

Table 1. Least square means for lint yield, yield components, and fiber quality traits over 14 locations¹ in the 2018 RBTN.

Entry	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
	lb/A	%	grams	grams	#	grams	mic	inch	%	g/tex	%	%			
MS 2010-87-5	1375	43.06	7.92	5.60	30.64	9.93	4.75	1.19	84.27	32.19	6.26	7.69	59.21	61.52	65.14
LA11309040	1351	42.68	7.57	5.20	29.83	9.72	4.93	1.15	83.60	31.14	7.43	7.90	44.23	50.64	52.98
GA 2012141	1338	40.84	7.51	5.24	28.46	10.29	4.78	1.19	84.44	31.13	6.91	7.70	58.81	62.72	64.49
LA14063075	1311	41.64	6.81	5.00	30.81	9.05	4.61	1.22	84.51	32.97	6.36	7.61	71.11	68.69	75.99
Ark 1015-42	1303	42.14	7.64	5.16	28.59	9.97	4.76	1.23	84.71	32.05	6.93	7.38	72.94	70.29	76.56
Ark 1005-41	1275	40.53	8.10	5.85	29.30	11.46	4.94	1.22	84.84	33.03	7.24	7.40	66.40	68.96	70.22
UA 222 CK	1261	40.78	7.62	5.29	28.33	10.48	4.73	1.19	83.98	31.03	7.83	7.78	58.22	59.30	65.20
LA14063083	1255	41.03	7.42	5.40	29.95	10.13	4.74	1.19	83.94	31.72	7.28	7.88	57.93	59.15	65.20
DP 493 CK	1252	43.22	7.12	4.85	30.20	8.84	5.03	1.12	82.34	30.23	6.27	8.83	30.56	36.41	42.54
TAM 13S-03	1233	38.94	6.91	5.11	28.87	10.29	4.56	1.17	84.06	30.82	7.74	7.73	55.14	58.15	61.90
DP 393 CK	1224	40.54	7.25	5.39	30.30	10.11	4.88	1.16	84.04	31.86	7.47	7.69	48.66	56.09	56.39
GA 2015024	1223	41.62	6.93	5.03	30.24	9.23	4.61	1.21	83.58	31.17	6.58	7.91	65.86	58.91	72.61
Ark 1007-15	1218	39.29	7.64	5.45	28.15	11.19	4.58	1.20	83.06	30.54	6.32	8.48	61.00	52.48	68.56
Ark 1005-35	1214	38.83	7.05	5.24	28.93	10.53	5.03	1.21	84.58	33.58	6.75	7.50	62.08	65.82	67.18
TAM 12J-39	1196	40.90	7.83	6.03	31.48	10.87	4.97	1.15	84.38	36.06	6.42	7.57	46.70	60.79	55.88
Ark 1004-38	1193	39.99	8.16	5.59	27.94	11.70	4.75	1.24	84.48	31.64	6.20	7.71	73.01	68.60	77.21
FM 958 CK	1168	39.68	7.34	5.56	30.08	10.68	4.75	1.18	83.89	32.27	6.13	7.81	55.76	57.87	63.35
PD2011026	1161	38.16	7.20	5.50	29.30	11.20	4.74	1.21	84.60	34.27	6.77	7.42	67.18	68.36	72.49
TAM LBB150921	1141	37.07	7.59	6.17	30.19	12.33	4.84	1.26	85.59	35.22	7.48	7.02	80.64	81.83	83.06
TAM LBB150824	1091	38.56	7.86	5.95	29.17	12.03	4.74	1.28	84.63	36.39	6.70	7.16	84.47	78.00	89.94
PD2011021	1057	37.95	6.96	5.38	29.44	10.87	4.60	1.17	83.69	32.24	6.95	7.69	52.55	55.00	60.95
TAM LBB150107	1039	40.23	7.00	4.88	28.19	9.79	4.97	1.21	85.83	34.11	7.44	6.99	67.09	76.41	68.84
PD2011081	1018	36.87	6.75	5.17	28.53	11.05	4.55	1.17	83.56	31.41	6.60	7.85	54.54	54.41	62.81
16-13P1115	906	38.19	7.36	5.73	29.83	11.43	4.31	1.19	84.92	35.67	6.32	7.35	65.83	71.63	72.12
Mean	1200	40.11	7.40	5.41	29.45	10.55	4.76	1.20	84.23	32.61	6.85	7.67	60.83	62.58	67.15
Entry LSD (.05)	78	0.41	0.24	0.15	0.98	0.30	0.08	0.01	0.33	0.50	0.11	0.16	3.92	3.65	3.31
Entry (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	0.0202	<0.0001
Entry x Loc. (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
CV(%)	16.99	2.81	8.92	7.79	9.11	7.85	4.37	2.46	1.07	4.14	4.43	55.55	17.50	15.84	13.39
R-Square	0.86	0.92	0.71	0.79	0.67	0.81	0.77	0.84	0.78	0.80	0.97	0.83	0.71	0.67	0.71
Reps	53	57	57	57	57	57	57	57	57	57	57	57	57	57	57

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

¹ Means for yield and fiber traits based upon 13 and 14 locations, respectively. Trial conducted at College Station, TX, was not harvested for yield due to excessive rainfall late in the season. Trial conducted at Tifton, GA, was abandoned due to late season flooding.

² QS1, QS2, and QS3 (Quality Score) - a measurement 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 (0.50), mic (0.25), UI (0.15), and strength (0.10)

QS2 - fiber length (0.20), mic (0.10), UI (0.40), and strength (0.30)

QS3 - fiber length (0.45), mic (0.25), UI (0.00), and strength (0.30).