

Earliness of Small Grain Varieties For Use
in a Wheat-Cotton Double-Cropping System

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Selected varieties of durum wheat, bread wheat and triticale were evaluated for earliness of maturity in a preliminary study of a wheat-cotton double cropping system.

Seeding date: November 21, 1980

Germination date: November 25, 1980

Seedling emergence: December 5, 1980

Irrigations:

Germination irrigation November 25, 1980 and subsequent irrigations December 19, 1980, January 22, 1981 and March 13, 1981.

Only 4 irrigations were needed due to significant rainfall during the growing season:

January 11 and 12	.60 inch
January 28	.10 "
February 9	.20 "
March 1-5	.93 "

Fertilizer:

Preplant ammonium nitrate	75 lb N/acre
January 22, ammonium nitrate in the irrigation water	50 lb N/acre
March 13, ammonium nitrate in the irrigation water	75 lb N/acre

Experimental design: Randomized complete blocks with 8 replicates.

Plot size:

Each plot was 50 feet long with 5 rows spaced 7 inches apart. For the purpose of computing yields, the bare alleys between plots were included as plot area. Yields, therefore, were computed on the basis of plots 50 feet long and $4\frac{1}{2}$ feet wide.

Entry	Jointing Date	Heading Date	Maturity ^{1/}		Percent N ^{2/}	Bu. Wt. (pounds)	% Hard vitreous	Yield ^{3/} (lb/acre)
			Physiol. Maturity	Ready to Combine				
Durums								
Mexicali 75	1-14	2-23	4-15	4-23	2.9	63.5	100	7901a ^{5/}
H&H 111	1-14	3-6	Late	Late	3.1	63.5	100	7859a
Aldure	1-14	3-3	Late	Late	2.0	62.5	100	7593a
Bread Wheats								
Yecora Rojo	1-14	3-6	Late	Late	2.8	63.5	100	6800b
Probrand	1-19	3-9	4-15	4-23	2.3	60.0	100	6383c
H&H Agrijoro	1-14	3-6	Late	Late	2.9	63.0	100	6056d
Experimental Wheats ^{4/}								
E105	1-19	3-6	Late	Late	3.2	64.0		6746b
E128	1-16	3-9	Late	4-23	2.4	61.5		5984de
E118	1-14	2-26	4-15	4-23	2.8	62.5		5705ef
E117	1-14	2-26	4-15	4-23	2.6	63.5		5663f
E102	1-14	3-2	4-15	4-23	2.8	63.5		5494f
E119	1-14	2-26	4-15	4-23	2.7	64.0		5469f
Experimental Triticales ^{4/}								
Tcl 1	1-14	2-26	Late	Late	2.6	52.0		6328c
Tcl 23	1-14	2-26	Late	Late	2.6	55.5		6117cd
Tcl 2	1-16	2-26	Late	Late	2.3	54.5		5687f
Tcl 3	1-16	3-6	Late	Late	2.8	56.5		5517f

^{1/} Maturity dates were recorded for only those entries which were considered for use in a wheat-cotton double cropping system.

^{2/} For an estimate of protein content multiply by 6.25.

^{3/} Yields are averages of 8 replicates.

^{4/} Experimental wheats and triticales were supplied by Fred C. Elliott.

^{5/} Yields followed by the same letter are not significantly different at the .05 level of probability.