

## Herbicide Evaluation for Wild Parsnip Control

### Purpose:

Wild parsnip is a common weed in eastern Ontario, and is spreading in many other parts of the province. It is a biennial or short-lived perennial (Figure 1). While wild parsnip does not have the notoriety of giant hogweed, its sap does contain some of the same chemicals (furanocoumarins). When these compounds come in contact with the skin, they cause severe burn-like rashes and/or blisters (Figure 2). Wild parsnip occurs mainly on roadsides, fencerows, pastures, and to a lesser extent, on the edges of cropped fields.

**Figure 1. Vegetative (left) and Flowering (right) Wild Parsnip**



**Figure 2. Skin Reaction to Wild Parsnip Sap**



Wild parsnip can only be mechanically controlled by cutting the plant just below the soil surface. While mowing reduces seed production, it will not kill the plant or reduce the established wild parsnip population. Glyphosate is effective at controlling wild parsnip. However, glyphosate also destroys all the vegetation sprayed, which results in exposure

of bare ground. This will usually lead to the establishment of new weeds, soil erosion and ditch bank destabilization.

Field and roadside experiments were conducted in 2009 and 2012 to rate efficacy of seven broadleaf weed herbicides that could control wild parsnip without impacting grasses vegetation in the lower canopy.

**Methods:**

Seven broadleaf weed herbicides were applied to wild parsnip at the vegetative stage in replicated trials at 3 different times during the growing season. Weed control efficacy data was collected 60 days after application from the plots sprayed in June and August 2012, while was collected at the end of May from the plot sprayed in October 2009. Prior to control, wild parsnip density ranged from 3 to 20 plants per ft<sup>2</sup>.

**Results:**

Table 1 summarizes the percent visual control of wild parsnip obtained with different herbicides applied in June, August and October. Mechanical mowing was included as a treatments in the plot sprayed June 7<sup>th</sup> 2012. Note that the efficacy of some products varied significantly based on the timing of application. Herbicides were not all evaluated at the 3 different times of application.

**Table 1. Average wild parsnip control obtained with various post-emergence broadleaf weed herbicides at different timing of application.**

Herbicide Treatment	Application Timing (Percent Control)		
	June 7 <sup>th</sup>	August 6 <sup>th</sup>	October 10 <sup>th</sup>
Distinct 70 WG	25%		85%
Milestone	50%	15%	95%
Truvist	95%	95%	
Clearview		85%	
Classic 25DF			65%
Estaprop Plus			60%
Banvel II			25%
Mowing	0%		

**Summary:**

Truvist provided the most consistent control of wild parsnip at 95%. Truvist is currently going through the regulatory process and should be available for use in Ontario for the 2014 season. Of the herbicides currently available, Clearview provided the best control in these trials. For more information on products and product rates for the control of wild parsnip, refer to the ROADSIDES & NON-CROP AREAS section of OMAF/MRA Publication 75, Guide to Weed Control.

**Next Steps:**

To assess the benefits of sequential herbicide applications for longer term control of wild parsnip, herbicide treatments will be overlaid on top of original blocks to control the newly established wild parsnip seedlings (germinating seedlings).

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**Location of Project Final Report:**

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