

Table 7. Least square means for yield components, oil and protein content, and fiber quality traits in the 2021 RBTN at Lubbock, Texas (Cooperator: Jane Dever).

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	—	34.66	7.12	<b>6.00</b>	<b>29.22</b>	<b>11.10</b>	17.24	4.56	1.09	81.50	31.75	<b>7.80</b>	8.05	57.00	<b>61.50</b>	62.50
Ark 1311-18	—	35.76	7.43	4.91	23.69	9.30	14.29	4.30	<b>1.12</b>	81.35	32.35	7.05	7.70	<b>70.00</b>	<b>65.50</b>	<b>75.50</b>
Ark 1308-58	—	36.08	7.29	5.39	<b>26.70</b>	<b>10.85</b>	17.96	4.14	<b>1.19</b>	82.00	31.30	7.30	7.50	<b>87.00</b>	<b>77.00</b>	<b>89.00</b>
Ark 1317-31	—	34.56	6.78	5.41	<b>27.66</b>	<b>10.50</b>	17.89	3.88	<b>1.15</b>	80.75	32.25	6.85	<b>9.00</b>	<b>69.00</b>	<b>61.50</b>	<b>76.00</b>
Ark 1309-56	—	38.54	7.96	5.24	25.38	10.05	14.45	4.45	<b>1.18</b>	81.60	<b>34.70</b>	6.70	6.95	<b>86.50</b>	<b>75.50</b>	<b>91.00</b>
CSX5432	—	<b>42.03</b>	<b>10.49</b>	4.81	19.25	8.95	15.37	4.39	<b>1.20</b>	82.15	32.25	5.90	7.80	<b>92.00</b>	<b>80.00</b>	<b>93.00</b>
TAMLBB16507	—	31.98	5.98	5.03	<b>27.00</b>	<b>10.55</b>	<b>19.33</b>	3.60	1.08	79.65	30.25	5.85	<b>10.30</b>	38.00	41.50	50.50
TAMLBB17206	—	32.31	5.84	4.96	<b>27.43</b>	10.25	16.84	4.15	1.10	80.10	31.15	5.95	<b>9.60</b>	61.00	54.00	<b>71.00</b>
OA-11	—	36.56	7.18	4.64	23.65	8.85	15.69	4.58	1.10	82.60	31.90	7.30	7.30	<b>66.00</b>	<b>73.00</b>	68.50
OA-13	—	38.44	7.65	4.57	23.06	9.60	13.96	<b>4.74</b>	1.06	82.65	<b>33.05</b>	7.05	7.40	53.00	<b>68.50</b>	56.50
OA-133	—	32.34	6.54	4.41	21.77	9.35	17.37	<b>4.77</b>	1.07	79.65	30.75	6.25	<b>9.70</b>	45.50	44.00	58.00
GA 2015026	—	35.18	6.96	4.60	23.27	8.75	13.48	4.29	<b>1.13</b>	80.85	31.10	6.15	8.20	<b>71.00</b>	<b>62.50</b>	<b>77.50</b>
GA 2016029	—	39.38	8.44	5.18	24.22	8.95	13.63	<b>4.68</b>	<b>1.18</b>	82.70	<b>33.05</b>	5.95	7.55	<b>84.50</b>	<b>81.00</b>	<b>85.00</b>
GA 2016090	—	38.43	7.41	5.25	<b>27.17</b>	9.55	14.16	4.36	1.11	81.50	31.15	6.00	8.45	<b>67.50</b>	<b>66.00</b>	<b>73.00</b>
TAM 14B-72	—	36.09	7.11	4.77	24.26	9.15	<b>20.77</b>	4.25	1.10	82.05	31.45	6.25	<b>8.55</b>	64.50	<b>68.50</b>	68.50
TAM 14E-12	—	35.82	7.07	4.82	24.36	9.75	19.13	4.01	<b>1.13</b>	80.25	30.70	6.75	<b>9.15</b>	<b>67.50</b>	57.00	<b>76.00</b>
LA19073002	—	32.01	6.45	5.43	<b>26.94</b>	<b>10.55</b>	15.87	<b>5.12</b>	1.03	79.85	30.40	6.25	<b>9.75</b>	25.50	38.50	38.00
LA19073070	—	38.38	7.51	5.35	<b>27.32</b>	9.65	14.19	<b>4.73</b>	1.03	82.50	<b>34.30</b>	7.00	7.40	44.50	<b>65.00</b>	50.50
MS 2010-87-37	—	35.21	7.15	4.79	23.62	9.70	14.11	<b>4.70</b>	1.10	82.30	<b>32.70</b>	6.00	7.00	62.00	<b>69.00</b>	65.50
MS 2010-87-42	—	35.36	7.26	4.68	22.80	9.40	13.70	4.42	1.09	80.80	31.25	6.20	8.25	57.50	56.50	66.00
MS 2010-87-5	—	36.66	7.24	4.68	23.69	9.15	12.72	4.54	<b>1.13</b>	82.20	<b>33.15</b>	6.25	7.60	<b>69.00</b>	<b>71.00</b>	<b>72.00</b>
MS 2010-66-16	—	36.80	7.85	4.78	22.42	9.20	14.38	4.43	1.11	81.15	31.95	6.55	8.40	63.50	<b>61.50</b>	69.50
MS 2010-28-27	—	38.09	7.29	5.03	26.30	9.30	14.73	4.50	<b>1.14</b>	82.25	<b>32.60</b>	6.75	7.85	<b>77.00</b>	<b>74.50</b>	<b>79.50</b>
MS 2010-96-9	—	36.87	7.46	5.02	24.82	9.95	14.09	<b>4.84</b>	1.08	81.00	31.55	6.80	<b>8.70</b>	49.00	55.00	57.00
DP 393 CK	—	35.09	7.24	5.29	25.66	9.75	16.11	4.62	1.06	81.40	30.75	<b>7.50</b>	<b>8.70</b>	49.00	58.00	56.50
DP 493 CK	—	37.27	8.08	4.84	22.31	9.20	17.37	4.51	1.09	81.00	30.40	5.90	<b>9.30</b>	56.00	58.00	63.50
FM 958 CK	—	33.61	6.48	4.98	25.82	9.90	18.89	4.32	1.08	81.10	<b>32.60</b>	5.95	<b>9.25</b>	57.00	58.50	64.50
UA 222 CK	—	35.71	7.02	5.43	<b>27.63</b>	10.20	18.95	<b>4.80</b>	1.11	81.40	30.80	<b>7.90</b>	7.20	61.00	<b>62.50</b>	67.00
<b>Mean</b>	—	36.04	7.30	5.01	24.91	9.69	15.95	4.45	1.11	81.37	31.84	6.58	8.31	62.54	63.04	68.61
<b>LSD (.05)</b>	—	0.95	0.71	0.46	2.52	0.81	1.60	0.45	0.08	ns	2.16	0.41	1.79	26.93	22.03	22.49
<b>Entry (P&gt;F)</b>	—	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0002	0.0061	0.0996	0.0152	<0.0001	0.0193	0.0067	0.0394	0.0058
<b>CV(%)</b>	—	1.28	4.75	4.50	4.93	4.08	4.90	4.98	3.41	1.24	3.31	3.01	10.51	20.99	17.03	15.97
<b>R-Square</b>	—	0.98	0.92	0.83	0.87	0.83	0.94	0.81	0.74	0.63	0.70	0.95	0.69	0.74	0.67	0.74
<b>Reps</b>	—	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

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).