



Current Report

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1982 ALFALFA VARIETY YIELD TRIALS

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The trials reported herein were conducted on the Oklahoma Agricultural Experiment Station to identify superior alfalfa varieties for Oklahoma.

WEATHER

Soil moisture was relatively good during the 1981-82 winter season, but dry soils limited early spring growth. Exceptionally high amounts of rain fell from early-May to mid-June. This split the first-cut season. Most alfalfa not cut before the first week of May was not harvested until late-June. Alfalfa yields were high where the first harvest was removed early and the soils were well-drained. Other locations suffered drastically reduced yields and/or loss of stands. Yields in August and September were relatively low due to lack of rainfall.

PESTS

Phytophthora root rot, coupled with the excessive rainfall in late spring, was the most important pest during the 1982 growing season. Plants which survived the saturated soil conditions were severely affected by the onset of drought in the late summer--apparently due to

root-pruning. Alfalfa weevils were severe, especially in the southwest part of the state, from March through May. Pea aphids and blue alfalfa aphids were present in isolated locations, causing little damage until October. During October through December 1982, several locations sustained severe outbreaks. Potato leaf hoppers and garden web-worms were only reported in low numbers in the eastern part of the state.

Over 100 alfalfa varieties and experimental strains are currently being tested by Oklahoma Agricultural Experiment Station. This report does not attempt to cover all entries under test. As sufficient data are collected other promising varieties will be included in future reports.

LSD (Least Significant Difference) is a statistical test of yield differences. If the 5% LSD number is greater than the yield difference between two varieties, we cannot be confident there is any difference in yield.

The 5% LSD number must be smaller than the yield difference between two varieties before we can be 95% sure than the differences are not due to environmental irregularities and errors.

Subjective Summary Of Alfalfa Trials

1976-82

Variety	Cumulative Overall Rating	No. of Years Tested in OK	Total No. of Trials	Station Years*
WL-318	Very Good	5	17	50
Cimarron	Very Good	3	7	20
555	Very Good	3	10	19
Pike	Very Good	3	3	9
Advantage	Very Good	3	3	9
Riley	Very Good	4	18	44
Apollo	Good	5	10	34
Hi-phy	Good	3	4	10
WL-312	Good	3	3	9
Trident	Good	3	3	9
WL-313	Good	2	2	4
WL-314	Good	2	2	4
Southern Special	Good	2	2	4
532	Good	1	4	4
OK 08	Good	1**	4	4
Arc	Fair	5	21	58
Kanza	Fair	5	12	44
Liberty	Fair	5	12	41
Vanguard	Fair	4	10	34
Buffalo	Fair	4	9	29
Cody	Fair	4	7	22
Dawson	Fair	5	6	20
Team	Fair	5	4	16
Olympic	Fair	4	3	12
Common	Fair	**		
Corona	Fair	2	2	4

* Nine station years with one trial lasting at least three years usually establishes a strong trend.

** OK 08 has been in numerous previous tests designated as Elsener's common. Other Oklahoma common strains have also been tested in numerous trials.

Eastern Research Station

Haskell-Muskogee Co. 1981-1982

Entry	Tons Dry Matter/Acre					1981 3 cuts	2 yr. Average	Relative Yield ^{1/}
	1982				Total			
	4-21	6-7	7-8	8-18				
Cimarron	1.92	1.60	1.11	0.83	5.46	4.13	4.80	107
555	1.88	1.71	1.18	0.87	5.64	3.90	4.77	106
Teason	1.85	1.51	1.13	0.86	5.35	4.12	4.74	106
Arc*	1.98	1.55	0.98	0.75	5.26	3.91	4.59	102
Corona	1.80	1.53	1.31	0.83	5.47	3.66	4.57	102
Wash SNI	1.52	1.56	1.27	0.89	5.25	3.71	4.48	100
Riley*	1.64	1.56	1.09	0.82	5.10	3.67	4.39	98
OK 10	1.57	1.43	1.32	0.91	5.23	3.45	4.34	97
MSP6 CLS4	1.60	1.56	1.02	0.71	4.90	3.53	4.22	94
Baker	1.89	1.44	0.69	0.69	4.72	3.65	4.19	93
Syn XX	1.41	1.44	0.95	0.82	4.62	3.61	4.12	92
Washoe	1.39	1.33	1.06	0.70	4.48	3.26	3.87	86
Average	1.70	1.52	1.09	0.81	5.12	3.72	4.42	-
5% LSD	0.14	0.13	0.13	0.11	0.26	0.26	0.19	-
CV (%)	7.0	7.6	10.0	11.6	4.4	6.1	5.4	-

