

Grass control with Luxxur herbicide in barley, Carrington, 2020.

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The field experiment was conducted at the NDSU Carrington Research Extension Center in cooperation with Bayer CropScience to examine weed efficacy and crop tolerance with Luxxur and broadleaf herbicide tank mixtures. Experimental design was a randomized complete block with three replicates. 'ND-Genesis' barley was seeded May 14 on 2019 wheat ground. Herbicide treatments were applied with a CO₂-hand-boom plot sprayer delivering 10 gal/A at 35 psi through flat fan 8001 nozzles to the center 6.7 ft of 10- by 25-ft plots. Treatments were applied on June 11 with 74 F, 36% RH and 3 mph wind to 3- to 5-leaf barley and 3- to 4-leaf yellow and green foxtail.

Green:yellow foxtail ratio in the trial was estimated at 20:80%. Foxtail control visually evaluated 15, 26, and 48 days after treatment (DAT) ranged from 55-71% with all herbicide treatments except Huskie Complete was less than 50% with the last two evaluations (Table). Barley biomass reduction with all herbicide treatments ranged from 18-52% when visually evaluated 15 and 26 DAT. Luxxur B plus A with tank mixtures of Starane Flex, Starane Flex plus 2,4-D ester, Sentrallas, Sentrallas plus 2,4-D, and Pixxaro reduced biomass 31-52%. Heading dates with all herbicide treatments were delayed 3-6 days compared to the untreated check.

Table.								
Herbicide			Weed control			Barley		
Herbicide			Green and yellow foxtail			Biomass reduction		Heading date
No.	Treatment	Rate	26-Jun	7-Jul	29-Jul	%		Day of Year
		fl oz product/A	%			26-Jun	7-Jul	
1	Untreated check	x	0	0	0	0	0	196
2	Luxxur B + Luxxur A	6.85 + 0.21 oz wt	65	66	62	22	20	200
3	Luxxur B + Luxxur A + Starane Flex	6.85 + 0.21 oz wt + 13.5	70	70	68	48	35	202
4	Luxxur B + Luxxur A + 2,4-D ester	6.85 + 0.21 oz wt + 8	66	65	59	25	18	201
5	Luxxur B + Luxxur A + Starane Flex + 2,4-D ester	6.85 + 0.21 oz wt + 13.5 + 8	71	69	69	47	35	202
6	Luxxur B + Luxxur A + Sentrallas	6.85 + 0.21 oz wt + 10	71	69	67	43	31	201
7	Luxxur B + Luxxur A + Sentrallas + 2,4-D ester	6.85 + 0.21 oz wt + 10 + 8	73	70	69	52	37	201
8	Luxxur B + Luxxur A + Bromac	6.85 + 0.21 oz wt + 16	70	68	57	21	20	200
9	Huskie Complete	13.7	69	43	27	52	18	199
10	Luxxur B + Luxxur A + Pixxaro	6.85 + 0.21 oz wt + 6	60	67	55	50	32	200
C.V. (%)			10.4	9.0	15.2	37.8	60.5	0.4
LSD (0.10)			9	7	11	19	NS	1