

# **MANAGING KNOTWEED ON PRIVATE LAND**

## **SUMMARY OF MANAGEMENT PRACTICES**

1. Ensure that everyone who works on the property is aware of the risk of knotweed spread.
2. Conduct periodic surveys of the property to detect new knotweed patches and monitor existing patches.
3. Treat all knotweed found. Unless prohibited, knotweeds should be treated with herbicides as other treatment methods will not effectively or efficiently kill knotweed.
4. Review and adjust this plan and treatments as needed.

## **EQUIPMENT FOR PESTICIDE APPLICATIONS**

- Protective clothing: long-sleeved shirt, long pants, rubber gloves and unlined rubber boots. Goggles or a face shield should be used when mixing herbicides.
- Herbicides, see purchasing herbicides below.
- Small hand held sprayer. A measuring cup is usually included when sprayers are purchased.
- A plastic kitchen tray.

## **PURCHASING HERBICIDES**

1. Some Municipalities have by-laws concerning purchase and use of herbicides, the Provincial Integrated Pest Management act also has requirements pertaining to private landowner use of pesticides. The Federal Pest Control Product Acts classifies pesticides including categories for commercial and domestic use. It is important to note that managing knotweeds with herbicides is not a cosmetic use of pesticides. Use of herbicides to manage knotweeds is required to protect the environment and infrastructures but, whether commercial or domestic pesticides can be used needs to be determined.
2. If you have a lot of knotweed there will be substantial savings by using Agriculture or Commercial grade herbicides. For example, commercial grade glyphosate containing herbicides such as Roundup or Vantage. have 480 to 540 grams glyphosate/L or 48 to 54%. Feed and agriculture supply stores sell products like Roundup and Vantage in 10 L containers for \$90 to \$110 / 10 L. This would be enough Roundup to treat 1.25 to 2 ha of knotweed. These herbicides will store well and can be used for several years. Some vendors will only sell commercial grade herbicides to farmers and certified pesticide applicators. If you cannot purchase commercial grade herbicides and or have a small patch you can buy 1 liter containers of domestic grade Roundup at some hardware and garden stores. It will be weaker than the commercial grade, up to 35.6%, and cost \$40 per liter or more. Regardless of what you buy you need to carefully read the label and make sure you mix and apply the correct amount of herbicide to kill the knotweed. The same is true for selective herbicides such as the domestic grade Killex and Commercial grade Dyvel.

## **HERBICIDE TREATMENTS – STEPS**

1. Read the herbicide label.
2. Put on protective clothing.
3. Find a flat stable surface to mix the herbicide that is away from any water or sensitive areas such as gardens. Using a plastic kitchen tray will help contain any spills that do occur and can be easily cleaned. If spills occur pour the spilled material and water used to clean the tray into the sprayer.
4. Fill the sprayer with about ½ the volume of water you expect to use.
5. **Before adding the herbicide** pump the sprayer to pressurize it then test the nozzles. Make sure the nozzles are not clogged and adjust them to deliver a desired spray pattern.
6. Add the Roundup herbicide so that the final solution will be up to 2%. E.g., if you expect to use 2 liters of mixed fluid fill the sprayer with about 1 L of fluid, check the nozzles, then add 40 ml of Roundup, ( $2 \text{ L} \times 2\% = 40\text{ml}$ ). Then add the final liter of water.
7. Pump the sprayer to pressurize it but keep the pressure low.
8. Keep the nozzle close to the knotweed leaves and spray the under sides of the leaves working from the inside of the knotweed plant to the edge. Then spray the upper sides of the leaves. The leaves should be thoroughly wetted but not to the point where the spray mix is running off the plant.
9. When finished spraying and while your protective clothing is on, clean the sprayer and wash your gloved hands.
10. Remove the gloves and wash your hands and face. If any of the clothing has been contaminated with herbicide wash them separately from other laundry with the highest water and heat settings.
11. Store the herbicide in a secure ventilated place that is not part of the house.

## **PERCAUTIONS**

The herbicide label will give buffer zones for sensitive habitats like water bodies. Though private land owners treating their own properties do not fall under the regulations of the Integrated Pest Management Act, those regulations are a good guideline to ensure protection of sensitive habitats such as water bodies. Regulation 77.2 of the Integrated Pest Management Act states: “A person described in subsection (1) using glyphosate may reduce the pesticide-free zone required under section 73 (1) to a minimum of 1 m if selective application is used between 1 m and 10 m above the high water mark.” That is, glyphosate can be used to treat knotweed up to 1 m of the high water mark of water bodies as long as the treatments kill the target plants and not the plants between the target plants.