

Small Grains Variety Comparisons  
The University of Arizona Yuma Valley Farm

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Summary

Replicated small grains variety comparisons involving bread and durum wheats and barley were conducted on the University of Arizona Yuma Valley Experiment Station. Included were varieties, strains and breeding lines from various sources. Estimates of maturity, plant height, test weight and yield are shown in the following tables. As indicated by the statistical significance of mean differences, ranking of the entries is meaningful only as it tends to group the more successful ones. This, then, is most valuable when a number of similar tests are compared. For example, in the durum wheat tests reported in "Forage and Grain" for 1980 and 1981, Mexicali 75 falls in the top grouping in 12 out of 14 trials.

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1981-82 Crop History:

Planted: December 14-18, 1981.

Irrigations: Germination irrigation Dec. 21 and subsequent irrigations Feb. 18, March 5 and April 16.

Fertilizer: 50 pounds of N per acre as ammonium nitrate during seed bed preparation Dec. 5, 75 pounds N as liquid ammonium nitrate in the March 5 irrigation and 75 pounds N in the April 16 irrigation.

Weed Control: Mechanical cultivation.

Insecticide: One application of Malathion March 5.

Previous Crop: Sudangrass plowed under.

Plot Size: Each plot was 26 feet long with 5 rows spaced 7 inches apart. For the purpose of estimating yields, the bare alleys between plots were included as plot area. Yields, therefore, were computed on the basis of plots 26 feet long and 4 1/3 feet wide.

Durum Wheats

<u>Entry</u>	<u>Heading Date</u>	<u>Flowering Date</u>	<u>Maturity Date</u>	<u>Height (inches)</u>	<u>Test Weight (lb/bu)</u>	<u>Yield (lb/acre)</u>
Mexi "S" x fg "S"-10	3-23	3-30	5-10	34	62.0	7980a <sup>1/</sup>
Bittern "S"	3-30	4- 3	5-10	36	65.0	7950a
Mexicali 75	3-22	3-30	5-10	37	62.5	7690ab
Yavaros 79	3-30	4- 3	5-17	37	65.5	7650ab
Aldura	3-30	4- 3	5-10	34	62.0	7120abc
Westbred 803	3-22	3-30	5- 7	32	60.8	7070abcd
G5003	3-30	4- 3	5-10	35	63.0	6960abcd
Westbred 881	3-22	3-30	5- 7	36	61.8	6700abcd
Westbred 1000D	4- 5	4-14	5-20	36	59.3	6580 bcd
Cando	4-13	4-20	5-20	37	61.5	6460 cd
PI 367225	4-13	4-20	5-20	37	59.0	6200 cde
WDE 8-4-6L	4-13	4-20	5-20	38	60.8	6070 cde
Rita	4-13	4-20	5-20	41	58.8	5600 de
Wade	4-13	4-20	5-20	46	59.5	5310 e

<sup>1/</sup>Means followed by the same letter are not significantly different at the .05 level of probability

## Bread Wheats

Entry	Heading Date	Flowering Date	Maturity Date		Height (inches)	Test Weight (lb/bu)	Yield (lb/acre)
			Hard	Reds			
Westbred 911	4- 9	4-14		5-13	23	62.3	6830a <sup>1/</sup>
Veery #4	4- 2	4- 7		5- 7	36	63.3	6440ab
195-2	3-30	4- 7		5- 7	30	62.0	6340ab
Probrand 771	3-30	4- 2		5- 7	26	61.8	6180ab
Probred	3-30	4- 3		5- 7	28	62.8	6000abc
Anza	4- 1	4- 7		5- 7	31	64.0	5930abc
Yecora Rojo	3-24	3-30		5- 7	26	62.8	5860 bc
Hermosillo 77	3-24	3-30		5- 3	32	62.8	5820 bc
WRP-9-4	3-22	3-30		5- 3	24	62.3	5680 bcd
Oslo	3-30	4- 2		5- 7	37	63.0	5610 bcd
SGW-045	3-22	3-28		5- 1	30	61.3	5220 cde
SGW-069B	3-26	3-30		5- 3	31	64.8	4880 de
Westbred 906R	3-18	3-22		5- 3	30	61.8	4620 e
T79-97	4-10	4-15		5-16	37	61.8	4530 e
Hard Whites							
Enamo dwarf	3-30	4- 3		5- 7	32	62.0	6350a
SGW-012	3-24	3-30		5- 7	30	63.8	6270a
SGY-022	3-24	3-30		5- 7	30	63.0	6170a
E-106-19	3-22	3-30		5- 5	23	64.0	6000a
HD	4- 1	4- 5		5- 7	36	62.8	5930ab
Pavon "S"	3-30	4- 5		5- 5	32	63.8	5920ab
7702	3-26	3-30		5- 7	36	63.0	5710ab
T79-40	3-24	3-30		5- 5	30	61.8	5270ab
T79-3	3-24	3-30		5- 5	35	62.5	4830 b
E-111-12	3-22	3-30		5- 3	32	62.3	4810 b

<sup>1/</sup>Means followed by the same letter are not significantly different at the .05 level of probability

## Barleys

Entry	Heading Date	Flowering Date	Maturity Date	Height (inches)	Test Weight (lb/bu)	Yield (lb/acre)
Proto	4- 1	4- 5	5-12	30	47.0	5140ab
BFP-79-18	4- 5	4- 9	5-12	24	49.8	4940 bc
76-15-1	4- 1	4- 8	5-12	25	47.5	4820 bcd
Gus	4- 3	4- 6	5-12	24	46.8	4810 bcd
BFP-78-63	4-23	4-30	5-20	24	46.8	4730 bcd
Westbred 501	4- 3	4- 7	5-12	24	47.5	4650 bcde
Y-8005	3- 3	3- 5	5- 5	22	46.5	4640 bcde
CM 72	3-29	4- 1	5-12	24	42.5	4630 bcde
X-1275	4-12	4-20	5-17	24	43.8	4500 bcde
Y-812	3-15	3-26	5- 5	24	46.8	4490 bcde
BFP-78-77	4- 5	4- 9	5-12	25	49.3	4430 bcde
BFP-78-78	3-31	4- 3	5-12	22	46.8	4430 bcde
Sunbar 409	4-12	4-20	5-14	24	46.0	4300 bcde
Y-8002	3- 3	3- 6	5- 5	24	46.3	4200 bcde
Y-8004	3- 1	3- 5	5- 5	24	46.3	4180 cde
Y-8003	3- 3	3- 5	5- 5	22	46.8	4110 cde
E-5	3-17	3-26	5- 5	24	45.0	4070 cde
Y-8001	3- 5	3- 7	5- 5	24	46.5	3900 de
X-1248	4-14	4-23	5-20	26	44.0	3720 e

<sup>1/</sup>Means followed by the same letter are not significantly different at the .05 level of probability