



## INVASIVE KNOTWEED BEST MANAGEMENT PRACTICES

Using Integrated Pest Management or IPM; a combination of control methods, will yield better results than using any single treatment method. Methods chosen may be tailored to the specific infestation site and circumstances.

Control Method	Not Recommended	Professional Use	Volunteer Use	Season For Use	Disposal	Notes
Monitoring		1	<b>√</b>	Spring, summer and fall	n.a.	Plants should be checked after warm weather begins.  Sprouts look like asparagus when emerging in spring and may grow up to one foot or more, per week.  Timing will vary depending upon weather conditions.
Mowing		<b>~</b>	<b>√</b>	Mow stalks when they reach 3 feet high throughout the growing season.	n.a.	Consistent repeated mowing may reduce energy storage in roots and rhizomes. Cutting alone will not eradicate invasive knotweeds. Do not mow near water, as small pieces may float to new areas of shoreline and take root.  Small pieces may also root in moist areas.
Grazing		<b>✓</b>	<b>√</b>	Early spring - emerging shoots.	n.a.	Animals will eat new spring shoots, but do not eat older fibrous stems. May vary with site and choice of grazing species. Protection of native plants and/or trees should be considered.
Solarization/ Mulching		<b>\</b>	✓	Install in early spring	n.a.	Weighted, heavy roofing paper stands up to emerging shoots and weather better than plastic. Area may need to be mowed first to prevent holes. Extend paper beyond edge of patch and monitor up to 65 feet in every direction from edges throughout the season.
Pulling/ Digging	<b>√</b>			n.a.	n.a.	Roots grow 6 feet deep and rhizomes extend up to 65 feet laterally. Pulling and digging of all but new, small patches will result in new sprouts forming from pieces left behind.
Cutting		1	<b>√</b>	Continuous when shoots reach 3 feet high, or once in	<sup>1</sup> Cut stalks may be brought to Ramsey County Compost sites. Home composting	Consistent repeated cutting may reduce energy storage in roots and rhizomes. Cutting alone will not eradicate invasive knotweeds.

			late summer if following with late fall herbicide treatment.	does not get hot enough to prevent sprouting.	
Prescribed burning	✓		Early spring/fall	n.a.	Burning permits required. Seedlings are most susceptible to fire.
Weed Torching	✓	This option needs to be carefully considered by the landowner/ agency	Early spring/ fall	n.a.	Seedlings are susceptible to fire. Precautions must be taken to prevent leaf litter and brush fires (at least two people are required; one with weed torch and one with backpack sprayer to put out resulting flames. Best done on a wet or rainy day.
Herbicide application	✓	See above; volunteers with Pesticide Applicator's Certification recommended.	Foliar and cut and treat methods: late fall, before a killing frost. Stem injection: summerfall.	See above.	Foliar treatments: late fall, before a killing frost. Most effective if plants are cut low 6 weeks prior and 2% glyphosate applied to shorter resprouts. Cut and treat (like buckthorn): late fall with 25-28% glyphosate. Stem injection: a labor intensive approved method- works well but uses a large volume of herbicide per stem. Hazards to the environment unknown.  Glyphosate products appear to work better than Triclopyr. Other active ingredients effective; but use water formulations near water and in permeable soils. Avoid those that persist in soil to allow revegetation. Use pesticides wisely. Always read the product label carefully. Follow all mixing and application instructions and wear all recommended protective gear and clothing. Contact your state department of agriculture for any pesticide use requirements, restrictions or recommendations. Certified and licensed pesticide applicators certification may be required to apply some chemicals. For up to date herbicide options and information, see <a href="https://mipncontroldatabase.wisc.edu/">https://mipncontroldatabase.wisc.edu/</a> . Enter the plant name; choose Novice if you are Not a licensed applicator.
Biocontrol organisms	✓				Biocontrol beetle have been released in Great Britain with no negative results. Beetles are awaiting approval in the U.S. CWMA Partners will be notified if and when organisms become available for release.

<sup>&</sup>lt;sup>1</sup> Note that landfilling yard waste is illegal in Minnesota. Knotweed may be dried in the sun, turning the pile often. When all parts are brown, light and dry, it is safe to compost or leave on site. When finding instructions to bag and dispose of weeds in the trash, please note the source of the advice. Regulations vary state to state.

For more information, contact Carole Gernes, Ramsey Conservation District: <a href="mailto:carole.gernes@rwmwd.org">carole.gernes@rwmwd.org</a>, (651) 792-7977, Mondays and Wednesdays