

Agronomic Data For Winter Wheat Advanced Nursery Crown In Quadruplicate
5-Row Nursery Plots - Denton, Texas 1954

25611

Variety or Selection	T.S. No.	C.I. No.	Date		Plant Height	Percent Lodged	Percent			Yield of Grain per Plot - Gram				Av. Yr.
			First Head	Finally Ripe			Leaves	Stems	I	II	III	IV		
Denton (Average) 741 checks	9236	8265	5-2	6-3	47	8	41	29	280	282	297	270	2	
Mediterranean Selection	3015-63	-	5-2	6-2	48	5	35	45	303	226	301	263	2	
B ₀	3015-72	11567	4-28	5-31	44	10	51	19	279	236	296	180	2	
B ₀	3015-81	10086	5-1	6-2	45	5	71	26	242	204	330	234	2	
B ₀	3015-105-1	11587	5-2	6-2	48	18	28	55	293	243	230	338	2	
B ₀	3015-20	10085	4-28	5-31	44	18	51	22	261	353	310	277	2	
B ₀	5933-23	11525	5-1	6-2	48	4	5	36	270	188	340	210	2	
B ₀	5933-34	11526	4-28	5-31	44	16	54	23	258	244	262	251	2	
B ₀	5933-38	-	5-1	6-1	48	24	36	29	280	203	300	279	2	
Red May Selection	7250-1	-	4-27	6-1	41	5	23	25	310	261	277	267	2	
Kaw Valley	12579	8180	5-3	6-3	47	1	23	19	284	268	304	215	2	
Kanred X Fulcaster, Kan 128 R 93	20401	-	5-5	6-6	49	3	21	24	275	297	297	261	2	
White Mediterranean	15834	10023	4-26	6-2	46	44	76	35	286	258	265	276	2	
Clark 40	20400	8958	5-3	6-5	48	0	74	28	271	227	277	285	2	
Sutton	15932	10053	5-5	6-4	46	5	53	40	311	250	277	256	2	
Fulcaster	7082	6471	5-5	6-7	43	6	89	34	210	181	198	125	17	
Hawvest Queen	15831	6179	5-4	6-5	48	1	89	36	173	146	178	138	15	
McBaskin 28	15836	5141	4-16	5-22	35	0	0	0	245	220	158	243	21	
Kanred X Kaw Valley, III-1-1-44	20407	-	5-5	6-4	47	6	10	19	348	288	342	274	31	
"	20408	-	5-5	6-5	49	20	23	28	296	292	246	224	26	
"	20413	-	5-5	6-4	47	53	10	34	362	179	280	356	2	
"	20388	-	5-5	6-6	44	1	94	21	210	182	200	226	2	
"	20389	-	5-6	6-4	47	10	30	40	287	185	244	231	2	
"	20386	-	5-3	6-3	46	8	65	6	304	323	190	312	2	
Fulcaster X Imperial Amber, Ks 1513-1-1953	20381	-	5-5	6-5	46	1	54	25	260	134	218	225	2	

Agronomic Data - Advanced Nursery

Variety or Selection	T.S. No.	C.I. No.	Date		Plant Height	Percent Lodged	Percent Rust		Yield of Grain Per Plot - Grams				Avg. Yr. Per
			First Head	Full Pipe			Leaves	Stem	I	II	III	IV	
Kimrod X Fulcrum X Kimrod X H. Federation	20383	-	5-4	6-6	45	5	54	30	265	361	233	276	2
Do	20382	-	5-5	6-5	44	4	48	49	326	90	177	249	2
Do	20405	-	4-21	6-3	45	28	33	23	349	289	323	339	3
Fulcrum X Penman	20381	-	5-2	6-3	45	1	11	34	318	136	201	421	2
Penman X Kawvale	20406	-	5-2	6-4	46	8	29	23	358	328	226	335	3
Mediterranean X Kimrod	20414	-	5-5	6-4	49	8	43	44	266	187	273	262	25
Webster X Malakof	20410	-	5-6	6-7	46	78	35	26	270	212	261	247	26
Kimrod X Gipsy	20411	-	5-8	6-7	43	41	14	39	322	186	160	210	22
Kimrod X Red Rock	20412	-	5-5	6-6	40	45	41	28	334	292	305	286	36
Kawvale X Blackhall	20384	-	5-4	6-5	46	17	11	19	400	243	324	229	25
Denton Selection, 5-31-71	-	-	5-7	6-7	46	16	34	60	267	236	182	186	21
Denton X Kimrod, 4-31-1	-	-	5-2	6-4	46	45	60	25	317	250	314	324	20
Do	-	-	5-3	6-5	47	48	73	24	270	269	292	290	22
Do	-	-	5-1	6-3	47	21	53	15	357	183	297	274	22
Do	-	-	5-3	6-3	47	56	66	25	317	190	322	316	22
Do	-	-	5-5	6-5	45	60	40	29	285	225	276	246	22
Do	-	-	5-1	6-3	48	41	64	18	338	270	256	218	32
Fulcrum	20420	8257	5-4	6-4	39	4	100	13	75	83	95	73	8
Fultz	20474	3416	4-24	5-28	44	61	78	13	240	258	205	194	22
Flatt	-	6307	4-23	5-29	41	0	90	23	216	233	213	191	22
Mabanka (Spring Planted)	-	-	5-3	6-8	51	19	T	5	285	217	231	219	22
Ferguson Mediterranean	-	-	5-5	6-4	41	34	79	26	225	335	272	232	22
Leidigh	20393	-	5-5	6-6	42	64	34	29	254	192	157	308	22
"	20394	-	5-5	6-4	45	55	26	29	315	238	332	260	22
"	20395	-	5-4	6-5	45	38	24	20	263	317	291	245	22

Agronomic Data - Advanced Nursery - continued

Variety or Selection	T. S. No.	C.I. No.	Date		Plant Height	Percent Lodged	Percent Root		Yield			Yield Per	
			First Head	Fully Aprc			Leaf	Stem	I	II	III		Gramms
Keidigh, L-5-4	20396	-	5-5	6-6	43	48	19	45	268	234	232	225	2
" L-4-5	20397	-	5-5	6-6	43	44	80	36	184	166	171	158	16
" L-5-5	20398	11578	5-5	6-4	46	60	13	54	328	261	298	358	31
" L-5-6	20399	-	5-5	6-6	44	50	11	44	363	350	303	322	33
Zanged x Manguais, Ks. 21x0	20391	-	5-1	6-4	43	8	68	21	300	257	310	284	2
Kanned x Manguais, Cal. New 196	20379	-	5-5	6-4	46	30	36	41	310	263	292	214	2
Kanned x Manguais	20482	11589	5-1	6-2	43	6	70	28	321	270	248	330	2
Ft Lewis Manguais	20380	-	5-6	6-5	44	36	70	40	215	158	215	137	17
Manguais x Muntzinki	20378	-	5-9	6-1	39	10	78	51	90	88	142	106	10
Penning	12578	1936	5-5	6-5	44	21	58	35	275	226	225	300	2
Kanned	11963	5146	5-6	6-1	40	73	78	13	254	227	227	183	2
Blackhall	7172	6251	5-4	6-5	44	26	86	14	210	185	185	158	18
Early Blackhall	15838	8856	4-22	5-29	41	15	85	1	263	279	273	267	2
Galvina	15833	8886	4-25	5-31	46	5	55	3	312	398	366	395	36
Galvina Selection, 5-31-154	-	-	5-3	6-3	45	28	44	18	272	244	289	335	2
Galvina Selection, 5-31-205	-	-	4-25	5-30	44	11	54	4	325	312	357	298	3
Do 5-31-216	-	-	4-25	5-30	46	6	47	5	315	311	350	342	33
Do 5-31-218	-	-	4-25	5-30	45	18	46	2	332	401	369	363	36
Manned x Hand Federation	20416	11013	4-26	6-1	41	3	71	33	251	372	238	308	29
Do	20417	10091	4-24	5-31	40	24	74	24	358	363	323	412	36
Do	20418	10072	4-25	5-30	42	9	74	29	269	291	238	370	29
Nebaska 60	16830	1442	5-9	6-8	40	26	89	40	160	128	123	159	14
Cheyenne	15835	6250	5-7	6-8	39	16	86	20	133	141	156	68	12
Sibley 81	18566	8885	5-7	6-6	40	8	83	21	219	218	234	178	21
	20427	10084	5-5	6-4	45	26	98	25	226	230	220	196	21

Agronomic Data For Advanced Nursery - continued

Variety or Selection	T.S. No.	C.I. No.	Date		Plant Height	Percent Budged	Percent Rust		Yield Per Plot - Grams			
			First Head	Fully Ripe			Leaf	Stem	I	II	III	IV
Sibley 62	✓ 20481	11523	5-7	6-7	44	40	70	14	276	228	262	347
F. 1066-1 X Burkbank	✓ 20425	10087	5-1	6-3	42	11	56	13	278	346	369	197
Belogolina Selection	✓ 20424	8884	5-11	6-8	39	31	76	36	166	194	152	146
Turkey Selection	✓ 20368	10083	5-7	6-7	40	36	80	13	226	247	272	198
	✓ 20367	10015	5-8	6-8	35	0	95	21	106	68	76	62
	✓ 20370	10094	5-9	6-6	33	0	99	16	144	86	89	50
	✓ 20371	10095	5-9	6-7	35	3	75	19	102	75	122	80
	✓ 20373	10017	5-8	6-7	34	0	78	7	79	70	97	64
	✓ 20374	10016	5-6	6-5	36	3	76	20	121	149	110	65
	✓ 20375	10078	5-4	6-5	35	0	98	17	136	145	147	81
	✓ 20376	10100	5-7	6-8	38	16	95	25	130	158	158	122
	✓ 20377	11375	5-7	6-8	35	0	99	20	111	116	103	72
	✓ 20420	11576	5-8	6-8	35	0	95	20	82	45	55	68
Kanred Selection	✓ 20415	10019	5-7	6-6	41	33	68	15	249	278	223	151
Belogolina X Mintunki	✓ 20479	11288	5-13	6-9	35	6	100	59	93	54	76	20
Belogolina X Hussain	✓ 20478	11513	5-10	6-8	41	9	100	35	139	97	115	97
F. 1066 X Paclade	✓ 20477	11570	4-23	5-30	44	6	51	1	304	422	354	359
Paclade X Kanred	✓ 20476	11591	4-25	5-30	44	1	64	4	382	380	400	315
Kanred X Kanred X Manquies	✓ 20475	11572	5-8	6-8	36	0	100	34	134	112	100	57
Alton	1	1438	5-7	6-7	40	13	78	39	145	123	142	129
Russian	1	5737	5-4	6-5	49	15	88	43	214	208	206	224

Table 9. Agronomic data for the uniform winter wheat yield nursery grown in quadruplicated 3-row nursery plots at the Woodward Field Station, 1934. Rate seeded: 4 pecks per acre. Size of plot: 3 18-foot rows, with 16 feed of center row harvested.

Date seeded : October 9, 1933

Date emerged October 16, 1933

VARIETY, HYBRID, OR SELECTION	Wd. Nursery No.	C.I. No.	Date		Fruit- ing period days	Ht. in.	Grain Yield				Average		Test wt. per bu.
			First headed	Ripe			Per 16-foot center row				Average		
							1	2	3	4	bu.	in % of acre check	
✓ 265.25 Kanred x Hard Fed.	1055	10092	4/27	6/6	40	25	260	273	262	266	26.5	163	61.0
241.50 do	1053	1373	4/26	6/3	38	24	236	246	233	251	24.2	148	61.0
240.25 Turkey sel.	1015	10095	5/4	6/7	34	23	245	142	258	316	24.0	147	61.0
219.75 Kanred x Hard Fed.	1054	10091	4/25	6/3	39	25	215	219	211	234	22.0	135	61.0
214.00 Kanred x Marquis	1102	11589	5/1	6/7	37	25	202	224	222	208	21.4	131	60.5
211.25 Prelude x Kanred	1104	11591	4/27	6/5	39	25	221	216	142	266	21.1	129	62.0
206.00 P1066-1 x Prelude	1103	11590	4/28	6/6	39	24	159	243	150	272	20.6	126	61.0
202.25 Turkey sel.	1018	10098	5/2	6/7	36	23	236	201	112	260	20.2	124	61.0
200.50 P1066-1 x Burbank	1010	10087	5/2	6/7	36	24	262	160	220	160	20.1	123	61.0
199.25 Fulhard	13	8257	4/30	6/8	39	24	226	90	284	197	19.9	122	60.5
194.50 Turkey sel.	1014	10094	5/3	6/7	35	23	233	119	152	274	19.5	120	61.5
188.75 Turkey sel.	1027	10083	5/5	6/9	35	23	240	186	61	268	18.9	116	61.0
185.00 do	1013	10016	5/2	6/7	36	23	216	166	110	248	18.5	113	61.0
185.25 do	1017	10097	5/3	6/7	35	23	228	169	66	278	18.5	113	61.5
181.50 Early Blackhull	11	8856	4/23	5/31	38	26	164	131	240	191	18.2	112	62.5
182.25 Turkey sel.	1019	10100	5/4	6/8	35	23	183	198	134	214	18.2	112	60.0
178.00 Kanred x (Kan.-Marq.)	1105	11592	5/4	6/8	35	24	144	202	157	209	17.8	109	60.5
175.75 Kharkof	26	1442	5/6	6/9	34	23	236	103	180	184	17.6	108	61.0
174.75 Turkey sel.	1012	10015	5/3	6/7	35	24	242	178	70	209	17.5	107	61.5
171.25 Beloglina x Hussar	1101	11513	5/6	6/8	33	23	196	155	56	278	17.1	105	59.5
166.75 Kanred sel.	1021	10099	5/5	6/8	34	22	218	157	62	230	16.7	102	61.0
165.75 Blackhull	14	6251	5/2	6/8	37	25	188	34	276	165	16.6	102	62.0
163.75 Turkey sel.	1099	11576	5/4	6/8	35	21	212	160	97	186	16.4	101	60.0
155.25 Turkey sel.	1020	11375	5/6	6/8	33	21	193	152	72	204	15.5	95	60.5
154.50 Mediterranean sel.	1044	10085	5/1	6/8	38	24	159	201	60	198	15.5	95	59.5
149.75 Beloglina sel.	1011	8884	5/6	6/8	33	22	271	110	92	126	15.0	92	61.0
146.00 Sibley No. 62	1039	11523	5/5	6/8	34	23	112	151	26	295	14.6	90	60.5
140.00 Nebraska No. 60	1009	6250	5/6	6/10	35	23	230	96	80	154	14.0	86	61.0
131.00 Mediterranean sel.	1098	11587	5/5	6/8	34	23	117	162	13	232	13.1	80	61.0
128.25 Beloglina x Monturki	1100	11588	5/8	6/10	33	22	153	117	7	236	12.8	79	60.5

$\bar{x} = 30$
P.E. diff. = 2.6635 bu./A.
Low P.E. = 1.8834 " "
 $\bar{x} = 10.24\%$ of \bar{x}
 $\bar{x} = 18.39$ bu./A.
 calculated 4/16/34
 C.G. Edward

Note:

The average yields in % of check are calculated from the average yield, 16.3 bushels, of 44 Kanred check plots grown at intervals of every ten varieties throughout the entire yield nursery. The 1934 winter wheat nursery was marked with burned spots, apparently a result of drought, which account for the extreme variation in yield between replications of some varieties.

Date seeded- 9/16/33

Date emerged- 9/22/33

Seeding rate- 10 grams per row

VARIETY, HYBRID, OR SELECTION	C.I. No.	Uniform Yield Nursery No.			Plant Height inches	Dates		Yielding grams Per Plot			AV. Bu. Per acre	Winter Survival Percent	General Notes	
		1	2	3		first heading	fully ripe	1	2	3				
Kharkof	68.67 119.33	1442	✓ 1	31	61	16	5/19	6/23	55	128	26	7.0	100	
Blackhull		6251	✓ 2	32	62	18	5/14	6/13	96	180	82	11.9	100	
Nebraska No. 60	65.67	6250	✓ 3	33	63	16	5/21	6/23	66	103	28	6.6	100	
Early Blackhull	85.67	8856	✓ 4	34	64	16	5/8	6/17	54	105	98	8.6	100	Weak straw
Turkey Sel. (Okla.)	32.67	10083	✓ 5	35	65	14	5/18	6/26	16	37	45	3.3	100	
Sibley No. 62	49.00 40.00	11523	✓ 6	36	66	15	5/18	6/25	19	42	59	4.0	100	
Mediterranean Sel. 5933-20		10085	✓ 7	37	67	15	5/15	6/18	39	64	44	4.9	100	
Mediterranean Sel. 3015-105-1		11558	✓ 8	38	68	16	5/18	6/25	15	9	25	1.6	100	
P-1066-1 x Prelude	16.33 109.67	11590	✓ 9	39	69	17	5/10	6/18	105	103	121	11.0	100	Weak straw
P-1066-1 x Burbank	75.00	10087	✓ 10	40	70	16	5/13	6/20	66	79	80	7.5	100	Weak "
Beloglina Selection	59.00	8884	✓ 11	41	71	15	5/17	6/25	47	66	64	5.9	100	
Beloglina x Minturki	25.00	11588	✓ 12	42	72	16	5/21	6/25	25	28	31	2.8	100	
Beloglina x Hussar	73.33	11513	✓ 13	43	73	17	5/16	6/24	74	58	88	7.3	100	
Prelude x Kanred	119.67	11591	✓ 14	44	74	16	5/10	6/18	131	91	137	12.0	100	
Fulhard	88.33	8257	✓ 15	45	75	17	5/13	6/17	100	52	113	8.8	100	
Kanred x Marquis	121.33	11589	✓ 16	46	76	17	5/13	6/19	131	97	136	12.1	100	Weak straw
Kanred x (Kanred x Marquis)	91.00	11592	✓ 17	47	77	16	5/16	6/21	113	43	117	9.1	100	
Kanred x Hard Federation	94.33	11373	✓ 18	48	78	14	5/11	6/17	60	162	61	9.4	100	
Kanred x Hard Federation	74.33	10091	✓ 19	49	79	15	5/8	6/18	73	99	51	7.4	100	Weak straw
Kanred x Hard Federation	93.00	10092	✓ 20	50	80	14	5/10	6/18	90	114	75	9.3	100	Weak straw
Turkey Selection	43.33	10015	✓ 21	51	81	16	5/14	6/22	72	21	37	4.3	100	
Turkey Selection	104.33	10016	✓ 22	52	82	16	5/13	6/19	56	203	54	10.4	100	
Turkey Selection	77.67	10095	✓ 23	53	83	15	5/17	6/23	87	30	116	7.8	100	
Turkey Selection	109.67	10094	✓ 24	54	84	17	5/17	6/18	78	221	30	11.0	100	
Turkey Selection	80.00	11576	✓ 25	55	85	17	5/18	6/21	92	35	113	8.0	100	
Turkey Selection	84.67	10097	✓ 26	56	86	17	5/17	6/22	135	25	94	8.5	100	
Turkey Selection	101.33	10098	✓ 27	57	87	17	5/21	6/19	132	11	161	10.1	100	
Kanred Sel. 0166	95.33	10099	✓ 28	58	88	17	5/17	6/25	118	17	151	9.5	100	
Turkey Sel. 159	124.00	10100	✓ 29	59	89	18	5/15	6/21	135	46	191	12.4	100	
Turkey Sel., Colo. 351	84.00	11375	✓ 30	60	90	16	5/18	6/25	118	18	116	8.4	100	

$m = 30$
 $P.E. diff. = 25280 \text{ bu./A.}$
 $Gen. P.E. = 17876$
 $= 22.267\% X$
 $X = 6.03 \text{ bu./A.}$
 calculated 11/16/34
 all colored

Uniform Yield Tests at Fort Collins

Stock #C. I.	Variety	Date Ripe	Date Headed	Length Straw	Strength Straw	Grain Yields				Frost Damage		
		av.	av.	av.	av.	gms.				10-27-33 av.	4-19-34 av.	
1442	Kharkof	✓7/7	5/28	48.6	Weak	592	427	501	510	695	545.0 W.	
6251	Blackhull	✓7/7	5/23	47.4	Weak	537	553	481	462	517	570.0 W.	S.N.
6250	Nebraska 60	✓7/11	5/28	47.6	Medium	548	483	569	414	517	506.2 W.	
8856	Early Blackhull	✓7/1	5/16	44.2	Weak	612	487	537	530	489	531.0 W.	
10083	Turkey Sel.Okla. 1	✓7/7	5/27	46.8	Weak	623	558	577	413	504	535.0 W.	
11523	Sibley No. 62	✓7/10	5/27	48.2	Weak	607	541	546	528	350	574.4 W.	
10085	Mediterranean Sel. Tex.#5933-20	✓7/2	5/26	45	Weak	429	285	407	296	446	372.6 W.	
11587	Mediterranean Sel. Tex.#3015-105-1	✓7/10	5/28	46.8	Weak	510	408	444	422	439	444.6 W.	
11590	P-1066-1 x Prelude Kans.No.2695	✓7/3	5/20	45.8		777	704	657	675	689	700.4 W.	S.N.
10087	P-1066-1 x Burbank	✓7/6	5/26	51	Medium	691	675	675	598	646	659.0 W.	
8884	Beloglina Sel.No.Platte No.11	✓7/11	5/27	48.2	Weak	568	443	714	573	573	574.2 W.	
11588	Beloglina x Minturki No.Platte 353	✓7/11	5/31	45.8	Medium	509	402	313	450	444	423.6 W.	
11513	Beloglina x Hussar No.Platte 126	✓7/11	5/27	47.6	Weak	670	693	602	589	548	620.4 W.	
11591	Prelude x Kanred Kans.No.2689	✓7/6	5/22	47		742	623	586	627	611	637.8 W.	S.N.
8257	Fulhard	✓7/4	5/24	47.8	Weak	584	518	481	445	448	495.2 W.	
11589	Kanred x Marquis Kans.2690	✓7/6	5/23	47.4		539	502	666	485	570	532.4 W.	S.N.
11373	Kans.No.2671 Kans.x H.Fed.	✓7/4	5/20	45.4		566	402	651	450	585	530.8 S.W.	S.N.
10091	Kanred x H.Fed.Kans.No.2672	✓7/2	5/18	42.2		419	320	508	503	466	443.2 S.	S.N.
10092	Kanred x H.Fed.Kans.No.2673	✓7/5	5/22	43.2		553	412	490	366	626	489.4 W.	S.N.
11592	Kanred x (Kanred-Marquis)Kans. Sel. #303942	✓7/5	5/25	47.4	Weak	538	604	608	600	488	567.6 W.	
10015	Turkey Sel.Neb.1062	✓7/7	5/25	45.6	Weak	556	511	525	496	408	499.2 W.	
10016	Turkey Sel.Neb.1069	✓7/4	5/24	44.6	Weak	642	456	521	468	638	545.0 W.	
10094	Turkey Sel.Neb.1063	✓7/10	5/25	44.2	Weak	660	657	534	545	569	593.0 W.	
10095	Turkey Sel.Neb.1065	✓7/10	5/26	45.4	Weak	695	667	622	541	638	632.6 W.	
11576	Turkey Sel.Neb.31D650	✓7/8	5/26	45.2	Weak	522	515	528	586	557	541.6 W.	
10097	Neb. Sel.Neb.1068	✓7/6	5/26	45.6	Weak	545	529	590	485	573	544.4 W.	
10098	Turkey Sel.Neb.1070	✓7/4	5/24	43.8	Medium	642	517	525	509	580	554.6 W.	
10099	Kanred Sel.0166	✓7/11	5/27	46.8	Weak	572	589	666	695	633	631.0 W.	
10100	Turkey Sel.Colo.159	✓7/9	5/27	46.6	Weak	558	502	449	513	669	538.2 W.	
11375	Turkey Sel.Colo.351	✓7/11	5/28	46.6	Weak	427	434	513	540	480	478.8 W.	

