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Lahoma Wheat Variety Trial Standard vs. Intensive Management Comparison

Cooperator: OSU North Central Research Station

Planting & harvest dates: 10/27/2022 & 06/15/2023

Management: Grain-only, conventional tillage

Seeding rate: 1.2 million seeds/acre

Nitrogen: 6 lbs/ac 10-34-0 at planting, 96 lbs/ac on 8/11/22, 50 lbs/ac 3/15/23 Fungicide: 2.9 fl oz/ac Tebucure 3.6 at jointing on 3/22/23 and 6.5 fl oz/ac Trivapro at flag leaf-boot stage on 4/14/23 Licensee Varietv Grain Yield Test Weigh Wheat Protein Standard Diff Diff Standard Diff Intensive Standard Intensive Intensive bu/ac lb/bı KS Providence 77 85 8 59.8 59.6 -0.2 15.0 14.8 -0.2 AGSECO AG Radical 73 75 2 59.2 59.4 0.2 15.0 15.7 0.7 AgriPro Bob Dole 72 77 5 59.9 60.3 0.4 15.4 16.0 0.6 Westbred WB4632 72 82 10 60.2 60.0 -0.2 14.1 14.2 0.1 PlainsGold Kivari AX 71 79 8 60.9 60.6 -0.3 13.6 14.7 1.1 AgriPro AP Prolific 71 82 11 59.8 59.6 -0.2 14.9 15.0 0.1 PlainsGold Breck 70 81 11 61.4 61.0 -04 14.7 15.2 05 PlainsGold Canvas 70 83 13 61.2 60.6 -0.6 14.4 14.8 0.4 PlainsGold Crescent AX 77 7 59.8 59.2 -0.6 14.4 14.9 0.5 70 LCS Helix AX 69 74 5 58.9 60.1 1.2 14.2 14.8 0.6 Croplan CP7266AX 69 75 6 60.2 59.5 -0.7 14.7 15.1 0.4 Westbred WB4422 69 79 10 61.1 60.9 -0.2 15.4 16.3 0.9 Big Country 68 78 10 59.7 59.7 0.0 15.4 15.8 0.4 LCS Julep 68 78 10 62.4 61.2 -1.2 15.5 15.8 0.3 AgriPro SY Wolverine 68 77 9 59.7 59.6 -0.1 15.7 15.6 -0.2 AGSECO AG Golden 76 9 59 5 59 5 0.0 13.4 13.4 0.0 67 Showdown 67 82 15 59.6 59.9 0.3 14.7 14.9 0.2 Green Hammer 67 80 13 60.9 60.2 -0.7 16.9 16.8 -0.1 LCS Galloway AX 67 81 14 60.0 60.2 0.2 15.4 15.5 0.1 Gallagher 66 85 19 60.5 60.6 0.1 14.7 14.7 0.0 LCS Atomic AX 66 73 7 58.7 59.5 0.8 13.9 15.4 1.5 KS Ahearn 65 79 14 59.1 60.2 1.1 15.2 15.6 0.4 LCS Chrome 65 73 8 60.8 60 1 -0.7 15.6 15.6 0.0 AgriMAXX AM Cartwright 76 12 59.6 59.5 -0.1 15.1 14.9 -0.2 64 Croplan CP7017AX 63 74 11 59.4 58 7 -0.7 14.5 15.1 0.6 0.2 Westbred WB4401 76 13 59.2 58.6 -0.6 14.3 14.5 63 AgriPro AP Longjack 63 74 11 58.1 59.1 1.0 15.6 15.3 -0.3 Iha 62 76 14 60.3 60.1 -0.2 13.9 13.7 -0.2 LCS Steel AX 62 67 5 59.9 59.0 -0.9 15.0 15.6 0.6 High Cotton 61 74 13 60.5 60.0 -0 5 14 7 14.8 0.1 Bentley 60 75 15 59.5 59.5 0.0 15.4 15.4 0.0 OK Corral 60 82 22 57.5 58.8 1.3 15.0 15.1 0.1 AgriPro AP EverRock 59 66 7 59.2 59 5 0.3 15.9 16.8 0.9 Doublestop CL+ 59 75 16 61.5 60.9 -0.6 16.8 17.0 0.2 AgriPro AP Bigfoot 59 69 10 59.5 59.7 0.2 15.2 15.3 0.1 Smith's Gold 59 70 11 60.5 60.1 -0.4 15.4 15.4 0.0 Westbred WB4523 59 66 7 59 1 579 -12 13.7 147 10 Baker's Ann 58 69 11 58.9 59.7 0.8 15.3 15.4 0.1 LCS Photon AX 58 69 11 59.9 60.0 0.1 15.7 15.9 0.2 Westbred WB4792 57 62 62.9 61.2 -1.7 15.1 15.2 0.1 5 Butler's Gold 55 64 9 58.9 597 0.8 16.8 17.7 0.9 Strad CL+ 55 71 16 59.8 60.7 0.9 17.1 16.5 -0.6 Uncharted 51 65 14 59.4 -0.1 15.8 15.5 -0.3 59.3 Butler's Gold (late-planted) 31 35 Δ 57.6 58.5 0.9 19.2 19.4 0.2 Experimental OK15MASBx7 ARS 8-29 69 83 14 60.5 61 1 0.6 14 5 14.2 -0.3 OK15DMASBx7 ARS 6-8 75 15 61.2 60.7 -0.5 15.5 15.2 -0.3 60 OK16107133-19-3 60 64 60.6 60.0 -0.6 16.4 16.6 0.2 Δ Mean 64 74 10 59.9 0.0 15.2 15.4 0.2 59.9

Notes:

LSD (0.05)

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 rain later in the spring, which enhanced realized yield in this particular environment relative to the statewide yield average. Septoria fungal disease was observed at moderate pressure and leaf rust appearead later in the season at low pressure. This is the second year to conduct an intensive management (IM) trial at Lahoma. Due to this addition and the use of a different experimental design, data from the 2021 harvest year were not utilized to provide 3-year averages. Butler's Gold late-planted was planted on 12/5/2022 at 1.4 million seeds/acre. Double-dashes"---" = data not available.

1.0

0.9

0.6

0.5

10

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Extension Educator: Rick Nelson Previous crop: Austrian winter peas Soil Type: Pond Creek silt loam Soil test: pH=5.2, N= 146, P= 111, K= 352