

Testing Herbicides for Control of Invasive Species and Broadleaf Weeds in Pastures (Victoria SCIA)

Purpose:

With the introduction of a new herbicide treatment for control of broadleaf weeds and invasive plants in rangeland and pasture areas of Canada by Dow Chemical Company (Restore II) we put together a plan to compare the effectiveness and the cost of the new product compared to commonly used products MCPB/MCPA (Tropotox) and MCPA (Amine 600).

We were aware that the Restore product claimed to control or suppress a wide range of common weeds (over 70 common weeds). We were aware that the product would remove legumes and re-establishment may be affected for up to five years. Grass species can be seeded up to 10 months following application.

Methods:

We chose two separate properties, owners both using rotational pasture systems and similar soil conditions. The test plots were replicated on both farms.

The test plots were a minimum of 200 feet long by 32 feet wide and separated by a 10 foot check strip.

The plots were sprayed with a 25 gallon sprayer mounted on a side by side ATV and equipped with a “NO-BOOM” spray nozzle covering 16 feet. This equipment was chosen over a boom sprayer because of the roughness of the pastures. The rate of application was controlled by psi settings and the speed of the ATV and verified prior to application. The initial spraying was done on June 18th, and some additional coverage the first week in September.

Assessments were done prior to spraying and 7, 14 and 21 days after treatment and again in early September.

Figure 1. ATV Mounted Sprayer Used in Project



Results:

The Restore II product was very effective at killing both **designated weeds and legumes!** One site had significant buttercup in the test plot area and the MCPA was effective and did minor damage to legumes. MCPB/MCPA (Tropotox) was effective in killing Canada thistle, perennial sow thistle, buttercup and plantain in test plots. (It appears to be safe to use on legumes with only minor burning and plants recovered).

We applied the Restore II to a half acre area of a very significant cocktail of weeds on our initial spray. It did an amazing job of cleaning the weeds out and the native grasses took over amazingly well! The results are shown below.

Figure 2. Pasture Sprayed for Project



Summary:

Table 1. Herbicide Options for Control of Weeds in Pastures

Herbicide	Suggested Usage	Cost/Acre	Additional Information
MCPA	Buttercup	\$11.75	Use two treatments, early June and 2 nd treatment in early Sept. Wait 7 days after treatment before grazing.
MCPB/MCPA	Canada thistle, curled dock, plantains, sow thistle, buttercup	\$15.55	Controls top growth of weeds. Has some safety on legumes.
Restore II	Control of nearly 80 weeds	\$34.50	There are no grazing restrictions other than a 7 day restriction for lactating dairy cows

Caution: There is a caution on the usage of Restore II on legumes as re-establishment may be affected for up to five years!

The cost per acre and the restriction on the usage of Restore II may affect the farmer's decision on its usage, but it is a very effective product in certain applications.

Next Steps:

We will follow-up in spring to review results on the plots and the areas that received additional spray treatment recommended for the September time frame. Results will be shared with local SCIA.

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