

Table 9. Least square means for lint yield, yield components, oil and protein content, and fiber quality traits in the 2019 RBTN at Lubbock, Texas (Cooperator: Jane Dever).

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	%	%			
DP 493 CK	1353	40.89	6.80	4.92	30.51	8.63	17.72	21.61	5.15	1.05	79.63	28.75	6.13	10.23	23.25	29.50	38.75
FM 958 CK	1308	37.45	6.63	6.47	36.57	10.28	21.52	21.00	4.97	1.14	82.00	32.38	5.78	8.53	50.00	55.00	58.00
UA 222 CK	1278	37.58	6.17	5.55	33.73	9.35	22.52	21.89	5.08	1.15	81.83	31.48	7.43	8.25	51.50	54.50	59.50
TAM 13S-03	1268	37.38	5.96	4.87	30.53	9.40	21.13	20.67	4.73	1.11	82.15	29.88	7.63	8.40	47.50	55.50	55.50
TAMLBB16507	1196	37.06	6.25	5.62	33.34	10.23	22.33	20.73	4.49	1.15	80.33	32.25	6.13	9.20	55.00	47.50	67.00
TAM 12J-39	1175	38.02	6.77	6.55	36.76	10.38	23.09	21.98	5.25	1.10	83.05	35.98	6.13	7.75	37.75	60.50	46.00
DP 393 CK	1152	39.49	6.55	5.27	31.83	9.58	18.88	21.61	4.98	1.13	82.08	31.80	7.13	8.33	46.25	54.25	54.25
GA2016099	1141	39.33	6.33	5.54	34.40	9.08	15.10	19.44	5.16	1.17	82.18	34.03	6.55	8.25	57.00	60.00	63.75
CSX8308	1120	43.52	6.59	5.12	33.82	7.78	15.56	20.34	5.05	1.15	80.93	33.58	5.88	8.95	47.50	47.75	59.00
Ark 1112-59	1088	39.36	6.96	5.57	31.54	10.13	20.99	22.26	4.81	1.16	82.90	34.20	6.40	7.95	61.75	67.50	67.50
Ark 1102-55	1065	39.64	6.36	5.26	33.45	9.25	23.78	22.77	5.12	1.19	83.30	32.88	6.43	7.78	65.50	70.50	68.25
Ark 1114-21	1047	40.23	6.60	5.47	33.37	9.08	16.89	21.72	4.67	1.17	81.95	31.13	6.53	8.25	63.25	60.50	70.75
Ark 1124-50	1040	40.48	6.62	5.37	32.85	8.95	16.57	20.09	4.85	1.20	82.28	33.38	5.95	8.25	71.00	66.25	76.75
Ark 1117-60	1038	39.44	7.30	5.49	29.60	10.73	20.52	19.82	5.11	1.19	83.63	34.30	6.30	7.63	66.75	73.75	68.75
MS 2010-87-37	1033	40.10	6.18	5.58	36.27	8.65	15.94	20.72	5.21	1.14	82.08	33.20	6.15	8.13	47.50	55.25	55.25
Ark 1115-36	1019	42.95	7.09	5.17	31.26	8.68	15.75	21.37	5.05	1.23	84.10	33.00	6.90	7.35	80.25	82.25	79.50
13AFX13-12-5	1013	36.47	5.65	4.95	31.97	9.33	21.06	21.31	4.64	1.19	82.73	34.10	6.00	8.05	70.75	69.25	75.25
13AFX6-27-2	1008	35.18	6.24	5.94	33.46	11.03	20.96	21.59	4.94	1.29	83.98	37.78	7.18	6.88	90.75	89.25	93.25
GA2016103	1002	40.57	6.11	5.02	33.31	8.33	16.75	20.26	5.38	1.16	82.30	34.23	6.18	8.18	49.75	59.00	57.50
GA2016024	959	37.20	6.17	5.53	33.36	9.75	16.79	20.49	4.84	1.18	82.40	33.70	6.10	8.15	64.50	64.50	71.00
TAMLBB15905	920	37.46	6.10	5.49	33.68	9.73	16.94	20.56	4.76	1.24	83.93	35.98	6.25	7.28	89.00	87.00	90.25
Mean	1106	39.04	6.45	5.46	33.12	9.44	19.09	21.06	4.96	1.16	82.37	33.24	6.43	8.18	58.88	62.36	65.51
LSD (.05)	217	1.32	0.62	0.56	4.10	0.88	0.92	2.80	0.26	0.03	0.94	2.31	0.20	0.51	11.93	10.48	10.27
Entry (P>F)	0.0042	<0.0001	0.0002	<0.0001	0.0505	<0.0001	<0.0001	0.7659	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
CV(%)	13.87	2.38	6.82	7.26	8.75	6.57	3.41	9.41	3.70	2.06	0.80	4.92	2.22	4.41	14.32	11.88	11.08
R-Square	0.47	0.87	0.53	0.65	0.44	0.71	0.96	0.26	0.68	0.86	0.80	0.68	0.95	0.84	0.83	0.82	0.82
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).