^{1/} Percent of average of Arc and Riley

Location: Eastern Research Station
 Planting Date: 10/4/80
 Design: RCB w/6 Reps
 Soil Type: Taloka Silt

Plot Size: 1m x 5m
 Dryland
 Exp. No. 051

**Agronomy Research Station
Stillwater-Payne Co. 1980-82**

Entry	Tons Dry Matter/Acre							3 yr. Avg.	Relative Yield ^{1/}
	6/4**	7/9	1982 8/13	9/28	Total	1981 5 cuts	1980 5 cuts		
555	2.38	1.93	1.82	1.39	7.52	9.48	8.37	8.46	126
PCC 77-122 Br	2.36	1.63	1.66	1.22	6.87	8.92	8.50	8.10	120
Pike	2.03	1.63	1.56	1.12	6.34	8.73	8.24	7.77	115
Advantage	2.38	1.61	1.50	1.12	6.61	8.46	8.21	7.76	115
Cimarron	2.36	1.70	1.53	1.08	6.68	8.32	8.22	7.74	115
Trident	2.12	1.59	1.62	1.17	6.50	8.56	8.02	7.69	114
Hi-phy	2.15	1.72	1.61	1.16	6.63	8.53	7.62	7.59	113
WL-318	2.16	1.51	1.62	1.17	6.46	8.26	8.03	7.58	113
Apollo	2.14	1.67	1.66	1.19	6.65	8.41	7.65	7.57	112
WL-312	2.03	1.49	1.50	0.98	6.01	8.59	7.86	7.49	111
Vanguard	2.16	1.58	1.27	1.00	6.01	7.95	7.35	7.10	105
Vancor	2.16	1.68	1.41	1.09	6.33	7.60	7.29	7.07	105
Kanza	1.84	1.16	1.42	1.12	5.54	7.75	7.93	7.07	105
Buffalo	1.69	1.34	1.44	1.15	5.62	8.51	6.99	7.04	105
G7730	2.01	1.60	1.49	1.08	6.18	7.51	7.35	7.01	104
Classic	2.13	1.37	1.34	0.97	5.80	7.43	7.43	6.89	102
Arc*	2.22	1.16	1.09	0.81	5.28	7.48	7.86	6.87	102
Dawson*	1.87	1.28	1.28	0.91	5.34	7.49	7.46	6.76	100
Baker*	2.21	1.19	1.21	0.86	5.47	7.08	7.43	6.66	99
Riley*	1.57	1.17	1.24	0.92	4.90	7.49	7.53	6.64	99
Liberty	2.06	1.14	1.24	0.86	5.29	6.81	7.50	6.53	97
Gladiator	1.93	1.12	1.20	0.85	5.09	6.30	7.62	6.34	94
Raidor	1.47	0.96	1.04	0.77	4.24	6.27	7.53	6.01	89
Average	2.06	1.44	1.43	1.04	5.97	7.95	7.77	7.23	-
5% LSD	0.34	0.30	0.22	0.20	0.87	0.64	0.74	0.59	-
CV (%)	14.6	18.3	13.3	16.5	12.8	7.0	8.3	12.4	-

^{1/} Percent of average of Baker, Riley, Dawson and Arc

Location: Agronomy Research Station (CCB)
 Planting Date: 9/21/79 Plot Size: 1m x 5m
 Design: RCB w/6 Reps Irrigated: Sprinkler
 Soil type: Port Loam Exp. No. 901

