

Table 1. Least square means for lint yield, yield components, and fiber quality traits over 13 locations ¹ in the 2016 RBTN.

Cultivar	Lint Yield	Lint Percent	Lint Index	Boll Size	Seed per Boll	Seed Index	MIC	UHM	UI	STRN	ELO	SFC	QS1 ²	QS2 ²	QS3 ²
	lbs/a	%	grams	grams	#	grams	mic	inch	%	g/tex	%	%	%	%	%
MD 16-1	1527	43.22	8.06	5.84	31.33	10.20	4.98	1.14	84.48	32.48	5.63	7.26	40.42	53.01	48.99
Ark 0812-87ne	1526	42.20	8.21	5.77	29.84	10.77	4.87	1.21	84.58	31.56	6.22	7.50	58.96	60.80	65.25
GA 2011113	1514	42.25	7.02	5.01	30.25	9.23	4.99	1.18	84.68	33.08	5.84	7.14	51.01	58.78	58.13
UA 222 CK	1511	40.74	7.76	5.52	28.96	10.85	4.94	1.21	84.57	32.26	6.81	7.33	61.35	61.90	67.53
Ark 0824-89	1477	40.99	8.40	6.00	29.21	11.68	5.32	1.22	85.64	34.09	6.06	7.00	58.10	68.62	61.75
Ark 0818-23	1449	40.63	7.67	5.74	30.40	10.80	4.84	1.21	84.99	32.74	5.85	7.21	62.35	64.85	67.18
DP 393 CK	1440	40.78	7.47	5.35	29.40	10.43	5.00	1.18	84.37	32.79	6.54	7.27	49.68	56.83	57.37
Ark 0822-48	1435	40.73	8.13	5.92	29.74	11.42	5.12	1.23	84.85	32.71	6.66	7.35	64.04	64.81	68.91
GA 2012082	1431	41.85	7.93	5.69	30.09	10.61	4.88	1.19	84.32	31.11	6.04	7.50	53.19	56.28	60.53
MS 0043-28-1	1424	40.84	7.40	5.36	29.56	10.32	5.10	1.15	83.96	31.73	5.72	7.52	39.75	49.02	49.37
AU77082	1421	40.62	7.52	5.48	29.60	10.55	5.01	1.20	84.40	32.04	5.39	7.42	55.16	58.08	62.08
MS 0152-3-11	1395	41.27	7.58	5.56	30.26	10.38	4.91	1.21	84.78	31.32	5.75	7.35	61.84	63.23	67.24
AU82074	1369	38.87	7.17	5.54	30.02	10.88	4.70	1.21	84.74	32.35	5.50	7.33	62.68	63.58	68.63
GA 2012050	1360	40.76	7.57	5.90	31.78	10.56	4.81	1.21	85.20	33.85	6.29	7.02	62.46	67.21	67.47
NM 13G2019	1358	40.36	7.08	5.15	29.38	10.07	4.75	1.23	84.37	34.05	5.74	7.40	67.97	63.96	75.06
GA 2012141	1352	41.04	7.51	5.41	29.61	10.39	4.94	1.20	84.86	32.11	5.82	7.41	58.14	62.56	63.83
NM 13G1029	1351	40.61	6.96	4.97	29.12	9.75	4.55	1.21	84.05	33.04	5.60	7.51	63.41	59.86	71.79
SG 105 CK	1346	39.65	7.48	5.32	28.32	10.94	5.13	1.16	84.73	31.87	6.19	7.25	43.84	55.92	51.10
FM 958 CK	1331	39.68	7.60	5.77	30.14	11.12	4.90	1.19	84.23	33.17	5.07	7.58	53.80	56.96	62.03
MD 16-2	1327	39.53	7.65	5.90	30.53	11.27	4.27	1.23	84.52	35.98	5.79	7.19	69.81	67.76	78.02
DP 493 CK	1307	43.27	6.87	4.88	30.73	8.61	5.17	1.13	83.28	30.97	5.13	8.16	29.51	39.58	41.26
Ark 0819-89	1296	38.15	7.15	5.37	28.70	11.23	5.22	1.21	85.65	34.34	6.22	6.97	57.71	68.93	61.67
TAM13Q-18	1244	37.61	7.11	5.52	29.04	11.37	4.74	1.20	84.43	33.15	5.59	7.48	59.72	60.55	66.97
PD07040	1235	37.96	6.94	5.63	30.86	10.93	4.77	1.22	84.38	32.45	5.49	7.32	64.90	62.03	71.58
PD08028	1170	37.14	6.76	6.02	33.09	11.05	4.74	1.22	85.17	34.33	5.79	7.06	68.92	70.04	73.96
PD09084	1107	36.36	6.52	5.46	30.41	11.03	4.87	1.22	85.14	34.75	5.74	6.95	65.16	68.58	70.60
TAM11L-24	1106	35.01	6.80	5.54	28.48	12.16	4.34	1.32	85.91	35.26	4.97	6.48	90.10	83.87	91.72
PD09046	856	34.25	5.84	5.05	29.81	10.71	4.50	1.27	84.27	34.03	4.75	7.18	79.05	67.71	85.38
Mean	1345	39.87	7.36	5.52	29.95	10.69	4.87	1.21	84.66	32.99	5.79	7.29	59.04	61.98	65.55
Cultivar LSD (.05)	68	0.41	0.16	0.17	0.99	0.22	0.08	0.01	0.33	0.51	0.15	0.16	3.93	3.50	3.32
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	<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	0.5989	<0.0001
Cult. x Loc. (P>F)	<0.0001	<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(%)	12.44	2.67	5.63	7.91	8.51	5.24	4.14	2.32	1.00	3.99	6.46	5.45	17.06	14.48	12.99
R-Square	0.93	0.94	0.84	0.71	0.57	0.76	0.82	0.84	0.71	0.78	0.83	0.72	0.73	0.63	0.75
Reps	47	51	51	51	51	51	51	51	51	51	51	51	51	51	51

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

¹ Florence, SC, and Keiser, AR, locations excluded; Yield for Titton, GA location excluded.

² QS1, QS2, and QS3 - 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 (0.15), and strength (0.10) ; QS2 - fiber length (0.2), mic (0.1), UI (0.4), and strength (0.3); QS3 - fiber length (0.45), mic (0.25), UI (0.0), and strength (0.3).