El Reno Wheat Variety Trial
Dual-purpose and Late-planted Grain-only

wheat.okstate.edu

Cooperator: Jerry Lingo | **Extension Educator: Kyle Worthington**

Planting date: 10/19/2022 (dual-purpose) & 11/21/22 (grain-only) | **Previous crop: Wheat**

Harvest date: 06/20/2023 | **Soil type: Bethany silt loam**

Tillage: Conventional | **Soil test: pH=5.6, N= 106, P= 63, K= 365**

Licensee	*Variety*	*Grain Yield*			*Weed seed incidence*
		Dual-purpose	*Grain-Only*	*Diff*	*Grain-only*
		---------- *bu/ac* ----------			
OGI	High Cotton	70	30	40	11
OGI	Showdown	67	56	11	5
Westbred	WB4422	67	47	20	6
AgriPro	AP Prolific	66	54	12	5
OGI	Doublestop CL+	65	45	21	8
AGSECO	AG Radical	65	52	13	6
PlainsGold	Breck	64	42	22	8
Westbred	WB4632	63	46	17	6
AgriMAXX	AM Cartwright	62	39	23	7
OGI	Uncharted	62	39	24	10
PlainsGold	Crescent AX	61	49	12	7
OGI	Green Hammer	61	45	16	6
Croplan	CP7017AX	61	36	25	11
OGI	Big Country	60	47	13	7
OGI	Gallagher	60	37	23	8
Westbred	WB4401	60	36	24	10
LCS	LCS Atomic AX	59	45	14	8
OGI	Strad CL+	55	23	32	16
OGI	Smith's Gold	52	30	23	11
KWA	KS Ahearn	50	40	11	9
OGI	OK Corral	50	36	14	9
AgriPro	AP EverRock	48	33	15	8
OGI	Butler's Gold	40	35	5	16
	Experimentals				
OSU	OK15MASBx7 ARS 8-29	60	39	21	9
OSU	OK16107133-19-3	60	42	18	7
OSU	OK18205	58	56	2	5
OSU	OK15DMASBx7 ARS 6-8	58	45	13	8
	Mean	**59**	**42**	**17**	**8**
	LSD (0.05)	**9**	**9**	**--**	**--**

Notes: Grain yield and protein concentration were adjusted to 12% moisture content. Shaded values were not statistically different from the highest value within a column. Dual-purpose plots were grazed from 01/8/23 to 03/1/23 at an average stocking rate of 206 pounds of animal BW per acre.

The grain-only trial was planted and emerged much later than the optimal time due to lack of moisture in the fall. The late emerged and unacclimated wheat experienced very cold temperatures in late December and early February, which may have differentially reduced spring tillering ability among varieties. Also, freeze injury was not determined in March, which could have accounted for the uncharacteristic declines in grain yield between the dual-purpose and grain-only trials. These differences, therefore, should not be interpreted simply as a response to grazing or no grazing. There was high to moderate pressure of weed infestation across the trial. The weeds present were Wild Buckwheat, Jointed Goatgrass, Italian Ryegrass, and Rescuegrass. Most of them appeared after the rain events in late April and May. Weed pressure was assessed by estimating the percent of weed seeds within a sample. Due to the presence of weed seeds in the grain-only samples, test weight and grain protein concentration were not measured. Double-dashes"--" = data not available.

Oklahoma State University
Partial financial support provided by the Oklahoma Wheat Commission and the Oklahoma Wheat Research Foundation