** First harvest 1982 delayed 5 weeks because of excessive rains and wet soil.

**Agronomy Research Station
Stillwater-Payne Co. 1980-82**

Entry	Tons Dry Matter/Acre							3 yr. Avg.	Relative Yield ^{1/}
	6/7**	7/9	1982 8/13	9/28	Total	1981 5 cuts	1980 5 cuts		
78T20 WL	1.93	1.52	1.82	1.24	6.51	8.88	7.97	7.79	119
NAPB 101	2.19	1.45	1.71	1.16	6.51	8.67	7.78	7.65	116
OK 5 (AN)	1.94	1.39	1.73	1.10	6.15	8.74	7.67	7.52	115
CAIC 6(KS-30)	2.03	1.29	1.68	1.08	6.08	8.39	7.75	7.41	113
NS 76	2.20	1.15	1.43	0.85	5.63	7.97	8.58	7.39	113
CAIC 2(Ramsey)	2.23	1.40	1.58	0.99	6.21	8.26	7.54	7.34	112
CAIC 8(Agate)	2.16	1.41	1.66	0.93	6.16	8.65	7.02	7.28	111
CAIC 5(KS-34)	2.16	1.23	1.51	0.99	5.90	8.31	7.49	7.23	110
CAIC 7(Kanza)	1.79	1.23	1.61	1.05	5.68	8.44	7.53	7.22	110
CAIC 1(Baker)	2.23	1.29	1.56	0.96	6.05	8.10	7.46	7.20	110
CAIC 3(Arc)	2.50	1.12	1.64	0.92	6.18	7.56	7.74	7.16	109
NS 82	2.24	1.23	1.56	0.99	6.02	7.69	7.49	7.07	108
OK 2(SAA Arc)	2.07	1.11	1.46	0.90	5.55	7.84	7.60	7.00	107
OK 1(SAA Arc)	2.15	0.99	1.37	0.85	5.37	7.91	7.62	6.97	106
OK 3(SAA Team)	2.07	0.94	1.47	0.72	5.20	7.80	7.89	6.96	106
OK 6(PRR)	2.12	1.11	1.40	0.96	5.59	7.97	7.23	6.93	106
CAIC 9(Riley)	1.87	1.02	1.37	0.87	5.13	8.02	7.64	6.93	106
CAIC 4(Dawson)	2.01	1.12	1.38	0.87	5.37	7.46	7.25	6.69	102
OK 7(BW)	1.88	1.04	1.32	0.89	5.14	7.31	7.19	6.55	100
Riley*	1.75	0.89	1.39	0.77	4.80	7.70	7.15	6.55	100
Arc*	2.02	0.86	1.21	0.71	4.80	6.98	7.65	6.48	99
OK 4, PRR)	1.51	0.90	1.24	0.90	4.55	7.99	6.85	6.46	98
Average	2.04	1.17	1.50	0.94	5.66	8.04	7.55	7.09	-
5% LSD	0.34	0.27	0.34	0.20	0.85	0.74	0.76	0.58	-
CV (%)	14.4	20.6	19.8	18.7	13.1	8.0	8.8	12.4	-

^{1/} Percent of average of Arc and Riley

Location: Agronomy Research Station (CCB)
 Planting Date: 9/21/79 Plot Size: 1m X 5m
 Design: RCB w/6 Reps Irrigated: Sprinkler
 Soil Type: Port Loam Exp. No. 902

** First harvest 1982 delayed 5 weeks because of excessive rains and wet soil.

**Agronomy Research Station
Perkins-Payne Co. 1981-82**

Entry	Tons Dry Matter/Acre						1981 5 cuts	2 yr. Average	Relative Yield ^{1/}
	1982					Total			
	5/8	6/17	7/14	8/19	9/29				
74-5T9	2.06	1.97	1.55	1.65	0.98	8.21	8.19	8.20	115
555	1.89	1.99	1.69	1.62	1.06	8.25	7.96	8.11	114
WL-313	1.93	1.93	1.73	1.50	0.99	8.08	7.67	7.88	111
WL-314	1.89	2.01	1.47	1.50	0.91	7.78	7.95	7.87	110
Southern Special	1.75	1.82	1.61	1.69	1.10	7.97	7.62	7.80	109
UC PX 1971	1.54	2.32	1.62	1.60	1.08	8.16	7.36	7.76	109
Riley*	1.78	1.84	1.49	1.39	0.89	7.39	7.88	7.64	107
WL-318	1.84	1.85	1.52	1.47	0.89	7.57	7.67	7.62	107
OK 9	1.58	1.77	1.59	1.57	1.08	7.59	7.58	7.59	106
OK 5	1.74	1.85	1.60	1.48	0.95	7.62	7.45	7.54	106
Teason	1.84	1.94	1.46	1.46	0.89	7.58	7.30	7.44	104
OK 8	1.93	1.82	1.47	1.48	0.83	7.52	7.34	7.43	104
Syn XX	1.68	1.81	1.45	1.50	0.93	7.37	7.47	7.42	104
OK 10	1.81	1.66	1.59	1.56	0.99	7.62	7.07	7.35	103
MSF-6 CLS-4	1.70	1.84	1.47	1.36	0.82	7.20	7.34	7.27	102
Corona	1.68	1.95	1.55	1.46	0.91	7.55	6.67	7.11	100
Perry	1.97	1.94	1.34	1.34	0.82	7.40	6.78	7.09	99
OK 6	1.74	1.79	1.40	1.42	0.94	7.30	6.87	7.09	99
Baker	1.78	1.75	1.12	1.22	0.74	6.60	7.41	7.01	98
Wash SNI	1.50	1.79	1.60	1.60	0.93	7.41	6.57	6.99	98
OK 4	1.47	1.87	1.45	1.49	0.95	7.24	6.26	6.75	95
Washoe	1.36	1.77	1.57	1.34	0.85	6.90	6.43	6.67	94
Arc*	1.97	1.76	1.17	1.27	0.83	7.00	6.26	6.63	93
UC 176	1.29	1.49	1.31	1.33	0.89	6.31	6.81	6.56	92
OK 11	1.98	1.78	1.28	1.30	0.84	7.17	5.85	6.51	91
Average	1.75	1.85	1.48	1.46	0.92	7.47	7.19	7.33	-
5% LSD	0.16	N.S.	0.13	0.15	0.13	0.57	0.81	0.54	-
CV (%)	8.2	19.6	7.4	9.1	11.9	6.7	9.9	9.1	-

