

## Mayweed chamomile control in winter wheat with Talinor™

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A field study was conducted on Mike Nelson's Farm near Albion, 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 that was recently registered for use in wheat and barley. 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 Palouse silt loam with 4.3% organic matter and a pH of 5.7. The field was previously in chickpeas. On September 8, 2016, the field was fertilized with 100 lb N:15 lb P:10 lb S per acre. On September 28<sup>th</sup>, 'ORCF-102' winter wheat was conventionally planted using a JD 455 disk drill with a 7.5-inch row spacing. At the time of planting, the field received 10 lb N:15 lb P:1qt Zn per acre. Postemergence treatments were applied on May 2<sup>nd</sup> with a CO<sub>2</sub>-powered backpack sprayer set to deliver 10 gpa at 42 psi at 2.3 mph. The applications were made under calm conditions with an air temperature of 48°F and relative humidity of 75%. The majority of the wheat had just begun to joint and was 16 inches tall. Mayweed chamomile distribution was uniform across the trial area. Mayweed chamomile was 3.0 inches tall at the time of application and had a density of 34 plants per square foot in the nontreated check plot. Mayweed chamomile was continuing to germinate at the time of application.

Crop injury was not noted with any treatments in this study. Thirteen days after treatment (DAT) (May 15<sup>th</sup>), WideMatch-, WideMatch + Affinity TankMix- and WideMatch + Rhonox MCPA Ester-treated plots exhibited the best control of mayweed chamomile. By 42 DAT, all three rates of Talinor + CoAct+ were providing a similar level of control as the aforementioned treatments. The addition of Orion (florasulam + MCPA Ester) at 17 fl oz/A to Talinor + CoAct+ (13.7 + 2.75 fl oz/A) did not improve efficacy against mayweed chamomile when compared to Talinor + CoAct+ applied alone. Huskie did not provide the level of control that the Talinor- and WideMatch-based treatments did. Huskie is only labeled for partial control of mayweed chamomile in winter wheat. Affinity TankMix + Rhonox MCPA Ester provided a similar level of control as the Huskie treatments. Overall yield and test weight means were 136 bu/A and 60 lb/bu, respectively. There were no significant differences in yield or test weight among treatments when compared to the nontreated check. The wheat stand was very uniform and competitive with mayweed chamomile which allowed for most of the herbicide treatments to work well. Talinor is an effective herbicide for mayweed chamomile control in winter wheat.

Treatment	Rate	Mayweed chamomile control			Yield
		5/15	6/13	7/28	
	fl oz/A	13 DAT	42 DAT	87 DAT	bu/A
Nontreated Check		--	--	--	133 a
Talinor + CoAct+ <sup>1</sup>	13.7 + 2.75	60 cd <sup>4</sup>	82 ab	99 a	137 a
Talinor + CoAct+ <sup>1</sup>	16 + 3.2	67 bc	84 ab	97 a	135 a
Talinor + CoAct+ <sup>1</sup>	18.2 + 3.6	65 bc	85 ab	99 a	143 a
Huskie <sup>2</sup>	11	50 de	71 bc	76 a-c	141 a
Huskie <sup>3</sup>	13.5	57 c-e	57 c	60 c	129 a
Huskie <sup>3</sup>	15	57 c-e	64 c	60 c	132 a
WideMatch	16	82 a	85 ab	94 ab	136 a
Affinity TankMix + WideMatch <sup>2</sup>	0.6 oz + 16	81 a	90 a	100 a	131 a
WideMatch + RhonoxMCPA Ester	16 + 12	82 a	91 a	99 a	143 a
Affinity TankMix + RhonoxMCPA Ester <sup>2</sup>	0.6 oz + 12	47 e	60 c	66 bc	132 a
Talinor + Orion + CoAct+ <sup>1</sup>	13.7 + 17 + 2.75	72 ab	82 ab	95 ab	139 a

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

<sup>2</sup> Treatments were tank mixed with 0.25% v/v NIS

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

<sup>4</sup> 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.