GIANT HOGWEED MANAGEMENT TRIALS

Objective: To identify effective management options for private and public landowners

What management options exist for landowners who want to minimize the impact of Giant Hogweed? That was the objective of the research trial conducted at Scotch Block (Halton Hills) in 2010.

Any effective management strategy begins by understanding the biology of the pest that you want to control. Giant Hogweed is a perennial weed, meaning the same plant will grow for more than two years. New plants are established only from seed. What is unique about Giant Hogweed is that it only flowers and produces seed once in its lifetime. Once it has produced seed, the plant dies. Therefore the strategy for limiting the spread and movement of Giant Hogweed is to stop seed production. This is easier said than done.
What the Research Site at Scotch Block has taught us:

Commitment is Needed

Giant Hogweed is a prolific seed producer and a well established population, such as at Scotch Block, will have a large seed bank. Therefore, it will take a long term commitment to reduce the population.

Early May: Begin Management Plan

The most appropriate time to remove plants is in late April or early May as plants are typically less than 30 cm in height, are easier to dig up, and more susceptible to herbicide applications. Extreme heat and humidity are also avoided which make wearing appropriate protective clothing more comfortable.

Using a shovel: Dig up as much of the taproot as possible, leave the dug up plant material on the ground. Why? Collecting all the dug up plant material and squeezing it into a compost bag simply puts you at greater risk of coming into contact with the sap. The plant material will eventually degrade on the ground. Cover the treated area with a landscape fabric, then cover the landscape fabric with a bark mulch. The landscape fabric and mulch will mitigate the potential for plant re-growth.

Left: On May 6th, 2010 this plant had a taproot that exceeded 60 cm in depth. It is estimated that the plant is 2-3 years of age. The taproots of older plants will go deeper.

Using glyphosate (i.e. Roundup): Follow the directions on the product label. Liberally apply product to the leaves. In 5-7 days return to the site, cover the treated plants with a landscape fabric and then with a bark mulch. Glyphosate is non-selective, will kill most plants and leaves bare soil for a short period of time, which is ideal for new Giant Hogweed plants or other undesirable plants to germinate. The use of landscape fabric and mulch will inhibit the germination of non-desirable weedy plants.

Left: New weeds germinating 4 weeks after a spot application of glyphosate. This illustrates the need to lay down landscape fabric and mulch to inhibit new weed growth.
Early June: Reconnaissance
How often have you tried to dig up a large dandelion in the spring, only to have it regrow? Giant Hogweed is no different, relatively young plants (i.e. 2-3 years old) can have tap roots exceeding 60 cm in depth, so if you don’t kill or remove the entire taproot, regrowth is likely. In early June, evaluate the managed site and remove any regrowth.

BY CANADA DAY: Final follow up
Once July roles around, Giant Hogweed will be extremely tall and difficult to manage. Visit the treated area one last time before July 1st to remove any regrowth and stray plants.

THE CHALLENGE WITH GLYPHOSATE

Although glyphosate is effective at controlling Giant Hogweed it also effectively removes most other existing vegetation. This allows for the emergence of either new seedling Giant Hogweed plants or other undesirable vegetation. Regardless of whether you remove Giant Hogweed plants in early May by digging up taproots or spraying vegetation with glyphosate, it will be important to cover the treated area with a competitive mulch or some type of physical barrier.
Another significant component of the study was to evaluate new active ingredients that could be used by public workers to manage large areas. One particular experimental compound under investigation by DuPont, called “aminocyclopyrachlor” provided excellent season long control and had no activity on grass plants. This was of particular value as it inhibits new Giant Hogweed plants from emerging from seed.
On May 6th, 2010 the taproot of this individual plant went as deep as 60 cm.

THE STRATEGY FOR MANAGING GIANT HOGWEED BASED ON CURRENT KNOWLEDGE

IN EARLY MAY
Initiate management plan
Small plants are easier to dig up and are more susceptible to herbicides. It is also a more comfortable time of year to wear the appropriate protective clothing.

EARLY JUNE
Reconnaissance
Whether you use a herbicide or a shovel, there is always a chance of regrowth or new seedling germination. Evaluate the site 2-3 weeks after application and address any plant escapes.

BY CANADA DAY
Final Removal
Any stray plants or any additional regrow that still exist should be removed.