

Summary of Commercial Hybrid Grain Sorghum Yield Tests at Marana, 1983-85

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Commercial hybrid grain sorghums were evaluated at the Marana Agricultural Center from 1983 to 1985 to furnish local growers with information on currently available hybrids. (See 1984, 1985, and 1986 Forage and Grain Reports for details). Sorghum was grown under three conditions each year: 1) full season with optimum irrigation and minimal water stress; 2) full season with limited irrigation and medium water stress; and 3) short season with one irrigation for emergence planted in early July after barley or wheat harvest to simulate double-crop conditions. Seed was received from nearly 20 seed companies and the number of entries in each test ranged from 64 to 96.

Grain sorghums evaluated in all three years were summarized in this report so that 23, 18, and 15 entries are included for tests conducted full season with optimum irrigation, full season with limited irrigation, and short season with one irrigation. The characteristics summarized were days to 50% bloom, plant height, grain test weight, and grain yield. The summary is presented in Tables 1, 2, and 3 for grain sorghum grown full season with optimum irrigation, full season with limited irrigation, and short season with one irrigation, respectively.

Table 1. A 3-year summary of days to 50% bloom, plant height, grain test weight, and grain yield for hybrid grain sorghum entries grown full season with optimum irrigation at Marana, 1983-85.

Entry	Days to 50% bloom	Plant height	Test weight	Grain yield	
		inches	lb/bu	lb/A	% of RS 626
ASGROW COLT	79	52	57.3	7830	140
ASGROW DOUBLE TX	70	56	52.9	7300	131
ASGROW TOPAZ	71	51	56.2	6540	117
DEKALB DK-59E	74	51	54.2	6300	113
DEKALB DK-69	79	54	55.0	6550	117
FUNKS G-522 DR	71	49	54.5	6410	115
FUNKS G-1711	73	51	56.9	6840	123
NORTHROP KING NK 2660	71	50	54.6	6320	113
NORTHROP KING NK 2778	74	53	55.3	6580	118
PIONEER 8300	71	54	55.2	6690	120
PIONEER 8333	75	49	54.1	5720	102
RS 626 (check)	60	43	53.1	5580	100
RS 671 (check)	70	50	54.7	5820	104
SEEDTEC WAC 692	72	48	53.8	5530	99
SEEDTEC WAC 692G	74	47	56.3	5760	103
SEEDTEC WAC 710 DR	70	50	55.9	6000	107
SEEDTEC WAC 715 DR	71	58	54.6	7480	134
SEEDTEC WAC 2003	64	54	58.4	6650	119
STAUFFER S9750	73	54	57.5	7050	126
TAYLOR-EVANS T-E Y-77	73	52	57.9	7660	137
TRIUMPH TWO 60-D	71	51	58.3	6480	116
TRIUMPH TWO 70-D	71	50	57.2	6160	110
TRIUMPH TWO 80-D	73	53	58.1	6800	122
LSD .05	2.6	2.2	2.81	1274	
LSD .01	3.5	2.9	3.75	NS	
CV (%)	2.2	2.6	3.1	11.9	

Table 2. A 3-year summary of days to 50% bloom, plant height, grain test weight, and grain yield for hybrid grain sorghum entries grown full season with limited irrigation at Marana, 1983-85.

Entry	Days to 50% bloom	Plant height	Test weight	Grain yield	
				lb/bu	% of RS 626
		inches	lb/bu	lb/A	% of RS 626
ASGROW TOPAZ	72	42	57.7	5650	135
FUNKS G-1711	74	46	58.0	5880	140
GROAGRI GSA1212	76	41	59.7	4950	118
GROAGRI GSA1290	72	41	57.4	4930	118
NC+ 165	76	50	57.4	5160	123
NC+ 174	75	47	58.0	5540	132
RS 610 (check)	61	39	56.8	4060	97
RS 626 (check)	61	38	55.7	4200	100
SEEDTEC WAC 652G	67	46	56.8	4540	108
SEEDTEC WAC 692	74	39	53.7	4380	104
SEEDTEC WAC 710DR	71	42	55.4	5390	128
STAUFFER S9750	74	45	56.4	5960	142
TAYLOR-EVANS T-E Y-101-G	75	40	56.6	4810	115
TRIUMPH TWO 48YG	56	32	57.7	3290	78
TRIUMPH TWO 50YG	60	35	56.9	3530	84
TRIUMPH TWO 62YG	74	39	54.3	4250	101
TRIUMPH TWO 70D	72	42	54.9	5530	132
YOUNG, R.C. ORO G XTRA	75	45	56.6	5910	141
LSD .05	3.4	4.1	NS	1137	
LSD .01	4.6	5.5	NS	1527	
CV (%)	2.9	6.0	3.1	14.0	

Table 3. A 3-year summary of days to 50% bloom, plant height, grain test weight, and grain yield for hybrid grain sorghum entries grown short season with one irrigation as a simulated double crop at Marana, 1983-85.

Entry	Days to 50% bloom	Plant height	Test weight	Grain yield	
		inches	lb/bu	lb/A	% of RS 626
ASGROW OPAL	58	42	57.6	4220	115
ASGROW TOPAZ	58	44	59.1	4350	118
DEKALB DK-64	67	50	60.6	4470	122
GROAGRI GSA 1212	55	44	59.3	4130	113
GROAGRI GSA 1290	57	40	58.8	4240	115
NC+ 174	58	45	59.0	4540	123
RS 610 (check)	56	44	57.9	3500	95
RS 626 (check)	56	42	57.2	3670	100
SEEDTEC WAC 652G	55	47	58.6	3850	105
TRIUMPH TWO 48YG	52	37	58.7	3130	85
TRIUMPH TWO 54YG	56	46	58.3	3800	103
TRIUMPH TWO 60D	57	45	59.7	4060	111
TRIUMPH TWO 62YG	57	41	56.3	3920	107
TRIUMPH TWO 70D	56	45	58.1	4160	113
YOUNG, R.C. ORO RECIO	54	43	57.3	3300	90
LSD .05	3.9	3.5	1.13	704	
LSD .01	5.2	4.8	1.53	951	
CV (%)	4.1	4.8	1.2	10.6	