

Table 11. Least square means for lint yield, yield components, oil and protein content, and fiber quality traits in the 2020 RBTN at Stoneville, Mississippi, USDA location 2 (Cooperator: Jodi Scheffler).

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 1207-32	2097	42.13	7.24	5.99	34.89	9.94	17.11	19.72	4.53	1.22	83.55	30.05	6.58	7.33	74.00	70.00	78.00
TAM 14 B-72	1971	46.13	8.06	4.89	28.02	9.42	21.31	18.25	4.54	1.14	82.75	31.00	6.20	7.90	47.50	54.00	56.25
Ark 1207-11	1935	42.25	6.47	5.06	33.07	8.84	18.63	18.78	4.79	1.21	83.78	31.15	6.38	7.08	67.00	69.00	70.75
UA 222 CK	1782	42.41	8.37	7.22	36.75	11.31	19.96	21.23	4.82	1.21	83.53	30.25	6.95	7.23	66.75	67.00	71.00
Ark 1208-21	1779	43.55	8.46	5.59	29.80	10.34	17.91	23.78	4.73	1.22	83.95	30.10	7.05	7.13	72.25	72.00	75.00
Ark 1214-42	1748	42.84	7.63	5.48	30.74	10.19	15.38	22.38	4.52	1.21	83.98	31.58	6.33	7.18	73.00	72.75	76.00
Ark 1208-39	1721	41.46	7.44	5.91	32.91	10.51	17.98	22.16	4.54	1.21	82.85	30.20	6.70	7.73	67.00	62.50	73.50
DP 393 CK	1692	41.28	6.85	5.95	36.06	9.69	18.14	19.97	5.01	1.17	82.80	31.58	6.68	7.53	47.25	54.25	55.50
FM 958 CK	1643	41.39	7.71	6.33	34.05	10.88	18.89	20.23	4.74	1.18	83.85	31.73	5.63	7.25	60.75	67.00	65.00
DP 493 CK	1593	43.94	6.45	4.78	32.62	8.21	15.77	19.60	4.91	1.10	81.83	30.25	5.60	8.78	29.50	40.25	42.00
TAM 14 E-12	1479	41.86	6.98	5.33	32.01	9.68	19.97	26.53	4.67	1.15	81.98	31.08	6.58	7.93	47.25	49.00	59.00
PD 2012066	1447	41.96	6.99	5.44	32.71	9.67	17.01	23.25	4.59	1.20	83.30	30.33	6.08	7.48	66.50	65.25	72.25
PD 2012011	1300	38.34	6.62	5.39	31.21	10.64	16.67	19.24	4.44	1.23	83.25	33.45	5.73	6.93	77.00	70.25	82.50
PD 2012037	1189	38.66	6.45	5.38	32.44	10.20	15.61	21.05	4.58	1.21	83.30	30.95	5.93	7.43	69.25	66.25	74.00
PD 2013016	1155	41.64	7.45	6.28	35.10	10.45	15.67	23.59	4.76	1.24	82.63	32.48	5.63	7.00	72.75	63.00	78.75
PD 2013041	909	40.98	7.43	5.68	31.41	10.66	15.31	21.85	4.36	1.21	83.33	33.15	5.85	7.10	70.25	67.25	75.25
Mean	1590	41.93	7.29	5.67	32.74	10.04	17.58	21.35	4.66	1.19	83.16	31.21	6.24	7.43	63.00	63.11	69.05
LSD (.05)	116	2.71	0.87	0.36	2.63	0.42	0.97	4.45	0.23	0.03	1.09	1.79	0.18	0.63	12.93	11.79	10.32
Entry (P>F)	<0.0001	0.0003	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0381	<0.0001	<0.0001	0.0030	0.0028	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
CV(%)	5.11	4.54	8.38	4.45	5.63	2.92	3.88	14.65	3.46	2.02	0.92	4.03	1.98	5.97	14.41	13.11	10.49
R-Square	0.96	0.57	0.62	0.89	0.68	0.91	0.91	0.41	0.62	0.77	0.49	0.51	0.95	0.60	0.74	0.62	0.75
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 (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).