

Table 8. Least square means for lint yield, yield components, and fiber quality traits in the 2017 RBTN at Maricopa, AZ (Cooperator: Alison Thompson).

Cultivar	Lint Yield	Lint Percent	Lint Index	Boll Size	Seed per Boll	Seed Index	MIC	UHM	UI	STRN	ELO	SFC	QS1 <sup>1</sup>	QS2 <sup>1</sup>	QS3 <sup>1</sup>
	lb/A	%	grams	grams	#	grams	mic	%	%	g/tex	%	%			
LA14063101	<b>1986</b>	<b>46.82</b>	<b>7.34</b>	4.90	<b>31.28</b>	8.11	<b>5.44</b>	1.16	<b>83.03</b>	32.70	6.50	8.27	58.33	62.33	63.00
LA14063001	<b>1946</b>	44.61	<b>7.60</b>	<b>4.94</b>	29.10	9.31	5.07	1.17	82.87	32.50	6.70	7.97	<b>66.67</b>	64.33	<b>72.00</b>
LA14063083	<b>1929</b>	43.64	<b>7.36</b>	4.81	28.68	9.39	4.88	1.17	<b>83.60</b>	<b>33.77</b>	<b>7.27</b>	8.07	<b>73.67</b>	<b>72.67</b>	<b>76.67</b>
Ark 0912-18	<b>1823</b>	44.22	<b>7.60</b>	<b>4.95</b>	28.78	9.33	<b>5.45</b>	1.15	<b>83.60</b>	<b>34.40</b>	<b>7.50</b>	7.47	57.33	66.67	61.67
DP 493 CK	<b>1813</b>	<b>46.03</b>	6.39	4.44	<b>32.13</b>	7.29	<b>5.40</b>	1.08	80.97	30.23	5.60	<b>9.40</b>	32.00	37.33	45.33
PD 07040	<b>1792</b>	41.35	<b>7.46</b>	<b>4.94</b>	27.43	<b>10.29</b>	5.15	1.14	82.83	30.70	6.40	8.43	57.67	60.67	63.67
LA14063046	<b>1784</b>	<b>45.25</b>	<b>7.63</b>	<b>5.18</b>	<b>30.81</b>	9.12	5.18	1.14	<b>83.17</b>	33.30	6.93	7.90	57.33	63.00	62.67
LA14063038	<b>1760</b>	43.37	6.65	4.83	<b>31.54</b>	8.59	5.06	<b>1.20</b>	<b>82.93</b>	33.10	5.77	7.97	<b>68.00</b>	66.33	<b>73.33</b>
TAM 13S-03	<b>1733</b>	42.69	6.82	4.67	29.26	8.96	5.16	1.11	82.13	30.33	<b>7.27</b>	8.43	46.67	51.33	56.00
Ark 0911-13	<b>1729</b>	43.01	<b>7.73</b>	4.82	26.83	<b>10.35</b>	<b>5.27</b>	<b>1.20</b>	<b>83.73</b>	31.30	<b>7.43</b>	8.00	<b>76.00</b>	<b>74.67</b>	<b>77.67</b>
NM 13R1015	<b>1728</b>	42.61	6.55	4.48	29.22	8.76	<b>5.29</b>	1.12	<b>83.13</b>	32.37	6.07	7.40	50.67	60.00	56.33
DP 393 CK	<b>1719</b>	42.33	6.97	<b>4.92</b>	29.85	9.31	5.09	1.13	<b>83.50</b>	33.33	6.83	7.67	58.33	65.67	62.67
Ark 0921-27ne	1691	40.48	6.75	4.78	28.67	<b>9.83</b>	<b>5.24</b>	1.17	<b>83.00</b>	32.97	6.10	8.13	<b>66.33</b>	66.00	<b>71.67</b>
UA 222 CK	1688	43.51	<b>7.38</b>	4.85	28.62	9.41	<b>5.29</b>	1.12	82.83	30.97	<b>7.33</b>	7.93	50.67	57.67	57.33
GA 2015073	1678	<b>46.14</b>	<b>7.59</b>	4.81	29.24	8.75	<b>5.27</b>	1.11	<b>82.93</b>	31.60	6.27	7.73	46.67	57.00	53.33
TAM 13Q-51	1659	41.53	6.59	4.37	27.53	9.09	<b>5.26</b>	<b>1.24</b>	<b>84.40</b>	<b>35.80</b>	<b>7.10</b>	7.13	<b>81.67</b>	<b>83.00</b>	<b>82.67</b>
AU 90098	1656	<b>45.51</b>	<b>7.65</b>	4.72	28.19	9.05	<b>5.34</b>	1.16	<b>83.20</b>	31.33	5.87	8.30	60.67	64.33	65.00
FM 958 CK	1653	41.31	<b>7.33</b>	<b>5.11</b>	28.79	<b>10.32</b>	5.12	1.17	82.70	32.97	5.23	8.33	<b>66.00</b>	63.00	<b>71.33</b>