^{1/} Percent of Arc and Riley

N.S. = No Significant Differences Among Varieties (.05)

Location: Agronomy Research Station
Planting Date: 9/24/80
Design: RCB w/6 Reps
Soil Type: Teller Loam

Plot Size: 1m x 5m
Irrigated: Sprinkler
Exp. No. 021

2075.4

**Agronomy Research Station
Perkins-Payne Co. 1982**

Entry	Tons Dry Matter/Acre						Relative Yield ^{1/}
	1982					Total	
	5/8	6/17	7/14	8/19	9/29		
77-8 CaB	1.56	1.74	1.04	1.50	1.27	7.11	109
120	1.61	1.85	0.96	1.36	1.18	6.96	106
555	1.41	1.86	0.96	1.40	1.27	6.90	105
Epic	1.44	1.80	0.93	1.39	1.24	6.81	104
130	1.50	1.76	0.95	1.33	1.25	6.80	104
Hi-phy	1.52	1.74	0.96	1.37	1.20	6.80	104
78T20	1.42	1.69	1.05	1.43	1.20	6.79	104
Classic	1.49	1.85	0.94	1.32	1.17	6.77	103
IC0-24	1.36	1.79	0.99	1.45	1.19	6.77	103
OK08*	1.50	1.57	0.91	1.41	1.31	6.70	102
Vancor	1.60	1.74	0.88	1.32	1.12	6.66	102
IC0-8	1.37	1.76	0.90	1.33	1.23	6.59	101
532	1.40	1.76	0.94	1.27	1.19	6.56	100
Shenandoah	1.30	1.66	1.03	1.35	1.18	6.52	100
Arc*	1.51	1.63	0.88	1.29	1.17	6.48	99
Riley*	1.30	1.74	0.85	1.37	1.19	6.45	99
Average	1.45	1.75	0.95	1.37	1.21	6.73	-
5% LSD	N.S.	0.15	0.11	0.12	0.12	N.S.	-
CV (%)	12.4	7.3	10.3	7.3	7.4	5.6	-

^{1/} Percent of average of Arc, Riley, and OK08 (Oklahoma Common)

N.S. = No Significant Differences Among Varieties

Location: Agronomy Research Station
Planting Date: 9/10/81
Design: RCB w/6 Reps
Soil Type: Teller loam
Plot Size: 1m x 5m
Irrigated: Sprinkler
Exp. No. 121

