Cadet™ efficacy and crop response in spring wheat

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A field study was conducted at the WSU Wilke Research Farm near Davenport, WA to determine the efficacy of Cadet herbicide for broadleaf weed control in spring wheat. The soil at the site is a Broadax silt loam with 4.5% organic matter and a pH of 5.0. On April 28, 'Glee' dark northern spring wheat was planted using a SeedMaster drill with 12-inch row spacing. Seeding rate was 70 lb/acre and the seeding depth was 1 inch. Starter fertilizer was applied at a depth of 2.5 inches and a rate of 70-8-8 lb/acre of N-P-K. Post-emergence herbicide applications were made on June 11 using a CO_2 backpack sprayer set to deliver 15 gpa at 30 psi and 3 mph. The air temperature was 75°F, relative humidity was 25% and the wind was out of the east at 5 to 7 mph. The wheat was 10 to 12 inches tall and had 4 to 6 tillers. Plots were harvested on August 5 using a Kincaid 8XP combine.

Crop injury was not observed in this study (data not shown). Weed pressure was light and all herbicide treatments provided excellent control of common lambsquarters. Likewise, tumble mustard control was excellent except when Cadet was applied by itself. Cadet by itself, when applied at rates from 0.5 to 0.9 oz of product per acre, provided no discernable control of tumble mustard. No significant treatment differences were observed for grain yield.

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		July 12		August 7
		Common lambsquartes	Tumble mustard	Yield
Treatment[a]	Rate	control	control	
	oz pr/a	%		bu/a
Cadet	0.5	100	n/a[b]	21
Cadet	0.75	100	n/a	19
Cadet	0.9	95	n/a	20
Cadet	0.5	100	100	19
2,4-D Amine	24			
Cadet	0.75	100	100	18
2,4-D Amine	24			
Cadet	0.5	100	100	21
2,4-D Amine	24			
Affinity® BroadSpec	0.6			
2,4-D Amine	24	100	100	24
Affinity BroadSpec	0.6			
Affinity BroadSpec	0.6	100	100	20
Affinity BroadSpec	0.6	95	100	22
Bronate Advanced™	19.2			
Huskie™	15	100	100	19
UAN 28%	32			
Huskie	8	100	100	18
Cadet	0.5			
UAN 28%	32			
Nontreated Check	--	--	--	19
LSD (5%)		ns	ns	ns

[a] Treatments were applied POSPOS on June 11 and tank mixed with NIS at 0.25% v/v.
[b] Treatments marked n/a had no activity on mustard.

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.