Chickasha Wheat Variety Trial
Standard vs. Intensive Management Comparison

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Cooperator: OSU South Central Research Station
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Planting & harvest dates: 10/21/2022 & 06/07/2023
Previous crop: Austrian winter peas
Management: Grain-only, conventional tillage
Soil Type: Dale silt loam
Seeding rate for IM: 1.2 million seeds/acre
Soil test: pH=6.6, N= 56, P= 35, K= 221
Nitrogen: 6 lbs/ac 10-34-0 at planting, 80 lbs/ac on 2/20/23 and 60 lbs/ac on 3/15/23
Fungicide: 2.6 fl oz/ac Tebucure 3.6 at jointing on 3/23/23 and 8.6 fl oz/ac Nexicor at flag leaf-boot stage on 4/12/23

Licensee	*Variety*	*Grain Yield*			*Test Weight*			*Wheat Protein*			Leaf Rust
		Standard	Intensive	Diff	Standard	Intensive	Diff	Standard	Intensive	Diff	Standard
		---------- *bu/ac* ----------			---------- *lb/bu* ----------			---------- *%* ----------			*-- CI --*
AgriPro	Bob Dole	87	94	7	60.2	60.7	0.6	13.5	14.0	0.4	2
Westbred	WB4422	86	94	8	59.0	60.6	1.6	13.6	13.9	0.4	2
AgriPro	AP Prolific	85	91	7	60.3	61.6	1.3	13.8	13.6	-0.2	16
Westbred	WB4632	84	90	5	58.5	59.6	1.1	12.8	12.9	0.1	8
PlainsGold	Breck	83	94	11	61.6	62.2	0.5	13.2	13.8	0.6	2
OGI	Big Country	83	87	5	58.9	59.5	0.6	14.5	15.0	0.5	2
KWA	KS Providence	83	93	10	58.9	60.2	1.3	13.3	13.3	0.0	2
PlainsGold	Kivari AX	83	90	7	58.6	59.2	0.5	12.3	12.8	0.5	50
OGI	Gallagher	82	91	9	59.0	59.6	0.6	13.7	13.6	-0.1	4
AGSECO	AG Golden	82	92	10	57.1	59.1	2.0	12.8	12.9	0.2	24
OGI	Showdown	82	93	11	59.1	58.6	-0.5	13.2	13.2	0.0	8
LCS	LCS Steel AX	81	84	4	59.8	60.0	0.2	13.3	13.8	0.5	4
OGI	Doublestop CL+	80	81	1	61.8	61.6	-0.2	15.3	15.9	0.5	2
LCS	LCS Julep	80	84	5	61.2	60.0	-1.2	13.7	14.2	0.5	50
AgriMAXX	AM Cartwright	79	84	5	58.2	60.0	1.8	14.1	13.9	-0.2	2
PlainsGold	Canvas	78	85	7	58.8	59.9	1.1	13.6	13.4	-0.2	8
OGI	OK Corral	78	91	13	57.8	58.7	1.0	13.6	14.1	0.5	16
LCS	LCS Helix AX	77	93	16	60.1	60.0	-0.1	12.9	13.2	0.3	--
AgriPro	AP Bigfoot	77	92	16	59.1	59.6	0.5	13.2	13.7	0.5	--
LCS	LCS Chrome	76	79	3	58.8	60.3	1.5	14.9	14.4	-0.6	0
Westbred	WB4401	76	90	14	57.7	59.1	1.4	12.9	13.3	0.4	4
PlainsGold	Crescent AX	76	88	12	59.5	60.5	1.1	13.1	13.1	0.0	4
OGI	Smith's Gold	76	87	11	59.7	60.6	0.8	13.7	14.1	0.4	0
Croplan	CP7017AX	75	88	13	57.5	59.6	2.2	13.2	13.7	0.5	24
LCS	LCS Atomic AX	75	86	11	58.9	60.1	1.2	13.1	12.8	-0.3	--
KWA	KS Ahearn	75	91	16	56.7	59.2	2.5	13.9	13.5	-0.4	2
AgriPro	AP EverRock	73	85	12	58.6	59.8	1.2	13.1	14.0	0.9	--
Croplan	CP7266AX	73	92	19	60.0	60.6	0.6	13.3	13.7	0.4	40
OGI	High Cotton	73	88	15	60.1	61.4	1.3	13.3	13.5	0.2	2
AGSECO	AG Radical	72	82	10	57.0	58.5	1.5	15.4	14.5	-0.9	2
OGI	Green Hammer	72	81	9	59.7	59.7	0.0	15.8	16.0	0.3	2
LCS	LCS Photon AX	72	79	7	59.8	60.9	1.1	14.0	14.4	0.4	8
Westbred	WB4523	72	79	8	57.3	58.0	0.7	13.2	13.6	0.4	0
Westbred	WB4792	72	88	16	59.5	60.4	0.9	13.3	13.4	0.2	4
AgriPro	AP Longjack	71	79	9	58.6	58.3	-0.2	14.7	15.5	0.8	0
OGI	Strad CL+	71	74	3	59.0	59.5	0.5	15.3	15.9	0.6	2
LCS	LCS Galloway AX	71	82	12	58.7	61.2	2.4	14.8	15.0	0.2	4
OGI	Uncharted	70	77	7	59.3	59.5	0.3	13.8	13.9	0.1	0
OGI	Butler's Gold	70	78	8	60.4	60.6	0.2	14.5	14.7	0.2	--
	Experimentals										
OSU	OK19225	86	87	1	62.0	62.3	0.3	13.9	13.6	-0.4	2
OSU	OK15MASBx7 ARS 8-29	83	92	9	59.5	61.0	1.5	13.3	13.7	0.4	0
OSU	OK16107133-19-3	80	80	0	60.6	61.3	0.7	14.2	14.0	-0.1	40
OSU	OK15DMASBx7 ARS 6-8	66	82	16	60.1	61.5	1.4	14.8	15.2	0.4	2
	Mean	**77**	**86**	**9**	**59.2**	**60.1**	**0.9**	**13.8**	**14.0**	**0.2**	**9**
	LSD (0.05)	**7**	**7**	**--**	**1.2**	**1.1**	**--**	**0.6**	**0.7**	**--**	**--**

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. The crop experienced drought stress during the season and received a few timely rains in the spring, which enhanced realized yield in this particular environment relative to the statewide yield average. The rainfall events that occurred during the grain filling period resulted in increased pressure of Leaf rust and Septoria fungal diseases.Leaf rust was rated utilizing the Coefficient of Infection (CI) method. Coefficient of Infection = Severity (%) * Constant for infection response.The greater the value the more susceptible a variety is to leaf rust. Double-dashes"--" = data not available.

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