

Table 8. Least square means for yield components and fiber quality traits in the 2021 RBTN at Maricopa, Arizona (Cooperator: Alison Thompson).

Entry	Lint Yield ¹	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	%	%			
Ark 1301-16	—	41.69	8.54	5.20	25.35	11.80	4.95	1.22	84.48	36.30	6.20	6.75	65.00	68.25	70.25
Ark 1311-18	—	43.12	7.79	4.79	26.50	10.10	4.82	1.25	84.25	36.20	5.95	6.08	74.25	70.50	79.75
Ark 1308-58	—	41.43	7.92	4.52	23.67	11.10	4.69	1.24	83.80	34.85	6.48	6.15	71.00	65.25	77.75
Ark 1317-31	—	39.87	7.52	4.87	25.87	11.20	4.47	1.21	83.15	37.10	6.10	7.00	63.75	59.25	74.25
Ark 1309-56	—	42.98	8.44	4.86	24.86	11.00	4.97	1.26	85.05	39.58	5.95	5.68	75.75	78.75	80.50
CSX5432	—	46.79	8.28	3.67	20.91	9.30	4.67	1.26	83.70	36.45	5.55	6.28	75.50	67.25	83.00
TAMLBB16507	—	38.55	7.12	5.03	27.22	11.20	4.44	1.24	84.13	38.28	5.58	6.18	75.50	71.75	82.75
TAMLBB17206	—	38.82	7.48	4.72	24.55	11.70	4.59	1.23	84.40	36.65	5.30	6.28	72.00	71.25	78.50
OA-11	—	41.52	7.39	4.20	23.66	10.30	4.95	1.18	84.35	36.48	6.58	5.93	52.75	62.75	60.25
OA-13	—	41.49	7.77	4.48	24.04	10.80	4.92	1.20	84.65	38.10	6.53	5.90	58.50	68.50	65.50
OA-133	—	39.95	6.57	4.61	28.03	9.80	4.87	1.21	83.98	37.65	5.55	5.93	62.50	64.75	70.50
GA 2015026	—	40.70	6.54	4.49	28.01	9.50	4.68	1.25	85.23	36.70	5.68	5.40	80.00	80.00	82.75
GA 2016029	—	42.47	8.13	4.95	25.85	10.70	4.83	1.22	84.48	37.33	5.55	6.18	66.25	69.50	72.75
GA 2016090	—	42.61	7.83	4.91	26.81	10.50	4.68	1.24	84.80	37.10	5.63	5.90	76.50	75.75	80.75
TAM 14B-72	—	40.10	6.43	4.38	27.30	9.50	4.49	1.18	83.83	35.28	5.90	6.65	57.00	59.75	65.00
TAM 14E-12	—	42.15	7.50	4.59	25.82	10.20	4.51	1.18	83.20	35.33	6.05	7.18	55.00	54.75	64.75
LA19073002	—	41.73	7.50	4.89	27.31	10.40	5.10	1.13	83.30	34.98	5.50	7.43	32.50	46.50	43.75
LA19073070	—	38.24	7.42	5.00	25.81	11.90	4.81	1.19	85.80	40.53	6.03	5.38	64.25	79.75	68.50
MS 2010-87-37	—	41.79	7.55	4.66	25.98	10.40	4.90	1.21	83.13	36.30	5.33	6.93	57.00	55.75	67.25
MS 2010-87-42	—	41.85	7.99	5.06	26.53	11.00	4.77	1.20	83.88	36.90	5.43	6.68	61.00	63.00	69.25
MS 2010-87-5	—	41.45	7.96	5.01	26.11	11.10	4.98	1.20	84.38	37.15	5.65	6.08	56.50	64.75	63.50
MS 2010-66-16	—	42.58	7.74	4.67	25.72	10.30	4.67	1.19	83.38	34.98	5.63	6.83	56.25	56.25	65.50
MS 2010-28-27	—	42.29	7.25	4.58	27.03	9.80	4.98	1.19	84.00	36.70	5.85	6.70	53.25	61.00	61.75
MS 2010-96-9	—	42.58	8.07	5.08	26.90	10.80	5.28	1.21	85.00	37.40	5.90	5.65	55.50	68.50	60.25
DP 393 CK	—	41.97	7.61	4.80	26.50	10.40	5.02	1.17	84.30	36.13	6.40	6.00	48.50	60.25	55.75
DP 493 CK	—	43.29	6.70	4.29	27.73	8.70	4.89	1.12	82.25	34.13	5.45	8.20	35.50	41.25	48.50
FM 958 CK	—	39.55	7.59	4.69	24.47	11.50	4.77	1.17	83.33	36.80	5.38	7.03	49.00	54.50	60.50
UA 222 CK	—	39.87	7.87	4.36	22.01	11.70	4.70	1.25	83.73	35.50	6.80	6.10	76.00	66.75	82.50
Mean	—	41.48	7.59	4.69	25.73	10.60	4.80	1.21	84.07	36.67	5.85	6.37	61.66	64.51	69.14
LSD (.05)	—	1.58	0.65	0.46	3.09	0.85	0.25	0.05	1.24	2.16	0.38	1.08	17.32	14.03	14.67
Entry (P>F)	—	<0.0001	<0.0001	<0.0001	0.0010	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0002	<0.0001	<0.0001	<0.0001
CV(%)	—	2.71	6.13	7.04	8.53	5.69	3.75	2.74	1.05	4.19	4.61	12.05	19.96	15.46	15.08
R-Square	—	0.77	0.65	0.59	0.49	0.71	0.63	0.61	0.52	0.53	0.76	0.50	0.57	0.55	0.58
Reps	—	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 Lint yield excluded due to mechanical problems with plot picker.

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).