**South Central Research Station
Chickasha-Grady Co. 1980-82**

Entry	Tons Dry Matter/Acre						1981 2 cuts	1980 2 cuts	3 yr. Avg.	Relative Yield ^{1/}
	1982					Total				
	4/23	6/11	7/13	8/11	9/23					
PCC 77-122 Br	1.46	2.10	1.89	1.71	1.61	8.79	2.45	3.77	5.00	109
WL-312	1.38	2.10	1.90	1.70	1.51	8.58	2.41	4.01	5.00	109
Pike	1.48	2.12	1.96	1.74	1.46	8.75	2.41	3.82	4.99	109
Liberty	1.72	2.16	1.77	1.42	1.18	8.26	2.45	3.91	4.87	107
Buffalo	1.33	1.97	1.96	1.81	1.67	8.73	2.52	3.33	4.86	106
555	1.42	2.07	1.76	1.65	1.36	8.25	2.29	3.96	4.83	106
Cimarron	1.62	2.00	1.81	1.50	1.31	8.25	2.40	3.82	4.82	106
Classic	1.24	2.08	1.96	1.52	1.32	8.13	2.24	3.96	4.78	105
Advantage	1.21	2.04	1.89	1.68	1.30	8.12	2.31	3.87	4.77	104
Riley*	1.30	1.98	1.80	1.57	1.37	8.02	2.31	3.91	4.75	104
Vancor	1.51	2.02	1.84	1.45	1.33	8.15	2.32	3.70	4.72	103
WL-318	1.24	1.89	1.74	1.64	1.42	7.93	2.22	3.96	4.70	103
Arc*	1.46	2.16	1.80	1.47	1.24	8.14	2.35	3.62	4.70	103
Hi-phy	1.24	2.04	1.88	1.62	1.33	8.11	2.30	3.61	4.67	102
Apollo	1.07	1.91	1.89	1.67	1.36	7.91	2.23	3.84	4.66	102
Gladiator	1.34	1.95	1.63	1.36	1.11	7.39	2.42	4.10	4.64	102
Trident	1.17	1.92	1.93	1.63	1.41	8.04	2.18	3.70	4.64	102
Vanguard	1.34	1.88	1.77	1.51	1.25	7.75	2.21	3.92	4.63	101
G7730	1.18	1.90	1.84	1.44	1.30	7.66	2.14	3.96	4.59	101
Raidor	1.36	2.07	1.69	1.45	1.17	7.74	2.15	3.80	4.56	100
Kanza	0.98	1.82	1.76	1.53	1.25	7.33	2.28	3.92	4.51	99
Baker*	1.25	1.91	1.51	1.26	1.09	7.03	2.26	4.08	4.46	98
Dawson*	1.08	1.88	1.58	1.40	1.20	7.13	2.36	3.61	4.37	96
Average	1.32	2.00	1.81	1.56	1.33	8.01	2.31	3.83	4.72	-
5% LSD	0.19	0.21	0.21	0.22	0.22	0.69	N.S.	N.S.	0.34	-
CV (%)	12.5	9.1	10.2	12.5	14.6	7.6	9.0	9.8	10.8	-

^{1/} Percent of average of Baker, Riley, Dawson and Arc

N.S. = No Significant Differences Among Varieties

Location: South Central Research Station
Planting Date: 9/26/79
Design: RCB w/6 Reps
Soil Type: Pocasset Silty Clay Loam

Plot Size: 1m x 5m
Dryland
Exp. No. 931

**South Central Research Station
Chickasha-Grady Co. 1982**

Entry	Tons Dry Matter/Acre					Relative Yield ^{1/}
	1981				Total	
	5/11	6/23	7/21	9/9		
77-8 CaB	1.99	1.36	0.86	0.59	4.81	111
555	1.97	1.35	0.80	0.64	4.75	109
NS78	1.96	1.35	0.75	0.54	4.60	106
OK 3	1.95	1.32	0.76	0.56	4.59	105
Epic	2.03	1.27	0.70	0.57	4.57	105
Vancor	1.90	1.30	0.81	0.53	4.54	104
Arc*	1.97	1.22	0.80	0.53	4.52	104
130	1.98	1.32	0.65	0.51	4.46	102
532	1.81	1.35	0.78	0.49	4.43	102
WL-318	1.93	1.25	0.69	0.54	4.42	102
78T20	1.88	1.28	0.73	0.51	4.40	101
120	1.94	1.25	0.56	0.57	4.32	99
OK 15	1.77	1.36	0.62	0.56	4.31	99
OK08*	1.73	1.19	0.76	0.61	4.28	98
Riley*	1.78	1.30	0.73	0.45	4.26	98
OK 13	1.68	1.27	0.66	0.50	4.11	94
NS79	1.59	1.26	0.70	0.46	4.01	92
OK 10	1.62	1.12	0.70	0.56	4.01	92
Average	1.86	1.28	0.73	0.54	4.41	-
5% LSD	0.24	N.S.	N.S.	N.S.	N.S.	-
CV (%)	11.2	10.3	25.7	22.3	9.5	-

