

Table 12. Least square means for lint yield, yield components, oil and protein content, and fiber quality traits in the 2021 RBTN at Stoneville (USDA location 2), Mississippi (Cooperator: Jodi Scheffler).

Entry	Lint Yield <sup>1</sup>	Lint Percent	Lint Index	Boll Size	Seed per Boll	Seed Index	Seed Oil <sup>2</sup>	MIC	UHM	UI	STRN	ELO	SFC	QS1 <sup>3</sup>	QS2 <sup>3</sup>	QS3 <sup>3</sup>
	lb/A	%	grams	grams	#	grams	%	mic	inch	%	g/tex	%	%			
Ark 1301-16	—	40.53	<b>9.12</b>	<b>6.46</b>	28.77	<b>12.74</b>	18.14	<b>5.36</b>	<b>1.25</b>	<b>84.95</b>	32.58	6.88	5.10	<b>61.00</b>	<b>62.75</b>	66.25
Ark 1311-18	—	<b>41.14</b>	7.68	<b>5.89</b>	<b>31.53</b>	10.16	14.09	4.90	<b>1.26</b>	84.23	33.65	6.65	5.63	<b>67.75</b>	<b>60.75</b>	<b>74.75</b>
Ark 1308-58	—	40.05	8.06	<b>6.06</b>	30.16	11.50	18.71	5.02	<b>1.26</b>	<b>85.25</b>	34.00	<b>7.25</b>	5.43	<b>68.50</b>	<b>68.50</b>	<b>72.75</b>
Ark 1317-31	—	39.98	8.22	<b>6.42</b>	<b>31.28</b>	11.73	17.50	4.84	<b>1.25</b>	<b>84.98</b>	<b>35.88</b>	6.45	5.53	<b>69.00</b>	<b>67.75</b>	<b>75.00</b>
Ark 1309-56	—	40.96	8.18	<b>6.13</b>	30.63	11.65	14.11	<b>5.14</b>	<b>1.28</b>	<b>85.15</b>	<b>36.00</b>	6.38	4.45	<b>72.25</b>	<b>71.00</b>	<b>77.75</b>
CSX5432	—	<b>43.09</b>	8.16	5.05	26.18	10.51	14.44	4.98	<b>1.26</b>	<b>85.35</b>	<b>35.58</b>	5.88	4.75	<b>72.25</b>	<b>71.75</b>	<b>76.75</b>
TAMLBB16507	—	37.54	7.71	<b>6.04</b>	29.41	<b>12.47</b>	19.16	4.55	<b>1.26</b>	84.28	<b>36.90</b>	5.88	5.13	<b>72.75</b>	<b>65.75</b>	<b>81.50</b>
TAMLBB17206	—	35.07	6.90	<b>5.91</b>	30.01	<b>12.66</b>	16.85	4.81	<b>1.25</b>	<b>85.05</b>	35.03	5.30	5.20	<b>71.25</b>	<b>68.75</b>	<b>76.75</b>
OA-11	—	<b>41.18</b>	7.68	5.20	27.96	10.40	16.29	<b>5.15</b>	1.17	<b>85.30</b>	<b>35.30</b>	<b>7.33</b>	5.23	41.50	58.75	48.75
OA-13	—	40.48	7.66	5.48	28.96	10.68	15.16	<b>5.11</b>	1.21	<b>85.35</b>	<b>37.38</b>	<b>6.93</b>	5.40	56.25	<b>67.00</b>	63.75
OA-133	—	39.82	7.42	5.55	29.81	10.67	16.44	5.04	<b>1.25</b>	84.40	<b>35.60</b>	6.43	5.38	<b>65.50</b>	<b>62.50</b>	<b>73.25</b>
GA 2015026	—	40.23	7.30	5.41	29.84	10.16	14.33	<b>5.08</b>	<b>1.24</b>	<b>85.00</b>	33.85	6.23	5.50	<b>62.50</b>	<b>64.00</b>	67.75
GA 2016029	—	40.90	7.87	<b>6.40</b>	<b>33.27</b>	10.73	15.05	<b>5.11</b>	1.22	<b>85.15</b>	<b>35.48</b>	5.95	<b>5.70</b>	<b>57.25</b>	<b>64.50</b>	63.75
GA 2016090	—	39.83	7.64	5.60	29.12	11.01	15.70	5.06	<b>1.25</b>	84.48	<b>36.58</b>	5.95	5.28	<b>64.50</b>	<b>63.50</b>	<b>73.00</b>
TAM 14B-72	—	39.02	6.97	<b>6.30</b>	<b>35.36</b>	10.41	<b>20.55</b>	4.87	1.18	<b>84.75</b>	33.30	5.80	<b>6.38</b>	48.25	56.75	56.00
