

Table 5. Least square means for lint yield, yield components, oil and protein content, and fiber quality traits in the 2019 RBTN at Florence, South Carolina (Cooperator: Todd Campbell).

Entry	Lint Yield	Lint Percent	Lint Index	Boll Size	Seed per Boll	Seed Index	Seed Oil ¹	Seed Protein ¹	MIC	UHM	UI	STRN	ELO	SFC	QS1 ²	QS2 ²	QS3 ²
	lb/A	%	grams	grams	#	grams	%	%	mic	inch	%	g/tex	%	%			
Ark 1112-59	1335	45.77	7.19	5.27	33.53	8.73	20.51	18.47	4.69	1.09	83.05	34.28	6.55	7.25	54.00	57.75	62.75
Ark 1115-36	1304	49.14	7.11	4.54	31.44	7.45	18.53	21.39	4.85	1.15	83.50	32.63	7.08	7.05	70.00	66.25	74.75
MS 2010-87-37	1302	48.11	7.63	5.01	32.12	8.40	16.97	17.99	5.01	1.13	84.25	33.03	6.23	7.18	62.75	69.25	66.25
Ark 1102-55	1275	45.90	7.48	4.36	26.75	8.95	22.92	21.46	4.90	1.14	83.90	30.33	6.53	7.30	66.50	67.75	70.25
DP 393 CK	1242	44.60	6.91	4.91	31.76	8.60	19.08	19.03	5.07	1.05	83.45	32.68	7.28	7.25	38.00	54.25	46.75
Ark 1117-60	1236	45.35	7.31	5.00	30.96	8.93	20.25	18.41	5.03	1.11	83.40	32.15	6.63	7.35	55.00	59.75	61.25
GA2016024	1212	46.96	6.81	5.26	36.29	7.80	17.37	20.85	4.94	1.12	83.28	32.15	6.23	7.38	58.25	60.00	64.50
DP 493 CK	1206	46.22	5.60	4.53	37.54	6.70	17.74	19.79	4.99	1.04	81.65	30.05	6.10	8.43	31.50	38.25	45.00
GA2016099	1198	46.93	6.98	4.92	33.17	8.13	17.26	18.65	5.04	1.14	83.88	33.28	6.80	7.28	65.25	68.25	69.75
TAM 12J-39	1183	44.59	6.96	5.13	32.82	8.73	21.10	19.98	5.02	1.05	83.40	34.60	6.30	7.10	39.00	54.75	48.25
FM 958 CK	1160	44.14	6.74	5.08	33.23	8.75	20.61	19.44	4.78	1.09	82.75	31.88	5.90	7.63	52.50	54.50	61.00
Ark 1114-21	1157	46.51	6.80	4.78	32.75	7.95	17.64	20.01	4.42	1.12	83.05	29.70	6.65	7.75	65.75	61.50	72.50
TAM 13S-03	1145	44.06	6.08	4.57	33.00	7.95	20.28	19.89	4.86	1.08	83.08	29.53	7.93	7.38	48.50	55.00	56.50
Ark 1124-50	1142	46.21	6.53	4.14	29.33	7.73	17.55	20.94	4.85	1.15	83.83	31.33	6.25	7.30	70.00	68.50	74.00
CSX8308	1102	48.94	6.21	4.25	33.55	6.65	16.72	19.00	4.79	1.10	81.53	31.15	6.23	7.98	49.25	44.50	61.75
UA 222 CK	1098	44.14	6.99	4.67	29.42	9.05	20.97	19.31	4.89	1.13	83.63	30.75	7.63	7.08	62.25	64.25	67.50
13AFX6-27-2	1046	40.99	6.47	4.83	30.59	9.55	20.49	18.57	4.85	1.23	85.45	38.30	7.28	6.73	93.25	94.00	95.00
13AFX13-12-5	1029	42.60	6.08	4.01	28.12	8.47	20.23	20.06	4.41	1.16	83.85	34.60	6.00	7.38	77.75	73.75	82.75
GA2016103	1027	45.12	5.43	4.19	34.88	6.80	17.64	20.99	5.13	1.08	82.90	31.98	6.35	7.63	42.25	51.25	51.00
TAMLBB15905	877	42.81	6.68	5.05	32.39	9.15	18.05	21.32	4.69	1.19	84.08	36.23	6.13	7.25	85.75	80.50	90.50
TAMLBB16507	848	42.80	6.67	4.65	30.04	9.15	21.46	19.35	4.42	1.11	81.85	32.03	6.10	7.98	58.50	51.00	69.75
Mean	1149	45.33	6.70	4.72	32.08	8.27	19.21	19.76	4.84	1.12	83.32	32.50	6.58	7.41	59.33	61.67	66.27
LSD (.05)	144	1.92	0.56	0.81	5.69	0.62	0.77	2.32	0.20	0.04	1.03	1.89	0.25	0.52	11.24	10.02	9.47
Entry (P>F)	<0.0001	<0.0001	<0.0001	0.0515	0.0782	<0.0001	<0.0001	0.0505	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
CV(%)	8.80	3.00	5.92	12.07	12.55	5.32	2.83	8.31	2.85	2.28	0.88	4.11	2.68	4.92	13.39	11.49	10.10
R-Square	0.71	0.77	0.74	0.42	0.38	0.83	0.94	0.37	0.76	0.82	0.69	0.78	0.93	0.60	0.84	0.81	0.84
Reps	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4

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

¹ Percent oil and protein determined by low-field ¹H time-domain nuclear magnetic resonance (TD-NMR) methodology (Horn, et al, 2011, J Am Oil Chem Soc, 88: 1521-1529)

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).