Postemergence Weed Control in Spring Wheat with Vios FX Herbicide tank-mixes at Hettinger, ND, 2025.

A trial was conducted to evaluate Vios FX Herbicide tank-mixes for postemergence for weed control in spring wheat. Spring wheat was planted on May 5, 2025. Herbicide treatments were applied on June 18 when wheat was in early tillering stage and 14 inches in height (see Table 1 for treatments and Table 2 for description of application). At time of application, kochia averaged 3.8 inches in height. Other weeds present included green foxtail (3.4 in), and wild oat (6.6 in). Kochia control with Vios FX alone was 75% at 15 days after treatment (DAT) and 87% 30 DAT. Addition of other herbicides as tank-mixes did not improve kochia control 30 DAT. Green foxtail control with Vios FX was 89% 30 DAT. Addition of other herbicides did not improve green foxtail control and in some cases, foxtail control was reduced when other herbicides were tank-mixed. Wild oat control with Vios FX was 86% 30 DAT. Similar to other weeds, there was no improvement in wild oat control when other herbicides were tank-mixed. Wheat yield was similar for all herbicide treatments. While there was no yield increase, uncontrolled weeds increase soil seed bank levels and could be more troublesome in rotational crops.

Table 1. Evaluation of postemergence herbicides for weed control in spring wheat.

	Treatment[a]	Rate	Kochia		Green foxtail		Wild oat	Wheat yield
			15 DAT	30 DAT	15 DAT	30 DAT	30 DAT	69 DAT
		oz/A	% control					Bu/A
1	Non-Treated		0d	0d	0d	0d	0c	61.8-
2	Vios FX Herbicide	13.7	75c	87a	79bc	89a	86a	55.5-
3	Vios FX Herbicide Huskie	13.7 12.8	85a	87a	82ab	84b	82ab	55.7-
4	Vios FX Herbicide Bison	13.7 16	85a	87a	82a	84b	82ab	54.4-
5	Vios FX Herbicide 2,4-D Ester	13.7 8	79b	80c	81abc	83bc	79b	59.3-
6	Vios FX Herbicide Quelex Affinity Broadspec	13.7 0.75 0.4	80b	85ab	80abc	84b	83ab	61.0-
7	Vios FX Herbicide Affinity Broadspec MCPA Ester	13.7 0.4 8	79b	79c	80abc	83bc	80b	56.0 -
8	Vios FX Herbicide Affinity Broadspec 2,4-D Ester	13.7 0.4 8	80b	82bc	78c	79c	82ab	55.6 -
LSD P=.05			3.9	4.3	2.8	4.2	4.6	4.95
Standard Deviation			3.2	3.5	2.3	3.4	3.8	4.07
CV			4.61	4.8	3.28	4.66	5.28	7.09
Treatment F			311.667	286.452	607.414	303.776	235.488	1.987
Treatment Prob(F)			0.0001	0.0001	0.0001	0.0001	0.0001	0.1056

[a] Vios FX, thiencarbazone + fluroxypyr (1.02 lbai/gal); Huskie, bromoxynil + pyrasulfotole (2.06 lbai/gal); Bison, MCPA + bromoxynil (4 lbae/gal); 2,4-D ester (4 lbae/gal); Quelex, halauxifen + florasulam (0.2% WDG); Affinity Broadspec (50% WDG); MCPA (4 lbae/gal)

[b]Abbreviations: DAT, days after treatment; lbai/gal, pounds active ingredient per gallon; lbae/gal, pounds acid equivalent per acre.

Table 2. Application environment and equipment for postemergence weed control in spring wheat.

Application Description		Application equipment	
Date	Jun-18-2025	Equipment Type	Tractor mounted
Start, Stop Time	2:05, 2:22 PM	Operation Pressure	40 PSI
Air Temperature Start, Stop	81, 81.6 F	Nozzle Model	11002DG
% Relative Humidity Start, Stop	35.9, 38.4	Nozzle Spacing	20 IN
Wind Velocity+Dir.	5.2 MPH, WSW	Boom Height	22.0 IN
Wind Velocity+Dir. Max	8.2 MPH, WSW	Ground Speed	4.1 MPH
Soil Temperature	60 F	Application Amount	10 GAL/AC