Tamcot G11	1648	41.77	<b>7.61</b>	<b>5.28</b>	28.99	<b>10.47</b>	4.96	<b>1.21</b>	82.00	32.13	5.37	8.40	<b>75.33</b>	62.00	<b>82.33</b>
GA 2015032	1635	44.19	7.09	4.87	<b>30.35</b>	8.85	5.04	1.15	<b>83.50</b>	32.30	6.37	7.83	<b>64.67</b>	<b>68.00</b>	<b>68.67</b>
Acala 1517-08	1579	41.37	6.55	4.56	28.84	9.13	5.12	1.13	<b>83.83</b>	<b>34.33</b>	6.50	7.40	57.67	<b>69.33</b>	62.33
TAM WK-11L	1559	42.15	6.43	4.76	<b>31.17</b>	8.77	<b>5.30</b>	1.09	<b>83.67</b>	29.80	6.87	8.07	42.33	60.33	47.33
Ark 0921-31ne	1549	41.26	6.62	4.34	27.07	9.21	5.17	1.16	<b>83.43</b>	32.83	<b>7.60</b>	7.87	<b>65.33</b>	<b>67.67</b>	<b>69.33</b>
TAM LBB131001	1528	44.18	6.30	4.73	<b>33.12</b>	7.83	4.61	1.12	81.50	31.30	6.17	<b>8.73</b>	57.00	52.33	67.00
Ark 0908-60	1527	43.86	<b>7.66</b>	<b>5.09</b>	29.14	9.36	4.96	<b>1.20</b>	<b>83.07</b>	33.20	6.37	8.03	<b>77.67</b>	<b>70.33</b>	<b>81.33</b>
PD 08028	1525	41.78	6.78	<b>4.96</b>	<b>30.71</b>	9.20	5.12	1.14	<b>84.17</b>	<b>34.37</b>	6.70	7.47	<b>62.33</b>	<b>74.33</b>	66.33
GA 2012141	1476	44.20	6.67	4.58	<b>30.40</b>	8.35	5.03	1.14	<b>83.30</b>	32.17	6.53	8.30	59.67	64.67	64.67
GA 2015090	1462	43.76	7.09	4.77	29.56	8.91	4.87	1.17	<b>83.13</b>	<b>34.70</b>	6.53	7.90	<b>71.00</b>	<b>70.33</b>	<b>77.00</b>
TAM 13Q-18	1452	41.99	6.71	4.83	<b>30.19</b>	9.20	5.09	1.11	81.53	30.40	6.13	<b>9.10</b>	49.00	52.67	58.00
TAM LBB130218	1409	40.71	6.97	<b>4.95</b>	29.07	<b>10.01</b>	4.86	1.12	82.13	31.63	5.63	8.60	54.33	54.33	63.00
NM 16-13P1088B	1390	41.61	6.91	4.74	28.57	9.59	4.91	1.09	<b>83.23</b>	32.40	7.03	7.70	49.67	60.67	56.00
PD 09046	1370	37.68	5.47	4.36	30.11	8.87	4.74	<b>1.20</b>	82.83	32.73	5.33	8.17	<b>79.67</b>	<b>69.67</b>	<b>84.00</b>
PD 2013016	1336	42.24	<b>7.17</b>	<b>5.12</b>	<b>30.25</b>	<b>9.69</b>	4.98	1.15	<b>83.73</b>	<b>34.13</b>	5.33	7.87	<b>66.00</b>	<b>71.33</b>	<b>70.00</b>
Mean	1643	42.94	7.01	4.80	29.50	9.17	5.11	1.15	83.02	32.49	6.44	8.06	60.80	63.76	66.35
LSD (.05)	268	2.02	0.58	0.37	3.00	0.82	0.26	0.07	1.52	2.40	0.50	0.75	19.91	16.13	17.07
Cultivar (P>F)	<0.0001	<0.0001	<0.0001	<0.0001	0.0242	<0.0001	<0.0001	0.0006	0.0091	0.0002	<0.0001	<0.0001	0.0005	0.0040	0.0004
CV(%)	9.99	2.88	5.05	4.75	6.24	5.50	3.18	3.54	1.12	4.54	4.80	5.68	20.07	15.51	15.77
R-Square	0.63	0.78	0.77	0.62	0.49	0.76	0.70	0.59	0.57	0.60	0.88	0.70	0.60	0.58	0.59
Reps	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3

Values in bold not significantly different from highest value according to LSD(0.05).

<sup>1</sup>QS1, QS2, and QS3 = Represent values for "Qscore", 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).