Table . Yield and other agronomic data obtained in the triplicated 3-row, 16' x 10' spaced, uniform yield nursery at Lincoln, 1933-34. (Sown Oct. 4, emerged Oct. 11)

VARIETY, HYBRID, OR SELECTION	C.I. Nursery No.	Date headed	Drought resist- ance score	Chinch bug re- sistance score	Grain yield by replicates				
					10%	5/7	1 2 3 Av.		
					May		Gms.	Gms.	Gms.
Kharkof	✓ 11442	19	85	48	195	100	69	10.6	82.0 ✓
Blackmull	✓ 6251	17	85	52	167	94	149	16.4	136.7
Nebr. 60	✓ 6250	20	92	52	104	106	110	12.8	106.7
Early Blackmull	✓ 8856	9	85	57	173	164	208	21.8	181.7
Turkey sel.	✓ 10083	18	87	53	157	100	66	12.9	107.7
Mediterr. sel.	✓ 11587	18	92	61	110	74	128	12.5	104.0
Mediterr. sel.	✓ 10085	17	88	56	148	123	156	17.1	142.3
Sibley's 62	✓ 11523	19	83	47	84	45	82	8.4	70.5
P1066 x Prelude	✓ 11590	14	87	47	217	170	180	22.7	189.0
P1066-1 x Burbank	✓ 10087	17	90	57	125	150	153	17.1	142.7
Beloglina sel.	✓ 8884	19	82	47	72	70	90	9.3	77.3
Bel. x Mint.	11588	22	80	43	31	29	18	3.1	26.0
Bel. x Hussar	✓ 11513	20	83	45	66	104	113	11.3	94.3
Pral. x Kanred	✓ 11591	14	85	47	175	172	170	20.7	172.3
Fulhard	✓ 8257	17	88	49	134	136	120	15.6	130.0
Kan. x Marquis	✓ 11589	16	82	39	82	150	104	13.4	112.0
Kan. x Hd. Fed.	✓ 11373	14	85	46	117	218	169	20.2	168.0
Kan. x Hd. Fed.	✓ 10091	13	82	37	91	175	110	15.0	125.3
Kan. x Hd. Fed.	✓ 10092	14	87	39	153	208	130	19.6	163.7
Kan. x (Kan. x Marq.)	11592	18	80	43	60	170	70	12.0	100.0
Turkey sel.	✓ 10015	17	83	47	64	117	66	9.9	82.3
Turkey sel.	✓ 10016	16	83	41	73	115	90	11.1	92.7
Turkey sel.	✓ 10094	17	85	46	110	128	116	14.2	118.0
Turkey sel.	✓ 10095	17	85	46	140	131	112	15.3	127.7
Turkey sel.	✓ 11576	18	85	46	109	96	70	11.0	91.7
Turkey sel.	✓ 10097	18	87	49	189	122	64	15.0	125.0
Turkey sel.	✓ 10098	16	85	42	158	144	86	15.5	129.3
Kanred sel.	✓ 10099	19	85	44	60	81	49	7.6	63.3
Turkey sel.	✓ 10100	18	88	48	78	145	105	13.1	109.3
Turkey sel.	✓ 11375	18	87	43	73	108	82	10.5	87.7

All varieties harvested June 5 due to chinch bugs.

Average yield computed by totaling the replicates and multiplying by .04

m = 30
P.E. diff = 1.9619 bu./A.
Gen. P.E. = 1.3873 "
= 10,007.0 of F
X = 13.87 bu./A.
calculated 11/1/34
W.C. Cline

Table . Yield and other agronomic data secured from the triplicated, 3-row yield nursery at Alliance, Nebr., 1933-34. (Plots 16' x 12", seeded on fallow on Sept. 14).

VARIETY, HYBRID, OR SELECTION	C.I. Nursery No.	Date headed 10%	Shatter- ing 7/3	Grain yield by replicates					
		May		%	1 Gms.	2 Gms.	3 Gms.	Av. Bu.	
Kharkof	✓ 1442	..	T		50	47	51	4.9	48.3
Blackhull	✓ 6251	22	T		61	55	101	7.2	72.3
Nebr. 60	✓ 6250	26	T		37	24	45	3.5	35.3
Early Blackhull	✓ 8856	15	1		140	126	159	14.2	141.7
Turkey Sel.	✓ 10083	22	0		101	33	76	7.0	70.0
Fl066 x Prelude	✓ 11590	17	0		146	92	185	14.1	141.0
Mediterr. Sel.	✓ 10085	24	0		81	45	173	10.0	99.7
Kanred x Marq.	✓ 11589	21	0		129	75	171	12.5	125.0
Belog. x Mint.	✓ 11588	29	0		21	16	70	3.6	35.7
Fl066-1 x Burbank	✓ 10087	22	T		92	84	164	11.3	113.3
Beloglina Sel.	✓ 8884	27	1		47	33	132	7.1	70.7
Sibleys 62	✓ 11523	28	T		48	30	139	7.2	72.3
Mediterr. Sel.	✓ 11587	22	T		61	19	117	6.6	65.7
Prelude x Kanred	✓ 11591	18	T		92	58	208	11.9	119.3
Fulhard	✓ 8257	22	1		167	42	235	14.8	148.0
Kan. x (Kan. x Marq.)	✓ 11592	23	T		206	29	209	14.8	148.0
Kan. x Hd. Fed.	✓ 11373	19	2		107	50	216	12.4	124.3
Kan. x Hd. Fed.	✓ 10091	17	1		182	116	227	17.5	175.0
Kan. x Hd. Fed.	✓ 10092	20	T		114	105	241	15.3	153.3
Bel. x Hussar	✓ 11513	27	T		73	44	181	9.9	99.3
Turkey sel.	✓ 10015	21	1		102	28	236	12.2	122.0
Turkey sel.	✓ 10016	20	2		135	57	232	14.1	141.3
Turkey sel.	✓ 10094	23	T		85	25	229	11.3	113.0
Turkey sel.	✓ 10095	22	T		55	25	261	11.4	113.7
Turkey sel.	✓ 11576	26	2		17	24	214	8.5	85.0
Turkey sel.	✓ 10097	27	4		31	24	238	9.8	97.7
Turkey sel.	✓ 10098	21	3		45	45	196	9.5	95.3
Kanred sel.	✓ 10099	25	3		33	49	213	9.8	96.3
Turkey sel.	✓ 10100	24	2		50	36	194	9.3	93.3
Turkey sel.	✓ 11373	24	1		50	55	207	10.4	104.0

Average yield computed by averaging the gram yield and multiplying by 11

m = 3.0
P.E. diff. = 2.2108 bu/A.
Gen. P.E. = 11.5033 "
X = 10.41 bu/A.
etc.

Table Agronomic data on winter wheat varieties grown in the U.S.D.A. Uniform Yield Nursery (three distributed, three-rod row plots), Manhattan, Kansas, 1934

1934 C.I. Ks. or Row No. Sel. No.	Variety	Plant Height In.	Lodging %	Date 1st Headed May	Date Ripe June	Kernel Texture	Kernel Plump- ness %	YellowBu, berry per % acre P.E.	Test Wt. Lbs.	Protein %
37 11591 2689	Prelude x Kanred	32		7	7	DH	84	tr 38.2±3.08	58.8X	19.40
34 8856 483	Early Blackhull	31		2	6		90	tr 35.8±0.41	60.8X	17.15
64 10015 Nebr.1662	Turkey Sel.	32	25	10	10	DH	86	tr 35.0±1.06	56.7X	18.60
58 11523 545	Sibley No. 62	34	7	13	12	DH	84	0 34.2±0.89	52.8X	18.90
67 10095 Nebr.1065	Turkey Sel.	30	3	11	11	DH	85	tr 33.7±0.37	56.3X	19.30
52 11592 303942	Kanred x (Marquis x Kanred Ks. 443)	33	3	12	12	DH	85	0 33.5±0.98	54.2X	18.70
55 10087 2654	P1066-1 x Burbank	34	10	11	12	BH	83	0 32.8±1.99	53.8X	
97 11587 Tex.301E- 105-1	Mediterranean Sel.	35		12	13	SC-	85	tr 32.8±3.52	57.7X	
73 10098 Nebr. 1070	Turkey Sel.	29		9	11	DH	94	0 32.1±1.87	56.3X	18.15
70 10097 Nebr.1068	Turkey Sel.	31		11	10	DH	85	0 31.6±0.56	56.1X	18.35
88 11513 N.Plattel26	Beloglina x Hussar	35	17	13	13		80	0 31.5±3.64	49.7X	
61 10083 Okla. 1	Turkey Sel.	33	33	13	12	DH	84	0 30.9±1.70	52.1X	
76 10100 Col. 159	Turkey Sel.	32	48	13	11		81	0 30.5±1.27	51.9X	
82 11576 Neb.31D650	Turkey Sel.	33	12	13	12	DH	83	tr 30.2±3.14	52.6X	18.75
49 10099 Col. 0166	Kanred Sel.	33	7	12	12		82	0 30.0±2.34	52.2X	
94 10085 Tex.5933-20	Mediterranean Sel.	31	13	11	10	SS	86	0 29.2±1.81	56.5X	
40 11590 2695	P1066-1 x Prelude	29		6	6	DH	83	tr 28.6±5.03	56.5X	19.10
85 8884 N.Platte 11	Beloglina Sel.	33	10	14	13	DH	81	0 28.0±3.95	51.3X	
46 11589 2690	Kanred x Marquis	29		9	9	DH	83	tr 27.9±4.38	56.1X	18.40
79 11375 Col.351	Turkey Sel.	33	7	13	13	DH	82	0 27.8±2.27	53.1X	
43 8257 2594	Fulhard	29		9	10	DH	86	tr 25.5±5.12	58.4X	18.60
91 11588 N.Platte 353	Beloglina x Minturki	34	13	17	14	DH	83	0 24.1±1.83	50.6X	
Average of 22 strains								31.1 2.33		

Average Probable Error in %

7.49%

(Continued)

1934

Row No.

Remarks

37	Early
34	Black chaff, very early
64	6-6 early, good type, yellow green foliage, weak straw
58	5-26 \pm weak straw
67	Blue-green foliage, 6-6 stiff straw, combine type
52	Yellow-green foliage, stiff straw
55	Blue-green foliage, \pm weak straw 6-6
97	Later and taller than Row 94
73	Stiff straw; dough broke down in mixing
70	Stiff straw; dough broke down in mixing; blue-green foliage; combine type
88	\pm late; weak straw; large kernels; ripened early.
61	5-26 Weak straw
76	6-6 Very weak straw
82	\pm Weak straw; white loaf of very good quality.
49	6-6 \pm Weak straw
94	Red chaff; earlier and shorter than Row 97; poor vigor; slight injury from winter killing
40	Early
85	\pm late 5-15
46	6-6 good; blue-green foliage; stiff straw
43	6-11 leaning
91	Late

Table Agronomic data on winter wheat varieties grown in the U.S.D.A. Uniform Winter Hardiness Nursery (three distributed, five rod-row plots), Manhattan, Kansas, 1934.

1934 C. I.Ks. or	Plant	Lodging	Date	Date	Kernel	Kernel	%	Bu.	Test	Protein			
Row No.	Height	%	1st	Ripe	Texture	Plump-	Yellow-Per	Acres	Wt.	%			
No.	In.		Headed	June		ness	berry P.E.		Lbs.				
No.	No.		May	June		%							
*11	10092	2673	Kanred x Hd. Fed.	28		7	9	DH	90	tr	44.4±1.39	59.5 *	17.10
8	8886	2628	Quivira	33	3	7	9	DH	84	0	41.1±2.64	58.6	18.95
*10	10091	2672	Kanred x Hd. Fed.	28		5	8	DH	89	0	36.8±1.83	60.2 *	19.25
30	6471	317	Fulcaster	37		12	11	SS+dull	84	0	35.6±1.04	55.7	19.30
* 9	11373	2671	Kanred x Hd. Fed.	29		6	9	DH	91	tr	35.5±3.00	60.4 *	17.95
* 5	10094	Neb.1063	Turkey Sel.	32	2	11	11	DH	84	0	35.4±2.10	57.3 *	18.15
3	8885	2667	Cheyenne	35		13	14		81	tr	35.1±1.54	55.7	16.95
* 7	6251	343	Blackhull	33	2	10	13	dull	83	0	34.2±1.68	56.9 *	18.05
6	5146	2401	Kanred	35	23	13	13		76	0	32.8±1.54	53.8	19.55
* 4	10016	Neb.1069	Turkey Sel.	32		9	12	DH	78	tr	32.0±1.55	57.2 *	17.35
15	11540		Turkey x Galgalos	35	50	13	13	DH	76	0	29.9±0.86	52.7	
* 2	6250	322	Nebr.No. 60	36	7	14	15		73	tr	28.4±0.67	52.7 *	18.95
12	10017	2666	Iowin (Ia. 2025)	36	23	14	14	DH	79	0	28.1±0.86	54.2	
21	8215	2606	Minhardi x Minturki	37		14	17	dull	73	0	27.0±1.08	51.0	
28	5149	2450	Minhardi (I-27-12)	36		14	16	SSdull	76	0	26.9±1.53	50.3	
27	1504	2685	Wheat x Eye (Alberta)	38		17	17	SSdull	78	0	26.2±0.62	51.5	
23	8889	Minn.234	Minard x Minhardi	34		14	16		73	0	26.1±1.81	51.0	
20	6155	2464	Minturki	38		15	17	dull	72	0	25.4±0.64	48.9	20.60
18	8045		Kanred x Minessa	35	53	16	17		67	tr	25.3±1.72	50.4	
13	10018		Wis. Sel. 21.25	37		17	17		72	0	24.7±0.29	51.8	
22	8218	Minn.II-20-20	Minard x Minhardi	36		14	16		72	0	23.9±1.47	48.2	
25	11502	Minn.II-22-38	Minturki x Marquis	37		13	16	dull	76	0	23.3±1.38	52.9	
26	11503	2686	Wheat x rye (Alberta I-27-11)	36	3	17	16	dull	65	0	23.3±0.99	46.6	
19	6152	2466	Turkey Sel. (Minn.1443)	38	15	16	17		66	0	23.0±1.32	49.5	
24	11501	Minn.II-22-7	Minturki x Marquis	36		14	16		74	0	22.2±1.40	50.6	
* 1	1442	2591	Kharkov	33	3	15	13		68	0	22.0±1.61	50.7 ✓	19.75
14	11500	Wis.81.26	Minturki x Turkey	36	8	17	16		70	0	21.1±1.34	49.4	
17	8887		Turkey x Minessa	37		16	13		53	0	17.5±2.61	44.1	
16	11505	2690	Turkey x Minessa	36	7	17	16		50	0	13.0±3.26	42.6	
29	8896	491	Lutescens	38		21	19	dull	62	0	10.1±0.43	43.9	

(Continued)

Average 30 strains

Bu. 27.7
Bu. 1.47

Average Probable Error of 30 strains

5.31%

1934

Row No.

Remarks

11	Combine type; stiff straw; blue-green foliage
8	5-26 Good plot
10	4-26 Slightly more winter killing; leaf injury; stiff straw and combine type; yellow-green foliage; earlier than Ks. 2671 and Ks. 2675
9	Combine type; stiff straw; blue-green foliage
5	Blue-green foliage; stiff straw
3	5-26 Good type
6	6-6 Weak straw
4	6-6 Good Turkey combine type; earlier than Cheyenne. Stiff straw; early.
15	Not uniform in height; weaker straw
12	6-11 Weak straw; late
21	Late
28	Awnless, late
27	Late
23	Late
20	Late
18	Leaning, late, red chaff
13	Late
22	Late, awnless
25	Late
26	Late, awnless
19	6-11 leaning, late
24	Late, awnless
14	5-26 weak straw, late, uneven height
17	Late, awnless, red chaff
16	Late, awnless
29	Very late, awnless

* These strains also in uniform yield nursery list, but grown in uniform winterhardness nursery at Manhattan.

WINTER WHEAT NURSERY YIELD TEST

Stillwater, Oklahoma 1933-34

C. B. Cross

$m = 30$
P. E. diff. = 1.4614 bu./A.
Gen. P. E. = 1.0334 " "
 = 3.457% of \bar{X}
 $\bar{X} = 29.92$ bu./A.
 Calculated
 12/8/34 *G. Colant*

Varieties	Date Headed	Date Ripe	Plant Height	Total Yield/Plot	Grain/Plot	Straw/Plot	Yield Grain Bu./Acre	Test Wt.
Kharkof C. I. 1442 ✓	5/2	6/4	40	1150	290	860	29.0	59.3 <i>avg.</i>
		"	37	1030	242	788	24.2	
		"	32	1050	274	776	27.4	
		6/6 <i>6/5</i>	43 <i>38</i>	1150	268	882	26.8	
Nebr. 60 C. I. 6250 ✓	5/3	6/5	39	1175	294	881	29.2	59.6
		"	39	1125	286	839	28.6	
		6/4	32	1100	316	784	31.6	
		6/6 <i>6/5</i>	40 <i>37.5</i>	1075	260	815	26.0	
Blackhull C. I. 6251 ✓	4/30	6/4	39	1085	284	801	28.4	62.3
		"	39	1133	276	857	27.6	
		6/3	33	1175	324	851	32.4	
		6/4 <i>6/4</i>	42 <i>38.3</i>	1112	282	830	28.2	
Fulhard C. I. 8257 ✓	4/29	6/4	37	1067	258	809	25.8	62.3
		6/2	36	1023	266	757	26.6	
		6/3	30	1068	294	774	29.4	
		" <i>6/3</i>	40 <i>35.8</i>	991	240	751	24.0	
Early Blackhull C. I. 8856 ✓	4/18	5/27	31	908	310	598	31.0	63.3
		"	32	828	288	540	28.8	
		"	30	998	348	650	34.8	
		" <i>5/27</i>	32 <i>31.3</i>	842	298	544	29.8	
Beloglina Sel. C. I. 8884 ✓	5/4	6/5	37	977	238	739	23.8	58.3
		"	38	962	242	720	24.2	
		6/4	35	957	266	691	26.6	
		6/5 <i>6/5</i>	39 <i>37.3</i>	1005	234	771	23.4	
Turkey Sel. C. I. 10015 ✓	5/2	6/2	37	894	220	674	22.0	61.3
		6/3	38	959	228	731	22.8	
		6/2	32	779	222	557	22.2	
		6/3 <i>6/3</i>	37 <i>36.0</i>	925	212	713	21.2	

Note: Planted 9/30 Emerged 10/5

(Con't)

Variety	Date Headed	Date Ripe	Plant Height	Total Yield/Plot	Grain/Plot	Straw/Plot	Yield Grain Bu./Acre	Test Wt.
Turkey Sel. ✓ C. I. 10016	4/28	6/1	31	1069	260	809	26.0	60.8
		6/3	38	1200	308	892	30.8	
		6/1	30	1025	260	765	26.0	106.6
		6/2	38 ^{34.3}	958	238	720	23.8	26.7
Turkey Sel. ✓ C. I. 10083	5/1	6/2	35	1071	290	781	29.0	59.3
		6/3	37	1228	322	906	32.2	121.2
		6/2	35	1002	290	712	29.0	
		6/3 ^{6/3}	39 ^{36.5}	1147	310	837	31.0	30.3
Mediterranean Sel. ✓ C. I. 10085	4/29	6/2	32	1045	248	797	24.8	61.1
		6/4	36	1090	368	722	36.8	
		6/1	31	1210	310	900	31.0	123.2
		6/3 ^{6/3}	39 ^{34.5}	1250	306	944	30.6	30.8
P. 1066 X Burbank ✓ C. I. 10087	4/29	6/2	35	1059	294	765	29.4	61.2
		6/4	38	1225	358	867	35.8	131.6
		6/2	35	980	302	678	30.2	
		6/3 ^{6/3}	40 ^{37.0}	1315	362	953	36.2	32.9
Kanred X Hard Fed. ✓ C. I. 10091	4/19	5/28	28	1119	370	749	37.0	60.3
		6/2	30	1063	378	685	37.8	
		5/28	29	1051	364	687	36.4	145.8
		5/29 ^{5/30}	26 ^{26.3}	973	346	627	34.6	36.5
Kanred X Hard Fed. ✓ C. I. 10092	4/21	5/28	27	1179	392	787	39.2	60.6
		6/2	31	1200	360	840	36.0	
		5/28	28	1125	354	771	35.4	138.0
		6/2 ^{5/31}	25 ^{27.8}	957	274	683	27.4	34.5
Turkey Sel. ✓ C. I. 10094	4/30	6/2	32	1033	288	745	28.8	61.0
		6/3	34	1167	314	853	31.4	
		6/2	32	866	254	612	25.4	117.0
		6/3 ^{6/3}	32 ^{32.5}	1102	314	788	31.4	29.3

(Con't)

