

Table 13a. Mean coleoptile length of seedlings from seed of the 45 entries in the 1991 SRPN grown on dryland at Bushland and Chillicothe, TX, mean seed weight of seed planted in coleoptile trials and location mean plant height. (Data, except for plant height, were collected by K. B. Porter, Professor Emeritus, Texas A&M University Research and Extension Center, Amarillo-Bushland, TX.)

CI, PI or Sel. No.	Entry No.	Coleoptile length			6-Seed- Source (1990 & 91) Mean	2-Seed-Source Mean Wt. 16 seed planted	Location Mean Plant Height
		Chilli- cothe, TX	Bush- land, TX	1991 Mean			
		----- mm -----				mg	cm
CI13996	2	104	104	104	103	455	92
WI88-024	40	101	103	102		503	82
CI1442	1	102	99	101	93	415	96
TX84V1418HF	10	79	89	84		426	80
TX88V4635	12	81	87	84		472	78
XH1322*	37	85	81	83		549	83
TX88V4636	9	80	85	83		448	76
OK87W663	4	83	80	82	75	467	75
T67	42	77	83	80		474	81
OK88W833	8	81	79	80		468	77
NE88427	34	77	81	79		416	78
CO850034	20	77	81	79	72	519	77
KS88H12-1	28	76	81	79		419	77
TX88V5433	16	80	77	79		460	75
OK88767	7	76	80	78		465	77
TH901*	44	78	78	78		478	81
TH902*	45	77	78	78		542	82
TX89V4138	15	76	78	77		472	77
OK87630	6	79	73	76	72	489	77
XH1231*	36	75	77	76		446	80
XH900*	35	78	72	75		441	82
KS87H6	27	72	77	75		393	77
KS88H12-2	29	73	76	75		424	78
NE87409	31	74	75	75		373	82
NE87451	32	75	74	75		463	72
PI495594	3	75	74	75	80	470	76
TX88V5440	11	73	73	73		420	73
TX86D1332	18	73	73	73	69	421	78
OK87542	5	73	72	73	68	408	78
XH1514*	38	71	74	73		369	82
KSSB-369-7	24	74	71	73		484	73
CO860094	23	70	72	71		388	77

Table 13a. Concluded.

CI, PI or Sel. No.	Entry No.	Coleoptile length			6-Seed- Source (1990 & 91) Mean	2-Seed-Source Mean Wt. 16 seed planted	Location Mean Plant Height
		Chilli- cothe, TX	Bush- land, TX	1991 Mean			
		----- mm -----				mg	cm
WI88-083	39	69	73	71		431	77
TX86D1310	17	71	70	71	68	462	78
HBC197F	26	68	71	70		391	73
KSSB-192-3	25	70	67	69		459	75
C0860086	22	66	70	68		440	73
TX88D3424	19	62	71	67		361	63
NE87615	30	67	66	67	63	424	74
T19-3	41	69	63	66		424	83
TX87V1613	13	68	61	65		455	80
T21-3	43	65	64	65		455	82
NE88595	33	61	67	64		419	78
C0850061	21	61	61	61	59	446	76
TX88V4524	14	58	62	60		366	72
MEAN		76	75	76	75	444	
LSD 5%				6	6	70	
C.V. %				4	7	8	

*Hybrids were evaluated using F₂ seed.

Table 13b. Correlation of coleoptile length of 1991 SRPN entries from 2 seed sources, mean seed weight, and mean plant height over locations.

	Coleoptile length			Mean weight 16 seed planted
	Chillicothe, TX	Bushland, TX	Mean	
r value - Coleoptile length and weight of seed planted	0.34	0.32	0.35	
Probability >r	0.02	0.03	0.02	
r value - Coleoptile length and mean plant height	0.65	0.53	0.60	.20
Probability >r	.0001	.0002	.0001	.1872

Methods used in 1991 were similar to those used in 1990. Significant differences in both coleoptile length and seed weight were found among cultivars, although seed produced at Chillicothe were significantly and substantially heavier than seed from Bushland. There was no difference between the two locations in average coleoptile. Small but statistically significant positive correlation coefficients were obtained between coleoptile length and seed weight at both locations and between the average coleoptile length and average seed weight. However, no more than 12% of the variation in coleoptile length could be attributed to differences in seed weight.