

Options for Treating Japanese/Giant Knotweed with Herbicides

THIS DOCUMENT IS INTENDED AS AN AID TO CHOOSING CONTROL STRATEGIES FOR THE INVASIVE KNOTWEEDS. SINCE IT IS GENERALLY RECOGNIZED THAT EFFECTIVE CONTROL OF KNOTWEED REQUIRES THE USE OF HERBICIDES, THIS DOCUMENT FOCUSES ON THESE METHODS.

BE AWARE THAT **THE LABEL IS THE LAW!** THESE INSTRUCTIONS DO NOT REPLACE THE NEED TO READ AND FOLLOW THE LABEL OF THE HERBICIDE PRODUCT YOU ARE USING. **IT IS ILLEGAL TO USE AN HERBICIDE IN A MANNER NOT SPECIFICALLY PERMITTED ON THE LABEL!**

THE INSTRUCTIONS FOR THE INITIAL TREATMENT OF KNOTWEED GIVEN BELOW ASSUME THAT YOU ARE USING A CONCENTRATED FORMULATION OF GLYPHOSATE. THAT IS, A FORMULATION WITH THE ACTIVE INGREDIENT OF GLYPHOSATE BETWEEN 40 AND 55%.

FOR THE FOLLOW-UP FOLIAR TREATMENTS PRESCRIBED, YOU MAY EITHER MIX THIS PRODUCT TO A 2% SOLUTION OR USE AN OVER-THE -COUNTER DILUTED MIXTURE OF GLYPHOSATE, SUCH AS FOUND IN STANDARD "ROUND-UP".

General Considerations:

- Cut-stump and Injection treatments of knotweed are most effective when performed in the *late summer or early fall*.
- Foliar treatments using Glyphosate are effective against small/deformed regrowth in following years, and should be applied according to label instructions, as soon as growth is observed.
- If treating near a building or where aesthetics are important (curb appeal) the cut stump method may be the best option. With the injection and foliar applications, stalks need to stay in place until they are dead and dry, which is not only an eyesore in landscaping, but can also pose a fire hazard when near buildings.
- **If you will be spraying over or near open water, the law states that you must use an aquatic formulation of glyphosate.** You will likely also need a permit from the DEQ. If you are in one of the counties of NCCISMA you may be able include your treatment on our County-wide permits. Please ask your local CD about this before initiating treatment.
- NCCISMA recommends that you mix herbicides and clean herbiciding equipment at the site of the infestation you are treating. You should not fill the sprayers directly from your hoses or spigots, nor should rinse water ever be disposed of down the drain, or anywhere that contains plants you are not targeting for control. Jugs of clean mix water should be carried to the site where you will be treating and the solution should be mixed as near to or on top of the site you intend to treat. Rinse water should be disposed of on top of area just treated. This lessens the risk of affecting plants that you did not intend to kill and keeps the herbicide out of the water system of your home.

Injection Method

pros = does not impact surrounding vegetation and do not have to worry about spreading the plant during disposal as stems are left in place until dead & dried

cons = labor intensive, each stem needs to be treated

Steps

1. To prepare the injection tool for usage insert needle with the hole pointing down into end of tool by pulling back on the coupler then letting go.
2. For the injection method of controlling knotweed you do not need to mix/dilute your herbicide. Purchase a concentrated formulation of glyphosate (40 - 55%) and carefully pour the approximate amount you need into the canister on the tool.
3. Inject each stem with the needle between the 1st and 2nd node above ground level and squeeze the trigger. The tool will automatically inject the correct amount of herbicide into each stem.
4. It is recommended that you start near the center of the infestation and work your way outward.
5. Leave stalks in place until they are completely dead and dry. Then you can remove them and dispose of them as you would other yard waste. NOTE: If the plants are not completely dead and dry, **any part of them that touches the ground may root and grow into a new plant - this is why you must leave them in place until they are completely dead and dry.**

6. Rinse the tool canister and lid three times with water, then fill with water and spray residue until tool is drained of water. Dispose of all rinse water directly on top of the area you just treated.
7. Follow up foliar treatments with a 2% glyphosate solution will be required for several years following this initial treatment. These are best done in the spring or early summer.

Cut Stump Method:

pros = minimal impact to surrounding vegetation and uses 80% less herbicide than injection method

cons = labor intensive, difficult to remove and dispose of cut stalks in a way that avoids spreading the infestation

Steps:

1. It is recommended that you use a sprayer with an adjustable spray nozzle for cut-stump herbicide treatments of knotweed. Using water in the sprayer, before filling with herbicide, test and adjust your spray pattern so that it will provide a tight/directed spray into, and not outside of, the cut stems.
2. Using a concentrated formulation of glyphosate (40-55%) and mix at a rate of 20% chemical to 80% water. It is recommended that you include herbicide dye in your mixture to keep track of which stalks have been treated.
3. Working from the center of the infestation outward. Cut 10-12 stems at a time with garden shears or saw. Stalks should be cut to approximately knee height.
4. You need to work fast at this point. Once the stalks are cut you have 5 minutes to fill each of the cut stems with the herbicide mixture. Spray directly into the top revealed chamber and spray to fill chamber.
5. Cut stalks need to be either double bagged in heavy duty garbage bags and disposed of in a landfill or dried completely before disposal. You may dry the stalks on wood pallets that allow air flow around them, or on a tarp with periodic turning of the cut stalks. Once the stalks are completely dead and dry, you can dispose of them as you would any other yard waste. NOTE: If the plants are not completely dead and dry, any part of them that touches the ground may root and grow into a new plant.
6. Triple rinse all spray equipment. After rinsing, add water to sprayer and spray until stream is clear of dye or approximately 3 minutes. Dispose of all rinse water directly on top of the area you just treated.
7. Follow up foliar treatments with a 2% glyphosate solution will be required for several years following this initial treatment. These are best done in the spring or early summer.

Foliar Spray:

pros = time needed to treat the infestation is greatly reduced - may be only reasonable means to address very large infestations

cons = required chemicals are higher priced and more difficult to find for sale retail, requires the use of chemicals and application technique that have a higher risk of causing collateral damage to off target species and a greater risk of exposure to the applicator.

While there are a couple of herbicide chemicals known to provide control of Japanese/giant knotweed when administered as a foliar treatment without first performing an injection or cut-stump treatment, due to the risks associated with these chemicals, NCCISMA recommends that these only be applied by a Certified Pesticide Applicator. Contact NCCISMA for a list of Licensed herbicide application contractors that work in our area. If you are a Certified Applicator and would like further information on foliar treatments as initial control for Japanese knotweed please contact NCCISMA at vicki.sawicki@macd.org.

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