Variety	Date Headed	Date Ripe	Plant Height	Total Yield/Plot	Grain/Plot	Straw/Plot	Yield Grain Bu./Acre	Test Wt.
Turkey Sel. C. I. 10095 ✓	4/30	6/1	32	1050	282	768	28.2	60.7
		6/3	33	1130	290	840	29.0	
		6/2	32	1040	264	776	26.4	113.0
		6/3 6/4	32 32.3	1080	294	786	29.4	28.3
Turkey Sel. C. I. 10097 ✓	4/30	6/4	31	1040	260	780	26.0	60.8
		6/3	37	1050	262	788	26.2	
		6/2	35	1000	254	746	25.4	104.0
		6/3 6/3	30 33.3	1020	264	756	26.4	26.0
Turkey Sel. C. I. 10098 ✓	4/29	6/1	32	1120	292	828	29.2	61.0
		6/3	33	1160	262	898	26.2	
		6/2	32	1160	276	884	27.6	115.6
		6/3 6/2	29 31.5	1170	326	844	32.6	28.9
Kanred Sel. C. I. 10099 ✓	5/2	6/3	37	1150	320	830	32.0	58.6
		6/4	38	1040	260	780	26.0	
		6/3	38	1200	294	906	29.4	122.8
		6/3 6/3	35 37.0	1230	354	876	35.4	30.7
Turkey Sel. C. I. 10100 ✓	5/2	6/3	36	1100	304	796	30.4	58.1
		6/3	37	960	238	722	23.8	
		6/4	39	1040	256	784	25.6	111.8
		6/3 6/3	37 37.3	1140	320	820	32.0	28.0
Kanred X Hard Fed. C. I. 11373 ✓	4/21	6/2	31	1150	360	790	36.0	60.6
		6/2	29	1100	364	736	36.4	
		"	33	1300	388	912	38.8	150.8
		" 6/2	27 30.0	1210	396	814	39.6	37.7
Turkey Sel. C. I. 11375 ✓	5/3	6/3	37	1180	300	880	30.0	59.8
		6/4	36	910	230	680	23.0	
		6/5	40	1150	288	862	28.8	112.0
		6/3 6/4	37 37.5	1160	302	858	30.2	28.0
Mediterranean Sel. C. I. 11587 ✓	5/1	6/4	40	1320	370	950	37.0	62.0
		6/5	35	1040	252	788	25.2	
		6/4	40	1400	306	1094	30.6	123.6
		" 6/4	37 37.0	1220	308	912	30.8	30.8

(Con't)

Variety	Date Headed	Date Ripe	Plant Height	Total Yield/Plot	Grain/Plot	Straw/Plot	Yield Grain Bu./Acre	Test Wt.
Sibley 62 C. I. 11523 ✓	5/4	6/4	37	1060	318	742	31.8	58.8
		"	38	1220	300	920	30.0	133.0
		"	42	1420	378	1042	37.8	
		6/3/6/4	37/38.5	1230	334	896	33.4	33.3
Turkey Sel. C. I. 11576 ✓	5/3	6/5	34	900	224	676	22.4	58.2
		6/3	34	940	228	712	22.8	94.4
		6/4	40	1090	242	848	24.2	
		6/3/6/4	36/36.0	980	250	730	25.0	23.6
Beloglina X Minturki C. I. 11588 ✓	5/5	6/6	33	950	228	722	22.8	58.7
		"	37	950	238	712	23.8	90.8
		"	39	910	218	692	21.8	
		6/4/6/6	37/36.5	940	224	716	22.4	22.7
Beloglina X Hussar C. I. 11513 ✓	5/1	6/5	34	1180	330	850	33.0	58.3
		6/5	42	1320	332	988	33.2	130.6
		"	40	1400	320	1080	32.0	
		6/4/6/5	40/39.0	1300	324	976	32.4	32.7
Kanred X Marquis C. I. 11589 ✓	4/27	6/1	29	960	280	680	28.0	61.4
		6/2	37	1280	378	902	37.8	133.2
		"	38	1270	318	952	31.8	
		6/2/6/2	35/34.8	1230	356	874	35.6	33.3
P. 1066XPrelude C. I. 11590 ✓	4/25	5/31	28	840	298	542	29.8	61.0
		"	37	1310	408	902	40.8	148.0
		5/31	35	1330	402	928	40.2	
		" 5/31	34/33.5	1230	372	858	37.2	37.0
Prelude X Kanred C. I. 11591 ✓	4/25	5/31	29	1030	336	694	33.6	62.7
		"	37	1400	430	970	43.0	157.2
		"	37	1320	426	894	42.6	
		" 5/31	35/34.5	1290	380	910	38.0	39.3
Kanred X Marquis X Kanred C. I. 11592 ✓	4/30	6/2	33	960	248	712	24.8	58.9
		6/4	38	1200	288	912	28.8	110.8
		"	38	1180	300	880	30.0	
		6/2/6/3	36/36.3	1070	272	798	27.2	27.7

Winter Wheat Varieties Grown in Co-operative
Nursery Experiment - Stillwater, Ohio, 1933-34.

Variety	Pl. No.	N.S.N.	(First)		Height	Sown Oct. 2; Emerged Oct. 7, 1933.				Harv.	Testwt.
			Date	Date		Plot 1	Plot 2	Plot 3	Plot 4		
Martha	W-32-1		5/2	6/4	38.0	29.0	24.2	27.4	26.8	26.8	59.3
Near 60			5/3	6/5	37.5	29.2	28.6	31.6	26.0	28.8	59.6
Blackball			3	6/4	38.3	28.4	27.6	32.4	28.2	29.1	62.3
Fulhard			4	6/3	36.8	25.8	26.6	29.4	24.0	26.4	62.3
Early Blackball			5	5/27	31.3	31.0	28.8	34.8	29.8	31.1	63.3
Belgiuma Sel.			6	6/5	37.3	23.8	24.2	26.6	23.4	24.5	58.5
Turkey Sel.			8	6/2	36.0	22.0	22.8	22.2	21.2	22.0	61.3
Turkey Sel.			9	6/1	34.3	26.0	30.8	26.0	23.8	26.6	60.8
Turkey Sel.			10	6/2	36.5	29.0	32.2	29.0	31.0	30.3	59.3
Mediocre mean Sel.			12	6/3	34.5	24.8	36.8	31.0	30.6	30.8	61.1
Pat. x Bantant.			14	6/3	37.0	29.4	35.8	30.2	36.2	32.9	61.2
Holland x Hard Fed.			18	5/29	38.3	37.0	37.8	36.4	34.6	36.4	60.3
Holland x Hard Fed.			19	5/30	27.8	39.2	36.0	35.4	27.4	34.5	60.6
Turkey Sel.			21	6/2	32.5	28.8	31.4	25.4	31.4	29.2	61.0
Turkey Sel.			22	6/2	32.3	28.2	29.0	26.4	29.4	28.2	60.7
Turkey Sel.			24	6/3	33.3	26.0	26.2	25.4	26.4	26.0	60.8
Turkey Sel.			25	6/2	31.5	29.2	26.2	27.6	32.6	28.9	61.0
Holland Sel.			26	6/3	37.0	32.0	26.0	29.4	35.4	30.7	58.6
Turkey Sel.			27	6/3	37.3	30.4	23.8	25.6	32.0	27.9	58.1
Holland x Hard Fed.			28	5/29	30.0	36.0	36.4	38.8	39.6	37.7	60.6
Turkey Sel.			30	6/4	37.5	30.0	33.0	28.8	30.2	28.0	59.8
Mediocre Sel. W-34-1				6/4	38.0	37.0	25.2	30.6	30.8	30.9	62.0
Solely 62	W-23		2	6/4	38.5	31.8	30.0	37.8	33.4	33.2	57.8
Turkey Sel. W-26			3	6/4	36.0	22.4	22.8	24.2	25.0	23.6	58.2
Belgiuma x Holland	W-28		4	6/5	36.5	22.8	23.8	21.8	22.4	23.7	58.7
Belgiuma x Holland	W-29		5	6/5	39.0	33.0	33.2	32.0	32.4	32.6	58.3
Holland x Marquis W-31			6	6/2	34.8	28.0	37.8	31.8	35.6	33.3	61.4
Pat. x Bantant W-32			7	6/2	34.5	29.8	40.8	40.2	37.2	37.0	61.0

St. Malver Winter Wheat Nursery
1933-34 - Continued

Plants Harvested	11591	334.8	1/205	2/131	3/41.5	33.6	43.0	42.6	38.0	39.5	62.7
Harvested #		9	1/30	2/3	36.3	24.8	28.8	30.0	27.2	27.7	48.9
Plants Harvested	11592										

Note Heading dates are dates first heads appeared above sheath. Full heading would be some seven days later

$m = 13$
P.E. diff. = 1.6179 bu./A.
Gen. P.E. = 1.1440 " "
 = 8.25% of \bar{X}
 $\bar{X} = 13.87$ bu./A.

Unpublished
 12/7/34 *A. Colvard*

Yields of winter wheat variety test at Colby, Kansas, 1934.

<u>Variety</u>	<u>Series 1</u>	<u>Series 2</u>	<u>Series 3</u>	<u>Average</u>
Kanred x H.F. 2671	7.9 bu	22.1 bu	20.0 bu	16.8 bu
" " 2672	7.9	19.2	21.2	16.1
" " 2673	6.0	20.4	21.7	16.0
Quivira	10.4	18.7	18.8	16.0
Tenmarq	9.6	21.8	16.7	16.0
Early Blackhull	7.5	20.8	19.2	15.8
Blackhull	10.8	19.2	17.1	15.7
Cheyenne	2.9	24.2	12.1	13.1
Kanred	10.0	18.3	8.3	12.2
Oro	3.3	19.2	12.1	11.5
Hebr. Turkey CI 10016	4.2	16.7	12.1	11.0
Turkey	2.9	16.7	12.9	10.8
Minturki	3.8	10.8	13.3	9.3
Kansas 521			15.4	
Kansas 522			15.0	
Kansas 523			8.8	
Kansas 524			15.0	

Project: North Montana 7A, Montana 345

WINTER WHEAT VARIETIES

Havre, Montana, 1934

This project in 1934 included 16 standard varieties and hybrid selections sown September 20, 1933 with a furrow drill on fallow in triplicated 1/50 acre plats at the rate of approximately one bushel of copper carbonate dusted seed per acre. There was sufficient moisture and temperatures favored immediate germination, uniform stands being observed at emergence on October 1. The total snowfall from November to March amounted to 36.6 inches as compared with a 53 year normal of 28.5 inches for the same months, however, the winter as a whole was not favorable since January and February received only 5.3 inches of snow, the ground being completely bare most of the time, with minimum temperatures occasionally below zero, and wind movement sufficiently strong to cause soil drifting at other times. Survival estimates made about April 15 showed that the stands were somewhat thin over the entire project, varying from 73 percent to 52 percent. No outstanding varietal differences in survival were observed as in many former years. Owing to ample March precipitation winter grains made excellent progress during April the latter month having temperatures somewhat above normal. The month of May, however, was less favorable because of drought, ~~and~~ abnormally high temperatures and, high evaporation which forced the crop too rapidly, many varieties actually heading by May 31. The first half of June witnessed a return of favorable conditions and crop prospects became greatly improved only to succumb to the severe hailstorm of June 26. Two replicates were harvested for milling and baking studies and other data, the third replicate being discarded primarily on account of damage by jackrabbits earlier in the season. Rabbits

elected winter wheat as a choice food this year tending to stay away from their usual feeding grounds in the barley and alfalfa projects.

Average yield comparisons from 1927 to 1933, not including 1934, show that Montana 36, C.I. 8028, Kharkof, Newturk, Karmont and Kanred ranked as listed. During the period 1931 to 1933, such varieties as Yogo, Minturki, C.I. 8028, C.I. 8034, C.I. 8889 and Montana 36 have had a slight advantage over Karmont, Nebraska 60, Kanred, and Kharkof.

Annual and average yields of certain winter wheat varieties grown on fallow
in plat experiments.

Havre, Montana, 1927 to 1934*

Variety or Hybrid	C. I. No.	Annual yields. Bushels per acre							Average	
		1927	1928	1929	1930	1931	1932	1933	1927 to 1933	1931 to 1933
Montana No. 36	5549	46.5	39.2	18.4	4.5	4.6	5.6	6.0	17.8	5.4
Karred	5146	35.4	34.0	13.8	4.5	4.1	4.5	5.1	14.5	4.6
Karmont	6700	37.4	38.2	13.2	3.1	3.9	7.2	5.5	15.2	4.9
Newturk	6935	45.7	36.7	11.5	4.2	3.7	7.5	3.7	16.1	5.0
Kharkof	1442	46.1	38.7	13.6	4.2	3.6	4.2	3.8	16.3	3.9
Turkey x Minessa	8028	45.3	31.5	16.1	5.6	3.0	12.8	5.1	17.1	7.0
Nebraska No 60	6250					3.4	6.1	4.5		4.7
Minhardi x Minturki	8034					3.2	9.5	4.5		5.7
Do	8215					3.6	11.4	4.4		6.5
Yogo	8033					3.4	14.7	5.3		7.8
Minard x Minhardi	8889					3.9	7.8	5.2		5.6
Minturki	6155					4.1	13.1	5.2		7.5

*Note: The 1934 yield data, owing to nearly complete destruction of the crop by hail, were not used in computing the annual averages shown in this table.

Individual plat yields of 16 varieties of winter wheat sown on fallow in triplicated* 1/50 acre plats.

Havre, Montana, 1934

NUMBER.		VARIETY.	First Rep			Second Rep			Average yield		
Plat.	C. I.		Pounds		Pounds		Bus.	Pounds per acre		of Grain	
			Straw	Grain	Straw	Grain		Straw	Grain		
	5549	Montana No. 36	33	5	20	4	9	1325	225	3.8	
	5146	Kanred	31	3	31	5	8	1550	200	3.3	
	6250	Nebraska No. 60	29	3	29	3	6	1450	150	2.5	
	6700	Karmont	25	5	44	6	11	1725	275	4.6	
	6935	Newturk	20	2	32	2	✓	1500	100	1.7	
	1442	Kharkof	22	2	28	4	6	1250	150	2.5	
	10016	Turkey	19	1	35	1	2	1350	50	0.8	
	8028	Turkey x Minessa	26	2	38	2	✓	1600	100	1.7	
	8215	Minhardi x Minturki	27	1	39	1	2	1650	50	0.8	
	8034	Minhardi x Minturki	32	2	40	2	✓	1800	100	1.7	
	8033	Yogo	28	4	43	3	7	1775	175	2.9	
	8869	Minard & Minhardi	32	2	34	2	✓	1650	100	1.7	
	6155	Minturki	35	1	41	1	2	1900	50	0.8	
	8887	Turkey x Minessa	39	1	35	1	2	1850	50	0.8	
	8888	Minard x Minhardi	37	1	32	2	3	1725	75	1.3	
	8042	Kanred x Minhardi	33	1	25	1	2	1450	50	0.8	
				36		40	76				
		* only two replicates harvested, the third being nearly a total loss from damage by jackrabbits.									
				$m = 16$							
				P.E. diff. = 0.3404 bu./A							
				Gen. P.E. = 0.2409 "							
				= 12.16% of \bar{X}							
				$\bar{X} = 1.98$ bu./A.							
							Calculated 2/2/35				

Average agronomic data recorded for 16 varieties of winter wheat grown on fallow in triplicated* 1/50 acre plats at Havre, Montana in 1934.

Date of seeding September 20, 1933 with a furrow drill

VARIETY.	C. I. No.	DATES.			DAYS TO MATURITY FROM—		Stand, thousand plants per acre.	Winter survival.	Height, inches.	RUST.		Lodging.	ACRE YIELD.			Bushel weight, pounds.
		Emergence.	Headed.	Ripe.	Emergence.	Head- ing.				Leaf.	Stem.		Grain.		Straw, pounds.	
													1933	1934		
Karmont	6700	10-1	5-31	7-11	283	41		%	23	%	%					
Montana No. 36	5549	10-1	5-31	7-9	281	39		63	23				4.6	275	1725	57.0
Kanred	5146	10-1	5-31	7-11	283	41		65	22				3.8	225	1325	56.0
Yogo	8033	10-1	6-1	7-11	283	40		65	25				3.3	200	1550	55.3
Nebraska No. 60	6250	10-1	5-31	7-11	283	41		63	23				2.9	175	1775	54.6
Kharkof	1442	10-1	5-31	7-10	282	40		64	20				2.5	150	1250	55.8
Turkey x Minessa	8028	10-1	5-31	7-11	283	41		68	25				1.7	100	1600	54.3
Minard x Minhardi	8889	10-1	6-5	7-11	283	38		67	25				1.7	100	1650	55.5
Newturk	6935	10-1	5-30	7-11	283	42		64	23				1.7	100	1300	56.0
Minhardi x Minturki	8034	10-1	6-2	7-11	283	39		64	25				1.7	100	1800	55.8
Minard x Minhardi	8888	10-1	6-4	7-11	283	37		61	24				1.3	75	1725	55.8
Turkey	10016	10-1	5-29	7-8	280	40		73	17				0.8	50	1350	55.8
Minhardi x Minturki	8215	10-1	5-31	7-9	281	39		63	24				0.8	50	1650	54.5
Minturki	6155	10-1	6-4	7-11	283	37		64	25				0.8	50	1900	54.5
Turkey x Minessa	8887	10-1	6-5	7-11	283	36		63	25				0.8	50	1850	54.0
Kanred x Minhardi	8042	10-1	6-4	7-11	283	37		52	26				0.8	50	1450	52.8
* Only two replicates harvested the third being more or less eaten by jackrabbits.																

Winter Wheat Variety Test 1933-34

Stillwater, Okla.

Variety	C.I. No.	Date Headed	Date Rip	Stand	Winter Survival	Height	Test Wt.	Plot 1 Grain	Plot 1 Straw	Plot 2 Grain	Plot 2 Straw	Plot 3 Grain	Plot 3 Straw	Plot 4 Grain	Plot 4 Straw	Ave. Grain	Ave. Straw
Turkey-Check	1558	5/3	6/4	100	100	40.8	37.5	26.7	3956	38.8	47.92	34.7	4434	32.9	3669	33.3	4213
Early Blackhull	8856	4/18	5/27	"	"	38.3	61.9	31.1	2796	43.3	3826	35.5	2817	39.3	3375	37.3	3254
Quivira	8886	4/22	5/29	"	"	39.3	59.8	34.5	4271	44.9	4081	31.3	2985	43.8	4407	38.6	3936
Turkey-Check	1558	5/3	6/4	"	"	38.5	57.0	23.2	3908	38.8	4966	29.9	3587	34.6	2876	31.6	3834
Howade	8180	4/29	6/3	"	"	37.0	57.2	32.2	4146	43.9	4836	35.5	3772	42.8	4640	38.6	4849
Eagle Chief	8868	5/1	6/3	"	"	39.5	57.3	31.8	4173	39.8	4472	35.7	3500	28.8	3310	34.0	3864
Turkey-Check	1558	5/3	6/4	"	"	38.3	57.3	26.5	4054	38.9	4271	31.2	4033	34.6	3744	32.0	4026
Tenmarq	6936	5/2	6/2	"	"	38.8	57.7	34.5	3837	48.2	4320	36.3	3381	44.3	4027	40.1	3891
Blackhull	6251	4/29	6/2	"	"	38.5	59.8	32.6	4125	41.6	3148	35.9	3577	38.1	4228	37.8	3770
Turkey-Check	1558	5/2	6/4	"	"	39.5	57.3	23.5	3773	34.1	4554	30.8	2497	33.5	3636	30.5	3665
Redhull	11534	5/1	6/4	"	"	39.5	58.1	28.6	3929	37.2	4369	23.3	3300	35.3	4048	33.6	3912
Honred	5746	5/3	6/3	"	"	39.3	56.7	26.0	4173	39.7	4390	36.4	3636	35.3	3875	34.2	4019
Turkey-Check	1558	5/3	6/4	"	"	39.0	57.4	19.4	5090	31.5	4971	32.6	3864	28.8	3924	27.3	4462
Khartkof	1442	5/3	6/4	"	"	38.5	56.3	23.4	3023	30.5	3816	33.7	3273	29.2	*	29.2	3371
Sibley 81	10084	5/1	6/2	"	"	40.3	58.6	22.9	3577	33.7	4402	31.6	3664	33.1	4613	30.3	4064
Turkey-Check	1558	5/3	6/4	"	"	39.5	56.8	21.8	3853	29.8	4206	30.6	3723	* 27.7	* 3927	27.2	3927
Sibley 62	11523	5/4	6/4	"	"	39.5	56.4	24.8	3983	36.1	4260	32.6	3690	37.5	4868	32.8	4200
Cheyenne	8885	5/2	6/4	"	"	39.0	57.6	27.8	4499	36.2	4342	30.2	4005	37.5	4521	32.9	4342
Turkey-Check A	1558	5/3	6/4	"	"	40.0	57.4	24.3	3837	31.9	3989	32.6	4211	34.6	4092	30.9	4032
" B	"	5/3	6/4	"	"	41.5	57.8	24.3	3837	31.9	3989	37.7	4944	34.6	4092	32.1	4216
Fulcaster	6471	5/2	6/3	"	"	43.0	58.5	27.1	3848	33.3	4342	37.6	4602	37.8	3896	34.0	4172
Harvest Queen	6199	5/3	6/5	"	"	47.3	57.5	21.6	3652	28.6	4190	33.4	5118	32.0	4417	28.9	4344
Turkey-Check	1558	5/3	6/4	"	"	41.3	57.3	22.4	3690	29.7	3934	34.4	3929	36.3	3989	30.8	3886
Denton	8265	5/3	6/5	"	"	43.3	58.4	30.6	4244	40.4	5047	40.9	3223	37.5	4873	37.3	4647
Nebr 60	6250	5/3	6/4	"	"	42.0	58.3	29.9	3766	38.1	4401	39.5	4662	36.0	4265	38.9	4274

July 11

SOURCE: ARS/CRS, ARS

Winter wheat Variety Test

Variety	Cl. No.	Date Headed	Date Ripe	Fall Test		Plot 1		Plot 2		Plot 3		Plot 4		Average		Emerges. 1918/33
				Stand	Wt.	Grain	Straw	Grain	Straw	Grain	Straw	Grain	Straw	Grain	Straw	
Turkey Check	X	5/8	7/10	100	57.4	22.7	3527	17.2	2738	20.4	2846	21.8	4242	21.0	3412	
Early Blackhull	✓	5/1		97	62.6	31.9	3177	29.3	2834	31.7	3285	32.3	3692	31.3	3247	
Eagle Chief	✓	5/11		100	57.6	31.1	3989	26.5	3236	24.0	3091	23.8	3883	26.3	3667	
Turkey Check	X	5/10		100	58.1	23.7	3568	25.7	2977	22.8	3860	24.3	4546	23.7	3673	
Blackhull	✓	5/6		98	61.0	24.1	3660	31.9	3556	26.7	3544	29.8	4777	28.9	3884	
Redhull	✓	5/10		98	57.1	24.3	3591	23.6	2932	26.8	4277	25.8	4477	25.1	3819	
Turkey Check	X	5/10		100	56.6	22.8	3464	19.6	3073	23.8	4202	16.8	3584	20.7	3566	
Honed	✓	5/11		96	53.5	21.6	4653	23.9	3456	21.4	5422	24.2	3739	22.9	4318	
Ashcroft	✓	5/11		97	53.6	23.0	3692	26.3	3987	28.3	4369	24.3	3428	25.5	4494	
Turkey Check	X	5/10		100	57.1	21.6	3591	22.8	3419	21.6	4080	20.2	3719	21.6	3390	
Sibley 81	✓	5/10		95	57.0	25.7	3383	25.2	3575	28.8	3618	30.9	4350	27.7	3727	
Cheyenne	✓	5/11		97	56.3	20.8	3739	21.0	4406	22.4	3403	29.4	4606	23.4	4164	
Turkey Check A	X	5/10		100	57.0	18.6	3277	17.3	3452	16.7	3177	20.7	3743	18.6	3417	
" " B	X	5/10		100	58.0	18.6	3277	17.3	3452	28.3	4131	35.7	3743	22.5	3651	
Fulcrum	✓	5/5		95	53.4	17.7	3089	17.4	3604	27.1	3959	18.5	2822	20.2	3369	
Harvest Queen	✓	5/11		98	57.7	22.7	4242	21.0	3851	23.9	3696	30.1	3983	24.4	3943	
Turkey Check	X	5/10		100	56.5	22.4	3644	16.6	4350	25.5	3676	27.4	4322	23.5	4053	
Denton	✓	5/10		96	57.6	28.4	4222	19.4	3704	32.6	4749	32.7	4753	28.2	4357	
Nebr 60	✓	5/11		98	56.8	18.1	3544	16.5	3201	28.1	4412	25.3	4270	22.0	3854	
Turkey Check A	X	5/10		100	57.4	22.7	2989	19.2	3241	23.3	3871	24.8	3879	23.0	3495	
" " B	X	5/10		100	58.0	22.7	2989	26.4	4103	23.3	3871	24.8	3879	24.8	3711	
Penquite Sel.	✓	5/10		98	59.5	24.1	3544	30.1	1683	35.5	2323	28.3	4470	29.5	3005	
Sibley 62	✓	5/15		25	53.9	12.8	2622	20.3	3352	21.9	3636	17.8	3320	18.2	3233	
Turkey Check	X	5/10		100	57.3	19.0	3273	21.4	3229	20.7	3863	21.5	4275	21.8	3773	
Turkey Sel	✓	5/11		96	56.6	17.9	3316	27.9	2657	29.6	4131	25.1	4278	25.1	3596	
Quivira	✓	5/5		96	60.3	29.4	3883	34.3	3811	30.9	3237	32.9	4270	31.9	3800	
Turkey Check	X	5/10		100	57.9	18.2	2961	20.7	3447	25.9	3491	26.8	4737	22.9	3709	
Tennary	✓	5/9		100	53.0	19.1	3943	21.2	3455	31.3	3708	24.2	3739	26.1	3711	
Hawvale	✓	5/9		100	53.8	16.9	2957	24.9	3253	28.3	3592	20.7	3648	22.7	3363	
Turkey Check	✓	5/10		100	56.3	16.1	3424	19.2	2938	20.4	2846	21.7	4242	19.4	3313	
avg. checks		Planted 1/8	Emerges 1/15/33	100	57.3	20.8	3340	20.5	3363	23.0	3617	25.3	4093	22.4	3603	

Planted 1/8/33
Emerges 1/18/33

Plants ripe not taken

Calculated & checked
1/14/33 E. E. Colburn

$\bar{m} = 19$
P.E. diff. = 1.6263
Gen. S.E. = 1.1500
= 4.56% of \bar{m}
 $\bar{X} = 25.23$

Turkey Check.	1538	✓ 5/3	6/4	100	100	42.0	57.5	22.0	3457	34.4	4190	36.8	5085	32.9	3582	31.5	4679
Parkhof	8381	✓ 5/5	6/6	100	"	47.0	55.8	23.3	3809	39.1	5036	37.5	5124	35.8	4363	33.9	4586
Loturk	11388	✓ 5/5	6/5	"	"	40.3	58.0	23.0	3484	40.9	5015	35.3	4482	34.0	4038	32.3	4255
Turkey Check.	1538	5/3	6/4	"	"	39.8	57.3	23.5	3679	36.4	4244	35.9	4185	32.9	3495	32.7	3901
Penquite Sel.	5948	✓ 4/29	6/2	"	"	40.3	58.9	30.1	3664	40.5	4950	38.2	5003	36.8	3696	36.4	4328
Turkey Sel.	10083	✓ 5/3	6/4	"	"	39.0	56.8	26.8	3343	32.6	4385	39.7	4304	35.7	3504	33.7	3885
Turkey Check.	1538	5/3	6/4	"	"	39.5	57.5	24.8	3599	23.7	4482	28.8	3484	32.6	3169	27.5	3671
Mittany	5962	✓ 5/2	6/4	"	"	43.8	55.3	28.5	3954	37.4	4445	32.7	5492	33.6	3804	33.1	4419
V.P.I. 131		✓ 5/2	6/4	"	"	44.0	56.8	23.3	3636	28.7	5053	35.5	5075	29.8	3946	29.3	4428
Turkey Check.		5/3	6/4	"	"	39.3	56.4	19.4	3354	*27.1	*3442	33.5	3896	28.3	3077	27.1	3442
Cooper Tortia Hartwig Sel.		✓ 5/6	6/6	"	"	43.8	56.0	25.0	3886	37.5	5563	37.5	4955	31.5	3929	32.9	4583
Turkey Sel.		✓ 5/1	6/2	"	"	36.3	58.5	28.2	4125	36.7	4443	38.4	4733	32.8	4113	34.0	4354
Turkey Check.		5/3	6/4	"	"	40.0	57.7	18.5	3061	38.8	4792	34.7	4434	31.8	4081	31.2	4092
Orig. 14 Turkey checks		5/3	6/4	"	"	39.9	57.3	23.0	3811	33.1	4344	33.2	4022	32.3	3668	30.4	3961

* Whirlwind scattered and mixed bundles of these plots.

1 Average of three plots only.

$$\begin{aligned}
 m &= 25 \\
 P.E. \text{ diff.} &= 1.4552 \\
 \text{Gen. P. E.} &= 1.0502 \\
 &= 3.097\% \bar{X} \\
 \bar{X} &= 33.98
 \end{aligned}
 \left. \begin{array}{l} \\ \\ \\ \\ \end{array} \right\} \text{See } A?$$

Calculated & Checked
1/14/35 *Calculated*

ER

SR

Name	1	2	3		1	2	3	
Turkey CK ✓	85	90	85	87	T	T	T	T
Early Bkl.	85	85	85	85	T	T	T	T
Pairina	20	15	20	18	T	T	T	T
Turkey CK ✓	85	85	80	83	T	T	T	T
Kawwala	5	5	10	7	T	T	T	T
Coyle Chf	65	65	50	60	T	T	T	T
Turkey CK ✓	85	85	75	82	T	T	T	T
Terrence	60	50	40	50	T+	2	T+	1
Blackhall	85	90	80	85	T	T	T	-
Turkey CK ✓	85	85	80	83	T	T	T	-
Red Hall	80	85	85	83	T	T	T	-
Kamed	50	45	45	47	T	T	T	-
Turkey CK ✓	80	85	80	82	T	T	T	-
K Parker	80	70	70	73	T	T	T	-
Sibly 81	80	80	85	82	T	T	T	-
Turkey CK ✓	85	85	80	83	T	T	T	-
Sibly 62	85	25	25	29	T	T	T	-
Cheyenne	85	90	85	87	T	T	T	-
Turkey CK ✓	85	90	85	87	T	T	T	-
Fulleton	85	85	90	87	T+	T+	T+	-
Harvest Queen	95	90	95	93	T	T+	T+	-
Turkey CK ✓	85	85	90	87	T	T	T	-
Denton	30	45	45	40	1	5	2	3
Debr #60	85	90	90	88	T	T	T	-
Turkey CK ✓	85	85	85	85	T	T	T	-
Parker	35	40	50	42	5	25	15	15
Saturn	85	85	95	88	T	T	T+	-
Turkey CK ✓	85	90	90	88	T	T	T	-
Penquite sel.	85	90	90	88	T	T+	T	-
Turkey sel. 10016 83	65	70	70	68	T	T	T	-
Ho CK. ✓	85	85	90	87	T	T	T	-
Nittany	65	75	65	68	2	10	5	6
VPI 1131	80	85	85	83	1	5	2	3
Turkey CK ✓	85	85	90	87	T	T	T	-
Nativity	85	90	90	88	T	T	T+	-
Debr. Turkey sel 10016	85	85	90	87	T	T	T	-
Turkey CK ✓	80	85	90	85	T	T	T	-

Stillwater, Okla.

Notes by CO Johnston

85

6/1/34

3

Station, Wheat Replicated twice on cropped land and twice on fallowed land, Fort
Hayes, Kans., 1934.

Checked
11

B. P. I.
 CORN INVESTIGATIONS
 FORM 11

Plot No.	Variety	C.I. No.	Cropped Land		Fallowed Land		Test			
			1	2	1	2				
1	Early Blackhull	✓ 8856	0	0	19.0	18.0	15.8	15.0	15.4	63
2	Quincy	✓ 8886	0	0	20.0	11.5	16.7	9.6	13.2	61
3	Blackhull	✓ 6251	0	0	14.5	12.5	12.1	10.4	11.3	61
4	Tennmar	✓ 6936	0	0	16.5	14.5	13.7	12.1	12.9	60
5	Kanred	✓ 5146	0	0	15.5	14.5	12.9	12.1	12.5	60
6	Norton County Turkey	✓ -	0	0	16.0	11.0	13.3	9.2	11.3	60
7	Turkey	✓ 1558	0	0	17.5	6.5	14.6	5.4	10.0	61
8	Turkey	✓ 10016	0	0	14.5	4.5	12.1	3.7	7.9	61
9	Khar-kof	✓ 1442	0	0	15.5	5.0	12.9	4.2	8.6	59
10	Or-o	✓ 8220	0	0	12.5	7.0	10.4	5.8	8.1	61
11	Minturki	✓ 6155	0	0	10.0	8.5	8.3	7.1	7.7	57
12	Nebraska No. 60	✓ 6250	0	0	12.5	15.0	10.4	12.5	11.5	60
13	Cheyenne	✓ 8885	0	0	16.5	15.0	13.7	12.5	13.1	61
14	Cooperatorka	✓ 8861	0	0	11.5	11.0	9.6	9.2	9.4	61
15	P-1866-1 X Burybank	✓ 10087	0	0	14.5	13.5	12.1	11.2	11.7	60
16	Kanred X Hard Federation	✓ 11373	0	0	16.5	11.0	13.7	9.2	11.5	62
17	Kanred X Hard Federation	✓ 10091	0	0	20.5	13.0	17.1	10.8	14.0	61
18	Kanred X Hard Federation Ks. 2673-10092	0	0	19.5	12.0	16.2	10.0	13.1	62	

Complete failure due to drought

row = 18
 P.E. diff = 1.5753 S.E. P.A.
 Row S.E. = 1.1139 "

X̄ = 9.687% of X
 X̄ = 11.27 S.E. P.A.

Calculated by W. B. R. R. R.

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF PLANT INDUSTRY

AGRONOMIC AND QUALITY DATA

Data obtained by the Division of Cereal Crops and Diseases in cooperation with the State Agricultural Experiment Station

Sheridan, Wyoming,
1934

DATE OF SEEDING September 22, 1933

DATE OF EMERGENCE November 1934.

VARIETY	C. I. No.	DATES		DAYS TO MATURITY FROM		STAND	WINTER SURVIVAL	HEIGHT	RUST		LODGING	ACRE YIELD			GRAIN QUALITY		
		Headed	Ripe	Emergence	Heading				Leaf	Stem		GRAIN		STRAW	Test weight per bushel	Protein content	U. S. grade
		June	July						Per ct.	Per ct.		Bushels	Pounds	Pounds	Pounds	Per ct.	
Keared	✓ 8146	11-12	10-12			82		31				33.3	1980	2420	62		
Turkey	✓ 10016	10-12	10-11			80		28				28.7	1705	2200	61		
Kharkef	✓ 1442	10-12	11			82		32				31.2	1870	2145	61		
Winturki	✓	11-14	12			80		33				26.3	1595	2475	59		
Karmont	✓ 6700	12-13	11-12			83		31				31.5	1870	2420	61		
8887	✓	12-16	12-13			85		32				26.3	1595	2385	60		
Nebraska #60	✓	10-14	10-12			83		30				29.3	1760	2475	60		
Montana 36	✓ 5549	10-14	11-12			85		30				31.5	1870	2310	61		
Yoga	✓ 8033	11-15	11-12			80		32				29.0	1760	2310	58		
8034	✓ 8034	11-15	11-14			83		34				29.3	1760	2750	60		
8215	8215	11-16	11-14			80		32				24.8	1485	1980	60		
Emerged in fall but made practically no growth. Parts of field badly blown during winter.																	
Land fallow 1933. No tillage other than for fallow.																	

Sheridan Field Station

Sheridan, Wyo.

m=11
P.E. diff = 1.6365 bu./A
Gen. P.E. = 1.1572 " "
= 3.96% of \bar{X}
 $\bar{X} = 29.20$ bu./A
Calculated ~~Standard~~
12/5/34 ~~Calculated~~

Varieties of Winter wheat

1934.

Individual Plot Yield

NUMBER.		VARIETY.	Series					Total	Aver.									
Plat.	C. I.		I	II	III													
	5146	Kanred	33.0	33.9	33.0	99.9	33.3											
	10016	Turkey	25.7	29.3	31.2	86.2	28.7											
	1442	Kharkof	30.3	32.1	31.2	93.6	31.2											
		Minturki	26.6	26.6	25.7	78.9	26.3											
	6700	Karmont	26.6	37.6	30.3	94.5	31.5											
	8889		28.4	21.1	29.3	78.8	26.3											
		Nebraska #60	26.6	27.5	33.9	88.0	29.3											
	5549	Montana #36	30.3	31.2	33.0	94.5	31.5											
	8033	Yogo	31.2	28.4	27.5	87.1	29.0											
	8034	Minharki x Minturki	29.3	29.3	29.3	87.9	29.3											
	8215		21.1	28.4	24.8	74.3	24.8											

Summary of Cooperative Winter Wheat Variety Tests in the
Panhandle of Texas, 1934

Variety	C.I. No.	Price Memorial	C.H. Day	R.V. Converse	Average
		College. Amarillo, Tex. Potter, County	Farm. Plainview, Tex. Hale, Co.	Farm. Spearman, Tex. Hansford, Co.	
		Yield per acre- Bushels			
Kanred	5146	15.2	16.4	18.0	16.5
Blackhull	6251	14.2	17.7	17.2	16.4
Tenmarq	6936	14.6	16.7	16.2	15.8
Cheyenne	8885	13.4	16.0	17.4	15.6
Certified Turkey		14.0	14.0	15.6	14.5
Vaughn Turkey		12.5	14.5	15.9	14.3
Turkey Selection	10016	13.3	14.6	15.0	14.3
Kelichors Russian		12.7	13.3	15.5	13.8
Early Blackhull	8856	10.9	14.8	14.6	13.4
Quivira	8886	10.9	13.9	13.3	12.7

Period of Years Summary
Cooperative Winter Wheat Variety Tests.

Variety	C.I. No.	Yield in Bushels per acre				Average
		1931	1932	1933	1934	
Kanred	5146	17.8	13.1	10.2	16.5	14.4
Blackhull	6251	18.7	14.0	9.0	16.4	14.5
Tenmarq	6936	18.7	14.3	10.2	15.8	14.8
Kelichors Russian		17.0	13.2	7.4	13.8	12.9
Certified Turkey		16.7	13.0	7.9	14.5	13.0
Vaughn Turkey		18.0	12.3	6.4	14.3	13.3
Cheyenne	8885				15.6	
Quivira	8886				12.7	
Early Blackhull	8856				13.4	
Turkey Selection	10016				14.3	

winter injury results from 1/40 acre plots
 Maskeca, Minnesota 1933-34.

Name	Plot no.	Percent winter injury	Name	Plot no.	Percent winter injury
Kawred 2191	1	99	Kharboz	10	99
	19	99		26	98
	32	90		40	95
		4			3
Mint x Minturki 2313	2	75	Mint x Mgs. II-22-38	11	95
	21	60		25	75
	36	40		33	80
		31 25 42			5 25 20 17
Mint. x Mgs II-22-7	3	95	Menturki	12	99
	27	90		22	99
	37	85		35	98
		10			1 1 2 1
Mint. x Mgs II-22-15	4	95	Karmont 2322		99
	18	85			99
	31	70			98
		17			1
Mint x Mgs II-22-50	5	95	Mint x Bal, Buff 2321	14	90
	24	60		16	90
	42	70		34	70
		25			10 10 30 17
Minturki 1507	6	85			
	17	65			
	39	60			
		35 40 30 90			
Nehr. Juv. Sel CI. 10016	7	99			
	15	98			
	38	95			
		1			
Nehr. 60 2319	8	98			
	20	90			
	29	90			
		2			
Mint x Mgs II-22-39	9	98			
	28	90			
	41	80			
		2			
		10			
		20			
		11			

PROPOSED VARIETIES TO BE INCLUDED IN THE WINTER WHEAT UNIFORM

NURSERY TRIALS

As a result of the drought conditions of the last two years and the severe winterkilling, the number of varieties available for testing in the winter wheat uniform yield nursery from the Minnesota Experiment Station is very limited. No yield data were obtained at University Farm in 1932-33, because of severe winter injury, and the varieties in both the nursery and field plots were completely killed in 1933-34. Severe winter injury occurred at Waseca in 1933-34. This has resulted in a shortage of seed available for planting of our newer hybrid material.

- The varieties included are selections from crosses made for the purpose of obtaining varieties as winter hardy or hardier than Minturki or Minhardi wheats and to attempt to combine hardiness with better milling and baking qualities from the Marquis parent. These selections appear as winter hardy as the Minturki and Minhardi parents in tests for a period of 1 to 4 years, and have better milling and baking qualities, although not equal to the Marquis parent.

Agronomic data are given in the table on varieties suggested for growing in the uniform nursery trials in the fall of 1934.

Agronomic data on varieties of winter wheat which would be available for including in the Uniform Cooperative Yield Trials in Fall of 1934

<u>Variety</u>		<u>Crop Years</u>	<u>Yield in % of Mint.</u>	<u>Winter Injury</u>	<u>Date Headed</u>	<u>Stem* Rust</u>	<u>Leaf* Rust</u>	<u>Milling & baking</u>
1/40 acre field plots								
<u>Minturki</u>		7	100.0	7	6-11	4	63	F+
<u>Minhardi</u>								
<u>Marquis</u>	II-22-15 2551	3	107.1	11	6-9	8	35	G
<u>Minard</u>								
<u>Minhardi</u>	II-20-11 2313 8888	7	99.2	3	6-11	5	58	G
<u>Minhardi</u>								
<u>Marquis</u>	II-22-77 2552	2	110.0	9	6-7	3**	60**	G
Red Row Trials								
<u>Minturki</u>	1507	7	100.0	5	6-11	10	65	F+
<u>Minhardi</u>	1505	7	87.9	5	6-12	44	63	F+
<u>Minturki</u>								
<u>Marquis</u>	II-22-7 2616 11501	7	95.0	3	6-12	11	53	G
	-38 2614 11502	7	91.5	6	6-9	10	42	F
	-39 2618	7	94.5	7	6-10	25	52	G
	-50 2615	7	90.2	3	6-11	13	55	G-
<u>Minard</u>								
<u>Minhardi</u>	II-20-6	7	98.4	4	6-15	15	62	G

*Leaf and stem rust notes at Waseca only, stem rust 4 years 1930-33, leaf rust 3 years 1931-33.

**For 1932, at Waseca only.

Summary of milling and baking data on winter wheat varieties grown at U. Farm and Waseca, Minn., during the years 1930-32.

	<u>Protein</u>	<u>Volume</u>	<u>Color</u>	<u>Texture</u>
1/40 Acre Plots 30-32, av.				
Minturki	12.9	464	92.2y	97.0
2313	14.0	492	94.2y	98.3
2552	14.2*	495	93 gc	97.5
2551	13.7	483	90.5gy	98.5

*For 1932 only. 1930-32, inc.

Rod Row Trials					<u>Grain</u>
Minturki	13.3	448	93.8y	96.0	96.5
Minhardi	13.0	418	93.0y	95.2	96.8
11-20-6	13.2	494	95.0cy	98.7	96.5
2616	13.7	448	97.3c	96.0	96.7
2614	14.1	460	98.0cy	97.5	97.3
2618	13.4	463	97.5cy	97.8	95.8
2615	13.2	452	97.0c	96.8	96.0

Yield

The 1/40 acre field plot yield data show the three hybrid varieties to be equal or better than the Minturki check. In the rod-row trials none of the varieties yielded as high as Minturki.

Winter Hardiness

All of the varieties in both field and nursery plots appear as winter hardy as Minturki.

Date of Heading

Selections II-22-15, II-22-77, II-22-38 and II-22-39 are 1 to 4 days earlier than Minturki.

Stem Rust

Minturki as well as the hybrid varieties have been consistently resistant to stem rust under our conditions in Minnesota. Minhardi has been susceptible.

Leaf Rust

The data show the varieties to be rather susceptible to leaf rust with Minhardi x Marquis II-22-15 as the most resistant.

Milling and Baking

Minturki has been discounted on the market mainly because of the yellowish color of loaf. The new hybrids included are considerably better in color and also as good or better in other milling and baking qualities than the Minturki parent. The symbols given are F = fair, g = good. This general score is based on the following characteristics: total flour, crude protein, absorption, and loaf volume, color, grain and texture of the loaf of bread.

Recommendations

On the basis of the data given we suggest as many of the varieties as possible be included in the Uniform Cooperative Nursery and will rank them in the following order:

	Minn. No.
1. Minturki (check)	1507
2. Minhardi (check)	1505
3. Minhardi x Marquis II-22-15	2551
4. do II-22-77	2552
5. Minard x Minhardi II-20-6	
6. Minturki x Marquis II-22-7	2616
7. Minturki x Marquis II-22-39	2618
8. do -50	2615
9. do -38	2614

We suggest that the nursery contain 20-25 varieties. As far as Minnesota is concerned, it could be carried at both the University Farm and Waseca, Minn. experiment stations. We will be glad to run artificial freezing tests to determine the cold resistance of all material included in this nursery, if sufficient seed is furnished us.

Table . Agronomic data for winter wheat varieties grown in four 1/47-acre plots at the Woodward Field Station, 1934.

Date of seeding Oct. 13, 1933 Rate of seeding 4 pecks per A. Date emerged Oct. 21, 1933 Size of plot 132 ft. long 7 ft. wide

VARIETY, HYBRID, OR SELECTION	C.I. Nursery No.	Date		Grain yield per 1/47-acre plot*				Average		Test wt. per bu.		
		First head- ed	Ripe	(fallow)		(cropped)		lbs.	bu. per acre			
				lbs.	lbs.	lbs.	lbs.					
Hard red winter:												
Early Blackhull	✓6251	4/22	6/3	26.5	32.8	19.0	27.3	26.4	20.7	59.8	26	✓400
Quivira	✓8886	4/28	6/5	27.5	28.5	15.5	25.3	24.2	19.0	60.8	24	200
Nebraska No. 60	✓6250	5/7	6/10	31.5	17.0	18.0	15.5	20.5	16.1	61.0	20	500
Kharkof	✓1442	5/6	6/10	34.0	15.3	19.0	13.3	20.4	16.0	60.3	20	400
Tenmarq	✓6936	5/2	6/7	25.8	18.3	12.3	20.8	19.3	15.2	60.4	19	300
Turkey sel.	✓10016	5/2	6/8	28.3	12.0	12.8	22.3	18.9	14.8	60.8	18	850
Local Turkey	✓--	5/5	6/9	28.0	11.5	17.8	16.8	18.5	14.5	60.8	18	525
Eagle Chief	8868	5/4	6/9	28.3	15.5	9.3	17.5	17.7	13.9	60.8	17	650
Chayenne (eight plots)	✓8885	5/5	6/9	22.5	9.8	12.0	12.0				14	075
				21.0	24.8	25.5	13.3	17.6	13.8	61.3	21	150
Blackhull	✓6251	5/2	6/8	26.8	20.0	5.8	17.8	17.6	13.8	61.4	17	600
Kanred x Marquis	✓10090	5/4	6/8	29.3	11.5	16.0	13.3	17.5	13.7	60.9	17	525
Oro	✓8220	5/6	6/9	21.3	14.5	14.3	12.0	15.5	12.2	61.1	15	525
Kanred	✓5146	5/4	6/9	26.0	5.5	9.0	21.0	15.4	12.1	61.0	15	375
Redhull	✓11534	5/3	6/9	22.0	11.8	9.8	18.0	15.4	12.1	60.8	15	400
Cooperatoroka	✓8861	5/5	6/9	15.5	12.0	14.5	16.0	14.5	11.4	60.9	14	500
Soft red winter:												
Kawvale	✓8180	5/2	6/7	25.0	18.3	16.3	22.3	20.5	16.1	58.1	20	475
Fulcaster	✓6471	5/3	6/8	22.5	18.0	11.3	24.3	19.0	14.9	59.8	19	025
Denton	✓8265	5/4	6/9	24.0	19.8	12.8	16.0	18.2	14.3	60.0	18	150
Harvest Queen	✓6199	5/4	6/9	23.8	19.0	12.0	14.8	17.4	13.7	59.9	17	400
Sibley No. 81	✓10084	5/4	6/8	23.0	17.3	4.5	18.0	15.7	12.3	60.4	15	700
Sibley No. 62	✓11523	5/4	6/9	19.8	11.5	11.0	18.0	15.1	11.9	60.9	15	075

*approximately 1/47-acre.

Factor for converting pounds per plot to bushels per acre: 0.7857

$n = 22$
 $P.E. = 2.1287 \text{ bu/A.}$
 $Sam. P.E. = 1.5052 \text{ " "}$
 $= 8227.4 \times$
 $\bar{X} = 1831 \text{ bu/A.}$
 calculated 11/13/34
 Woodard

Average yields in bushels per acre of winter wheat varieties grown in quadruplicated field plots at the Woodward Field Station, 1930 to 1934, inclusive.

Variety	C.I. No.	1930	1931	Yield in bushels per acre				
				1932	1933	1934	4-yr. avege. 1931-4	5-yr. avege. 1930-4
Hard red winter:								
Kharkef	1442	--	45.4	42.8	18.5	16.0	30.7	--
Cheyenne	8885	14.9	47.0	39.6	21.7	13.8	30.5	27.4
Tennara	6936	11.4	48.8	39.3	16.8	15.2	30.0	26.3
Local Turkey	--	14.7	44.7	42.0	18.3	14.5	29.9	26.8
Quivira	8886	8.1	46.6	35.5	16.2	19.0	29.3	25.1
Nebraska No. 60	6250	15.4	42.2	39.6	18.1	16.1	29.0	26.3
Blackhull	6251	11.6	46.9	36.1	18.0	13.8	28.7	25.3
Turkey, Goodwell 102	--	--	45.4	38.1	17.0	13.8	28.6	--
Redhull	--	--	45.7	39.7	15.9	12.1	28.4	--
Eagle Chief	8868	10.2	45.3	38.6	15.6	13.9	28.4	24.7
Kanred x Marquis	10090	11.0	45.4	35.7	17.9	13.7	28.2	24.7
Kanred	5146	10.9	44.8	38.2	16.6	12.1	27.9	24.5
Oro	8220	12.5	40.2	39.1	19.2	12.2	27.7	24.6
Early Blackhull	8856	6.5	36.0	30.0	22.1	20.7	27.2	23.1
Cooperatorka	8861	11.8	36.4	33.6	16.0	11.4	24.4	21.8
Soft red winter:								
Kawvale	8180	7.4	46.4	34.0	16.7	16.1	28.3	24.1
Fulcaster	6471	--	41.5	35.8	17.0	14.9	27.3	--
Sibley No. 81	10084	7.9	43.3	36.9	15.6	12.3	27.0	23.2
Denton	8265	--	33.3	34.1	15.4	14.3	24.3	--
Harvest Queen	6199	--	32.1	31.0	15.2	13.7	23.0	--

Lawton, Okla. 1934 Plots

Variety (C.I. No.)	Replications			Av'g. bu./A.
	I	II	III	
1558	16.2	18.1	19.5	17.93
10083	12.7	15.0	16.0	14.57
10016	12.9	14.2	16.9	14.67
8856	20.2	22.3	23.5	22.00
8886	23.3	26.0	30.2	26.50
11373	25.4	28.7	32.1	28.73 ✓
10091	24.8	25.4	29.0	26.40
10092	25.4	29.6	30.8	28.60 ✓
10589	20.4	23.7	25.4	23.17
11590	25.6	24.4	26.2	25.40
10087	20.6	23.1	25.2	22.97
8180	22.3	26.7	27.5	25.50
Eagle Chief	16.0	19.2	21.0	18.73
6936	19.0	21.7	24.8	21.83
1442	12.9	19.8	18.3	17.00
5146	17.7	21.5	20.2	19.80
6251	17.7	21.0	18.5	19.07
8885	16.5	18.7	17.9	17.70
6250	14.8	16.9	15.6	15.77
Io turk	14.6	17.1	16.9	16.20
Currell	15.4	16.2	15.4	15.67
8265	22.3	22.7	22.7	22.57
Sibley 62	16.2	18.7	18.5	17.80
6471	17.5	17.7	19.0	18.07
6199	14.4	15.8	15.8	15.33
Mediter. 5933-23	22.7	25.8	24.6	24.37
" 3015-1051	24.4	27.7	26.5	26.20

$m = 27$
P. Coeff = 0.7577 bu./A.
Gen. P. E. = 0.5358 " "
 = 2.577% of \bar{X}
 $\bar{X} = 20.83$ bu./A.
 calculated 11/13/34
 A. Colvard

11/13

In Course

WINTER WHEAT VARIETY TESTS, 1934

Plot No.	Variety	Spring Survival	Manner of Growth	Ht. of Plant Feet	Grains per Million Shattered	Lbs. Grain Per Acre	Lbs. Straw Per Acre	Total Crop	Bu. Wt.	Percent Dockage
2438	Kanred ✓	100%	Sp.	2.46	1528	935	2369	3304	56.0	6.39
2439	Ioturk ✓	100	Sp.	2.25	974	763	2397	3160	56.2	6.88
2440	Turkey 101 ✓	100	Sp.	2.54	1685	899	2442	3341	54.7	5.89
2441	Denton ✓	100	Sp.	2.89	449	681	2496	3177	53.7	5.25
2442	Kanred ✓	100	Sp.	2.57	310	1198	2832	4030	56.8	5.44
2443	Purkof ✓	100	Sp.	2.91	2473	763	2941	3704	52.1	7.16
2444	Minturki ✓	100	Sp.	2.58	2809	844	2387	3231	53.2	6.91
2445	Sibley's 81 ✓	100	Sp.	2.75	1007	817	2542	3359	54.9	3.21
2446	Kanred ✓	100	Sp.	2.65	502	1253	2778	4031	57.0	4.44
2447	Cheyenne ✓	100	Sp.	2.78	1235	1180	3014	4194	55.4	3.57
2448	Fultz ✓	100	Sp.	3.05	1611	690	2469	3159	52.0	1.67
2449	Malakof ✓	100	Sp.	2.93	809	837	2476	3413	53.2	3.39
2450	Kanred ✓	100	Sp.	3.01	1453	1298	2968	4266	57.1	4.34
2451	Tenmarq ✓	100	Sp.	2.91	1515	1207	2723	3930	55.9	2.74
2452	Prelude x Kanred ✓	100	Sp.	2.65	1310	890	2578	3468	57.0	3.34
2453	Early Blackhull ✓	100	Sp.	2.45	1623	1462	2288	3750	58.1	1.98
2454	Kanred ✓	100	Sp.	2.82	844	1489	3195	4684	56.4	3.29
2455	Nebraska 60 ✓	100	Sp.	2.98	718	1353	3005	4358	56.1	2.90

WINTER WHEAT VARIETY TESTS, 1934

Plot No.	Variety	Spring Survival	Manner of Growth	Ht. of Plant Feet	Grains per Million Shattered	Lbs. Grain Per Acre	Lbs. Straw Per Acre	Total Crop	Bu. Wt.	Percent Dockage
2456	Kharkof ✓	100%	Sp.	2.87	889	1543	3232	4775	54.9	2.58
2457	Eagle Chief ✓	100	Sp.	2.97	367	1489	3086	4575	56.0	2.92
2458	Kanred ✓	100	Sp.	2.93	413	1416	3341	4757	57.4	3.88
2459	Blackhull ✓	100	Sp.	2.74	626	1507	3141	4648	58.1	1.52
2460	Mediterranean ✓	100	Sp.	2.90	1523	953	2968	3921	55.2	1.30
2461	Kawvale ✓	100	Sp.	2.55	484	999	2251	3250	58.4	2.51
2462	Kanred ✓	100	Sp.	2.92	1121	1452	2941	4393	56.9	3.53
2463	Redhull ✓	100	Sp.	2.96	245	1307	2669	3976	57.5	2.17
2464	Superhard Blackhull ✓	100	Sp.	2.96	1762	1443	2805	4248	58.8	1.34
2465	Nebraska 1069 ✓	100	Sp.	2.81	726	1271	2941	4212	57.7	1.74
2466	Kanred ✓	100	Sp.	2.69	772	1262	3041	4303	58.1	3.19
2467	Oro ✓	100	Sp.	2.79	1511	1362	2914	4276	58.0	1.67
2468	Nebraska 1063 ✓	100	Sp.	2.39	352	1462	2950	4412	57.6	2.46
2469	Nebraska 28 ✓	100	Sp.	2.07	986	744	2215	2959	55.4	1.44
2470	Kanred ✓	100	Sp.	2.41	533	1216	3195	4411	56.5	4.15
2471	Harvest Queen ✓	100	Sp.	2.97	2655	871	2968	3839	54.5	2.29
2472	Kanred ✓	100	Sp.	2.60	1881	1489	3232	4721	55.8	4.64

Note. No Leaf Rust present and no lodging data taken.

WINTER WHEAT VARIETY TESTS, 1934

Plot No.	Variety	Spring Survival	Manner of Growth	Ht. of Plant Feet.	Grains per million shattered	Lbs. Grain Per Acre	Lbs. Straw Per Acre	Total Crop	Bu. Wt.	Percent Dockage
2401	Kanred ✓	100%	Sp.	2.73	1933	739	1439	2178	55.6	4.33
2402	Turkey 102 ✓	100	Sp.	2.60	1689	846	1519	2365	55.4	3.90
2403	Turkey 101 ✓	100	Sp.	2.49	912	940	1833	2773	54.8	4.25
2404	Ioturk ✓	100	Sp.	2.00	591	677	1541	2218	55.5	5.63
2405	Kanred ✓	100	Sp.	2.75	424	808	1909	2717	54.9	5.52
2406	Denton ✓	100	Sp.	2.75	1109	670	1881	2551	52.6	3.44
2407	Minturki ✓	100	Sp.	2.54	2075	690	1843	2533	52.3	5.58
2408	Purkof ✓	100	Sp.	2.66	624	554	1943	2497	51.2	4.20
2409	Kanred ✓	100	Sp.	2.39	945	699	1934	2633	54.4	6.00
2410	Sibley's 81 ✓	100	Sp.	2.54	509	617	1761	2378	54.0	3.93
2411	Fultz ✓	100	Sp.	2.61	3153	545	1924	2469	50.3	2.40
2412	Cheyenne ✓	100	Sp.	2.32	2017	853	1806	2659	55.4	5.15
2413	Kanred ✓	100	Sp.	2.42	509	617	1743	2360	53.4	2.70
2414	Malakof ✓	100	Sp.	2.42	370	926	2197	3123	54.6	8.03
2415	Prelude x Kanred ✓	100	Sp.	2.12	668	599	1543	2142	55.9	4.72
2416	Tenmarq ✓	100	Sp.	2.33	2453	699	1752	2451	55.2	2.46
2417	Kanred ✓	100	Sp.	2.54	670	853	2179	3050	55.5	5.98
2418	Early Blackhull ✓	100	Sp.	2.32	1621	899	1407	2306	57.8	1.20
2419	Kharkof ✓	100	Sp.	2.32	511	726	2342	3068	53.5	6.98

WINTER WHEAT VARIETY TESTS, 1934

Plot No.	Variety	Spring Survival	Manner of Growth	Ht. of Plant Feet	Grains per Million Shattered	Lbs. Grain Per Acre	Lbs. Straw Per Acre	Total Crop	Bu. Wt.	Percent Dockage
2420	Nebraska 60 ✓	100%	Sp.	2.14	4228	608	1443	2051	54.2	5.51
2421	Kanred ✓	100	Sp.	2.00	2248	635	1652	2287	56.3	6.75
2422	Eagle Chief ✓	100	Sp.	2.26	2861	599	1507	2106	54.7	6.17
2423	Mediterranean ✓	100	Sp.	2.05	3651	454	1598	2052	53.4	3.62
2424	Blackhull ✓	100	Sp.	2.05	3727	690	1707	2397	57.6	2.73
2425	Kanred ✓	100	Sp.	1.91	887	645	1770	2414	54.9	5.77
2426	Kawvale ✓	100	Sp.	1.64	780	418	1307	1725	56.9	4.95
2427	Superhard ✓	100	Sp.	2.15	769	817	1906	2723	58.0	2.24
2428	Blackhull ✓	100	Sp.	2.15	1446	672	1761	2433	55.3	5.50
2429	Redhull ✓	100	Sp.	2.15	1446	672	1761	2433	55.3	5.50
2429	Kanred ✓	100	Sp.	2.20	734	817	2088	2905	55.3	6.18
2430	Nebraska 1069 ✓	100	Sp.	2.59	2894	790	1988	2778	56.6	4.81
2431	Nebraska 1063 ✓	100	Sp.	2.33	666	944	2124	3068	56.3	4.73
2432	Oro ✓	100	Sp.	2.63	458	935	2260	3195	55.3	6.39
2433	Kanred ✓	100	Sp.	2.83	802	926	2487	3413	56.9	6.45
2434	Nebraska 28 ✓	100	Sp.	2.69	844	744	2052	2796	54.1	2.37
2435	Kanred ✓	100	Sp.	2.54	1546	1035	2596	3631	57.1	6.43
2436	Harvest Queen ✓	100	Sp.	2.83	1574	635	2505	3140	53.2	3.03
2437	Turkey 102 ✓	100	Sp.	2.46	1180	944	2360	3304	54.8	5.91

WHEAT VARIETY TESTS, 1934

Plot No.	Variety	Size of Plot	Rate of Seeding	Date Sown	Date Emerged	Date First Heading	Date Fully Headed	Date Fully Ripe	Date Harvested	Stand
2401	Kanred ✓	.02571	2	9-20	10-1	5-6	5-12	6-8	6-18	94
2402	Turkey 102 ✓	.02601	2	9-20	10-1	5-5	5-11	6-6	6-18	96
2403	Turkey 101 ✓	.02632	2	9-20	10-1	5-6	5-11	6-6	6-18	96
2404	Ioturk ✓	.02660	2	9-20	10-1	5-7	5-14	6-9	6-18	97
2405	Kanred ✓	.02691	2	9-20	10-1	5-6	5-12	6-6	6-18	97
2406	Denton ✓	.02724	2	9-20	10-1	5-6	5-12	6-8	6-18	98
2407	Minturki ✓	.02754	2	9-20	10-1	5-7	5-12	6-9	6-18	96
2408	Purkof ✓	.02754	2	9-20	10-1	5-6	5-13	6-8	6-18	95
2409	Kanred ✓	.02754	2	9-20	10-1	5-6	5-12	6-6	6-18	97
2410	Sibley's 81 ✓	.02754	2	9-20	10-1	5-6	5-11	6-6	6-18	96
2411	Fultz ✓	.02754	2	9-20	10-1	5-5	5-12	6-4	6-18	95
2412	Cheyenne ✓	.02754	2	9-20	10-1	5-6	5-12	6-7	6-18	96
2413	Kanred ✓	.02754	2	9-20	10-1	5-6	5-12	6-6	6-18	98
2414	Malakof ✓	.02754	2	9-20	10-1	5-6	5-12	6-6	6-18	97
2415	Prelude x Kanred ✓	.02754	2	9-20	10-1	4-30	5-7	6-4	6-18	95
2416	Tenmarq ✓	.02754	2	9-20	10-1	5-2	5-8	6-6	6-18	96
2417	Kanred ✓	.02754	2	9-20	10-1	5-7	5-12	6-6	6-18	99

Plot No.	Variety	Size of Plot	Rate of Seed- Ing	Date Sown	Date Emer- ged	Date First Head- Ing	Date Fully Headed	Date Fully Ripe	Date Harves- ted	Stand
2418	Early Blacknull ✓	.02754	2	9-20	10-1	4-25	4-30	6-2	6-18	98
2419	Khar'kov ✓	.02754	2	9-20	10-1	5-7	5-12	6-9	6-18	98
2420	Nebraska 60 ✓	.02754	2	9-20	10-1	5-8	5-13	6-9	6-18	98
2421	Kanred ✓	.02754	2	9-20	10-1	5-7	5-12	6-6	6-18	96
2422	Eagle Chief ✓	.02754	2	9-20	10-1	5-6	5-12	6-6	6-18	98
2423	Mediterranean ✓	.02754	2	9-20	10-1	5-5	5-11	6-6	6-18	96
2424	Blacknull ✓	.02754	2	9-20	10-1	5-4	5-9	6-5	6-18	98
2425	Kanred ✓	.02754	2	9-20	10-1	5-7	5-15	6-6	6-18	97
2426	Kawvale ✓	.02754	2	9-20	10-1	4-29	5-5	6-4	6-18	97
2427	Superhard Blacknull ✓	.02754	2	9-20	10-1	5-1	5-7	6-5	6-18	96
2428	Rednull ✓	.02754	2	9-20	10-1	5-3	5-11	6-8	6-18	96
2429	Kanred ✓	.02754	2	9-20	10-1	5-6	5-12	6-6	6-18	97
2430	Nebraska 1069 ✓	.02754	2	9-20	10-1	5-5	5-9	6-5	6-18	98
2431	Nebraska 1063 ✓	.02754	2	9-20	10-1	5-6	5-12	6-6	6-18	97
2432	Or'o ✓	.02754	2	9-20	10-1	5-7	5-12	6-8	6-18	98
2433	Kanred ✓	.02754	2	9-20	10-1	5-7	5-12	6-7	6-18	98
2434	Nebraska 28 ✓	.02754	2	9-20	10-1	4-27	5-3	5-31	6-18	97
2435	Kanred ✓	.02754	2	9-20	10-1	5-7	5-12	6-7	6-18	97

Plot No.	Variety	Size of Plot	Rate of Seed-ing	Date Sown	Date Emer-ged	Date First Head-ing	Date Fully Headed	Date Fully Ripe	Date Harves-ted	Stand
2436	Harvest Queen ✓	.02754	2	9-20	10-1	5-7	5-12	6-7	6-18	98
2437	Turkey 102 ✓	.02754	2	9-20	10-1	5-6	5-12	6-7	6-19	96
2438	Kanred ✓	.02754	2	9-20	10-1	5-6	5-12	6-7	6-19	96
2439	Ioturk ✓	.02754	2	9-20	10-1	5-8	5-14	6-10	6-19	99
2440	Turkey 101 ✓	.02754	2	9-20	10-1	5-7	5-13	6-6	6-19	98
2441	Denton ✓	.02754	2	9-20	10-1	5-6	5-11	6-6	6-19	97
2442	Kanred ✓	.02754	2	9-20	10-1	5-7	5-12	6-6	6-19	95
2443	Purkof ✓	.02754	2	9-20	10-1	5-7	5-13	6-8	6-19	97
2444	Minturki ✓	.02754	2	9-20	10-1	5-7	5-13	6-8	6-19	98
2445	Sibley's 81 ✓	.02754	2	9-20	10-1	5-7	5-12	6-6	6-19	96
2446	Kanred ✓	.02754	2	9-20	10-1	5-7	5-12	6-6	6-19	97
2447	Cheyenne ✓	.02754	2	9-20	10-1	5-7	5-13	6-7	6-19	98
2448	Fultz ✓	.02754	2	9-20	10-1	5-7	5-12	6-6	6-19	96
2449	Malakof ✓	.02754	2	9-20	10-1	5-6	5-10	6-6	6-19	97
2450	Kanred ✓	.02754	2	9-20	10-1	5-7	5-12	6-6	6-19	98
2451	Tenmarq ✓	.02754	2	9-20	10-1	5-4	5-8	6-5	6-19	97
2452	Prelude x ✓ Kanred	.02754	2	9-20	10-1	5-1	5-6	6-4	6-19	96
2453	Early Blackhull ✓	.02754	2	9-20	10-1	4-22	4-28	6-1	6-19	96
2454	Kanred ✓	.02754	2	9-20	10-1	5-7	5-12	6-6	6-19	98