^{1/} Percent of average of Arc, Riley and OK08 (Oklahoma Common)

N.S. = No Significant Difference Among Varieties

Location: South Central Research Station
Planting Date: 9/15/81
Design: CRD w/5 reps
Soil Type: McLain Silty Clay Loam

Plot Size: 1m x 5m
Irrigated: Sprinkler
Exp. No. 131

**Southwest Agronomy Research Station
Tipton-Tillman Co. 1981-1982**

Entry	Tons Dry Matter/Acre						1981 5 cuts	2 yr. Average	Relative Yield ^{1/}
	4/28	6/9	1982		10/4	Total			
			7/14	8/17					
74-5T9	3.88	3.17	2.55	2.43	2.21	14.24	9.75	12.00	113
555	3.91	3.14	2.47	2.40	2.18	14.09	9.46	11.78	111
WL-318	3.26	2.87	2.27	2.27	1.93	12.61	10.43	11.52	108
Riley*	3.25	3.28	2.49	2.32	1.95	13.29	9.34	11.32	106
OK 8	3.52	3.06	2.42	2.42	2.03	13.45	8.98	11.22	105
OK 10	3.54	2.97	2.57	2.37	2.04	13.50	8.84	11.17	105
OK 5	2.87	3.06	2.64	2.56	2.04	13.18	9.15	11.17	105
WL-313	3.08	3.36	2.37	2.45	2.09	13.37	8.84	11.11	104
MSF6CLS4	2.89	2.98	2.56	2.39	1.73	12.55	9.61	11.08	104
Southern Special	3.15	3.01	2.43	2.25	1.96	12.80	9.29	11.05	104
WL-314	2.88	3.13	2.45	2.44	2.00	12.90	9.19	11.05	104
Perry	3.23	3.07	2.51	2.35	1.90	13.06	8.96	11.01	103
OK 9	2.42	3.09	2.49	2.55	1.94	12.48	9.42	10.95	103
Syn XX	3.74	2.94	2.33	2.31	1.69	13.02	8.81	10.92	102
Teason	2.67	3.18	2.59	2.27	1.95	12.67	9.10	10.89	102
OK 6	2.61	3.38	2.75	2.47	1.73	12.95	8.64	10.80	101
NS 78	4.08	3.17	2.37	2.27	1.56	13.46	8.10	10.78	101
OK 11	3.10	3.07	2.49	2.35	1.90	12.91	8.51	10.71	100
Baker	3.16	3.16	2.35	2.08	1.63	12.38	9.00	10.69	100
NS 77	3.30	2.97	2.46	2.10	2.02	12.84	8.46	10.65	100
OK 4	2.85	2.74	2.71	2.50	1.99	12.80	8.24	10.52	99
Wash SNI	2.54	3.19	2.56	2.32	1.86	12.48	8.48	10.48	98
NS 79	3.07	2.81	2.61	2.36	1.60	12.45	8.22	10.34	97
Washoe	2.68	2.56	2.12	2.26	2.09	11.71	8.52	10.12	95
Arc*	2.86	2.78	2.32	2.12	1.74	11.82	8.19	10.01	94
Average	3.14	3.05	2.48	2.35	1.91	12.92	8.94	10.93	-
5% LSD	0.90	N.S.	N.S.	N.S.	N.S.	N.S.	1.03	1.01	-
CV (%)	25.1	12.8	15.6	11.2	20.6	10.1	10.1	11.4	-

^{1/} Percent of average of Arc and Riley

N.S. = No Significant Differences Among Varieties

Location: Southwest Agronomy Research Station
 Planting Date: 9/25/80 Plot Size: 1m x 5m
 Design: RCB w/6 Reps Irrigated: Flooded/Furrow
 Soil Type: Tipton Silt L0am Exp. No. 061

