

# Effect of Carrier Volume on Pyridate Efficacy

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Palouse Conservation Field Station in Pullman, WA

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## Methods

The study was established at the Palouse Conservation Field Station near Pullman, WA. The goal of the study was to evaluate pyridate for broadleaf weed control at different spray volumes. Treatments were applied post emergence (POST) to 3 to 4 leaf weeds, detailed in Table 1 and Table 2. The study was conducted in a randomized complete block with 4 replications. Plots were 10' by 30' long. Lorox (2.5 lb A<sup>-1</sup>), Valor (2 oz A<sup>-1</sup>) and Outlook (21 fl oz A<sup>-1</sup>) were applied pre-emergence (PRE) at planting to begin with a weed free trial. Select Max (16 fl oz A<sup>-1</sup>) with NIS (1 % v/v) was applied POST on June 3, 2016 for grass weed control.

Weed control was visually assessed 28 DAT of application A (Table 2). Plots were harvested using a plot combine on September 21, 2016. All data were subjected to an analysis of variance using the statistical package built into the Agricultural Research Manager software system (ARM 8.5.0, Gylling Data Management).

## Results

Pyridate applied at any spray volume provided significantly greater broadleaf weed control compared to the nontreated control. Although no significant difference in weed control was found between any of the spray volume solutions, percent weed control decreased as spray volume increased.

No significant difference in yield was observed for any of the treatments.

**Table 1.** Treatment application details

Study Application	A
Date	May 24, 2016
Application volume (GPA)	15
Crop Stage	3-4 Leaf Weeds
Air temperature (°F)	58
Soil temperature (°F)	59
Wind velocity (mph, direction)	3, SW
Next rain occurred on	June 8, 2016

**Table 2.** Percent broadleaf weed control and yield following applications of pyridate at increasing spray volumes in chickpea. Pullman, WA, 2016. Means followed by the same letter are not statistically significantly different ( $\alpha=0.05$ ).

Treatment	GPA	Application Code	Rate	June 21, 2016		September 21, 2016
				lb ai/A	Weed Suppression	Yield
Nontreated			-		%	lb/A
Pyridate (Tough)	15	A	14 fl oz/A	0.940	92 b	1770
Pyridate (Tough)	20	A	14 fl oz/A	0.940	99 b	1830
Pyridate (Tough)	25	A	14 fl oz/A	0.940	94 b	1660
Pyridate (Tough)	30	A	14 fl oz/A	0.940	72 b	1890
Pyridate (Tough)	35	A	14 fl oz/A	0.940	78 b	1760
Pyridate (Tough)	40	A	14 fl oz/A	0.940	71 b	1540

**Some of the pesticides discussed in this presentation were tested under an experimental use permit granted by WSDA. Application of a pesticide to a crop or site that is not on the label is a violation of pesticide law and may subject the applicator to civil penalties up to \$7,500. In addition, such an application may also result in illegal residues that could subject the crop to seizure or embargo action by WSDA and/or the U.S. Food and Drug Administration. It is your responsibility to check the label before using the product to ensure lawful use and obtain all necessary permits in advance.**