

Table 14. Least square means for lint yield, yield components, oil and protein content, and fiber quality traits in the 2021 RBTN at Tallassee, Alabama (Cooperator: Jenny Koebernick).

Entry	Lint Yield	Lint Percent	Lint Index	Boll Size	Seed per Boll	Seed Index	Seed Oil ¹	MIC	UHM	UI	STRN	ELO	SFC	QS1 ²	QS2 ²	QS3 ²
	lb/A	%	grams	grams	#	grams	%	mic	inch	%	g/tex	%	%			
Ark 1308-58	1179	38.59	6.67	5.53	32.21	10.25	15.76	4.57	1.24	85.20	33.43	7.48	5.65	75.75	72.00	79.25
GA 2016029	1113	40.19	6.59	5.50	33.46	9.45	12.01	4.43	1.25	84.20	35.20	5.73	5.80	74.00	65.75	81.50
MS 2010-87-37	1106	40.05	6.80	5.68	33.48	9.85	13.55	4.79	1.23	85.13	37.30	5.58	5.58	70.75	72.75	77.00
Ark 1311-18	1098	41.22	6.93	5.39	32.10	9.70	13.80	4.62	1.25	85.43	34.63	6.58	5.73	79.50	75.50	82.00
TAM 14E-12	1083	38.60	6.90	5.69	32.01	10.08	19.28	4.80	1.18	83.95	33.10	6.68	5.93	53.00	54.25	62.00
OA-11	1065	41.43	6.40	5.28	34.18	8.88	15.49	4.82	1.16	85.45	34.00	7.23	6.58	51.50	64.25	56.25
CSX5432	1058	42.91	5.98	5.14	45.22	7.48	15.31	4.62	1.24	84.30	33.95	5.95	6.80	73.50	65.00	80.00
Ark 1309-56	1044	40.74	7.41	6.21	34.16	10.38	13.99	4.88	1.25	85.75	36.53	6.25	5.85	76.25	78.50	79.75
LA19073002	1042	37.52	5.84	5.52	35.48	9.43	15.52	4.96	1.11	83.28	31.23	5.93	5.90	30.00	40.25	42.50
DP 493 CK	1042	39.77	5.65	5.07	35.84	8.30	14.75	4.76	1.14	83.25	32.20	5.70	5.83	40.25	44.50	51.75
MS 2010-28-27	1040	39.25	6.56	5.40	32.28	9.85	14.34	4.74	1.20	84.20	33.90	6.58	5.45	59.25	59.00	67.50
GA 2015026	1029	39.21	5.92	5.17	34.26	8.95	13.74	4.40	1.24	84.83	34.50	6.05	6.23	75.25	69.50	80.25
MS 2010-96-9	1025	41.14	7.43	5.96	33.04	10.40	13.49	5.13	1.18	84.83	35.40	6.93	5.65	47.50	59.50	55.00
MS 2010-66-16	1014	40.35	6.92	5.95	34.64	9.95	14.60	4.76	1.21	85.08	36.00	6.13	5.83	65.00	68.75	71.25
DP 393 CK	1002	38.66	6.52	5.65	33.54	10.05	16.03	4.99	1.17	84.70	34.25	6.80	5.45	47.50	58.00	55.00
Ark 1317-31	996	36.93	6.40	6.08	35.09	10.68	17.66	4.46	1.26	85.23	35.10	6.68	6.68	83.50	76.25	87.00
UA 222 CK	978	38.07	5.92	5.14	33.44	9.40	17.15	4.51	1.22	85.05	33.75	7.62	6.58	67.75	68.00	72.00
GA 2016090	948	39.54	6.68	5.62	33.32	9.98	15.08	4.75	1.21	84.63	35.83	5.70	5.53	64.50	65.00	71.50
Ark 1301-16	948	39.58	7.17	6.25	34.46	10.73	15.06	4.92	1.21	84.80	33.65	7.03	5.10	59.75	62.75	65.25
MS 2010-87-42	948	40.35	6.91	5.73	33.50	10.00	14.71	4.69	1.22	85.45	35.08	6.03	5.78	71.75	73.25	75.75
OA-13	935	38.47	6.46	5.43	32.36	10.15	15.21	5.13	1.17	85.08	35.48	6.78	4.95	48.00	61.50	54.75
OA-133	924	37.78	5.93	5.34	34.14	9.45	15.69	4.92	1.20	84.60	35.23	6.05	5.48	57.25	61.50	64.50
LA19073070	909	37.21	6.50	6.19	35.50	10.75	13.51	4.86	1.16	85.58	37.45	6.95	5.20	52.25	68.50	59.25
TAMLBB16507	869	35.99	6.58	6.37	34.83	11.15	18.38	4.56	1.23	84.25	36.60	5.58	5.85	72.00	66.25	80.75
TAM 14B-72	868	37.48	5.70	5.12	33.67	9.28	19.25	4.21	1.19	83.75	34.08	6.00	5.30	59.00	55.50	68.50
TAMLBB17206	863	35.47	6.01	5.94	35.15	10.68	16.56	4.60	1.21	83.85	35.10	5.78	5.25	64.25	59.00	73.25
MS 2010-87-5	852	40.27	7.10	6.08	34.64	10.25	14.14	4.84	1.20	85.00	34.98	6.28	4.98	61.00	65.50	66.75
FM 958 CK	804	37.58	6.30	5.88	35.12	10.28	16.73	4.81	1.17	83.83	34.73	5.83	5.48	48.25	52.25	58.00
Mean	992	39.08	6.51	5.65	34.33	9.85	15.39	4.73	1.20	84.67	34.74	6.35	5.73	61.72	63.67	68.51
LSD (.05)	ns	1.58	0.88	0.48	ns	1.10	1.51	0.35	0.03	1.13	1.54	0.34	ns	13.66	12.38	11.44
Entry (P>F)	0.5060	<0.0001	0.0007	<0.0001	0.8570	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.1930	<0.0001	<0.0001	<0.0001
CV(%)	17.80	2.87	9.63	6.09	16.79	7.97	6.96	5.23	2.01	0.95	3.15	3.77	15.07	15.73	13.82	11.87
R-Square	0.28	0.76	0.47	0.63	0.23	0.58	0.79	0.51	0.76	0.51	0.69	0.89	0.32	0.71	0.59	0.72
Reps	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 (by weight) 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).