**Southwest Agronomy Research Station
Tipton-Tillman Co. 1982**

Entry	Tons Dry Matter/Acre						Relative Yield ^{1/}
	1982					Total	
	5/4	6/9	7/14	8/17	10/7		
555	2.70	2.62	1.85	1.61	2.20	10.98	111
WL-318 No Coat	2.92	2.62	1.82	1.80	1.54	10.70	108
WL-318 Coated Seed	2.74	2.58	1.82	1.66	1.63	10.43	106
Riley*	2.59	2.67	1.77	1.73	1.50	10.27	104
OK 9	2.71	2.58	1.77	1.70	1.48	10.25	104
OK 2	2.62	2.44	1.84	1.75	1.54	10.20	103
532	2.54	2.54	1.79	1.62	1.58	10.08	102
120	2.57	2.94	1.71	1.47	1.34	10.03	101
Arc*	2.68	2.49	1.85	1.55	1.40	9.97	101
130	2.59	2.56	1.71	1.59	1.50	9.96	101
Vancor	2.57	2.68	1.83	1.53	1.29	9.90	100
OK08*	2.41	2.38	1.74	1.53	1.34	9.41	95
Average	2.64	2.60	1.79	1.63	1.53	10.18	-
5% LSD	N.S.	N.S.	N.S.	0.1/	0.44	N.S.	-
CV (%)	13.4	12.4	11.2	8.9	25.1	7.7	-

^{1/} Percent of average of Arc, Riley and OK08 (Oklahoma Common)

N.S. = No Significant Differences Among Varieties

Location: Southwest Agronomy Research Station
 Planting Date: 9/16/81 Plot Size: 1m x 5m
 Design: RCB w/6 Reps Irrigated: Flooded
 Soil Type: Tipton Silt Loam Exp. No. 161

2075.6

**North Central Research Station
Lahoma-Major Co. 1980-82**

Entry	Tons Dry Matter/Acre					1981		3 yr. Average	Relative Yield ^{1/}
	5/4	6/16	1982 7/15	8/19	Total	5 cuts	1 cut ^{1/}		
555	1.90	1.91	1.30	0.43	5.55	6.35	1.86	4.59	113
Buffalo	1.89	1.87	1.34	0.47	5.57	6.17	1.38	4.37	107
Pike	1.81	1.90	1.10	0.38	5.19	6.17	1.68	4.35	107
Arc*	2.13	1.82	1.22	0.37	5.55	5.57	1.87	4.33	106
PCC 77-122 Br	1.75	1.94	1.18	0.39	5.26	5.97	1.62	4.28	105
Apollo	1.85	1.92	1.17	0.32	5.27	5.85	1.59	4.24	104
Vanguard	1.88	1.98	1.16	0.27	5.29	5.66	1.73	4.23	104
Trident	1.87	1.89	1.18	0.31	5.24	5.95	1.50	4.23	104
Advantage	1.90	1.93	1.22	0.28	5.33	5.57	1.73	4.21	103
Kanza	1.80	1.83	1.11	0.33	5.08	6.03	1.50	4.20	103
Hi-phy	1.77	1.86	1.15	0.32	5.10	5.84	1.54	4.16	102
WL-318	1.76	1.75	1.10	0.38	4.99	6.00	1.44	4.14	101
WL-312	1.85	1.77	1.08	0.35	5.05	5.85	1.49	4.13	101
Riley*	1.77	1.82	1.09	0.35	5.02	5.77	1.53	4.11	101
Gladiator	1.87	1.86	1.13	0.29	5.15	5.70	1.41	4.09	100
Cimarron	1.90	1.92	1.09	0.33	5.24	5.40	1.53	4.06	100
Baker*	1.83	1.82	0.98	0.22	4.86	5.66	1.42	3.98	98
Classic	1.81	1.88	1.06	0.30	5.05	5.17	1.44	3.89	95
Dawson*	1.79	1.71	0.99	0.28	4.77	5.51	1.38	3.89	95
Liberty	2.06	1.85	1.09	0.34	5.33	4.88	1.43	3.88	95
Vancor	1.86	1.75	1.09	0.27	4.97	5.20	1.42	3.86	95
Raidor	1.86	1.84	1.09	0.28	5.07	4.89	1.47	3.81	93
G7730	1.78	1.86	1.06	0.26	4.96	4.27	1.63	3.62	89
Average	1.86	1.86	1.13	0.33	5.17	5.64	1.55	4.12	-
5% LSD	0.16	N.S.	0.15	0.08	0.37	0.68	0.23	0.32	-
CV (%)	7.5	8.9	11.7	22.6	6.2	10.6	13.1	11.6	-

^{1/} Percent of average of Baker, Riley, Dawson and Arc

N.S. = No Significant Differences Among Varieties

Location: North Central Research Station
Planting Date: 9/24/79
Design: RCB w/6 Reps
Soil type: Grant Silt Loam

