

Table 1. Least square means for lint yield, yield components, and fiber quality traits over 12 locations ¹ in the 2015 RBTN.

Cultivar	Lint Yield	Lint Percent	Lint Index	Boll Size	Seed per Boll	Seed Index	MIC	UHM	UI	STRN	ELO	SFC	QS1 [†]	QS2 [†]
	lbs/a	%	grams	grams	#	grams	mic	inches	%	g/tex	%	%	%	%
Ark 0705-46	1408	41.69	8.01	5.36	28.04	10.94	5.35	1.13	83.69	31.58	5.94	7.37	36.56	58.43
Ark 0701-17	1344	41.34	7.92	5.65	29.55	11.00	4.86	1.18	83.65	31.68	5.45	7.65	58.28	65.71
DP 393 CK	1343	41.45	7.20	5.06	29.13	9.94	4.99	1.15	84.10	32.12	6.43	7.37	50.21	66.42
GA 2011124	1332	42.97	6.88	4.68	29.32	8.84	5.15	1.14	83.08	30.92	5.69	7.57	39.40	55.58
GA 2011004	1327	43.84	7.51	4.95	29.08	9.33	5.05	1.17	83.86	31.48	5.80	7.46	54.44	65.40
Ark 0707-33	1297	41.39	8.23	5.42	27.29	11.33	4.87	1.15	84.35	31.49	6.94	7.22	52.31	68.12
SG 105 CK	1288	40.20	7.38	5.03	27.47	10.76	5.13	1.14	84.26	30.93	5.81	7.39	44.36	64.47
MS 0043-28 -1	1270	40.74	7.28	5.03	28.26	10.34	5.10	1.13	83.47	31.27	5.65	7.57	41.13	60.35
Ark 0711-2	1265	39.33	7.08	5.04	28.03	10.60	5.04	1.19	84.29	33.67	4.88	7.35	61.97	70.32
UA 222 CK	1261	40.17	7.50	5.20	27.94	10.87	4.80	1.20	83.93	31.95	6.67	7.40	65.73	68.58
LA12306017	1239	40.61	7.46	5.04	27.46	10.67	5.05	1.20	84.33	33.98	5.61	7.31	64.47	71.27
MS 0045-14 -8	1227	39.64	7.20	5.55	30.59	10.71	5.00	1.15	84.06	32.67	5.46	7.31	50.34	66.31
DP 491 CK	1215	40.84	7.00	5.30	30.99	9.81	4.78	1.18	83.29	32.40	5.07	7.94	58.19	63.85
MS 0045-14 -5	1208	39.39	7.17	5.28	29.11	10.78	4.97	1.15	83.92	31.83	5.12	7.53	49.16	64.56
GA 2010102	1195	39.17	7.04	5.02	27.94	10.68	5.03	1.20	84.46	34.12	4.93	7.25	64.62	72.67
LA12306028	1180	38.96	7.35	5.42	26.97	11.26	4.82	1.23	85.10	35.78	5.62	6.98	79.53	82.86
MS 0042-3 -7	1170	39.00	6.99	5.27	29.42	10.66	4.65	1.17	83.49	31.34	5.87	7.70	55.64	64.06
LA12306010	1160	40.12	7.50	5.09	27.33	10.97	4.70	1.22	84.77	33.58	5.66	7.19	76.58	76.71
FM 958 CK	1143	40.45	7.57	5.26	28.30	10.79	4.94	1.15	83.56	32.19	4.68	7.74	49.72	63.53
Ark 0712-9	1140	39.80	6.87	5.07	29.57	10.10	4.89	1.17	82.98	29.76	5.80	8.23	53.54	57.59
PD 07040	1137	38.55	6.92	5.18	29.01	10.73	4.75	1.16	83.34	31.37	5.70	7.74	53.46	62.19
NM 13W3007	1081	37.44	6.39	4.96	29.03	10.42	4.67	1.21	84.43	34.33	5.44	7.24	72.26	75.59
PD 07092	1074	38.18	7.09	5.21	28.11	11.24	4.60	1.23	85.10	35.66	5.45	6.88	81.28	83.64
PD 07116	1068	38.19	6.94	5.35	29.57	10.97	4.87	1.19	83.59	33.09	4.53	7.61	60.67	66.43
Acala 1517-08	992	36.68	6.53	4.95	27.86	10.98	4.53	1.21	84.38	35.50	5.17	7.17	74.81	78.34
PD 07105	977	36.76	6.62	5.21	28.99	11.15	4.52	1.24	83.90	33.62	4.38	7.39	78.72	73.07
NM 13P1088	837	37.17	6.67	5.06	28.44	10.95	4.62	1.18	84.20	34.47	5.97	7.17	62.92	72.81
NM 13W3017	719	35.53	7.28	5.89	28.80	13.02	4.74	1.20	84.09	33.88	4.30	7.46	67.76	71.75
Mean	1175	39.63	7.20	5.20	28.63	10.71	4.87	1.18	83.99	32.74	5.50	7.44	59.22	68.24
Cultivar LSD (.05)	62	0.50	0.20	0.25	1.06	0.27	0.08	0.01	0.34	0.49	0.15	0.17	4.00	2.94
Cultivar (P>F)	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Location (P>F)	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Cult. x Loc. (P>F)	<0.0001	<0.0001	<0.0001	0.0108	<0.0001	<0.0001	<0.0001	<0.0001	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
CV(%)	12.90	3.11	6.79	11.85	9.12	6.13	4.16	2.35	1.01	3.69	6.92	5.51	16.66	10.62
R-Square	0.90	0.82	0.74	0.56	0.58	0.78	0.84	0.82	0.76	0.82	0.88	0.82	0.76	0.68
Reps	47	47	47	47	47	47	47	47	47	47	47	47	47	47

Values in bold are not significantly different from highest value according to LSD(0.05).

¹ FlorenceSC and LasCrucesNM locations excluded from over location analyses.

[†] QS1 & QS2 = Qscore, very similar to a selection index, adds the weighted values of selected fiber traits (length, mic, UI, strength) to provide a single measure (0-100) of desirable fiber qualities, and was calculated by weighting selected fiber traits as follows: QS1 - fiber length (0.5), mic (0.25), UI (0.1), and strength (0.15) ; QS2 - fiber length (0.1), mic (0.1), UI (0.3), and strength (0.5)