

Control of mayweed chamomile in winter wheat

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A field study was conducted on Mike Nelson's Farm near Albion, WA to generate crop safety and mayweed chamomile control data with Corteva's broadleaf herbicides. The trial emphasis was on Arylex™ Active (halauxifen-methyl), clopyralid and fluroxypyr. All three active ingredients are synthetic auxins (group 4). Quelex® contains halauxifen-methyl and florasulam (group 2). Pixxaro™ EC contains fluroxypyr and halauxifen-methyl. WideMatch® contains clopyralid and fluroxypyr. WideARmatch™ contains clopyralid, fluroxypyr and halauxifen-methyl and was registered for use in 2020.

The soil at this site is a Palouse silt loam with 3.8% organic matter and a pH of 5.3. The field was previously in chickpeas. On September 23, 2019, the field was fertilized with 100 lb N:15 lb P:15 lb S per acre and incorporated with a cultivator. On September 24th, 'M-Press' winter wheat was conventionally planted using a JD 455 disk drill with a 7.5-inch row spacing at the rate of 105 lb seed per acre. At the time of planting, the field received M-Struct (8-24-0) starter fertilizer through the drill. Postemergence treatments were applied on April 8th with a CO₂-powered backpack sprayer set to deliver 10 gpa at 46 psi at 2.3 mph. The applications were made with an air temperature of 65°F, relative humidity of 19% and winds were 2 to 4 mph out of the northwest. The majority of the wheat had just begun to joint and plants were 10 inches tall. Mayweed chamomile was uniformly distributed, and its population was moderate across the trial area. Mayweed chamomile was 1.0-inch-tall and 1.5-inch-wide at the time of application. The density was 2 plants per square foot in the nontreated check plots. Mayweed chamomile was continuing to germinate at the time of application. On April 15th, the trial area was treated to control eyespot and stripe rust with Tilt + Priaxor + McGregor's M-90 (4 fl oz/a + 6 fl oz/a + 0.125% v/v), and again on May 16th to control stripe rust with Trivapro + McGregor's M-90 (13.7 fl oz/a + 0.125% v/v).

On April 29th, 21 days after treatment (DAT), Talinor™, WideMatch and WideARmatch + 2,4-D Ester LV, were exhibiting the best control of mayweed chamomile. On May 13th, 35 DAT, all treatments were providing good to excellent control except Pixarro, Pixarro + Harmony SG + Express and Talinor (Table). On June 22nd, 75 DAT, 50 days prior to the field being harvested, all treatments provided complete mayweed chamomile control except Pixarro and Pixarro + Harmony SG + Express (Table). These results suggest that Corteva has several effective products for the control of mayweed chamomile in winter wheat. One should evaluate the product labels to see which of these products or tank mixtures would provide the best control for the weed spectrum on your farm. At the same time, evaluate potential crop rotation limitations.

		4/29	5/13	6/22
		Mayweed chamomile		
Treatment	Rate	control		
	fl oz/A	-----%-----		
Nontreated Check	--	--	--	--
Pixxaro EC ¹	6.0	30 d ²	23 e	45 b
Pixxaro EC + 2,4-D Ester LV	6.0 + 8.0	43 c	78 b	100 a
Pixxaro EC + Harmony SG + Express ¹	6.0 + 0.2 oz + 0.2 oz	23 d	43 d	58 b
WideARmatch ¹	14.0	53 bc	86 ab	100 a
WideARmatch + 2,4-D Ester LV	14.0 + 8.0	60 ab	93 a	100 a
WideARmatch + Harmony SG + Express ¹	14.0 + 0.2 oz + 0.2 oz	53 bc	85 ab	100 a
Widematch + Quelex ¹	16.0 + 0.75 oz	53 bc	88 ab	100 a
Widematch ¹	16.0	58 ab	89 ab	100 a
CoAct+ + Talinor ¹	3.2 + 16.0	68 a	63 c	100 a

¹ This treatment also included Activator 90 (0.25% v/v).

² 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.