

Chemical Control of Japanese Knotweed

(Professional Products - NPTC Qualified Spray Operators Only)

Chemical control is currently the most successful treatment for controlling Japanese Knotweed as it can kill its extensive rhizome system. However, complete control will seldom be achieved in one season. It is also important to select the appropriate product together with the method of application for the individual situation.

Choice of herbicide

The number of effective herbicides approved in Guernsey is limited. Although some products are approved for the control of this weed in the UK, they may not be approved in Guernsey. You must check with Guernsey HSE before deciding on a particular treatment e.g. Picloram, & Aminopyralid based herbicides are banned in Guernsey as they poses an unacceptable risk to the environment.

The current choice depends on the situation.

For Amenity vegetation **Glyphosate** based products are currently approved.

For grassland situations products containing Glyphosate or the broad leaf weed killers like **2,4D, Dicamba, Mecoprop-P, MCPA, Clopyralid or Triclopyr** may also be approved. **ALWAYS CHECK THE PRODUCT LABEL.**

A). Glyphosate

There are well over 100 different formulations of glyphosate to choose from and most differ in their efficacy. Locally we have found Roundup Pro-Biactive an effective product. Roundup Provantage is also reported to be effective too.

Glyphosate is systemic and moves from the leaves or the stems back into the underground rhizomes. Care must be taken when using glyphosate because it is a total weedkiller which means any plant material sprayed could be damaged. It is a versatile product which can be applied using a knapsack sprayer, weed-wiper or stem injection gun.

B). 2,4-D, Dicamba, Mecoprop-P, MCPA, Clopyralid or Triclopyr & their mixes.

These active ingredients all mimic the plants natural growth hormones causing abnormal growth and cell disruption. They should not be used near glasshouses or where sensitive plants are growing because in certain conditions vapour drift can occur resulting in possible plant damage. There are a number of possible products available but when choosing make sure that it is approved for the situation you find the Japanese Knotweed in.

Details of the definitions of various crop situations can be found on the UK HSE website <http://www.hse.gov.uk/pesticides/resources/C/Crop-defn.pdf>

Product approval details can also be found at <http://www.hse.gov.uk/pesticides/topics/databases.htm>

Application method (Check the conditions of approval for the methods permitted)

1. Knapsack sprayer

This is the most common method and can be used for all the above products. Care should be taken to avoid drift onto neighbouring plants by selecting the appropriate nozzle (deflector or even flat fan) and pressure and choosing a time when there is very little wind. The treatments also need time to get into the plants, therefore, select a day when the weather is likely to be dry for at least 6 hours after treatment (or as stated on the product label). Apply the spray when the plants are between 0.5-1m tall and repeat during the season. Read the label and wear the appropriate protective equipment. Also follow the local legislation when you are treating knotweed near water. Guernsey Water provides guidance on its website www.water.gg on the application of herbicides within the water catchment area.

2. Weedwiper

This method of application is restricted to certain glyphosate formulations. It should be used in environmentally sensitive areas because there is no risk of drift onto plants or water, no wastage of chemical onto soil and little risk of operator contamination. Again follow the local legislation when you are treating knotweed near water.

3. Stem treatments

There are two basic stem treatments, one involves cutting the stems and pouring the chemical into the stem cavity and the other involves injecting the chemicals into uncut stems. The optimum timing for this is from mid-August to late September

Cut stem treatment

- Cut the mature stems below the first node (8-10cm above ground level) and stack the cut growth for drying and burning later.
- Make up a glyphosate solution with water (1 part glyphosate to 5 parts water or as stated on the product label) and pour into the stem cavity as per label instructions.
- Regrowth the following year will be low growing and distorted with thin stems unsuitable for another stem treatment. Spot treat this regrowth using a knapsack.
- Continue to monitor the site and spot treat any regrowth until the weed is controlled.

Stem injection

This treatment involves using the JK International Injection Tool, or equivalent, which can deliver approximately 5-10ml of herbicide solution per stem (See label instructions) . Local trials with glyphosate have proved most successful.

- Treatment can be applied at any time during the growing season provided the stems have a suitable diameter to accommodate the herbicide solution
- Make up glyphosate solutions with 1 part herbicide to 5 parts water (or as instructed on the product label)

- Inject 5-10ml of solution into each stem just above the second node (or as instructed on the product label)
- Regrowth will be unsuitable for further stem treatments because of the reduced stem diameter, therefore, spot treat using a knapsack sprayer
- Continue to monitor the site and spot treat any regrowth until the weed is controlled

Areas within the water catchment area

Herbicides should not be applied within 3m of high risk areas such as stream banks, ponds, wet meadows, ditches and drainage ditches if spraying is used, and 1m if a weed-wipe system is used. (The Prevention of Pollution (Guernsey) Law 1989)

For further advice contact Guernsey water on 239500 or www.water.gg

For more general advice contact The States Analyst Laboratory on 707612.

Commercial application

A certificate of competence is required to buy and use professional herbicides and to apply such treatments to amenity, commercial, agricultural and horticultural premises.

The Guernsey College of Further Education provides a range of suitable City & Guilds NPTC courses that cover the legislation and codes of practice that must be adhered to as well as offering qualifications for different types of application such as tractor mounted or knapsack sprayer. They can be contacted on 737500.