

Evaluation of Huskie® FX for the control of common lambsquarters and mayweed chamomile in spring wheat

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A study was established at the Cook Agronomy Farm near Pullman, WA to evaluate crop tolerance, common lambsquarters and mayweed chamomile control with herbicides in spring wheat. The objective of the study was to determine how Huskie [pyrasulfotole (group 27) + bromoxynil (group 6)] compares, efficacy- and crop safety-wise, to a new formulation, Huskie FX, which includes fluroxypyr (group 4).



The soil at this site is a Palouse silt loam with 2.5% organic matter and a pH of 5.3. On March 26th, 'Ryan' spring wheat was planted with a Horsch direct-seed air drill with row openers on a 12-inch spacing. Postemergence treatments were applied on May 16th with a CO₂-powered backpack sprayer set to deliver 10 gpa at 50 psi at 2.3 mph. The applications were made under 6 mph winds out of the east with an air temperature of 60°F and relative humidity of 47%. From when the field was seeded until trial initiation (51 days), conditions were dry and the field only received 2.21 inches of rainfall. Wheat growth stage was variable. From two-leaf to two-three tillers, with height ranging from 8 to 12 inches. Some of the plants that were tillering had the first joint 0.5 to 0.75 of an inch above the crown of the plant. Common lambsquarters were uniformly distributed, and its population was high across the trial area. Common lambsquarters were 2.5-inch-tall and 2.5-inch-wide at the time of application and had a density of 21 plants per square foot in the nontreated check plots. Mayweed chamomile was uniformly distributed, and its population was high across the trial area. Mayweed chamomile was 1.5-inch-tall and 1.5-inch-wide at the time of application and had a density of 8 plants per square foot in the nontreated check plots. Common lambsquarters and mayweed chamomile was continuing to germinate at the time of application. The trial area was harvested with a Kincaid 8XP plot combine on August 26th.

The next five days following application, the trial area received 2.21 inches of rainfall and another 1.89 inches of rainfall up until weed control ratings concluded on June 16th. The mean maximum and minimum air temperatures were 67 and 46°F, respectively over this 32-day period. The environmental conditions, well above average soil moisture and moderate air temperatures, suggest that the broadleaf weeds had some ability to resist the herbicide treatments. The wheat stand was thin and did not add significant crop competition to the study. There was no crop injury observed among any of the treatments in this study. Huskie and Huskie FX provided a similar level of control of common lambsquarters and mayweed chamomile (Table). Huskie and Huskie FX provided better control of common lambsquarters than mayweed chamomile. Talinor™ provided similar control of common lambsquarters to Huskie and Huskie FX, but better control of mayweed chamomile. Brox® 2EC + Rhonox® MCPA LV Ester + Affinity® BroadSpec provided the best common lambsquarters control and comparable mayweed chamomile control to Talinor. Starane® NXT provided poor control of common lambsquarters

and a similar level of control of mayweed chamomile to Huskie and Huskie FX. Yield data are not presented due to a significant infestation of Italian ryegrass.

		6/4	6/16	6/4	6/16
		19 DAT	31 DAT	19 DAT	31 DAT
		Common lambsquarters		Mayweed chamomile	
Treatment	Rate	control		control	
	fl oz/a	-----%-----		-----%-----	
Nontreated check	--	--	--	--	--
Huskie [®] FX	16.5	78 b ¹	76 b	50 b	46 b
AMS	0.5 lb				
Huskie	13.5	84 b	76 b	52 b	53 b
AMS	0.5 lb				
CoAct +	2.75	63 c	73 b	64 a	79 a
Talinor [™]	13.7				
COC	1.0% v/v				
Brox [®] 2EC	32	94 a	89 a	63 a	78 a
Rhonox [®] MCPA LV Ester	16				
Affinity [®] BroadSpec	1.0 oz				
NIS	0.25% v/v				
Starane [®] NXT	27.4	50 c	45 c	53 b	48 b
NIS	0.25% v/v				

¹ Means, based on four 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

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.