

# **K-STATE**

**Research and Extension**

**Kansas State University  
Extension**

**Southcentral Kansas Replicated  
Wheat Variety Tests 2017**

*Arkansas City, Andale, Bell Plaine, Caldwell,  
Harper, and Newton Locations*

Wheat plots were conducted in cooperation between K-State Agriculture  
Extension Agents Jenni Carr, Ryan Flaming, Randy Hein,  
Zach Simon, and Jill Zimmerman  
Romulo Lollato and Doug Shoup, KSU Extension Agronomists

*Special thanks to DuPont, Syngenta, SMC, Westbred, Dyno-Grow,  
Agri-Max, and Impact Bank for sponsorship of trial*

Andale Wheat Plot

KSU Area Extension Southcentral Wheat Yield Results

Doug Shoup, Jill Zimmerman, Randy Hein, Zach Simon, Jenni Carr, Ryan Flaming, Ken Bryant, Romulo Lollato

Name	Fungicide	Yield Bu/a	Disease Intensity % damage	Location Notes
<b>Gallagher</b>	<b>Fungicide</b>	<b>68.0 a</b>	<b>35 f</b>	BYD spring infection
<b>Gallagher</b>	<b>Untreated</b>	<b>65.4 abc</b>	<b>77 abc</b>	Strip rust early infection
<b>WB4515</b>	<b>Fungicide</b>	<b>66.3 ab</b>	<b>14 hi</b>	Late leaf rust infection
<b>WB4515</b>	<b>Untreated</b>	<b>61.9 d-g</b>	<b>67 cde</b>	
Longbranch	Fungicide	64.4 bcd	21 ghi	
Longbranch	Untreated	59.7 f-i	66 de	
Iba	Fungicide	63.8 b-e	23 gh	From the Factoral analysis, it appears fungicide across all varieties averaged +3bu/a
Iba	Untreated	61.3 d-h	67 cde	
Zenda	Fungicide	62.6 c-f	16 hi	
Zenda	Untreated	59.8 f-i	65 de	
Everest	Fungicide	62.3 c-f	68 cde	
Everest	Untreated	56.0 jk	83 a	
Larry	Fungicide	62.0 d-g	16 hi	
Larry	Untreated	58.1 hij	77 abc	
SY Monument	Fungicide	61.1 e-i	14 hi	
SY Monument	Untreated	58.1 hij	58 e	
Bentley	Fungicide	60.9 e-i	12 i	
Bentley	Untreated	57.9 ij	72 bcd	
1863	Fungicide	60.9 e-i	29 fg	
1863	Untreated	53.8 kl	80 ab	
SY Flint	Fungicide	60.6 e-i	28 fg	
SY Flint	Untreated	58.1 hij	80 ab	
Eastwood	Fungicide	60.4 e-i	19 ghi	
Eastwood	Untreated	58.9 g-j	67 cde	
WB4269	Fungicide	60.2 f-i	24 gh	
WB4269	Untreated	60.4 f-i	65 de	
Doublestop2	Fungicide	52.7 kl	23 gh	
Doublestop2	Untreated	52.4 l	62 de	
LSD (P=.10)		3.332	10.081	
Standard Deviation		2.399	7.259	
CV		3.98	15.3	
Bartlett's X2		13.546	38.396	
P(Bartlett's X2)		0.985	0.042*	
Replicate F		97.053	9.023	
Replicate Prob(F)		0.0001	0.0009	
Treatment F		7.192	38.13	
Treatment Prob(F)		0.0001	0.0001	

Means followed by same letter do not significantly differ (P=.10, LSD)

Mean separations are based on the complete error term.

t=Mean descriptions are reported in transformed data units, and are not de-transformed.

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

## ArkCity Wheat Plot

## KSU Area Extension Southcentral Wheat Yield Results

Doug Shoup, Jill Zimmerman, Randy Hein, Zach Simon, Jenni Carr, Ryan Flaming, Ken Bryant, Romulo Lollato

