

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

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Summary

Yield trials at the University of Arizona Safford Experiment Farm in 1982 included the second year of a variety x seeding rate evaluation of hard red wheat for the Safford Valley area. Data from 1981 indicated that 60 lbs of seed was inadequate for maximum yields for the cultural conditions of the test. Increases in seeding rate over 120 lbs per acre had no apparent effect on either yield or quality. The data for 1982 (Table 1) confirm these conclusions. Among varieties, Yecora Rojo shows an equality in yield and a superiority in all three quality factors tested, vitreousness, seed weight and test weight. Its earliness may have been a contributing factor. An unusual high incidence of yellow berry in all varieties and observed undeveloped late tillers particularly in the latest maturing variety, Westbred 911, seem to indicate a borderline availability of soil nitrogen and/or moisture at grain maturity. Tables 2 to 5 are data summaries of standard variety yield tests with four replications, planted December 14, 1981.

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Table 1. Wheat variety x seeding rate yield summary, Safford Experiment Farm, 1982. This test was a split-plot design with varieties as main plots and seeding rates as sub-plots with six replications.

Variety	Non-vitreous %	Seed weight gms/m	Test weight lbs/bu	Grain yield <sup>1/</sup> lbs/A
Westbred 911	29.8 b	36.4 b	62.3 b	6555 a <sup>2/</sup>
Anza	76.0 c	33.4 c	63.2 b	6279 ab
Yecora Rojo	10.4 a	41.6 a	64.8 a	6095 ab
Super-x	31.2 b	32.0 c	62.2 b	5691 b
Seeding Rate				
240 lbs/acre	42.4 a	37.0 a	63.5 a	6427 a
180 lbs/acre	36.0 a	35.8 ab	63.3 a	6300 ab
120 lbs/acre	36.2 a	35.8 ab	63.2 a	6112 ab
60 lbs/acre	32.9 a	34.8 b	62.7 a	5778 b

<sup>1/</sup>Yield interaction between varieties and seeding rates was not significant at the 5% level of probability.

<sup>2/</sup>Means followed by the same letter are not significantly different at the 5% level of probability using Duncan's Multiple Range Test.

Table 2. Hard Red bread wheat variety yield test data summary from the Safford Experiment Farm in 1982.

	Yellow berry %	Seed weight gms/m	Test weight lbs/bu	Grain yield <sup>1/</sup> lbs/A
Genara	2.7	26.1	62.0	5226 a
Probrand 771	.3	31.7	59.0	5218 a
Anza	13.6	27.1	61.5	5141 a
Yecora Rojo	.6	35.5	63.0	5091 ab
WRP-9-4	3.8	34.8	63.0	5075 abc
Westbred 911	1.0	30.1	59.0	4885 abc
Glennson	5.3	28.9	62.0	4842 abc
Oslo	2.2	28.3	61.5	4701 abc
906R	.2	38.7	61.0	4652 abc
Probred	1.1	28.6	59.0	4603 abc
SGW-045	2.9	28.3	58.0	4508 bc
SGW-069B	.7	33.9	65.0	4466 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.

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

	Hard Vitreous %	Seed Weight gm/m	Test Weight lbs/bu	Grain Yield <sup>1/</sup> lbs/A
Aldura	98.8	39.4	64.0	5743 a
Mexi "S" x Fg "S"	97.6	44.1	63.0	5666 ab
Mexicali 75	97.9	45.3	63.5	5497 abc
Yavaros 79	96.3	42.5	65.5	5489 abc
Sea "S" - Kif "S" x Aeg. Elong-Tox	98.1	37.9	63.0	5272 abc
Westbred 903	95.7	38.9	61.0	5174 bcd
Jori 69	98.5	46.8	64.0	5148 bcd
Westbred 881	99.2	45.7	63.5	5065 cde
Cando	99.6	29.0	59.0	4695 de
1000 D	99.8	37.5	58.0	4531 ef
Waid	99.7	28.2	58.0	4062 fg
WDE 8-4-6 L	99.6	31.2	57.0	3564 g

<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. Barley variety yield test data summary from the Safford Experiment Farm in 1982.

	Test Weight lbs/bu	Grain Yield <sup>1/</sup> lbs/A
BFP-79-22	54.0	5591 a
Sunbar 409	51.0	5384 a
X-1248	50.5	5349 a
Gus	52.0	5273 ab
BFP-78-40C	50.5	5223 abc
X-1275	50.0	5181 abc
Westbred 501	54.0	5097 abc
76-15-1	52.5	4775 bc
Prato	50.0	4730 c
E-5 <sup>2/</sup>	52.0	
Signal <sup>2/</sup>	54.5	
CM-72 <sup>2/</sup>	52.0	

<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.

<sup>2/</sup>Early varieties with bird damage.

Table 5. Hard white bread wheat variety yield test data summary from the Safford Experiment Farm in 1982.

	Seed Class	Test Weight lbs/bu	Grain Yield <sup>1/</sup> lbs/A
Klasic	HW	65.0	5849 a
SGW-022	HW	64.5	5348 b
Anza (check)	HR	63.5	5274 b
Yecorato 77	HW	64.0	5058 bc
Super - X (check)	HR	61.5	5034 bc
Nacozari	HW	62.0	4949 bc
SGW-012	HW	64.5	4939 bc
T79-77	HR	61.0	4773 cd
Pavon 76	HW	62.5	4747 cd
T79-40	HR	62.0	4742 cd
T79-3	HW	61.5	4571 cd
Zaragoza	SR	57.0	4405 d

<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.