COMMON BUCKTHORN 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 and boots should be incorporated to ensure common buckthorn is not moved between project sites.



Best Management Practices*	WINTER December January February	SPRING March April May	SUMMER June July August	FALL September October November
Seasonal Identification Characteristics		Gently scraping the bark reveal In comparison to native lookalil	s a bright yellow cambium. Seedlings emerge in April. se species, it leafs out earlier and keep	s leaves on longer (after first frost).
Manual May suppress, contain, or eradicate depending on density. Utilize flagging to distinguish between lookalike species.		Hand pulling is easiest in spring with moist soils.	Manual or mechanical removal is with spot treatments. Consider be	effective when followed efore plants go to seed. Identification may be easiest for volunteers in fall.
Herbicide** Effective for containment and eradication objectives.	Avoid cut-stump applications in negative temperatures.	Foliar	applications (plants < 6' tall) must ur in the active growing season.	Cut-stump applications are highly effective and easy to identify in fall.
Cultural Suppression only, unless paired with other practices	Use of pre	escribed fire is best suited for youn Goats may graze young plants. Good for limited access areas.	g plants in open areas. Repeat once e	very 3 years. Best practice: Follow-up grazing in fall.

*An effective, targeted biological control agent is not available for common buckthorn management efforts.

**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, but ID is easiest in the fall.
- Utilize mapping and/or flagging to mark treatment sites.
- Document re-treatment efforts.
- Pull or treat weeds that emerge from the seed bank to allow native species to thrive.

Consider the following post-treatment site clean-up:

- In areas of low density with plants that don't bear fruit/seeds, lop branches and scatter them at the site.
- If masticating, leave material to stifle regrowth (i.e., "Cover It Up!").
- In public areas, consider hauling materials off-site for destruction.
- In areas of high density, make slash piles and burn after 1 year of drying.

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:

HEAVILY-RECREATED SUBURBAN PARK:

- Large, older common buckthorn that are difficult to access
- Dense growth of young common buckthorn



- Contract mastication for the dense growth area prior to plants going to seed, allowing for access to patch of older common buckthorn. Flag native species within patch for avoidance.
- Leave masticated materials to "Cover It Up!"
- Utilize cut-stump treatments with foam-tipped daubers and dye on older common buckthorn in fall.
- Pile materials for burning (burn the following winter).
- Monitor annually. Manually remove seedlings.
- Re-treat as necessary: Stumps in fall with basal bark application. Spot treat masticated area with foliar application in growing season.

Application Type	Herbicide			
Basal Bark	Triclopyr			
Cut-Stump	Aminopyralid Imazapyr Triclopyr			
Foliar	Triclopyr			
Injection/Girdling	Glyphosate Imazapyr			

- All proper licenses and permits must be obtained.
- Read labels carefully the label is the law! For specific guidance on ratios, 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?

- Your Local Extension Office
- MT Dept of Agriculture:
 - (406) 444-3144 or agrweeds@mt.gov
- For additional information, consult the Statewide Management Plan or contact:
 - Your Local Weed District

HERBICIDE RECOMMENDATIONS: