

Entry	Yield (lbs/plot) <sup>1/</sup>			Ave. Yield (lbs)	Ht (in)	Bu Wt (lbs)	Yield (lbs/A) <sup>2/</sup>
	Rep 1	Rep 2	Rep 3				
Shasta	825	1145	950	973	34	62	5890 a
Germain's 444	835	1020	1010	955	31	64	5780 a
Yecora Rojo	800	1080	955	945	24	64	5720 a
Anza	700	980	1100	926	30	60	5600 a
Westbred 911	940	910	890	913	24	63	5520 a
Oslo	760	1000	940	900	30	62	5440 a
NK's Probred	875	1100	720	898	24	62	5430 a
Cajeme 71	820	1140	710	890	26	61	5380 a
NK's Probrand 771	800	1140	700	880	25	58	5320 a
INIA 66R	800	850	640	763	29	64	4620 a

<sup>1/</sup>All yields reported at a 10% moisture content.

<sup>2/</sup>Yields followed by the same letter are not significantly different at the .05 level by the Student-Newman-Keuls' Test.

Small Grain Variety Yield Comparisons  
The University of Arizona Mesa Experiment Farm, 1982.

R. K. Thompson and J. L. Bobula

Summary

Replicated yield trials of commercially grown varieties and advanced experimental cultivars were successfully completed in 1982. These trials were seeded in mid-November, 1981 at 75 lbs per acre of barley and bread wheat, and 85 lbs per acre of durum. Total nitrogen fertilization was 210 lbs N per acre in three applications. Normal yields were obtained for this level of fertilization. Bird damage was minimal. Performance of presently grown varieties was verified and prospective new varieties are revealed in the data presented, Tables 1 through 6.

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Table 1. Hard Red bread wheat variety yield test data summary from the Mesa Experiment Farm in 1982.

	Lodging %	Heading date	Plant height in	Yellow berry %	Seed weight gms/m	Test weight lbs/bu	Grain Yield <sup>1/</sup> lbs/A
Westbred 911	2	3-22	33.1	9.0	47.4	63.5	7497 a
Probrand 771	20	3-11	31.9	4.9	43.6	63.0	6959 ab
Probred	13	3-10	31.5	4.4	51.8	64.0	6894 abc
Yolo	2	3-12	35.5	15.3	36.5	65.5	6891 abc
Yecora Rojo	9	3-7	29.9	4.5	45.1	64.0	6802 bc
Anza	18	3-13	33.9	21.5	38.9	65.0	6688 bc
Veery #4	50	3-20	33.9	1.3	37.0	64.5	6626 bc
Oslo	2	3-12	39.4	9.6	40.6	64.5	6565 bcd
Cajeme 71	36	3-11	32.7	2.5	51.3	64.0	6423 bcd
Hermosillo 77	13	3-8	36.2	8.5	43.7	64.0	6348 bcde
WRP-9-4	4	3-7	32.7	6.2	44.9	63.0	6259 cdef
Tanori 71	1	3-6	37.0	3.2	42.3	64.0	5881 def
906 R	2	3-5	36.6	0	43.3	62.5	5696 ef
SGW-069B	1	3-11	35.9	15.4	41.3	65.0	5612 f
SGW-045	0	3-7	32.7	.8	31.0	62.0	5355
ER8/79-77	29	4-6	41.0	6.9	34.5	61.5	3397

<sup>1/</sup>Yields followed by the same letter are not significantly different at the 5% level of probability using Duncan's Multiple Range Test.

Table 2. Evaluation of new CIMMYT - INIA varieties, Glennson and Genara, Mesa Experiment Farm, 1982.

	Yellow berry %	Seed weight gm/m	Test weight lbs/bu	Grain <sup>1/</sup> yield lbs/A
Glennson	6.1	43.7	65	7368 a
Genara	3.5	41.7	65	7198 a
Anza	18.6	39.1	65	7163 a
G444	2.8	41.1	64	6317 a

<sup>1/</sup>Yields followed by the same letter are not significantly different at the 5% level of probability using Duncan's Multiple Range Test.

Table 3. Durum wheat variety yield test data summary from the Mesa Experiment Farm in 1982.

	Lodging %	Heading date	Plant height in	Hard vitreous %	Seed weight gm/m	Test weight lbs/bu	Grain <sup>1/</sup> yield lbs/A
G5003	62	3-8	33.5	67.9	59.8	64.0	7581 a
Yavaros 79	25	3-12	36.6	86.5	57.7	67.0	7441 ab
Aldura	1	3-11	34.3	96.3	47.9	65.0	7367 ab
Mexi "S" X Fg "S"	32	3-14	36.6	97.9	56.7	64.0	7092 abc
SCA "S" X Kif/Aeg Elong	43	3-13	36.2	93.8	53.1	64.5	7070 abc
Mexicali 75	34	3-5	35.5	97.5	59.8	63.0	6800 bcd
Algerian 88	51	3-13	37.0	80.1	54.8	63.5	6638 cde
Produra	41	3-9	33.5	97.5	53.6	65.0	6443 cde
Westbred 803	62	3-8	34.5	88.8	51.2	62.5	6431 cde
1000 D	1	3-24	37.0	95.8	47.7	60.5	6290 de
Westbred 881	5	3-10	35.9	100.0	58.2	63.5	6266 de
Jori 69	31	3-12	34.7	99.7	63.3	65.0	6113 de
Cando	0	4-3	38.4	94.5	41.2	62.0	6103 e
Waid	0	4-4	41.0	98.3	43.7	62.5	4058 f
Rita	38	4-3	42.9	96.8	32.2	60.5	5005
WDE-8-4-6-L	0	4-6	38.6	92.0	53.2	59.5	4429

<sup>1/</sup>Yields followed by the same letter are not significantly different at the 5% level of probability using Duncan's Multiple Range Test.

Table 4. Hard Red wheat selections evaluation, Mesa Experiment Farm, 1982.

	Lodging %	Heading date	Plant height in	Yellow berry %	Seed weight gm/m	Test weight lbs/bu	Grain <sup>1/</sup> yield lbs/A
C79-268-1	0	3-22	33.9	2.6	41.0	62.0	7271 a
Veery #3	0	3-21	37.8	.2	42.5	64.5	7270 a
Veery #1	0	3-8	37.0	1.2	44.2	65.0	7237 a
C79-253	0	3-23	33.9	1.3	44.4	62.5	7228 a
C79-97	0	3-13	35.9	.3	44.0	64.5	7149 a
C79-162-1	0	3-13	40.6	1.2	41.1	64.5	6860 b
Anza	4	3-14	35.5	3.6	39.1	65.0	6557 b
TXLRR-8-36-1	11	3-11	40.2	.7	46.9	65.0	6547 c
Cel 80-70-1	2	3-10	38.6	.2	53.1	64.0	6485 cd
C79-32-1	0	3-14	34.3	.4	41.1	63.0	6446 cd
C79-281-1	1	3-11	33.5	1.2	38.6	63.0	6389 cd
C79-223-1	0	3-13	37.4	.7	41.4	63.5	6230 cde
C79-192	0	3-12	41.0	1.2	39.6	61.5	6186 de
C79-215-1	0	4-1	32.3	3.1	41.7	61.5	6071 e
Veery #2	0	3-20	39.4	.5	42.7	64.5	5790

<sup>1/</sup>Yields followed by the same letter are not significantly different at the 5% level of probability using Duncan's Multiple Range Test.

Table 5. Barley variety yield test data summary, Mesa Experiment Farm, 1982.

	Lodging %	Heading date	Maturity date	Test weight lbs/bu	Grain yield <sup>1/</sup> lbs/A
BFP-78-77	0	3-19	5-6	52.0	7047 a
BFP-80-24B	0	3-20	5-15	53.5	7040 a
76-15-1	0	3-20	5-11	52.5	6978 ab
BFP-79-18	0	3-20	5-16	53.5	6903 ab
X-1248	0	3-26	5-17	46.0	6821 abc
BFP-78-78	8	3-13	5-4	51.5	6643 abcd
Prato	4	3-12	5-5	50.0	6618 abcd
BFP-79-22	0	3-22	5-16	53.0	6609 abcd
BFP-78-40C	0	3-20	5-14	51.5	6520 abcd
Gus	0	3-19	5-7	53.0	6454 abcde
BFP-78-63	0	3-24	5-10	50.5	6207 bcde
Westbred 501	0	3-19	5-5	52.5	6067 cde
X-1275	0	3-23	5-7	49.0	5996 de
Arivat	36	3-8	5-4	50.0	5697 e
Sunbar	0	3-21	5-10	49.0	5647 e
CM-72	100	3-6	5-1	49.5	5459

<sup>1/</sup>Yields followed by the same letter are not significantly different at the 5% level of probability using Duncan's Multiple Range Test.

Table 6. Hard White bread wheat cultivar yield test data summary, Mesa Experiment Farm, 1982.

	Lodging %	Heading date	Maturity date	Plant height in	Test weight lbs/bu	Grain <sup>1/</sup> yield lbs/A
Enano Dwarf	0	3-12	5-4	29.9	65.0	7418 a
Klassic	11	3-9	5-2	32.7	65.5	7184 ab
Bob White "S"	7	3-13	5-8	38.2	65.5	7131 ab
Pavon 76	2	3-14	5-8	41.4	66.0	7078 ab
Vireo "S"	12	3-13	5-5	37.4	65.0	6793 abc
Veery #5	0	3-19	5-9	40.6	64.5	6783 abc
SGW-012	1	3-11	5-5	37.4	65.0	6744 abc
Yecorato 77	12	3-8	5-3	33.1	64.5	6724 abc
M80-77-30	1	3-12	5-7	39.0	64.5	6651 abc
SGW-022	38	3-10	5-4	31.9	64.5	6286 bc
Nacozari	3	3-13	5-7	38.2	64.5	6090 c
C79-197-1	0	4-4	5-19	34.7	60.0	6003 c
Sonalika	48	3-7	5-4	37.4	64.0	5946 c
SGY-010	1	3-11	5-5	37.4	65.0	5932 c

<sup>1/</sup>Yields followed by the same letter are not significantly different at the 5% level of probability using Duncan's Multiple Range Test.

Small Grain Simulated Pasture Forage plus Grain Evaluation  
The University of Arizona, Mesa Experiment Farm, 1982.

R. K. Thompson and J. L. Bobula

#### Summary

Recent emphasis on short stiff straw barley varieties for maximum grain production and frequent inquiries as to their forage value prompted this forage-grain study. After four years of evaluation it is evident that the new barleys can be very useful as winter pasture prior to a grain harvest. Gus barley performance has been outstanding with repeated excellent simulated pasture forage production followed by maximal grain yields. Recently Prato and some new prospective varieties have emerged as being very competitive with Gus.

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