Name	Fungicide	Yield Bu/a	Disease Intensity % damage	Location Notes
<b>Zenda</b>	<b>Fungicide</b>	<b>91.2 a</b>	2 f	Heavy Aphids early season
<b>Zenda</b>	<b>Untreated</b>	<b>83.6 a</b>	9 ef	BYD spring infection
Gallagher	Fungicide	74.8 b	3 f	Strip rust early infection
Gallagher	Untreated	66.3 c-g	12 ef	Late leaf rust infection
SY Monument	Fungicide	73.2 bc	3 f	From the Factoral analysis, it appears fungicide across all varieties added 7.5bu/a
SY Monument	Untreated	70.8 bc	8 ef	
SY Flint	Fungicide	71.2 bc	4 f	
SY Flint	Untreated	58.4 f-j	45 bc	
WB4269	Fungicide	70.4 bc	5 f	
WB4269	Untreated	58.9 f-j	19 def	
Iba	Fungicide	69.3 bc	5 f	
Iba	Untreated	69.7 bc	20 def	
Everest	Fungicide	68.8 bcd	25 de	
Everest	Untreated	55.5 ijk	60 ab	
Longbranch	Fungicide	67.7 b-e	5 f	
Longbranch	Untreated	57.3 hij	7 ef	
<i>Doublestop2</i>	<i>Fungicide</i>	<i>65.1 c-h</i>	4 f	
<i>Doublestop2</i>	<i>Untreated</i>	<i>66.5 c-f</i>	2 f	
<i>1863</i>	<i>Fungicide</i>	<i>65.0 c-h</i>	6 ef	
<i>1863</i>	<i>Untreated</i>	<i>57.1 hij</i>	62 ab	
<i>WB4515</i>	<i>Fungicide</i>	<i>61.0 d-i</i>	3 f	
<i>WB4515</i>	<i>Untreated</i>	<i>45.3 l</i>	37 cd	
<i>Bentley</i>	<i>Fungicide</i>	<i>60.1 e-i</i>	4 f	
<i>Bentley</i>	<i>Untreated</i>	<i>54.5 ijk</i>	65 a	
<i>Larry</i>	<i>Fungicide</i>	<i>54.7 ijk</i>	5 f	
<i>Larry</i>	<i>Untreated</i>	<i>51.2 jkl</i>	63 ab	
<i>Eastwood</i>	<i>Fungicide</i>	<i>58.1 g-j</i>	6 ef	
<i>Eastwood</i>	<i>Untreated</i>	<i>48.7 kl</i>	38 cd	

LSD (P=.05)	1873.631	8.246	19.571
Standard Deviation	1120.469	4.931	11.704
CV	3.64	7.69	62.22
Bartlett's X2	20.74	36.838	90.016
P(Bartlett's X2)	0.001*	0.098	0.001*

Replicate F	5801.528	24.171	1.187
Replicate Prob(F)	0.0001	0.0001	0.3199
Treatment F	2198.605	12.708	10.141
Treatment Prob(F)	0.0001	0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, LSD)

Mean separations are based on the complete error term.

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Bell Plaine Wheat Plot

KSU Area Extension Southcentral Wheat Yield Results

Doug Shoup, Randy Hein, Zach Simon, Jill Zimmerman, Jenni Carr, Ryan Flaming, Doug Hisken, Romulo Lollato

Varieties are ordered by how the fungicide plots yielded

Name	Fungicide	Yield Bu/a	Disease Intensity % damage	Location Notes
<b>SY Monument</b>	<b>Fungicide</b>	<b>91.0 a</b>	<b>2 h</b>	
<b>SY Monument</b>	<b>Untreated</b>	<b>87.1 a-d</b>	<b>4 e-h</b>	Strip rust early infection
<b>Gallagher</b>	<b>Fungicide</b>	<b>90.4 a</b>	<b>2 gh</b>	Late leaf rust infection
<b>Gallagher</b>	<b>Untreated</b>	<b>88.8 ab</b>	<b>5 d-h</b>	little overall disease injury
<b>SY Flint</b>	<b>Fungicide</b>	<b>87.6 abc</b>	<b>5 e-h</b>	
<b>SY Flint</b>	<b>Untreated</b>	<b>78.8 f-i</b>	<b>33 a</b>	
Larry	Fungicide	85.3 b-e	1 h	
Larry	Untreated	79.0 f-i	15 bc	
1863	Fungicide	84.9 b-e	1 h	
1863	Untreated	83.7 cde	11 cd	
Bentley	Fungicide	84.6 b-e	2 gh	
Bentley	Untreated	78.3 ghi	8 def	
Longbranch	Fungicide	84.4 b-e	4 e-h	
Longbranch	Untreated	77.8 hij	9 cde	
WB4269	Fungicide	83.3 c-f	3 fgh	
WB4269	Untreated	78.7 f-i	7 d-h	
Iba	Fungicide	83.3 c-f	3 fgh	
Iba	Untreated	87.1 a-d	7 d-h	
WB4515	Fungicide	82.8 d-g	2 h	
WB4515	Untreated	73.1 j	8 d-g	
Zenda	Fungicide	81.3 e-h	2 gh	
Zenda	Untreated	76.5 ij	4 e-h	
Everest	Fungicide	80.6 e-i	4 e-h	
Everest	Untreated	77.1 hij	32 a	
Eastwood	Fungicide	76.5 ij	3 fgh	
Eastwood	Untreated	67.7 k	17 b	
Doublestop2	Fungicide	76.3 ij	2 gh	
Doublestop2	Untreated	76.0 ij	3 fgh	
LSD (P=.10)		4.738	5.902	
Standard Deviation		3.411	4.25	
CV		4.19	12.74	

Means followed by same letter do not significantly differ (P=.10, LSD)

Mean separations are based on the complete error term.

Caldwell Wheat Plot

KSU Area Extension Southcentral Wheat Yield Results

Doug Shoup, Randy Hein, Zach Simon, Jenni Carr, Jill Zimmerman, Ryan Flaming, Greg Turek, Romulo Lollato

Varieties are ordered by how the fungicide plots yielded

Name	Fungicide	Yield Bu/a	Disease Intensity % damage	Location Notes
<b>Gallagher</b>	<b>Fungicide</b>	<b>91.9 a</b>	<b>19 fg</b>	Strip rust early infection
<b>Gallagher</b>	<b>Untreated</b>	<b>88.6 ab</b>	<b>50 b</b>	Late leaf rust infection
<b>SY Monument</b>	<b>Fungicide</b>	<b>90.8 a</b>	<b>8 h</b>	Disease present at time ___of fungicide application
<b>SY Monument</b>	<b>Untreated</b>	<b>84.8 cd</b>	<b>15 fgh</b>	Disease was heavy mid May
WB4269	Fungicide	86.3 bc	10 gh	
WB4269	Untreated	82.8 cde	45 bc	Yield increase avg across varieties was 6.6bu/a
WB4515	Fungicide	86.0 bc	9 gh	
WB4515	Untreated	79.0 f	70 a	
Zenda	Fungicide	81.5 def	10 gh	
Zenda	Untreated	78.2 fg	34 d	
Everest	Fungicide	80.6 ef	47 b	
Everest	Untreated	74.0 hi	73 a	
Doublestop2	Fungicide	80.3 ef	15 fgh	
Doublestop2	Untreated	80.2 ef	48 b	
Bentley	Fungicide	74.9 gh	23 ef	
Bentley	Untreated	63.5 mn	78 a	
Larry	Fungicide	74.2 hi	33 de	
Larry	Untreated	65.3 lm	80 a	
1863	Fungicide	73.6 hij	25 def	
1863	Untreated	57.5 o	80 a	
Iba	Fungicide	73.1 hij	16 fgh	
Iba	Untreated	65.0 lm	72 a	
SY Flint	Fungicide	72.9 hij	35 cd	
SY Flint	Untreated	68.7 kl	80 a	
Eastwood	Fungicide	71.0 ijk	19 fg	
Eastwood	Untreated	66.0 lm	80 a	
Longbranch	Fungicide	69.9 jk	15 fgh	
Longbranch	Untreated	61.0 no	75 a	
LSD (P=.10)		3.793	10.131	
Standard Deviation		2.731	7.294	
CV		3.6	17.52	

Means followed by same letter do not significantly differ (P=.10, LSD)

Mean separations are based on the complete error term.

Harper Wheat Plot

KSU Area Extension Southcentral Wheat Yield Results

Doug Shoup, Jenni Carr, Randy Hein, Zach Simon, Jill Zimmerman, Ryan Flaming, Roy Davis, Romulo Lollato

Varieties are ordered by how the fungicide plots yielded

Name	Fungicide	Yield Bu/a	Disease Intensity % damage	Location Notes
<b>Zenda</b>	<b>Fungicide</b>	<b>89.2 a</b>	<b>4 i</b>	Strip rust early infection
<b>Zenda</b>	<b>Untreated</b>	<b>81.4 c</b>	<b>11 i</b>	Late leaf rust infection
<b>SY Monument</b>	<b>Fungicide</b>	<b>87.0 ab</b>	<b>8 i</b>	Disease was heavy mid May
<b>SY Monument</b>	<b>Untreated</b>	<b>81.6 c</b>	<b>11 i</b>	Yield increase avg across
<b>WB4269</b>	<b>Fungicide</b>	<b>86.2 ab</b>	<b>13 hi</b>	varieties was 9.9bu/a
<b>WB4269</b>	<b>Untreated</b>	<b>78.4 cde</b>	<b>32 fg</b>	
Gallagher	Fungicide	85.3 b	9 i	
Gallagher	Untreated	85.6 b	30 fg	
Larry	Fungicide	81.5 c	5 i	
Larry	Untreated	64.0 i	63 bc	
Doublestop2	Fungicide	81.2 c	6 i	
Doublestop2	Untreated	81.3 c	9 i	
WB4515	Fungicide	80.8 c	6 i	
WB4515	Untreated	73.0 g	22 gh	
Longbranch	Fungicide	80.4 c	6 i	
Longbranch	Untreated	59.2 j	45 de	
Eastwood	Fungicide	79.0 cd	6 i	
Eastwood	Untreated	63.5 i	63 bc	
Iba	Fungicide	77.0 def	12 hi	
Iba	Untreated	66.5 hi	43 e	
Everest	Fungicide	76.2 def	40 ef	
Everest	Untreated	69.2 h	73 ab	
1863	Fungicide	75.6 efg	12 hi	
1863	Untreated	63.6 i	77 a	
SY Flint	Fungicide	75.5 efg	22 gh	
SY Flint	Untreated	67.8 h	75 a	
Bentley	Fungicide	75.1 fg	6 i	
Bentley	Untreated	56.4 j	55 cd	
LSD (P=.10)		3.2	10	
Standard Deviation		2.3	7	
CV		3.1	27	

Means followed by same letter do not significantly differ (P=.10, LSD)

Mean separations are based on the complete error term.

Newton Wheat Plot

KSU Area Extension Southcentral Wheat Yield Results

Doug Shoup, Ryan Flaming, Zach Simon, Randy Hein, Jenni Carr, Jill Zimmerman, Sid Nattier, Romulo Lollato

Varieties are ordered by how the fungicide plots yielded

Name	Fungicide	Yield Bu/a	Location Notes
<b>SY Flint</b>	<b>Intensive Management</b>	<b>82.4 a</b>	Fungicide treatments had:
<b>SY Flint</b>	<b>Standard</b>	<b>66.6 c-h</b>	Feeks 6 fungicide
<b>Gallagher</b>	<b>Intensive Management</b>	<b>77.3 ab</b>	An extra 40lbs N/ac
<b>Gallagher</b>	<b>Standard</b>	<b>57.2 ijk</b>	Two flag leaf fungicides
<b>SY Monument</b>	<b>Intensive Management</b>	<b>76.9 ab</b>	
<b>SY Monument</b>	<b>Standard</b>	<b>68.5 c-g</b>	Non-intensive plots received
WB4269	Intensive Management	74.2 bc	one fungicide application at
WB4269	Standard	65.1 d-i	flag leaf
Zenda	Intensive Management	73.7 bc	
Zenda	Standard	61.3 g-j	
Eastwood	Intensive Management	71.3 bcd	
Eastwood	Standard	56.7 jkl	
Longbranch	Intensive Management	71.0 b-e	
Longbranch	Standard	53.3 klm	
Iba	Intensive Management	70.7 b-f	
Iba	Standard	58.8 h-k	
Bentley	Intensive Management	65.6 d-h	
Bentley	Standard	52.0 klm	
WB4515	Intensive Management	65.4 d-h	
WB4515	Standard	52.7 klm	
Larry	Intensive Management	65.0 d-i	
Larry	Standard	49.2 lm	
Everest	Intensive Management	63.1 e-j	
Everest	Standard	52.8 klm	
1863	Intensive Management	63.0 f-j	
1863	Standard	51.7 klm	
Doublestop2	Intensive Management	56.0 jkl	
Doublestop2	Standard	47.1 m	
LSD (P=.10)		7.926	
Standard Deviation		5.707	
CV		9.04	

Means followed by same letter do not significantly differ (P=.10, LSD)

Mean separations are based on the complete error term.