

## Evaluation of spring-applied postemergence broadleaf herbicides for the control of mustard species in fall-sown peas

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A field study was conducted at the Lind Dryland Research Station near Lind, WA to evaluate crop safety and broadleaf weed control in fall-sown peas with postemergence herbicides applied in the spring of 2019. The study area followed a fallow period. ‘Blaze’ fall-sown peas were seeded on September 7, 2018 at the rate of 120 lb/A with a Valmar air seeder, deep furrow configuration, on a 17-inch row spacing. Seeds were placed 2 inches into moist soil with 5 to 7 inches of dry soil over top. Soil at this site is a silt loam with 1.1% organic matter and a pH of 6.4.



On April 24, 2019, treatments were applied with a CO<sub>2</sub>-powered backpack sprayer set to deliver 15 gpa at 49 psi at 2.3 mph. The air temperature was 66°F, relative humidity was 27% and the wind was out of the west at 6 mph. At the time of application, the peas were on the verge of growing upright.

Tansy mustard was the most common mustard species distributed across the trial area, with flixweed and tumble mustard also present. Vulture + Synurgize + COC and Rhomene + Metribzin 75DF + NIS resulted in significant crop injury. However, the trial was not taken to harvest so it is unknown how yield was affected. Vulture provided the best mustard control which was not significantly different from Ultra Blazer applied at either 16 or 24 fl oz/A, Rhomene + metribuzin 75DF or Storm 24 fl oz/A. Ultra Blazer at 12 fl oz/A and Storm at 16 fl oz/A provided fair control of mustard species, whereas the two rates of Basagran provided poor weed control. In a similar study in 2018, we did not see an increase in mustard control with an increase in the rate of Ultra Blazer; however, tumble mustard was the predominant mustard species in that study. In the current study, we did see an increase in tansy mustard control as the rate of Ultra Blazer increased.

Treatment	Rate fl oz/A	5/3/19	5/9/19	5/24/19	5/24/19 Mustard
		Crop injury -----0 to 100%-----			control 0 to 100%
Nontreated check		--	--	--	--
Vulture + Synurgize + COC	4.0 + 2.0 qt/100 gal + 1.0% v/v	10 d <sup>1</sup>	10 b	38 c	100 a
Rhomene + Metribuzin 75DF + NIS	12 + 5.3 oz + 0.25% v/v	24 e	35 c	21 b	83 ab
Basagran + COC	16 + 1.0% v/v	0 a	0 a	0 a	30 d
Basagran + NIS	32 + 0.25% v/v	0 a	0 a	0 a	13 d
Ultra Blazer + NIS	12 + 0.25% v/v	8 cd	0 a	0 a	60 c
Ultra Blazer + NIS	16 + 0.25% v/v	5 bc	0 a	0 a	85 ab
Ultra Blazer + NIS	24 + 0.25% v/v	5 bc	0 a	0 a	93 a
Storm + NIS	16 + 0.25% v/v	1 a	0 a	0 a	70 bc
Storm + NIS	24 + 0.25% v/v	3 ab	0 a	0 a	80 a-c

<sup>1</sup> Means, based on three replicates, within a column, followed by the same letter are not significantly different at P = 0.05 as determined by Fisher's protected LSD test, which means that we are not confident that the difference is the result of treatment rather than experimental error or random variation associated with the experiment.

### **Disclaimer**

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