Evaluation of Pixxaro™ EC for the control of common lambsquarters in spring wheat

Henry Wetzel and Drew Lyon

Pixxaro EC was recently introduced into the marketplace for the postemergence control of annual broadleaf weeds in cereals. Pixxaro EC contains the Arylex™ active (halauxifen-methyl) and fluroxypyr. Both active ingredients are synthetic auxins (Group 4).

A field study was conducted at the Palouse Conservation Field Station near Pullman, WA to evaluate crop safety and broadleaf weed control with Pixxaro EC. 'Seahawk' spring wheat was seeded on May 1, 2019 at the rate of 107 lb/A with a Horsch direct seed air seeder on a 12-inch row spacing at a depth of 1.5 to 2.0 inches. Soil at this site is a Palouse silt loam with 6.8% organic matter and a pH of 5.0. On June 9th, treatments were applied with a CO_2-powered backpack sprayer set to deliver 10 gpa at 52 psi at 2.3 mph. Wheat was at the first node stage and was 10 inches tall. Common lambsquarters had an average height of 2 inches and there were 44 plants/ft^2. The air temperature was 66°F, relative humidity was 46% and conditions were calm.

There was no crop injury exhibited with any of the treatments in this study. On June 17th, 8 DAT, Huskie-treated plots were exhibiting the greatest level of control. This was most likely due to the bromoxonil component of Huskie, which induced quick burning of the leaf surface. Huskie-treated plots exhibited nearly complete control 15 DAT. Pixxaro EC- and Pixxaro EC + 2,4-D Ester LV6- treated plots did not show commercially acceptable control of common lambsquarters until 22 DAT. On the final evaluation, 29 DAT, these two treatments showed nearly complete control which was similar to Huskie. Starane Ultra + Quelex performed very similar to Pixxaro EC, even though the treated plots also received 0.075 oz florasulam per acre. OpenSky and Starane Flex did not provide commercially acceptable control of common lambsquarters. Although a bit slower acting than Huskie, Pixxaro EC provided excellent control of common lambsquarters. It will be a good product to rotate or combine with non-group 4 herbicides for the control of common lambsquarters in small grains.

		6/24	7/1	7/8
Treatment	Rate	Common lambsquarters control		
	fl oz/A	----------0 to 100%----------		
Nontreated check	--	--	--	--
Pixxaro EC + Activator 90	6.0 + 0.25% v/v	70 b[1]	87 a	98 a
Pixxaro EC + 2,4-D Ester LV6	6.0 + 8.0	67 b	88 a	100 a
Starane Flex	13.5	23 d	20 d	17 c
Starane Ultra + Quelex + Activator 90	4.8 + 0.75 oz + 0.25% v/v	63 b	83 b	95 a
OpenSky + Activator 90 + N-Pak AMS Liquid	16.0 + 0.5% v/v + 20.0	47 c	50 c	53 b
Huskie + N-Pak AMS Liquid	13.5 + 20.0	95 a	100 a	100 a

[1] 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.