

## Mayweed chamomile control in winter wheat with Talinor™

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A field study was conducted at the WSU Palouse Conservation Field Station near Pullman, WA to generate broadleaf weed control data with Syngenta's Talinor herbicide in winter wheat. Talinor is a premixture of bromoxynil (Group 6) and bicyclopyrone (Group 27) herbicides. Talinor is tank mixed with CoAct+™, which is a safener. Huskie® contains pyrasulfotole, which is also a Group 27 herbicide, and bromoxynil, and is why it is used as a comparison treatment against this new active ingredient combination.



The soil at this site is a Thatuna silt loam with 4.6% organic matter and a pH of 5.0. On November 13, 2015, 'Puma' winter wheat was planted using a Horsch air drill with 12-inch row spacing. Post emergence treatments were applied on April 21<sup>th</sup> with a CO<sub>2</sub>-powered backpack sprayer set to deliver 10 gpa at 43 psi at 2.3 mph. Conditions were an air temperature of 75°F, relative humidity of 42% and the wind out of the SW at 4 mph. The majority of the wheat was at the four-tiller stage and was 12 inches tall. Mayweed chamomile distribution was not uniform across the trial area. Mayweed chamomile was 1.5 inches tall at the time of application and at a density of 21, 6 and 7 plants per square foot in nontreated check plots in replications 1, 2 and 3, respectively.

Crop injury was noted on May 6<sup>th</sup> (14 DAT) only in the Talinor treatments that were tank mixed with Axial® Star. There was bleaching at the leaf tips of which the plants grew out of quickly. Talinor alone, Talinor plus the tank mix partners tested, and Huskie alone provided greater control of mayweed chamomile 15 days after application than the Affinity® Tankmix and WideMatch® treatments. On June 17<sup>th</sup>, 57 DAT, Talinor treatments exhibited better control of mayweed chamomile than the Huskie treatments. The exception was Talinor + CoAct+ + Axial Star, which provided similar mayweed chamomile control to Huskie at 15 fl oz/A. There did not appear to be a rate response for Talinor treatments like there were with the Huskie treatments. When the final rating was taken on July 5<sup>th</sup>, 75 DAT, all treatments were providing good to excellent control of mayweed chamomile except Huskie at 11 fl oz/A. There were no significant differences in yield or test weight among treatments when compared to the nontreated check. Talinor is an effective herbicide for mayweed chamomile control in winter wheat.

Treatment	Rate	Mayweed chamomile control				
		5/6 15 DAT	5/12 21 DAT	5/24 33 DAT	6/17 57 DAT	7/5 75 DAT
	fl oz/a	-----%-----				
Nontreated Check		--	--	--	--	--
Talinor + CoAct + <sup>1</sup>	13.7 + 2.74	73 ab <sup>4</sup>	92 a	85 a-c	98 a	95 ab
Talinor + CoAct + <sup>1</sup>	16.0 + 3.2	63 a-c	77 ab	82 a-c	98 a	98 ab
Talinor + CoAct + <sup>1</sup>	18.3 + 3.6	63 a-c	93 a	90 ab	98 a	97 ab
Huskie <sup>2</sup>	11	50 c	68 b	63 e	68 c	70 c
Huskie <sup>3</sup>	13.5	47 c	70 ab	63 e	78 c	88 ab
Huskie <sup>3</sup>	15	57 bc	78 ab	77 cd	82 bc	85 a-c
WideMatch	16	27 d	43 c	78 b-d	100 a	98 ab
WideMatch + Rhonox <sup>®</sup> MCPA Ester	16 + 12	27 d	73 ab	83 a-c	100 a	100 a
Affinity Tankmix + Rhonox MCPA Ester	0.6 oz + 12	27 d	77 ab	67 de	77 c	83 bc
Talinor + CoAct ++ Orion <sup>®1</sup>	13.7 + 2.74 + 17	70 ab	88 ab	83 a-c	97 a	92 ab
Talinor + CoAct ++ Peak <sup>®1</sup>	13.7 + 2.74 + 0.4 oz	67 ab	90 ab	92 a	98 a	98 ab
Talinor + CoAct ++ Axial Star	13.7 + 2.74 + 16.4	70 ab	85 ab	80 a-c	93 ab	92 ab
Talinor + CoAct ++ Orion + Axial Star	13.7 + 2.74 + 17 + 16.4	77 a	90 ab	85 a-c	98 a	92 ab
Talinor + CoAct ++ Peak + Axial Star	13.7 + 2.74 + 0.4 oz + 16.4	70 ab	87 ab	83 a-c	100 a	95 ab

<sup>1</sup> Treatments were tank mixed with 1.0% v/v crop oil concentrate

<sup>2</sup> Treatment was tank mixed with 0.25% v/v NIS

<sup>3</sup> Treatments were tank mixed with 0.25% v/v NIS and 1.0 lb AMS/A

<sup>4</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.

**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.**