Plot No.	Variety	Size of Plot	Rate of Seeding	Date Sown	Date Emerged	Date First Heading	Date Fully Headed	Date Fully Ripe	Date Harvested	Stand
2455	Nebraska 60 ✓	.02754	2	9-20	10-1	5-8	5-13	6-9	6-19	98
2456	Kharkov ✓	.02754	2	9-20	10-1	5-7	5-12	6-8	6-19	98
2457	Eagle Chief ✓	.02754	2	9-20	10-1	5-7	5-12	6-8	6-19	98
2458	Kanred ✓	.02754	2	9-20	10-1	5-7	5-12	6-7	6-19	99
2459	Blackhull ✓	.02754	2	9-20	10-1	5-4	5-8	6-7	6-19	98
2460	Mediterranean ✓	.02754	2	9-20	10-1	5-6	5-11	6-8	6-19	99
2461	Kawvale ✓	.02754	2	9-20	10-1	4-30	5-5	6-6	6-19	98
2462	Kanred ✓	.02754	2	9-20	10-1	5-7	5-12	6-8	6-19	99
2463	Redhull ✓	.02754	2	9-20	10-1	5-4	5-10	6-9	6-19	98
2464	Superhard ✓ Blackhull	.02754	2	9-20	10-1	5-3	5-9	6-8	6-19	98
2465	Nebraska 1069 ✓	.02754	2	9-20	10-1	5-3	5-9	6-6	6-19	98
2466	Kanred ✓	.02754	2	9-20	10-1	5-7	5-12	6-7	6-19	99
2467	Oro ✓	.02754	2	9-20	10-1	5-7	5-12	6-7	6-19	98
2468	Nebraska 1063 ✓	.02754	2	9-20	10-1	5-7	5-12	6-6	6-19	98
2469	Nebraska 28 ✓	.02754	2	9-20	10-1	4-26	5-1	5-31	6-19	96
2470	Kanred ✓	.02754	2	9-20	10-1	5-7	5-12	6-8	6-19	100
2471	Harvest Queen ✓	.02754	2	9-20	10-1	5-7	5-12	6-8	6-19	96
2472	Kanred ✓	.02754	2	9-20	10-1	5-8	5-12	6-8	6-19	99

WHEAT VARIETY TESTS, 1934

Plot No.	Variety	Spring Survival	Manner of Growth	Ht. of Plant Ft.	Lbs. Grain Per Acre	Lbs. Straw Per Acre	Total Crop	Bu. Wt.	Percent Dockage
2101	Kanred ✓	100%	Sp.	1.95	708	1081	1789	55.7	4.25
2104	Kanred ✓	100	Sp.	2.09	898	1397	2295	55.3	4.60
2105	Superhard ✓ Blackhull	100	Sp.	2.38	986	1634	2620	58.2	1.68
2106	Tenmarq ✓	100	Sp.	2.25	961	1609	2570	55.1	3.46
2107	Kanred ✓	100	Sp.	2.25	934	1671	2605	55.6	3.83
2108	Turkey <i>nebr 5231</i> ✓	100	Sp.	2.15	905	1360	2265	55.6	3.94
2110	Kanred ✓	100	Sp.	2.23	1077	1828	2905	55.9	4.32
2111	Fulcaster ✓	100	Sp.	2.42	817	1722	2539	54.4	2.78
2113	Kanred ✓	100	Sp.	2.33	951	1753	2704	55.7	3.94
2115	Redhull ✓	100	Sp.	2.40	997	1906	2903	55.9	2.90
2116	Kanred ✓	100	Sp.	2.35	1128	1999	3127	55.1	2.88
2117	Nebraska 28 ✓	100	Sp.	2.35	921	1704	2625	55.1	2.09
2118	Mediterranean ✓	100	Sp.	2.48	810	1546	2356	54.0	2.45
2119	Kanred ✓	100	Sp.	2.37	969	1822	2791	54.8	4.64
2120	Oro ✓	100	Sp.	2.37	1098	1796	2894	56.4	3.57
2121	Turkey ✓ Nebraska 1063	100	Sp.	2.11	1112	2002	3114	55.7	3.38
2122	Kanred ✓	100	Sp.	2.11	1094	2028	3122	55.0	4.08

Panhandle Agricultural Exp.
Station, Goodwell, Okla.

Plot No.	Variety	Spring Survival	Manner of Growth	Ht. of Plant Ft.	Lbs. Grain Per Acre	Lbs. Straw Per Acre	Total Crop	Bu. Wt.	Percent Dockage
2123	Malakof ✓	100%	Sp.	2.37	738	1661	2399	50.2	4.39
2124	Denton ✓	100	Sp.	2.37	648	1669	2317	53.4	3.73
2125	Kanred ✓	100	Sp.	2.34	837	1804	2641	54.9	4.92
2126	Sibley's 81 ✓	100	Sp.	2.13	661	1455	2116	55.3	2.97
2127	Prelude x Kanred ✓	100	Sp.	2.05	784	1527	2311	55.0	6.72
2128	Kanred ✓	100	Sp.	1.95	774	1521	2295	54.7	5.00
2129	Blackhull ✓	100	Sp.	2.13	755	1641	2396	56.4	3.54
2130	Ioturk ✓	100	Sp.	1.88	588	1739	2327	56.9	4.83
2131	Kanred ✓	100	Sp.	2.00	807	1797	2604	54.5	5.77
2132	Kawvale ✓	100	Sp.	2.19	817	1502	2319	54.8	5.75
2133	Fultz ✓	100	Sp.	2.41	523	1817	2340	50.3	2.45
2134	Kanred ✓	100	Sp.	2.14	985	1893	2878	54.1	4.53
2135	Kharkof ✓	100	Sp.	2.14	866	2283	3149	54.5	3.82
2136	Harvest Queen ✓	100	Sp.	2.54	648	2075	2723	53.2	4.01
2137	Kanred ✓	100	Sp.	2.37	987	1342	2329	54.0	5.12
2138	Nebrasks 60 ✓	100	Sp.	2.51	868	2375	3243	55.6	4.46
2139	Purkof ✓	100	Sp.	2.74	798	2676	3474	53.3	3.92
2140	Kanred ✓	100	Sp.	2.56	938	2240	3178	55.9	5.33
2141	Nebraska Turkey 1069 ✓	100	Sp.	2.53	999	2358	3357	53.9	8.09
2142	Turkey 101 ✓	100	Sp.	2.53	937	2318	3255	54.3	4.80

Plot No.	Variety	Spring Survival	Manner of Growth	Ht. of Plant Ft.	Lbs. Grain Per Acre	Lbs Straw Per Acre	Total Crop	Bu. Wt.	Percent Dockage
2143	Kanred ✓	100%	Sp.	2.32	873	1720	2527	54.0	5.35
2144	Turkey 102 ✓	100	Sp.	2.32	1007	2576	3583	53.4	6.01
2145	Eagle Chief ✓	100	Sp.	2.47	787	2152	2939	53.8	5.12
2146	Kanred ✓	100	Sp.	2.35	923	2148	3071	53.6	6.09
2147	Early Black-hull ✓	100	Sp.	2.16	908	1565	2473	57.3	1.94
2148	Cheyenne ✓	100	Sp.	2.16	741	1746	2487	55.9	4.74
2149	Kanred ✓	100	Sp.	2.49	646	2254	2900	53.6	5.80
2150	Minturki ✓	100	Sp.	2.49	673	2416	3089	52.7	6.13
2151	Turkey <i>sub 5221</i> ✓	100	Sp.	2.56	906	2554	3460	54.3	5.22
2152	Kanred ✓	100	Sp.	2.40	597	1872	2469	53.5	5.70

(note) no leaf rust present and no lodging and shattering data taken.

WHEAT VARIETY TESTS, 1934

Plot No.	Variety	Size of Plot	Rate of Seed-ing	Date Sown	Date Emer-ged	Date First Head-ing	Date Fully Headed	Date Fully Ripe	Date Harves-ted	Stand
2101	Kanred ✓	.02012	2	11-13	11-22	5-8	5-16	6-16	6-22	95
2104	Kanred ✓	.02004	2	11-13	11-22	5-8	5-16	6-16	6-22	95
2105	Superhard Black-hull ✓	.02004	2	11-13	11-22	5-6	5-13	6-16	6-22	95
2106	Tenmarq ✓	.02004	2	11-13	11-22	5-6	5-13	6-16	6-22	98
2107	Kanred ✓	.02035	2	11-13	11-22	5-7	5-15	6-15	6-22	90
2108	Turkey ✓	.01989	2	11-13	11-22	5-8	5-15	6-16	6-22	98
2110	Kanred ✓	.01997	2	11-13	11-22	5-8	5-15	6-16	6-22	96
2111	Fulcaster ✓	.01989	2	11-13	11-22	5-7	5-16	6-16	6-22	95
2113	Kanred ✓	.01997	2	11-13	11-22	5-8	5-14	6-16	6-22	97
2115	Redhull ✓	.01981	2	11-13	11-22	5-7	5-14	6-16	6-22	95
2116	Kanred ✓	.01951	2	11-13	11-22	5-8	5-14	6-16	6-22	98
2117	Nebraska 28 ✓	.01981	2	11-13	11-22	5-2	5-8	6-9	6-22	95
2118	Mediterranean ✓	.01974	2	11-13	11-22	5-7	5-16	6-18	6-22	90
2119	Kanred ✓	.01935	2	11-13	11-22	5-7	5-12	6-16	6-22	96
2120	Oro ✓	.01935	2	11-13	11-22	5-9	5-13	6-17	6-22	94
2121	Turkey Neb. 1063 ✓	.01798	2	11-13	11-22	5-9	5-15	6-16	6-22	94
2122	Kanred ✓	.01874	2	11-13	11-22	5-8	5-14	6-16	6-22	96
2123	Malakof ✓	.01897	2	11-13	11-22	5-7	5-15	6-16	6-22	93

WHEAT VARIETY TESTS, 1934

Plot No.	Variety	Size of Plot	Rate of Seeding	Date Sown	Date Emerged	Date First Heading	Date Fully Headed	Date Fully Ripe	Date Harvested	Stand
2124	Denton ✓	.01813	2	11-13	11-22	5-10	5-18	6-18	6-22	96
2125	Kanred ✓	.01912	2	11-13	11-22	5-8	5-14	6-16	6-22	94
2126	Sibley's 81 ✓	.01890	2	11-13	11-22	5-8	5-14	6-15	6-22	96
2127	Prelude x Kanred ✓	.01882	2	11-13	11-22	5-6	5-12	6-10	6-22	95
2128	Kanred ✓	.01874	2	11-13	11-22	5-9	5-15	6-15	6-22	96
2129	Blackhull ✓	.01920	2	11-13	11-22	5-7	5-12	6-13	6-22	91
2130	Ioturk ✓	.01912	2	11-13	11-22	5-12	5-18	6-18	6-22	93
2131	Kanred ✓	.01920	2	11-13	11-22	5-9	5-16	6-15	6-22	94
2132	Kawvale ✓	.01897	2	11-13	11-22	5-6	5-11	6-8	6-22	93
2133	Fultz ✓	.01912	2	11-13	11-22	5-9	5-17	6-18	6-22	95
2134	Kanred ✓	.01928	2	11-13	11-22	5-8	5-14	6-16	6-22	95
2135	Kharkov ✓	.01905	2	11-13	11-22	5-10	5-17	6-17	6-22	96
2136	Harvest Queen ✓	.01928	2	11-13	11-22	5-9	5-17	6-18	6-22	93
2137	Kanred ✓	.01951	2	11-13	11-22	5-9	5-15	6-16	6-22	97
2138	Nebraska 60 ✓	.01958	2	11-13	11-22	5-10	5-18	6-18	6-22	96
2139	Purkof ✓	.01943	2	11-13	11-22	5-8	5-17	6-19	6-22	96
2140	Kanred ✓	.01920	2	11-13	11-22	5-8	5-15	6-13	6-22	94
2141	Nebr. Turkey 1069 ✓	.01951	2	11-13	11-22	5-6	5-12	6-10	6-22	93

WHEAT VARIETY TESTS, 1934

Plot No.	Variety	Size of Plot	Rate of Heading	Date Sown	Date Emerged	Date First Heading	Date Fully Headed	Date Fully Ripe	Date Harvested	Stand
2142	Turkey 101 ✓	.01920	2	11-13	11-22	5-8	5-14	6-13	6-22	96
2143	Kanred ✓	.01890	2	11-13	11-22	5-8	5-14	6-13	6-22	96
2144	Turkey 102 ✓	.01912	2	11-13	11-22	5-8	5-14	6-12	6-22	97
2145	Eagle Chief ✓	.01905	2	11-13	11-22	5-8	5-14	6-13	6-22	96
2146	Kanred ✓	.01897	2	11-13	11-22	5-8	5-14	6-13	6-21	98
2147	Early Blackhull ✓	.02284	2	11-13	11-22	4-29	5-6	6-6	6-21	96
2148	Cheyenne ✓	.01890	2	11-13	11-22	5-8	5-15	6-14	6-21	98
2149	Kanred ✓	.01897	2	11-13	11-22	5-8	5-14	6-15	6-21	93
2150	Minturki ✓	.01821	2	11-13	11-22	5-8	5-17	6-16	6-21	94
2151	Turkey ✓	.01821	2	11-13	11-22	5-7	5-15	6-16	6-21	94
2152	Kanred ✓	.01843	2	11-13	11-22	5-8	5-15	6-16	6-21	95

Summary of Grain Yields, Bushels Per Acre,
Goodwell, Oklahoma, 1934
Averaged

Variety	Actual	Adjusted to Kanred Field Curves
Turkey 102	15.85	17.71
Turkey 101	15.42	17.09
Ioturk	11.26	13.07
Denton	11.10	11.91
Minturki	12.25	14.56
Purkof	11.74	12.19
Sibley's 81	11.63	13.09
Fultz	9.76	10.70
Cheyenne	15.40	18.10
Malakof	13.89	15.38
Prelude x Kanred	12.62	13.12
Tenmarq	15.92	15.44
Early Blackhull	18.15	17.80
Kharkof	17.41	16.14
Nebraska 60	15.71	14.85
Eagle Chief	15.96	15.73
Mediterranean	12.35	11.87
Blackhull	16.40	17.08
Kawvale	12.40	12.19
Superhard Blackhull	18.03	17.98
Redhull	16.53	14.92
Nebraska 1069	16.99	16.42
Nebraska 1063	19.55	18.31

Summary of Grain Yields, Bushels Per Acre,
Goodwell, Oklahoma, 1934,
Averaged

Variety	Actual	Adjusted to Kanred Field Curves
Ora	18.86	17.68
Nebraska 28	13.38	12.13
Harvest Queen	11.96	10.64
Turkey Nebraska 5231*	15.09	17.74
Fulcaster**	13.62	12.03
Kanred, Average of 38 Plots	16.17	16.17

*Only two Plots

**Only one Plot

Gordwell, '34

Variety	Replications			Av'g.
	I	II	III	
		<i>Bu / A.</i>		
Kanred	14.93	12.95	21.62	16.50
Superhard	16.43	13.61	24.05	18.03
Tenmarq	16.01	11.65	20.11	15.92
Chick	15.08	15.10		
Redhull	16.61	11.20	21.78	16.53
Neb. #28	15.35	12.40	12.40	13.38
Ioturk	9.80	11.28	12.71	11.26
Kawvale	13.61	6.96	16.65	12.41
Fultz	8.71	9.08	11.50	9.76
Kharkof	14.43	12.10	25.71	17.41
Harvest Queen	10.80	10.58	14.51	11.96
Neb. #60	14.46	10.13	22.55	15.71
Purkof	13.30	9.23	12.71	11.75
Neb. Turk 1069	16.65	13.16	21.18	17.00
Mediterranean	13.50	7.56	15.99	12.35
Oro	18.30	15.58	22.70	18.86
TurkNeb1063	18.53	15.75	24.38	19.55
Malakof	12.30	15.43	13.95	13.89
Denton	10.80	11.16	11.35	11.10
Sibley 81	11.01	10.28	13.61	11.63
Quivira	13.06	9.98	14.83	12.62
Blackhull	12.59	11.50	25.11	16.40
Turkey 101	15.61	15.66	14.99	15.42
Turkey 102	16.78	15.73	14.10	15.54
Eagle Chief	13.11	9.98	24.81	15.97
Early Black	15.13	14.98	24.36	18.16
Cheyenne	12.35	14.21	19.66	15.41
Minturki	11.21	11.50	14.06	12.26

m = 27
P.E. diff = 1.5353 Bu/A.
Gen P.E. = 1.0856 " "
= 7.39% of X
X = 14.70 Bu/A.
A.C.

J. Coover
11/8/34

EFFECT OF LEAF-RUST ON THE YIELD AND QUALITY OF WHEAT

Georgia Experiment Station, Experiment, Georgia

1933-1934

Series	: Straw & Grains in Tons per A. :			: Grain in Bushels per Acre :		
	: Dusted	: Not dusted	: Increase	: Dusted	: Not dusted	: Increase
1	0.749	0.953		9.9	12.3	
2	1.225	1.293		14.4	16.9	
3	1.225	1.021		17.4	13.6	
4	1.157	1.225		16.5	16.5	
5	1.157	1.633		15.8	21.0	
6	1.361	1.021		18.5	13.8	
7	1.225	0.885		16.4	11.5	
8	1.021*	1.157		13.3*	14.4	
9	1.361	1.225		17.5	15.5	
10	1.225	0.953		16.1	12.4	
Average	1.170	1.137	+0.033	15.58	14.79	+ 0.79

*Poor stand.

Plots 7 - 8 inch drill rows 20 feet long, replicated nine times. Harvested two inside rows 16 feet. Dates of dustings with rust percentages follow:

4-21, all plots 2%; 4-26, all plots 5%; 5-3, all plots 10%; 5-5, all plots 25%; 5-14, dusted plots 15%, non-dusted plots 25%. Non-dusted plots were ripe about three to four days earlier than the dusted plots.

Weight per bushel:

Dusted 59 pounds
 Undusted 58 pounds

76a
 Rawlins

$m = 25$
 P. Coeff. = 1.1493 bu./A.
 Gen. P.C. = 0.8127 " "
 $= 2.5770 \times X$
 $X = 31.61$ bu./A.
 calculated 11/13/34
 Dec. Col. Ind.

Laude

Yields of Varieties of Wheat Grown on Agronomy Farm,
 Manhattan, Kansas. 1934

Hard and Soft Wheat Varieties in order of rank

Variety	Kans. No.	C.I. No.	Yields, Bu. per acre			Average	Rank
			Ser. I	Ser. II	Ser. III		
Prelude x Kanred	2689 ✓	11591 ✓	41.1	32.6	36.0	36.57	36.6 ✓ 1
Quivira	2628 ✓	8886 ✓	39.1	34.2	35.5	36.27	36.3 ✓ 2
Kawvale (Soft)	2593 ✓	8180 ✓	34.9	36.0	35.2	35.37	35.4 ✓ 3
P-1066 x Prelude	2695 ✓	11590 ✓	40.4	30.3	35.0	35.23	35.2 ✓ 4
Early Blackhull	483 ✓	8856 ✓	37.3	34.4	32.2	34.63	34.6 ✓ 5
Kanred x Marquis	2690 ✓	11589 ✓	35.1	35.2	32.6	34.30	34.3 ✓ 6
Clark No. 40 (Soft)	505 ✓	8858 ✓	35.6	34.1	32.1	33.93	33.9 ✓ 7
Turkey (Neb. 1069)	✓	10016 ✓	34.1	39.4	28.0	33.83	33.8 ✓ 8
Blackhull	343 ✓	6251 ✓	34.8	32.2	31.6	32.87	32.9 ✓ 9
Kanred x Marquis	2644 ✓	10090 ✓	33.1	32.3	29.6	31.67	31.9 ✓ 10
Falcaster (Soft)	317 ✓	6471 ✓	34.3	32.3	28.2	31.60	31.6 ✓ 11
Cheyenne	2667 ✓	8885 ✓	34.3	30.3	29.5	31.37	31.4 ✓ 12
Turkey	570 ✓	1558 ✓	33.8	31.9	28.3	31.33	31.3 ✓ 13
Kanred	2401 ✓	5146 ✓	33.6	32.2	28.0	31.3	31.3 ✓ 13a
Kanred x Hd. Fed.	2673 ✓	10092 ✓	32.6	29.6	29.7	30.63	30.6 ✓ 14,5
Nebraska 60	322 ✓	6250 ✓	35.3	28.7	27.8	30.60	30.6 ✓ 14,5
Kanred (Soft series)	2401 ✓	5146 ✓	32.1	31.0	28.7	30.6	30.6 ✓ 14,5a
P-1066-1 x Burbank	✓	10087 ✓	33.6	30.8	27.1	30.50	30.5 ✓ 16
Tenmarq	514 ✓	6936 ✓	32.3	30.1	28.6	30.30	30.3 ✓ 17
Kanred	2401 ✓	5146 ✓	33.3	33.4	24.8	30.3	30.3 ✓ 17a
* Average of all Kanred plots			32.6	31.4	25.9	29.97	30.0 ✓ 18
Oro	495 ✓	8220 ✓	30.7	30.9	28.0	29.87	29.9 ✓ 19
Cooperatorka	499 ✓	8861 ✓	28.1	31.8	28.5	29.47	29.5 ✓ 20
Kanred	2401 ✓	5146 ✓	31.8	30.5	25.4	29.2	29.2 ✓ 20a
Kanred x Hd. Fed.	2671 ✓	11373 ✓	31.8	26.2	28.4	28.80	28.8 ✓ 21
Kharkof	2591 ✓	1442 ✓	32.3	26.6	26.8	28.57	28.6 ✓ 22
Kanred x Hd. Fed.	2672 ✓	10091 ✓	31.0	25.6	28.9	28.50	28.5 ✓ 23
Kanred	2401 ✓	5146 ✓	32.2	30.0	23.5	28.5	28.5 ✓ 23a
Minturki	2464 ✓	6155 ✓	30.5	28.2	25.9	28.20	28.2 ✓ 24
Harvest Queen (Soft)	19 ✓	6199 ✓	27.3	25.0	25.4	25.90	25.9 ✓ 25

Kanred (check plots)

Agronomic Data of Wheat Varieties Grown in Triplicate Plots on Agronomy Farm, Manhattan, Kansas. 1934.