Plot size: 1m x 5m
Dryland
Exp. No. 941

**Sandyland Research Station
Mangum-Greer Co. 1982**

Entry	Tons Dry Matter/Acre				Total	Relative Yield ^{1/}
	5/27	7/1	8/11	10/5		
WL-318 No Coat	0.51	1.24	0.86	0.69	3.30	110
Arc*	0.58	1.10	0.88	0.60	3.15	105
OK 2	0.49	1.12	0.83	0.65	3.09	103
Vancor	0.49	1.09	0.89	0.55	3.03	101
OK08*	0.48	1.03	0.82	0.69	3.03	101
555	0.40	1.18	0.77	0.67	3.01	100
WL-318 Coated	0.45	1.03	0.85	0.60	2.94	98
OK 10	0.42	1.00	0.82	0.67	2.91	97
OK 1	0.50	1.07	0.72	0.60	2.89	96
Baker	0.41	1.01	0.91	0.50	2.83	94
Riley*	0.39	1.00	0.82	0.60	2.81	94
532	0.40	0.97	0.71	0.55	2.62	87
Average	0.46	1.07	0.82	0.61	2.97	-
5% LSD	0.11	N.S.	N.S.	0.08	0.35	-
CV (%)	20.4	15.2	17.3	11.5	10.3	-

^{1/} Percent of average of Arc, Riley and OK08 (Oklahoma Common)

N.S. = No Significant Differences Among Varieties

Location: Sandyland Research Station
Planting Date: 9/17/81
Design: RCB w/6 Reps
Soil Type: Meno Sandy Loam

Plot Size: 1m x 5m
Dryland
Exp. No. 171

Quick Reference for Insect and Disease Resistance

Variety	Pea Aphid	Spotted Aphid	Alfalfa Weevil	Potato Leafhopper	Blue Aphid	Phytophthora Root Rot	Anthracnose	Fusarium Wilt	Downy Mildew	Bacterial Wilt	Stem Nematode	Vert. Wilt
WL-318	R	R	MT		S	R	MR	MR		R		
Cimarron	HR	MR	T		S	R	R	R		R		
555	MR	MR				S	MR	-		HR	-	
Pike	R	MR				R	S	MR		MR	HR	
Apollo	MR	MR				R	MR	MR		R		
Riley	HR	HR	S	T	S	S	R		MR	HR	-	

531	MR	R					MR			MR		
Advantage	-	LR			S	R	MR	MR		R	-	
Hi-phy		MR		LR		MR		HR		HR		
WL-312	R	R				R	MR	MR		R		
Trident		MR				HR	MR	MR		R		
SYN XX		R										
WL-313	HR	MR				LR	MR	HR		HR	-	
WL-314	HR	R			MR	LR	LR	R		R	HR	LR
532	-	MR				MR	MR	-		HR	-	
Southern Special	R	R			MR	MR	MR	R		R		
OK 8	S	S	S		S	S	S			S		
120	R	S				R	LR	LR		HR	-	
130	R	R				LR	MR	MR		R	MR	
Epic	MR	S				R	S	R		R	-	
Classic		LR		MR		MR	LR			R		
Shenandoah		S										
Arc	R	S	T		S	S	HR			MR		
Kanza	R	R	S	MT	S	S	S			R		
Liberty	R	S	T		S	S	R			S		
Vancor	R	LR	T			MR	R	MR		HR	R	
Vanguard	R	S				S	R	MR		R		
Buffalo	S	S	S		S	S	S			MR		
Baker	HR	HR		MR		S	LR		MR	HR		
Cody	S	R	S		S	S	S			R		
Dawson	R	R	S	LR	S	S	S			R		
Team	R	S	MT			S	MR			MR		
Olympic		S			S	S	R	MR		R		
Perry	R	MR	MT	MR		S	MT		MR	R		
Gladiator	R	S	MT				MR		R	R	MR	
Classic		S		MR		MR	LR			R		
Wash SNI		LR									R	
Corona		LR				R	MR			R		
Washoe	R	R				R				R	R	
G7730	-	S				HR	LR	R		HR	-	
Raidor	MR	LR		HT		S	MR	LR		R	R	
530	R	R							MR	R		
Common	S	S	S	S	S	S	S	S	S	S	S	S
Lahontan	S	MR								MR	R	

Rating Guide

LR = Low resistance - 6-14% resistant plants
 HR = High Resistance - <51% resistant plants
 R = Resistant - 31-50% resistant plants
 MR = Moderate resistance - 15-30% resistant plants
 T = Tolerance
 MT = Moderate tolerance
 S = Susceptible <5% resistant plants

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