

Table 12. Least square means for lint yield, yield components, oil and protein content, and fiber quality traits in the 2019 RBTN at Tallassee, Alabama (Cooperator: Jenny Koebernick).

Entry	Lint Yield	Lint Percent	Lint Index	Boll Size	Seed per Boll	Seed Index	Seed Oil <sup>1</sup>	Seed Protein <sup>1</sup>	MIC	UHM	UI	STRN	ELO	SFC	QS1 <sup>2</sup>	QS2 <sup>2</sup>	QS3 <sup>2</sup>
	lb/A	%	grams	grams	#	grams	%	%	mic	inch	%	g/tex	%	%			
Ark 1102-55	1611	<b>40.81</b>	7.70	5.34	28.99	<b>10.96</b>	<b>19.44</b>	21.55	4.83	1.21	<b>85.00</b>	29.28	6.08	7.30	71.00	74.00	73.50
MS 2010-87-37	1602	<b>44.27</b>	8.07	5.56	30.63	10.16	14.64	19.55	4.88	1.19	83.98	31.85	5.85	7.25	60.75	62.75	66.75
Ark 1117-60	1525	39.34	7.56	5.43	28.67	<b>11.53</b>	<b>18.62</b>	20.42	5.00	1.21	<b>84.83</b>	33.58	6.18	7.00	65.75	71.25	69.00
FM 958 CK	1504	40.13	7.49	5.36	28.91	<b>11.15</b>	<b>18.66</b>	22.89	5.00	1.16	83.10	32.50	5.75	7.28	48.75	51.75	57.75
DP 393 CK	1496	39.50	6.96	5.45	30.97	10.65	16.18	20.56	4.83	1.15	83.65	31.80	6.50	7.28	51.00	56.25	58.50
UA 222 CK	1460	<b>41.85</b>	7.67	5.40	29.73	10.57	<b>19.21</b>	20.54	4.82	1.20	84.13	31.48	<b>7.10</b>	7.10	65.50	65.75	70.50
Ark 1114-21	1442	<b>41.02</b>	6.62	5.31	32.93	9.53	14.35	20.58	4.40	1.18	83.50	29.20	6.30	7.50	58.75	56.00	64.25
GA2016099	1423	40.08	6.12	5.92	45.59	9.03	15.34	20.52	5.12	1.21	83.73	32.50	6.28	7.55	61.75	61.25	67.50
TAM 13S-03	1420	38.14	6.32	4.98	30.10	10.24	<b>18.54</b>	21.93	4.64	1.16	84.00	30.05	<b>6.98</b>	7.20	56.00	60.75	62.50
Ark 1124-50	1374	<b>43.32</b>	8.04	5.22	28.24	10.48	14.81	19.72	4.80	1.22	84.68	32.45	5.95	7.20	72.75	72.00	76.00
TAM 12J-39	1372	<b>41.99</b>	8.26	<b>6.51</b>	33.43	<b>11.33</b>	<b>19.03</b>	19.43	5.25	1.13	84.53	<b>36.38</b>	6.00	6.95	40.00	62.25	49.25
Ark 1115-36	1353	<b>43.09</b>	7.05	4.84	29.78	9.32	13.92	20.58	4.62	1.17	82.80	29.58	6.70	7.38	55.75	52.50	65.25
GA2016024	1352	<b>40.58</b>	6.60	5.56	34.39	9.62	14.59	21.78	4.88	1.16	82.68	31.68	6.08	7.83	50.25	49.25	60.50
Ark 1112-59	1351	39.80	6.96	5.35	30.59	10.51	17.35	21.31	4.52	1.14	84.08	32.85	6.30	7.18	51.50	59.50	58.25
GA2016103	1292	<b>41.90</b>	6.67	4.74	30.39	9.12	15.46	19.20	4.81	1.18	83.20	32.70	5.90	7.53	56.75	56.00	65.25
DP 493 CK	1290	<b>42.11</b>	5.93	4.70	36.05	8.15	16.46	20.58	4.96	1.10	81.88	28.90	5.85	<b>8.38</b>	30.50	36.50	44.75
13AFX13-12-5	1260	38.45	6.16	4.82	30.73	9.76	17.38	20.10	4.37	1.18	83.85	32.20	5.83	7.45	63.75	63.00	69.75
CSX8308	1249	<b>41.60</b>	5.72	4.67	34.05	8.03	14.80	20.51	4.60	1.21	83.70	33.28	5.85	7.05	69.00	64.25	75.00
TAMLBB15905	1241	37.24	6.60	4.91	27.93	<b>11.13</b>	15.94	21.23	4.74	<b>1.26</b>	<b>84.88</b>	33.73	6.25	6.85	<b>87.25</b>	<b>79.50</b>	<b>88.25</b>
13AFX6-27-2	1076	35.17	6.49	5.40	29.25	<b>11.98</b>	<b>18.52</b>	20.48	4.94	<b>1.29</b>	<b>85.73</b>	<b>36.95</b>	<b>7.08</b>	6.45	<b>90.25</b>	<b>91.50</b>	<b>92.50</b>
TAMLBB16507	1018	35.56	6.85	5.64	29.36	<b>12.39</b>	<b>19.31</b>	19.32	4.87	1.18	83.80	32.80	5.98	7.55	60.00	61.25	66.25
<b>Mean</b>	1367	40.28	6.94	5.29	31.46	10.27	16.79	20.61	4.80	1.18	83.89	32.18	6.23	7.30	60.33	62.25	66.73
<b>LSD (.05)</b>	371	3.86	1.61	0.58	10.11	1.48	1.52	2.31	0.49	0.03	1.04	1.47	0.25	0.52	15.23	12.21	13.08
<b>Entry (P&gt;F)</b>	0.2006	0.0004	0.0644	<0.0001	0.2884	<0.0001	<0.0001	0.2103	0.0710	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
<b>CV(%)</b>	19.19	6.77	16.36	7.80	22.71	10.17	6.41	7.91	7.17	2.00	0.87	3.22	2.81	4.99	17.84	13.87	13.86
<b>R-Square</b>	0.34	0.52	0.37	0.63	0.31	0.62	0.81	0.32	0.39	0.81	0.66	0.85	0.88	0.60	0.69	0.71	0.66
<b>Reps</b>	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).

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

<sup>2</sup> 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).