Variety	C.I.No.	Stand per Acre No.		Dates		Length fruiting period	Ht. in.	Breaking strength lbs. per 10 straws	Yield grain			Bu. per acre	Test weight per bu. Pounds	Plots
		with 000 omitted	Plants in fall	Culms	First heading				Ripe	Lbs. per plot	Ser. 1			
Prelude x Kanred	Ks.2689 ✓	1448	2524	5-5	6-9	35	31	7.33	79.5	63.0	69.6	36.6	61.9	
Quivira	8886	1538	2240	5-5	6-9	35	32	7.23	75.7	66.1	68.8	36.3	61.3	
Kawvale	8180	1209	2210	5-6	6-9	34	32	8.46	67.5	69.7	68.2	35.4	58.4	
P-1066 x Prelude	Ks.2695	1204	2200	5-4	6-8	35	31	7.23	77.5	58.6	67.8	35.2	61.7	
Early Blackhull	8856	1309	2175	5-1	6-7	37	33	6.97	72.1	66.6	62.4	34.6	62.8	
Kanred x Marquis	11589	1398	2529	5-6	6-10	35	31	7.27	68.0	68.2	63.1	34.3	60.0	
Clark No. 40	505	905	1890	5-8	6-12	35	39	12.27	68.9	66.0	62.1	33.9	61.0	
Turkey Neb.1069	10016	1637	2786	5-6	6-10	35	30	6.45	66.0	76.3	54.2	33.8	60.3	
Blackhull	6251	1433	2315	5-7	6-12	36	32	7.66	67.4	62.3	61.2	32.9	61.1	
Kanred x Marquis	10090	1493	2469	5-8	6-12	34	32	8.19	64.1	62.5	57.3	31.9	59.6	
Fulcaster	6471	1239	2155	5-7	6-11	35	35	10.13	66.4	62.5	54.6	31.6	58.5	
Cheyenne	8885	1552	2436	5-8	6-11	34	31	7.62	66.4	58.6	57.0	31.4	59.2	
Turkey	1558	1503	2454	5-9	6-12	34	33	7.69	65.4	61.7	54.7	31.3	59.2	
Kanred x Hard Federation	10092	1554	2655	5-3	6-10	38	28	7.17	63.0	57.2	57.5	30.6	60.8	
Nebraska 60	6250	1627	2328	5-10	6-13	33	33	8.62	68.4	55.6	53.8	30.6	58.8	
P-1066-1 x Burbank	--	1578	1978	5-7	6-11	35	31	9.85	65.0	59.6	52.5	30.5	59.2	
Tenmarq	6936	1309	2205	5-7	6-11	35	31	7.82	62.5	58.2	55.2	30.3	58.7	
Avg of Kanred plots	5146	1453	2530	5-9	6-12	32.4	32	7.74	57.7	57.7	57.7	30.0	58.2	
Oro	8220	1552	2365	5-9	6-13	34	33	7.83	59.5	59.8	54.1	29.9	59.2	
Cooperatorka	8861	1453	2422	5-9	6-12	33.9	32	7.68	54.3	61.6	55.1	29.5	58.5	
Kanred x Hd.Fed.	11373	1363	2584	5-3	6-10	38	29	7.24	61.6	50.7	54.9	28.8	60.9	
Kharkof	1442	1582	2553	5-10	6-12	33	33	8.21	62.5	51.5	51.9	28.6	58.5	
Kanred x Hd.Fed.	10091	1408	2475	5-2	6-9	38	28	6.91	59.9	49.5	55.9	28.5	61.2	
Minturki	6155	1637	2399	5-10	6-11	32	35	7.34	59.0	54.6	50.1	28.2	56.8	
Harvest Queen	6199	995	1747	5-8	6-12	35	42	13.02	52.8	48.3	49.2	25.9	58.3	
Kanred 4-28-52	5146	1533	2504	5-9	6-12	34	33	8.03	61.6	59.1	49.1	29.2	58.2	
Kanred 10-34-58	5146	1463	2385	5-9	6-12	33.6	31	7.24	65.0	62.3	54.2	31.3	58.7	
Kanred 16-40-64	5146	1419	2436	5-9	6-12	34	31	7.55	64.5	64.7	47.1	30.3	57.9	
Kanred 22-46-70	5146	1398	2365	5-9	6-12	34	32	7.90	62.3	58.0	45.1	28.5	57.9	
Kanred 75-80-85	5146	1295	2419	5-9	6-11	33	33	8.05	62.2	60.0	55.5	30.6	58.5	

The average of these is reported above. You'll probably want to omit this group from your table.

Yields of Varieties of Wheat Grown on Agronomy Farm, Manhattan, Kansas. 1934

Hard Wheat in Triplicate Plots

Variety	Kans. No.	C.I. No.	Yields, Bu. per acre			Average	Rank
			Ser. I	Ser. II	Ser. III		
Early Blackhull	483	8856	37.3 ¹	34.4 ²⁵	32.2 ⁴⁹	34.6	5
Quivira	2628	8886	39.1 ²	34.2 ²⁶	35.5 ⁵⁰	36.3	2
Prelude x Kanred	2689		41.1 ³	32.6 ²⁷	36.0 ⁵¹	36.6	1
Kanred	2401	5146	31.8 ⁴	30.5 ²⁸	25.4 ⁵²	29.2	20a
P-1066 x Prelude	2695		40.4 ⁵	30.5 ²⁹	35.0 ⁵³	35.2	4
Kanred x Hd. Fed.	2671	11375	31.8 ⁶	26.2 ³⁰	28.4 ⁵⁴	28.9	21
Kanred x Hd. Fed.	2672	10091	31.0 ⁷	25.6 ³¹	28.9 ⁵⁵	28.5	23
Kanred x Hd. Fed.	2673	10092	32.6 ⁸	29.6 ³²	29.7 ⁵⁶	30.6	14.5
P-1066 x Burbank			33.6 ⁹	30.8 ³³	27.1 ⁵⁷	30.5	16
Kanred	2401	5146	33.6 ¹⁰	32.2 ³⁴	28.0 ⁵⁸	31.3	15a
Kanred x Marquis	2690	11589	35.1 ¹¹	35.2 ³⁵	32.6 ⁵⁹	34.3	6
Kanred x Marquis	2644	10090	33.1 ¹²	32.3 ³⁶	29.6 ⁶⁰	31.9	10
Tenmarq	514	6956	32.5 ¹³	30.1 ³⁷	28.5 ⁶¹	30.3	17
Blackhull	343	6251	34.8 ¹⁴	32.2 ³⁸	31.6 ⁶²	32.9	9
Cheyenne	2667	8885	34.3 ¹⁵	30.3 ³⁹	29.5 ⁶³	31.4	12
Kanred	2401	5146	35.5 ¹⁶	33.4 ⁴⁰	24.3 ⁶⁴	30.3	17a
Turkey (Nebr. 1069)		10016	34.1 ¹⁷	39.4 ⁴¹	29.0 ⁶⁵	35.8	8
Turkey	570	1558	35.8 ¹⁸	31.9 ⁴²	28.3 ⁶⁶	31.3	13
Kharkof	2591	1442	32.3 ¹⁹	26.6 ⁴³	26.9 ⁶⁷	28.6	22
Nebraska 60	322	6250	35.3 ²⁰	28.7 ⁴⁴	27.8 ⁶⁸	30.6	14.5
Minturki	2464	6155	30.5 ²¹	28.2 ⁴⁵	25.9 ⁶⁹	28.2	24
Kanred	2401	5146	32.2 ²²	30.0 ⁴⁶	23.3 ⁷⁰	28.5	23a
Oro	495	8220	30.7 ²³	30.9 ⁴⁷	28.0 ⁷¹	29.9	19
Cooperatorka	499	8861	28.1 ²⁴	31.8 ⁴⁸	28.5 ⁷²	29.5	20

Soft Wheat in Triplicate Plots

Kawvale	2593	8180	34.9 ⁷³	36.0 ⁷⁸	35.2 ⁸³	35.4	3
Fulcaster	317	6471	34.3 ⁷⁴	32.3 ⁷⁷	28.2 ⁸⁴	31.6	11
Kanred	2401	5146	32.1 ⁷⁵	31.0 ⁸⁰	28.7 ⁸⁵	30.6	14.5a
Clark No. 40	505		35.6 ⁷⁶	34.1 ⁸¹	32.1 ⁸⁶	33.9	7
Harvest Queen	19	6199	27.3 ⁷⁷	25.0 ⁸²	25.4 ⁸⁷	25.9	25
Average all Kanred plots						30.0	18

The plot numbers are given in pencil figures after each yield.

Johnathan

Yields of Varieties of Wheat Grown on Agronomy Farm - 1934.
Single Plots

Variety	Kans. No.	C.I. No.	Yield, bu. per acre
Harvest Queen + Kanred			26.5
Currell + Kanred			28.0
Kanred x Genessee Giant			23.5
Kanred x Genessee Giant (dense)			31.0
Kanred x Genessee Giant (lax)			32.6
Fédération x Oro F ₃			14.3
Kanred	2401	5146	33.6
Plot seed	519		32.0
Selected Heads	519		33.8
Plot seed	518		36.7
Selected Heads	518		36.7
Plot seed	517		34.6
Selected heads	517		35.2
Turkey (Neb. 1063)		10094	40.1
Kanred	2401	5146	35.7
Harvest Queen	19	6199	22.8
Harvest Queen Sel.	24-18	11611	25.9
Harvest Queen Sel.	24-33	11612	24.6
Harvest Queen	19	6199	24.0
Fulcaster	317	6471	29.5
<u>Winter Barley 1934</u>			
Winter barley (S.E.Ks.)			19.4
Winter barley (S.C.Ks.)			18.3
Wisconsin winter barley			11.2

PROTEIN DETERMINATIONS ON SULPHUR DUST EXPERIMENT

AT MANHATTAN, KANS., 1934

TURKEY			
<u>Dusted</u>		<u>Non-Dusted</u>	
<u>No.</u>	<u>Percent Protein</u>	<u>No.</u>	<u>Percent Protein</u>
2203	14.87	2103	12.27
2218	14.68	2118	13.58
2233	14.40	2133	13.54
2248	12.76	2148	14.50
2263	14.78	2163	15.45
2278	15.60	2178	15.73
TENMARQ			
2209	14.16	2108	11.67
2223	13.92	2123	14.40
2237	13.86	2138	13.74
2253	13.58	2153	14.01
2268	14.87	2168	15.84
2283	15.83	2183	16.08
QUIVIRA			
2213	14.87	2113	12.66
2228	14.52	2128	15.30
2243	13.33	2143	14.59
2258	13.10	2158	13.96
2273	15.21	2173	14.97
2288	16.66	2188	16.37
FROM GEORGIA			
Gaste-dusted	9.86		
Gaste-nondusted	9.66		

All protein determinations corrected to a 13.5% moisture basis.

Wheat Variety Test.
Lawton, Okla., 1934.

General Crop Notes.

Soil moisture in the fall of 1933 was confined to the surface and the deficit continued to accumulate until the first of December. October precipitation consisting of 0.44 inch on the 14th. and 0.66 inch on the 19th. provided favorable conditions for seeding and prompt emergence.

November precipitation amounted to less than one half inch, and wheat made but little growth during the month with a mean temperature of 3° above normal. By the first of December the crop was showing an acute need of moisture. On poorly prepared seed beds on many farms, the thin stands secured at seeding time were further reduced ~~in stand~~ by plants that died from the lack of moisture.

Well distributed precipitation of 2.79 inches in December was decidedly beneficial to small grains, putting them in good condition to make satisfactory growth early in the spring under average weather conditions. The mean temperature for the month was 5° above the 1916 to 1931 average. Very mild temperatures, the absence of wintery storms, and an average ~~if~~ amount of precipitation in January held the small grain crops in good ~~and~~ winter condition. A limited amount of grazing was available on surrounding farms and station plots of wheat were well tillered by the close of January.

Five rains from the 7th. to the 28th. of February totaled 2.18 inches. In each case the rainfall was very gentle and but little water was lost by runoff. The winter snowfall consisted of only a few flurries. A strong wind from the north attained a high velocity on three dates in February, but no soil blowing occurred.

Freezing temperatures on the 10th., 18th., and 30th. of March injured only the leaf tips of wheat, oats and barley. All of the wheat varieties were growthy and appeared to be in excellent condition by the first of April, with the exception of the presence of leaf rust on nearly all varieties. Wheat grew rapidly during the first half of April and began to show the need of moisture. By the 20th. the plants ranged from 14 to 26 inches in height. Early maturing varieties were pretty well booted and the others were in boot formation. Early Blackhull heads were just beginning to break out of the boot. Leaf rust developed rapidly, and the foliage except on the resistant varieties showed considerable injury. The April rainfall was about 2 inches below normal, and the 0.97 inch received during the month tided the crop along temporarily.

The sharp restriction of moisture through March and April was relieved by 1.19 inches of precipitation the first week in May with much benefit to all small grains. Some of the early maturing varieties were fully headed and quite growthy. Leaf rust was a damaging factor throughout the entire spring, and it was responsible for a reduction in yield and a curtailed plant growth and development, especially on the most susceptible varieties. Temperatures that gradually rose to 96° on May 21 were moderated by a 16° drop and the 2.01 inches of rain on the 23rd., followed by a cool, cloudy day and a shower of 0.17 inch on the 24th. relieved crop distress. Most of the wheat, then in the milk to soft dough stage was in good shape to fill satisfactorily. However, there was but little foliage to support maturity.

The hot weather during the first week in June that depreciated small grain yields so rapidly in northern Oklahoma was not so pronounced in the southwestern part of the state. Two rains amounting to 0.79 inch on June 2 and 3 lowered the temperatures and provided moisture as maturity was nearing completion. Early maturing varieties enjoyed a very distinct advantage over other varieties in 1934. Later maturing varieties, especially those that were ~~xxxxxxxxxx~~ injured by leaf rust were sharply depressed in yields.

$P.E. diff = 10.126/bu./A.$
 $P.E. = 0.7197$
 $\bar{X} = 3.44\% \text{ of } X$
 $X = 2.09/bu./A.$
 calculated 11/22/34

Agronomic Data For Winter Wheat Varieties Grown in Denton, Texas

In Quadruplicate Yss Here Field Plots, 1934.

Variety	T.S. No	C.I. No.	Date		Est. Stand Spring	Height in Inches	Per Cent		Stem Rust	Grain Yield - Pounds. Per Plot			Average Bu. Per Acre	Test Weight T	
			First Head	Fully Ripe			Lodging	Loose Smut		Leaf Rust	I	II			III
Denton	9236	8265	5-5	6-6	99	46	3	76	43	20.6	24.3	26.8	28.4	22.8	58
Mediterranean	3015-81	10086	5-1	6-3	100	42	3	86	19	19.8	23.3	28.0	27.3	22.6	59.5
Do	3015-1051	11589	5-5	6-4	99	44	2	64	70	3.1	20.8	27.1	26.5	20.1	59.0
Do	5933-20	10085	4-29	6-2	100	41	3	75	40	9.6	20.6	26.2	26.6	21.3	59.0
Do	5933-23	11525	5-2	6-4	100	47	4	10	65	18.7	27.2	29.8	29.2	24.5	61.0
Do	5933-34	11526	4-30	6-3	100	42	8	75	34	9.8	21.4	27.8	27.9	22.2	59.0
Do	5933-38	-	5-1	6-4	100	46	3	60	56	21.0	24.4	27.3	27.5	23.0	59.0
White Mediterranean	10023	10023	4-28	6-3	98	41	2	90	4	9.9	17.4	24.6	24.1	19.7	59.0
Sutton	15832	10053	5-7	6-6	100	40	2	86	41	28.1	24.6	30.4	35.0	27.1	59.5
Fulcaster	7082	6471	5-6	6-7	97	39	9	88	15	14.8	14.4	19.0	18.4	15.3	56
Harvest Queen	15837	6199	5-7	6-6	100	43	6	94	30	10.4	10.6	14.6	14.7	11.6	56.5
Clark 40	20400	8858	5-7	6-6	100	45	3	88	31	20.0	22.7	26.3	27.5	22.1	60.0
Kawvale	12577	8180	5-5	6-6	100	42	1	65	10	4.8	30.1	30.6	33.5	27.3	59.5
Quivira	15833	8886	4-28	6-2	98	41	5	73	4	27.2	25.8	30.5	35.9	27.4	61.0
Early Blackhull	15838	8856	4-24	6-1	94	38	9	86	7	20.6	21.3	17.2	23.7	19.0	61.0
Blackhull	7172	6251	5-7	6-7	100	41	0	89	1	18.6	16.9	20.1	19.8	17.3	60.0
Kanred	11763	5146	5-9	6-8	99	40	0	84	1	27.1	24.7	24.8	27.4	23.8	60.0
Tenmarq	12578	6936	5-7	6-6	96	42	6	80	2	29.5	24.9	29.6	30.0	26.1	58.0
Kharukoff	16830	1442	5-9	6-9	100	37	29	85	4	17.7	16.9	18.1	23.0	17.3	56.0
Nebraska	15835	6250	5-9	6-9	100	38	9	89	6	13.6	9.7	14.4	21.3	13.6	56.0
Turkey	20374	10016	5-8	6-6	100	34	3	90	0	4.7	14.8	15.9	20.9	15.2	59.0

* Yields of 9 Denton check plots as follows - 17.8, 23.3, 22.5, 23.4, 26.9, 24.7, 28.9, 26.5, 30.2
 † Test Weight taken on reclaimed grain.

Table .--Yield and other agronomic data from field plot variety test grown at Lincoln in 1934, and average yields for the 5-year period from 1930 to 1934. (Five 1/26th-acre plots; seeded Sept. 22, 1933, and emerged Sept. 28, 1933)

Number	Variety	Date		Ht.	Harvest stand	Test wt.	Acre yield by replications						Average yield	
		Head- ed	Ripe				1	2	3	4	5	Av.		
Nebr. C.I.		10%		In.	(000 omitted)	Lbs.	Bu.	Bu.	Bu.	Bu.	Bu.	Bu.	Bu.	
1050	: 8885:Cheyenne	: 5/17:	6/15:	29 :	4,824	: 60.6	: 36.5:	43.0:	44.3:	47.5:	44.0:	43.1:	41.2	43.06
1065	: 10095:Turkey sel.	: 5/16:	6/14:	28 :	6,198	: 59.8	: 40.2:	39.5:	39.2:	43.9:	46.2:	41.8:	37.4	41.80
1011	: 3689:Turkey	: 5/15:	6/15:	27 :	5,033	: 59.7	: 39.6:	38.4:	39.2:	41.9:	46.3:	41.1:	37.2	41.08
1063	: 10094:Turkey sel.	: 5/16:	6/13:	28 :	6,082	: 59.8	: 37.3:	38.1:	42.0:	39.8:	45.5:	40.5:	36.9	40.54
60	: 6250:Nebr. 60	: 5/18:	6/16:	30 :	5,003	: 60.3	: 35.4:	41.7:	37.8:	44.0:	43.5:	40.5:	35.1	40.48
1068	: 10097:Turkey sel.	: 5/16:	6/13:	29 :	4,746	: 59.6	: 36.6:	37.6:	43.6:	40.7:	43.7:	40.4:	35.6	40.44
1067	: 11506:Turkey sel.	: 5/16:	6/13:	29 :	4,925	: 59.1	: 36.9:	35.9:	43.0:	42.4:	42.6:	40.2:	35.9	40.16
1004	: 6251:Blackhull	: 5/14:	6/14:	30 :	4,159	: 60.7	: 34.5:	38.6:	40.0:	42.0:	44.2:	39.9:	36.4	39.86
1035	: ... :Crimean sel.	: 5/17:	6/15:	29 :	5,026	: 59.7	: 34.7:	35.8:	42.9:	42.6:	41.5:	39.5:	35.3	39.50
1002	: 1435:Crimean	: 5/17:	6/15:	30 :	5,197	: 59.4	: 33.1:	36.7:	42.5:	41.6:	43.2:	39.4:	35.2	39.42
1032	: 8220:Oro	: 5/17:	6/16:	30 :	4,731	: 60.4	: 35.8:	39.3:	38.4:	42.3:	40.0:	39.2:	35.8	39.16
1057	: 8856:Early Blackhull	: 5/9 :	6/9 :	29 :	3,786	: 62.0	: 35.6:	35.7:	40.4:	41.7:	40.5:	38.8:	33.6	38.78
1006	: 5146:Kanred	: 5/17:	6/16:	29 :	4,495	: 59.2	: 30.4:	38.4:	40.2:	40.9:	40.8:	38.1:	35.7	38.14
1005	: ... :Turkey	: 5/15:	6/15:	29 :	5,234	: 58.3	: 35.2:	34.4:	39.5:	38.7:	42.0:	38.0:	36.6	37.96
1062	: 10015:Turkey sel.	: 5/15:	6/14:	29 :	5,832	: 59.6	: 33.0:	34.8:	39.8:	38.9:	41.4:	37.6:	35.2	37.58
1030	: 6936:Tenmarq	: 5/15:	6/14:	30 :	4,174	: 58.3	: 29.4:	37.6:	37.0:	42.1:	41.4:	37.5:	38.4	37.50
1010	: 1442:Kharkof	: 5/18:	6/16:	29 :	4,955	: 59.7	: 31.1:	34.8:	37.7:	44.3:	38.4:	37.3:	37.0	37.26
6	: 6249:Nebr. 6	: 5/18:	6/16:	29 :	5,384	: 58.7	: 31.9:	39.4:	29.7:	42.7:	42.2:	37.2:	33.7	37.18
1	: ... :Turkey	: 5/17:	6/15:	29 :	5,055	: 58.9	: 31.8:	38.2:	30.6:	41.4:	41.5:	36.7:	35.9	36.70
1054	: 8884:Beloglina sel.	: 5/19:	6/16:	30 :	5,138	: 59.1	: 29.8:	36.2:	31.5:	42.5:	41.5:	36.3:	36.2	36.30
1070	: 10098:Turkey sel.	: 5/14:	6/12:	27 :	4,996	: 60.0	: 33.2:	32.7:	38.4:	36.0:	41.2:	36.3:	36.2	36.30
1053	: 8886:Quivira	: 5/12:	6/11:	29 :	4,059	: 59.2	: 31.6:	34.7:	37.0:	39.6:	38.1:	36.2:	30.6	36.20
1069	: 10016:Turkey sel.	: 5/14:	6/12:	27 :	5,223	: 59.5	: 27.3:	35.0:	36.9:	39.7:	39.1:	35.6:	35.8	35.60
1059	: 10017:Iowin	: 5/17:	6/15:	30 :	4,536	: 58.2	: 30.0:	29.8:	37.4:	40.9:	38.7:	35.4:	32.3*	35.36
1052	: 8180:Kawvale	: 5/15:	6/14:	30 :	3,872	: 56.4	: 32.7:	32.2:	36.0:	34.3:	40.3:	35.1:	38.7	35.10
312	: ... :Turkey sel.	: 5/17:	6/16:	29 :	5,623	: 58.4	: 28.7:	37.2:	27.9:	42.2:	39.5:	35.1:	33.6	35.10
1012	: 6155:Minturki	: 5/18:	6/16:	31 :	4,380	: 56.9	: 24.2:	24.4:	27.7:	32.7:	32.0:	28.2:	33.6	28.20

* 4 years.

$\bar{x} = 27$
 $P. E. diff = 1.0553 \text{ bu./A.}$
 $Gen. S. E. = 0.7462 \text{ " "}$
 $= 1.9770 \text{ of } \bar{x}$
 $\bar{x} = 37.95 \text{ bu./A.}$
 calculated 11/17/34
 C. C. Colcord

Table .--Summary of controlled freezing experiments at Lincoln involving 32 pairings of selections with their respective parent variety during the years 1932 to 1934.

