS!

### Continue monitoring the project site for at least 5 years.

- Monitoring may occur year-round.
- Utilize mapping and/or flagging tools to document progress.
- Remove or treat weeds that emerge from the seed bank to allow native species to thrive.
- Document any re-treatment efforts.

### Consider the following post-treatment site clean-up:

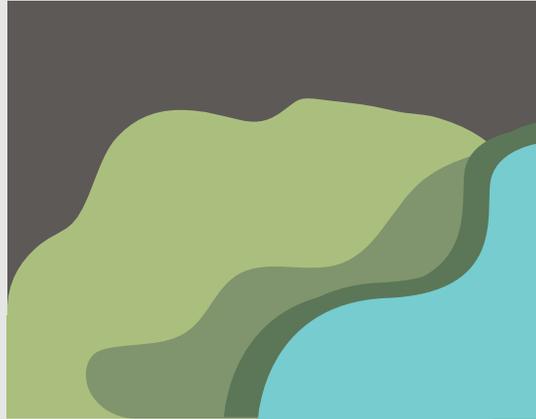
- In areas of low density with plants that don’t bear seeds, lop branches and scatter them at the site. If located on an incised stream, scatter branches outside the streambed.
- In areas of high density, make tall, condensed slash piles and burn after 1 year of drying. Equipment is helpful to make piles, push material in while burning, and to spread ash after burning takes place.

## EMPLOYING INTEGRATED PEST MANAGEMENT (IPM):

Utilizing IPM maximizes effectiveness by employing multiple management strategies at a given site. A project site is likely to dictate which management strategies are most appropriate. The possibilities are vast; below is an example:

### INCISED RIPARIAN AREA:

- Public Land
- Young saltcedar from previous flood event
- Established saltcedar within bank
- Saltcedar seedlings from run-off
- River



- Treat young plants with a foliar application in the active growing season.
- Digging to each rootball, use injection application on established saltcedar. Lop stems and toss them outside the incised riverbed.
- Return in the fall to manually or mechanically remove within the foliar treatment area.
- Optional based on land use: Pile materials for burning with equipment, producing tall, dense slash piles. Burn piles in the winter.
- Monitor annually.
- Re-treat as necessary.

## HERBICIDE RECOMMENDATIONS:

Application Type	Herbicide	Application Considerations
Basal Bark	Triclopyr	Basal bark is effective for treating all size classes.
Cut-Stump	Aminopyralid Imazapyr Triclopyr	In low density areas, use loppers and a hand sprayer to apply herbicide. In areas of very high density, cut-stump is not plausible without significant labor and cost investment.
Foliar	Aminopyralid Triclopyr 2,4-D	In higher density areas, consider foliar treatment in active growing season followed by mechanical removal in the fall or winter.
Injection/Hatchet/Girdling	Glyphosate Imazapyr	Consider in low density areas where flooding occurs (top growth is short and stems are buried in sediment) or where stems have enough girth to allow for injection or girdling.

- All proper licenses and permits must be obtained.
- Read labels carefully - the label is the law! For specific guidance on application rates, use/need of surfactants, etc., consult the manufacturer's label and/or a local technical professional (e.g., Extension agent, county weed coordinator, MDA staff).
- Aquatic formulations of herbicide and surfactants must be used near water.

### HAVE QUESTIONS?

For additional information, consult the Statewide Management Plan or for additional technical support, contact:

- Your Local Weed District
- Your Local Extension Office
- MT Dept of Agriculture:  
(406) 444-3144 or  
agrweeds@mt.gov