TAM 14E-12	—	40.61	7.75	<b>5.79</b>	30.30	10.66	18.75	<b>5.08</b>	1.21	83.18	32.98	6.58	<b>6.63</b>	47.00	46.00	59.00
LA19073002	—	38.75	6.98	5.60	31.12	10.65	16.48	<b>5.18</b>	1.16	84.25	<b>35.85</b>	5.98	<b>6.30</b>	37.00	50.00	48.00
LA19073070	—	38.25	7.23	<b>6.03</b>	<b>31.84</b>	11.22	14.92	<b>5.31</b>	1.15	<b>84.85</b>	<b>36.48</b>	<b>6.95</b>	5.03	34.75	54.00	44.50
MS 2010-87-37	—	39.60	7.34	5.63	30.46	10.75	14.54	<b>5.13</b>	1.23	84.70	34.75	5.75	5.38	<b>57.75</b>	<b>60.50</b>	65.00
MS 2010-87-42	—	39.98	7.84	<b>5.74</b>	29.24	11.15	14.53	<b>5.21</b>	<b>1.24</b>	<b>85.90</b>	<b>36.45</b>	5.60	4.98	<b>64.00</b>	<b>72.75</b>	68.25
MS 2010-87-5	—	40.96	7.92	<b>5.99</b>	30.97	10.77	14.80	<b>5.15</b>	<b>1.24</b>	<b>85.38</b>	<b>35.40</b>	6.10	5.18	<b>62.00</b>	<b>67.50</b>	67.00
MS 2010-66-16	—	<b>41.23</b>	7.86	<b>6.08</b>	<b>31.88</b>	10.69	14.62	<b>5.08</b>	1.23	<b>85.85</b>	<b>36.45</b>	6.00	5.33	<b>61.50</b>	<b>70.00</b>	66.00
MS 2010-28-27	—	<b>41.36</b>	7.89	<b>5.96</b>	<b>31.26</b>	10.58	16.32	<b>5.26</b>	1.21	<b>85.23</b>	<b>35.60</b>	6.45	5.28	52.75	<b>63.25</b>	59.50
MS 2010-96-9	—	<b>41.92</b>	<b>8.51</b>	<b>6.48</b>	<b>31.96</b>	11.08	14.23	<b>5.39</b>	1.22	<b>85.35</b>	<b>36.13</b>	6.30	5.25	53.00	<b>64.50</b>	59.25
DP 393 CK	—	40.40	7.88	<b>5.87</b>	30.16	10.97	15.95	<b>5.16</b>	1.18	84.33	34.75	6.83	<b>6.20</b>	42.00	51.75	51.25
DP 493 CK	—	<b>41.09</b>	7.14	<b>5.90</b>	<b>34.13</b>	9.66	15.87	4.94	1.22	84.48	34.68	5.90	<b>6.08</b>	56.00	58.50	64.00
FM 958 CK	—	39.83	8.10	<b>6.03</b>	29.63	11.67	17.55	5.01	1.21	84.58	<b>35.88</b>	5.83	5.65	53.75	<b>59.25</b>	62.25
UA 222 CK	—	39.16	8.16	5.46	26.20	11.90	19.17	<b>5.33</b>	1.22	84.00	33.03	<b>7.22</b>	<b>6.03</b>	49.50	52.00	58.75
Mean	—	40.11	7.76	5.87	30.41	11.04	16.22	5.08	1.23	84.85	35.20	6.31	5.48	57.91	62.29	65.02
LSD (.05)	—	2.07	0.66	0.79	4.11	0.71	1.26	0.31	0.04	1.16	2.31	0.38	0.96	15.50	13.55	13.02
Entry (P>F)	—	<0.0001	<0.0001	0.0361	0.0185	<0.0001	<0.0001	0.0002	<0.0001	0.0069	0.0012	<0.0001	0.0046	<0.0001	0.0066	<0.0001
CV(%)	—	3.67	5.99	9.43	9.47	4.56	5.53	4.30	2.29	0.97	4.67	4.24	12.52	19.02	15.46	14.23
R-Square	—	0.69	0.67	0.48	0.48	0.78	0.86	0.51	0.68	0.42	0.46	0.85	0.46	0.60	0.45	0.62
Reps	—	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> Lint yield excluded due to excessive variability.

<sup>2</sup> Percent oil (by weight) 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>3</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).