Selection	Sel. No.	Average survival departure from parent variety	Point binomial analysis of significance: D/E	Description of Selection
Tenmarq sel.	32T880	+15	5.0	Turkey growth habits; long kernels
Tenmarq sel.	32T884	-12	4.4	awnless; short kernels
Cheyenne sel.	32U886	+17	4.4	much like Cheyenne; deeper blue color
Blackhull sel.	32V893	+16	6.4	unable to distinguish from Blackhull
Blackhull	32V894	+30	6.6	white glumes; narrow leaves

Agronomic and Yield Data for winter wheat varieties grown in 1/50 acre plots, 2 on fallow and 2 on corn land at the Akron Field Station, Akron, Colorado. 1933-1934

Date Seeded 9/8/33

Date emerged 9/16/33

Seeding rate- 3 pecks

Plot size- 1/50 acre

NUMBER.		VARIETY.	Winter Survival percent	Dates		Plant height inches	Lodging Percent	Shattering Percent	Bushels grain per acre				av. Bu. Per Acre	Test Weight Per Bu. Pounds
Plat.	C. I.			first heading	fully ripe				Fallow		Corn land.			
									Plot 1	Plot 2	Plot 1	Plot 2		
1	6155	✓ Minturki	100	5/21	6/29	12	0	0	1.7	2.8	1.9	2.5	2.2	54.8
2	8033	✓ Yogo	100	5/21	6/29	11	0	0	2.3	2.5	1.3	3.3	2.4	55.0
3	11375	✓ Turkey Sel., Colo. 351	100	5/19	6/26	11	0	0	1.7	2.8	1.3	2.5	2.1	54.8
4	1438	✓ Alton	100	5/20	6/26	10	0	0	1.9	2.8	1.1	2.5	2.1	56.0
5	1442	✓ Kharkof	100	5/20	6/26	11	0	0	1.5	2.1	1.3	3.3	2.1	55.5
6	✓ 1583	✓ Kharkof	100	5/19	6/25	12	0	0	2.3	2.8	1.7	4.8	2.9	55.5
7	11660	✓ Mutant, Akron No. 7	100	5/15	6/23	13	2	0	2.3	4.0	1.9	5.4	3.4	53.3
8	6250	✓ Nebraska No. 60	100	5/20	6/26	12	0	0	1.7	3.3	1.3	4.2	2.6	55.3
9	8885	✓ Cheyenne	100	5/18	6/25	11	0	0	1.7	4.2	1.9	5.4	3.3	56.3
10	8220	✓ Oro	100	5/19	6/25	11	0	0	1.7	4.6	1.5	3.8	2.9	55.8
11	11678	✓ Yogo Sel., Akron No. 10	100	5/17	6/24	13	0	0	1.7	4.2	2.8	4.8	3.4	55.3
12	10100	✓ Turkey Sel. 159	100	5/15	6/21	12	0	0	2.1	4.2	1.9	5.0	3.3	54.5
13	10099	✓ Kanred Sel. 0166	100	5/18	6/22	12	0	0	1.5	2.1	1.7	4.6	2.5	55.0
14	5146	✓ Kanred	100	5/18	6/22	12	0	0	1.9	1.9	1.7	3.3	2.2	56.0
15	10098	✓ Turkey Sel.	100	5/13	6/20	12	0	0	2.1	1.9	2.3	4.4	2.7	55.8
16	10016	✓ Turkey Sel.	100	5/13	6/20	12	0	0	2.3	1.7	1.7	2.9	2.2	56.0
17	6936	✓ Tenmarq	100	5/13	6/20	11	1	0	2.9	2.9	2.8	4.2	3.2	53.5
18	8886	✓ Quivira	100	5/12	6/18	11	1	0	4.2	4.8	3.2	4.6	4.2	54.8
19	6251	✓ Blackhull	100	5/13	6/20	13	1	0	3.2	4.6	2.1	4.2	3.5	55.3
20	8856	✓ Early Blackhull	100	5/7	6/16	13	27	0	4.2	3.6	2.3	4.6	3.7	55.5

$m = 20$
P.E. diff. = 0.2192 bu./A.
Gen. P.E. = 0.1550 " "
 = 5.487% of \bar{X}

$\bar{X} = 2.83$ bu./A.
 calculated 11/16/34
 @ Colorado

TABLE _____ AGRONOMIC DATA, WINTER WHEAT VARIETIES, TRIPPLICATED 1/56 ACRE PLOTS, HOZEMAN, MONTANA, 1934

Variety	Seeded - Sept. 7, 1933				Emerged - Sept. 15			Irrigated - May 14					
	C.I. No.	Mont. No.	Dates		Hol-ght Ins.	Lodge-ing %	Pro-tein %	Lbs. per Bu.	Yield			Av. Bus. Per A.	P.E. m
			Headed	Ripe					Replications I	Replications II	Replications III		
Karnont	6700	7	6-5	7-29	44	87	61.8	79.3	80.3	85.4	81.7	1.2743	
Nebraska 60	6250	5	6-6	7-30	45	93	62.2	76.1	76.9	82.1	79.0	1.1694	
Cheyenne	9895	81	6-5	7-27	43	67	62.8	77.0	84.0	75.6	78.9	1.7529	
Kharkof	1443	3	6-8	7-30	45	97	62.5	75.5	83.1	77.9	78.9	1.4966	
Yogo	9035	64	6-10	7-30	47	87	62.2	74.2	85.8	91.5	77.2	5.1032	
Mont. 36	5549	36	6-8	7-30	46	100	62.0	73.3	74.7	81.7	76.6	1.7529	
Turkey x Minnesa	8987	91	6-9	7-25	47	100	62.5	79.3	73.3	71.4	74.8	1.7157	
Minard x Minardi	8899	95	6-5	7-27	46	80	62.2	72.3	70.0	76.1	72.8	1.1998	
Minuturki	6155	10	6-4	7-27	48	65	61.7	63.5	72.8	71.9	69.4	1.9978	
Oro	8220	68	6-7	7-30	44	90	62.8	62.1	73.7	70.0	68.6	2.3078	
Newturk	6935	35	6-3	7-25	45	57	62.5	68.6	62.5	74.7	68.6	2.3753	
Minardi x Minuturki	8215	92	6-5	7-27	47	43	61.8	63.5	61.1	68.1	64.2	1.5835	
Turkey Sel.	10016	105	5-29	7-19	42	100	61.4	54.6	61.1	57.4	57.7	1.2423	

Note: Winter survival 100% for all

Actual difference in av. yield between Karnont & Turkey x Minnesa = 0.9
 The probable error of the difference is $\pm 2.137 \times 5 = \pm 6.411$

$m = 13$
 P.E. diff. = 2.8264 bu./A.
 Gen. P.E. = 1.9986 " "
 = 2.74% of \bar{X}
 $\bar{X} = 72.95$ bu./A
 Calculated & checked
 12/6/34 *R.C. Leonard*

ARCHER - 1934

TABLE: Agronomic data on a varietal experiment with winter wheats seeded on fallow with the furrow drill, at the rate of 3 pecks per acre, in quadruplicate fifty-second acre plats at the Archer Field Station.
Date of seeding September 2, 1932

VARIETY.	C. I. No.	DATES.			DAYS TO MATURITY FROM—		Stand, thousand plants per acre.	Winter survival.	Height, inches.	Rust.		Lodging.	ACRE YIELD.			Bushel weight, pounds.
		Emergence.	Headed.	Ripe.	Emergence.	Head-ing.				Leaf.	Stem.		Grain.		Straw, pounds.	
													Bushels.	Probable error.		
1. Turkey Sel Nebr 1069	10016	9-7	5-27	7-2	67		% All 100%	15	% All 100	% All 100	% All 0	3.0	11 ✓	657	56	
7. Kamred	5146	9-7	5-29	7-5	40			16				4.2	7 ✓	696	58	
3. Nebraska 60	6250	9-7	5-30	7-5	42			16				5.4	4 ✓	741	56	
6. Pesterboden	1564-2-11	9-7	5-30	7-5	57			16				4.1	8 ✓	702	56	
8. Kharkof	1442	9-7	5-30	7-5	42			17				5.4	3 ✓	728	57.5	
9. Turkey	1571	9-7	5-29	7-5	62			17				5.1	5 ✓	605	57	
10. Karmont	6700	9-7	5-29	7-5	55			17				5.7	2 ✓	813	60	
4. Minhardi x Minturki	8034	9-7	5-30	7-4	7			19				6.5	1 ✓	975	58	
11. Alton	1438	9-7	5-29	7-5	76			17				3.6	9 ✓	566	58	
12. Eureka x Minhardi	8036	9-7	5-29	7-4	47			18				1.7	12 ✓	793		
5. Galgalos x Turkey	11540	9-7	5-29	7-5	24			17				4.3	6 ✓	806	59	
2. Cheyenne	8885	9-7	5-29	7-4	39			16				3.5	10 ✓	507		

ARCHER - 1934

TABLE: Individual and average plot yields of grain and straw produced in a varietal experiment with winter wheat seeded on fallow with the furrow drill at the rate of 3 pecks per acre, in quadruplicate fifty-second acre plots at the Archer Field Station.

NUMBER.		VARIETY.	GRAIN YIELD IN BUSHELS					STRAW YIELD IN POUNDS					
Plat.	C. I.		D	E	D	E	Average	D	E	D	E	Average	
	10016	Turkey Sel Nebr 1069	1.3	2.2	3.5	4.8	3.0		598	546	780	702	657
	5146	Kamred	3.5	3.9	5.2	4.3	4.2		832	650	676	624	696
	6250	Nebraska 60	5.2	4.3	5.6	6.5	5.4		676	624	1014	650	741
	1546-2-11	Pesterboden	4.3	3.0	4.8	4.3	4.1		780	494	962	572	702
	1442	Kharkof	5.6	3.9	7.4	4.8	5.4		806	702	858	546	728
	1571	Turkey	4.8	4.8	6.5	4.3	5.1		702	494	806	416	605
	6700	Karmont	4.3	5.6	6.9	6.1	5.7		988	702	936	624	813
	834	Mihardi x Minturki	6.5	5.2	4.8	9.5	6.5		962	780	1274	884	975
	1438	Alton	2.6	2.6	5.2	3.9	3.6		468	468	728	598	566
	8036	Eureka x Minhardi	1.3	0.4	2.6	2.6	1.7		754	598	884	936	793
	11540	Galgalos x Turkey	5.2	4.3	2.2	5.6	4.3		780	624	1066	754	806
	8885	Cheyenne	4.3	3.9	1.3	4.3	3.5		520	442	442	624	507
	5146	Kanred Border											

$n = 12$
 $P.E. diff = 0.5676 \text{ bu./A}$
 $Gen. P.E. = 0.4014 \text{ " "}$
 $\bar{X} = 4.38 \text{ bu./A}$

See Table 10 page 34 for model

Sheet 7-9
8 x 8

CORN INVESTIGATIONS
FORM 11

Table — Agronomic data and Yields for 30 varieties and selections of wheat grown in U.S.O.A. Uniform Yield nursery in replicated 3-row plots 16 feet long, Fall Hays Experiment Station, Hays, Kansas, 1934

No.	Selection	No. 1	State or hybrid	Date		Winter Survival	1934 Yield				
				Ht.	Survival		Grams from center row	Per bush	Per acre		
31	Mediteranean sel.	V11587	Texas 3015-105-1	5-11	6-8	24	100	237	160	192	176
32	Staley No. 62	V11523		5-11	6-8	24	25	236	284	259	26.0
33	Turkey sel.	V11576	Mich. 31 D650	5-12	6-9	24		204	232	244	22.7
34	Belogina X Winston	V11588	North Platte 353	5-16	6-10	24		162	120	224	16.9
35	Belogina X Kansas	V11513	No. Platte 126	5-10	6-9	25		179	270	231	22.7
36	Kansel X Michigan	V11589	Kans. No. 2690	5-8	6-6	24		203	248	231	22.7
37	P-1066-1 X Nebraska	V11590	Kans. No. 2695	5-6	6-5	24		204	226	125	18.5
38	Nebraska X Kansas	V11591	Kans. No. 2689	5-7	6-4	23		213	294	23	17.7
39	Kansel X Kansas	V11592	Kans. No. 303942	5-10	6-8	20		144	274	36	15.1
41	Early Blackball	V8856	Kans. No. 483	5-2	6-4	20		225	236	108	19.0
42	Turkey sel.	V1083	Okla. No. 1	5-11	6-9	18		170	22	60	8.5
43	Mediteranean	V10085	Texas 5933-20	5-7	6-4	18		199	133	87	14.0
44	P-1066-1 X Burbank	V10087	Kansas 2054	5-8	6-7	19		214	174	88	15.9
45	Belogina sel.	V8884	No. Platte No. 11	5-13	6-11	19		168	150	68	12.9
46	Fulford	V8257	Kans. 2594	5-7	6-7	18		185	165	72	14.1
51	Turkey sel.	V10015	Okla. 1062	5-9	6-11	18		30	45	28	3.4
52	Turkey sel.	V10016	Okla. 1069	5-7	6-6	16		71	140	126	11.2
53	Turkey sel.	V10094	Mich. 1063	5-10	6-10	16		40	114	150	10.1
54	Turkey sel.	V10095	Mich. 1065	5-10	6-10	16		36	98	165	10.0
55	Turkey sel.	V10097	Okla. 1068	5-10	6-10	18		14	67	183	8.8
56	Turkey sel.	V10098	Mich. 1070	5-8	6-9	17		29	122	203	11.8
57	Kansel sel.	V10099	Okla. 0166	5-11	6-10	17		47	154	201	13.4
58	Turkey sel.	V10100	Okla. 159	5-11	6-9	19		68	195	155	13.9
59	Turkey sel.	V11375	Okla. 39	5-13	6-11	18		22	150	92	8.8
1	Kansel	V1442	Kans. 2591	5-11	6-12	18		167	49	68	9.5
2	Medusa No. 60	V6250	Kans. 332	5-14	6-11	17		90	65	88	8.1
7	Blackball	V6251	Kans. 343	5-8	6-7	16		60	148	156	12.1
9	Kansel X Kans Federation	V11373	Kans. 2671	5-4	6-4	15		42	132	147	10.7
10	Kansel X Kans Federation	V10091	Kans. 2672	5-3	6-4	16		36	167	195	13.3
11	Kansel X Kans Federation	V10092	Kans. 2673	5-5	6-4	16		40	117	199	11.9

$\bar{m} = 30$
 $P.E. d.f. = 3.5782 \text{ d.o.f. } A.$
 $\bar{m} = 2.5305$
 $\bar{m} = 12.959\%$
 $\bar{m} = 15.10 \text{ d.o.f. } A.$
 Calculated
 1934

Office cooperating: Cereal Crops and Diseases.

Crop: Winter wheat, Variety Test.

Size of each plot: 0.02 acre.

Plot dimensions, 8 ft. 6 in. x 103 ft.

Seeding rate: 4 pecks per acre.

Seeding date, 10/18.

Emerged: 10/25

Seed treated with Copper carbonate.

Number.	Variety.	First Fully	Fully	Cut	In.	Lodg-	Shat-	Loose	Leaf	rust.	Weight	per	plot.	Bu.	Test		
Plot	C.I.	Heading	Ripe			ing.	tering	smut	May 8	May 31	Total	Grain	Straw	per acre			
Check 1	1555	Turkey	5/4	5/11	6/8	6/8	30	None	None	None	83	85	50	20.5	29.5	17.1	59
2			5/7	5/15	"	"	32	"	"	"	83	85	50	18.5	31.5	17.2	59
3			"	"	"	"	37	"	"	"	83	80	70	25.0	45.0	20.8	60
4			"	"	"	"	34	"	"	"	83	80	70	22.0	48.0	18.3	59
			Average		6/4		33				83	82.5	60	21.5	38.5	17.9	59.5
A	10083	Turkey (Okla. A. & M.)	5/2	5/13	6/8	6/8	33	"	"	"	100	70	40	15.25	24.75	12.7	59
B			5/6	5/14	"	"	35	"	"	"	100	65	50	18.00	32.00	15.0	60
C			5/7	5/14	"	"	36	"	"	"	100	70	55	19.25	35.75	16.0	60
			Average		5/14	6/8	35				100	68.3	48.3	17.50	30.8	14.6	60.5
A	10016	Turkey (Nebr. U.)	4/30	5/6	6/1	6/2	28	"	"	"	100	85.0	35.0	15.5	19.8	12.9	60
B			5/3	5/8	6/4	6/5	32	"	"	"	100	85.0	55.0	17.0	38.0	14.2	60
C			5/1	5/8	6/4	6/5	33	"	"	"	100	85.0	70.0	20.25	49.75	16.9	61
			Average		6/3		32				100	85	53.3	17.6	35.8	14.7	60.3
A	8856	Early Blackhull	4/23	4/29	5/30	6/2	32	"	"	"	83	80	55.0	24.25	30.75	20.2	62
B			"	"	6/1	6/2	36	"	"	"	83	85	60.0	26.75	33.25	22.3	63
C			"	"	5/31	6/2	38	"	"	"	83	80	65.0	28.25	36.75	23.5	62
			Average		5/31		35				83	82	60.0	26.4	33.6	22.0	62.3
A	8886	Quivira	4/25	5/2	6/1	6/2	35	"	"	"	17.5	80	65.0	28.0	37.0	23.3	60
B			4/26	5/3	6/2	6/2	40	"	"	"	17.5	50	75.0	31.25	43.75	26.0	61
C			4/26	5/3	6/2	6/2	41	"	"	"	17.5	30	95.0	36.25	58.75	30.2	60
			Average		6/2		39				17.5	37	78.3	31.8	46.5	26.5	60.3
A	11373	Kanred x Hard Federation (K.S.C. 2671)	4/26	5/1	6/1	6/2	30	"	"	"	17.5	80	70.0	30.5	39.5	25.4	61
B			4/27	5/3	6/2	6/2	38	"	"	"	17.5	85	85.0	34.5	50.5	28.7	61
C			4/26	5/3	6/2	6/2	37	"	"	"	17.5	85	100.0	38.5	61.5	32.1	61
			Average		6/2		35				17.5	83	85.0	34.5	50.5	28.7	61.0
A	10091	Kanred x Hard Federation (K.S.C. 2672)	4/25	5/1	6/1	6/2	30	"	"	"	17.5	65	55.0	29.75	25.25	24.8	60
B			4/25	5/1	6/2	6/2	34	"	"	"	17.5	65	80.0	30.50	49.50	25.4	62
C			4/25	5/1	6/2	6/2	35	"	"	"	17.5	70	90.0	34.75	55.25	29.0	62
			Average		6/2		33				17.5	67	75.0	31.7	43.3	26.4	61.3
A	10092	Kanred x Hard Federation (K.S.C. 2673)	4/27	5/2	6/1	6/2	30	"	"	"	17.5	80	70.0	30.5	39.5	25.4	61
B			4/27	5/3	6/2	6/2	35	"	"	"	17.5	85	85.0	35.5	49.5	29.6	61
C			4/27	5/3	6/2	6/2	38	"	"	"	17.5	80	80.0	37.0	43.0	30.8	61
			Average		6/2		34				17.5	82	78.3	34.3	44.0	28.6	61.0
A	10589	Kanred x Marquis (Plot A trace of stem rust May 29.)	4/30	5/7	6/2	6/2	33	"	"	"	65.0	40	60.0	24.5	35.5	20.4	60
B			5/1	5/10	6/2	6/2	37	"	"	"	65.0	40	80.0	28.5	51.5	23.7	61
C			5/1	5/8	6/2	6/2	39	"	"	"	65.0	45	70.0	30.5	39.5	25.4	61
			Average		6/2		36				65.0	42	70.0	27.8	42.2	23.2	60.7
A	11590	P1066-1 x Prelude	4/26	5/2	5/31	6/2	34	"	"	Trace	10.0	45	70.0	30.75	39.25	25.6	60
B			4/27	5/3	6/2	6/2	37	"	"	None	10.0	30	70.0	29.25	40.75	24.4	60
C			4/27	5/3	6/1	6/2	38	"	"	"	10.0	40	85.0	31.50	53.50	26.2	60
			Average		6/1		36				10.0	38	75.0	30.5	44.5	25.4	60.0
A	10087	P1066-1 x Burbank (A*B*C) Trace of Stem Rust	4/30	5/6	6/2	6/2	34	"	"	None	65.0	60	50.0	24.75	25.25	20.6	60
B			5/1	5/8	6/4	6/5	37	"	"	"	65.0	60	65.0	27.75	37.25	23.1	61
C			5/2	5/8	6/4	6/5	37	"	"	"	65.0	50	75.0	30.25	44.75	25.2	62
			Average		6/3		36				65.0	57	63.3	27.6	35.8	23.0	61.0
A	8180	Kawvale	5/2	5/7	6/2	6/2	34	"	Light	None	Trace	25	75.0	26.75	48.25	22.3	59
B			5/3	5/10	6/4	6/5	38	"	"	"	"	25	70.0	32.0	38.0	26.7	59
C			5/3	5/8	6/3	6/5	40	"	"	"	"	35	70.0	33.0	37.0	27.5	59
			Average		6/3		37				28	71.7	30.6	41.1	25.5	59.0	
A	6936	Eagle Chief	5/2	5/10	6/6	6/7	30	"	"	"	83	65	50.0	19.25	30.75	16.0	59
B			5/3	5/11	6/8	6/8	34	"	"	"	83	60	55.0	23.0	32.0	19.2	60
C			5/3	5/11	6/8	6/8	35	"	"	"	83	65	75.0	25.25	49.75	21.0	60
			Average		6/7		33				83	63	60.0	22.5	37.5	18.7	60.5
A	6936	Tenmarq	5/2	5/8	6/6	6/7	34	"	"	"	83	80	45.0	22.75	22.25	19.0	60
B			"	"	"	"	34	"	"	"	83	65	60.0	26.0	34.0	21.7	60
C			"	"	"	"	39	"	"	"	83	60	80.0	29.75	50.25	24.8	60
			Average		6/6		36				83	68	61.7	26.2	35.5	21.8	60.0
A	1442	Kharkof	5/4	5/11	6/6	6/7	29	"	"	"	83	70	50.0	15.5	34.5	12.9	59
B			5/4	5/11	6/8	6/8	34	"	"	"	83	80	60.0	23.75	36.25	19.8	60
C			5/7	5/11	6/8	6/8	35	"	"	"	83	70	70.0	22.0	48.0	18.3	60
			Average		6/7		33				83	73	60.0	20.4	39.6	17.0	60.5
A	5146	Kanred	5/4	5/9	6/6	6/7	32	Heavy	"	"	83	60	55.0	21.25	33.75	17.7	58
B			5/4	5/10	6/6	6/7	36	Light	"	"	83	70	80.0	25.75	54.25	21.5	58
C			5/4	5/8	6/8	6/8	36	None	"	"	83	70	65.0	24.25	40.75	20.2	59
			Average		5/7		35				83	67	66.7	23.8	42.9	19.8	59.7

