

Knockout Knotweed

Japanese Knotweed is a fast growing perennial that now covers miles of riverbank on all of Vermont's major rivers.

Japanese Knotweed:

- Creates an aggressive monoculture on exposed soil
- Can regenerate from only a bit of vegetation
- Spreads easily downstream due to erosion and high-water events
- Has shallow trailing rhizome system that allows for accelerated spread and vulnerability to erosion
- Out-competes native vegetation, often suffocating local populations

The Knockout Knotweed project aims to:

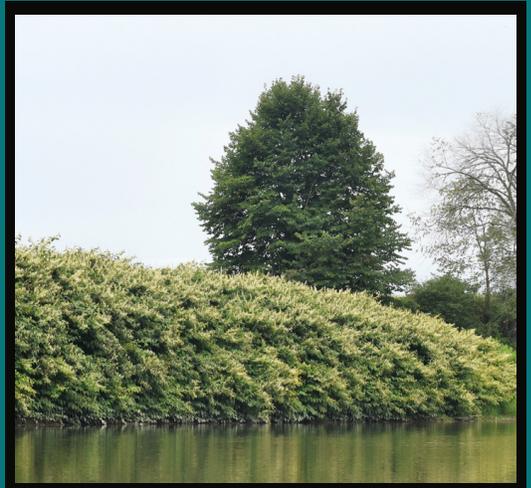
- Engage our watershed community to learn about prevention and eradication methods
- Research the most effective, non-chemical, and cost effective method of spread prevention and eradication

Spread prevention can be achieved through restoration of native species (including trees) to create areas of shade, by reducing streambank erosion through stabilization, and by increasing recognition/understanding of this invasive species.

During our Knockout Knotweed experiment, we assessed the effectiveness of manual control (cutting weekly and cutting monthly), wire mesh, and smothering the plant (with cardboard and mulch, and with heavy pond liner).

Our overarching conclusion from this year-one effort is that all knotweed control efforts - even chemical - are multi-year efforts. It is a pervasive and tough plant.

This handout covers some of our initial findings and is intended to provide practical information to landowners interested in removing knotweed and preventing the spread on their property.



CUTTING METHODS

Weekly



The Cutting Weekly Method: visit the plot weekly, and cut any shoots that are emerging through the soil. This method was successful at managing knotweed growth, but labor-intensive, and seems to show similar results to the less-intensive monthly cutting plots.

This method is recommended for smaller plots

Monthly



The Cutting Monthly Method: visit the plot once a month to cut any growth in the plots. Overall, we found this method to be as successful as the weekly cutting, and far less labor-intensive.

This method is recommended for smaller plots

Woodchips and Cardboard



Smothered with Woodchips Method: layer four inches of wood chips on top of cardboard; testing whether compostable materials can smother knotweed growth. Unfortunately, shoots rapidly found their way through these materials. While it slows down growth, this method will not stop it long-term.

Pond Liner



Pond Liner Method: cover knotweed plot with a thick rubber pond liner. No shoots emerged through the pond liner for the entire season. Growth from underneath the pond liner may still be possible.

This method appears to be our most successful during this initial year; research will continue.

Metal Mesh Method



Metal Mesh Method: young shoots grow up through the mesh and become girdled as their diameter increases. This causes the plant to send up new shoots, depleting the resources of the rhizome. We have seen girdled rhizomes continue to grow, though the method does reduce vitality of the plant; research will continue.

Want to learn more about our Knockout Knotweed project?

Contact us at lindsey@mrbavt.com or visit our website!

www.mrbavt.com/knockout-knotweed

