

Table 13. Least square means for lint yield, yield components, oil and protein content, and fiber quality traits in the 2022 RBTN at Stoneville (USDA location 2), Mississippi (Cooperator: Jodi Scheffler).

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 1406-21	<b>1685</b>	43.49	8.05	<b>5.92</b>	31.99	10.46	—	—	<b>4.87</b>	1.275	85.53	32.23	6.33	4.80	62.50	66.75	67.00
Ark 1410-56	<b>1683</b>	40.25	8.33	<b>6.41</b>	30.95	12.38	—	—	4.78	1.244	84.98	34.65	6.10	5.13	54.00	60.75	61.75
Ark 1410-32	<b>1655</b>	40.00	8.16	<b>5.62</b>	27.61	12.24	—	—	4.37	1.252	85.43	32.60	5.53	5.10	62.25	65.50	67.00
Ark 1414-47	<b>1564</b>	41.69	8.10	<b>6.30</b>	32.39	11.33	—	—	4.67	1.279	84.53	33.05	5.93	4.73	64.50	60.50	71.75
Ark 1414-28	1549	41.31	8.08	<b>5.86</b>	29.90	11.48	—	—	4.78	1.252	<b>85.80</b>	32.33	6.03	5.13	58.75	67.00	62.75
UA 222 CK	1548	40.71	<b>8.45</b>	<b>6.39</b>	30.82	12.31	—	—	<b>5.00</b>	1.224	84.38	30.98	<b>7.67</b>	6.07	42.75	51.00	51.75
OA-22-2	1540	44.30	7.41	5.15	30.84	9.32	—	—	4.72	1.255	84.73	34.65	5.48	5.23	58.25	60.25	66.25
MS 2010-28-27	1518	40.10	7.55	<b>5.78</b>	30.77	11.27	—	—	4.82	1.246	85.35	<b>35.13</b>	6.20	4.90	55.50	64.50	62.25
OA-22-3	1517	44.19	7.24	5.30	32.35	9.15	—	—	4.56	1.236	84.75	34.53	5.50	5.90	55.25	59.00	63.50
Ark 1414-43	1470	40.83	7.84	<b>5.76</b>	29.95	11.36	—	—	4.79	1.272	85.20	33.50	5.85	4.83	62.50	64.25	67.75
DP 393 CK	1452	41.74	8.01	<b>5.96</b>	31.05	11.19	—	—	<b>5.06</b>	1.218	84.53	31.60	6.88	5.83	40.25	51.00	49.25
CSX5432	1402	<b>45.71</b>	<b>8.77</b>	4.98	26.02	10.40	—	—	4.66	1.299	84.88	32.60	5.78	4.30	72.50	66.00	77.75
MS2010-87-44	1402	40.30	7.52	<b>5.79</b>	31.10	11.14	—	—	4.57	1.283	85.40	33.00	5.83	4.33	70.25	69.00	74.50
AU72028	1375	40.67	7.72	<b>5.92</b>	31.11	11.27	—	—	<b>4.87</b>	1.243	84.78	32.63	6.23	5.30	51.00	57.25	58.75
TAM 18 SHA-27	1359	40.12	<b>8.66</b>	<b>5.71</b>	26.48	<b>12.93</b>	—	—	4.20	1.314	84.48	34.55	6.35	4.10	77.00	66.00	83.75
MS 2010-87-37	1359	41.03	8.02	<b>5.83</b>	29.75	11.53	—	—	<b>4.87</b>	1.267	<b>85.85</b>	34.20	5.55	4.53	61.75	69.75	66.25
OA-22-1	1354	40.28	6.83	5.41	31.92	10.13	—	—	4.29	1.268	85.30	33.80	5.55	4.80	66.50	67.00	71.50
MS 2010-66-16	1340	43.38	<b>8.57</b>	<b>6.06</b>	30.71	11.19	—	—	4.74	1.232	<b>85.73</b>	32.83	6.03	5.15	53.75	64.75	58.75
AU90098	1306	41.18	7.96	5.22	27.01	11.38	—	—	4.68	1.255	84.88	31.68	5.80	5.23	58.50	60.50	65.50
TAM 17 WSH-12	1302	44.30	7.74	5.23	29.96	9.73	—	—	4.43	1.213	82.75	28.95	6.70	<b>7.33</b>	43.25	41.00	56.00
DP 493 CK	1301	42.25	7.49	5.10	28.72	10.24	—	—	<b>4.91</b>	1.216	83.48	30.38	5.60	6.43	38.75	43.00	51.00
MS 2010-87-42	1265	39.82	7.81	<b>5.75</b>	29.33	11.81	—	—	<b>4.96</b>	1.245	84.65	31.53	6.18	5.20	49.50	55.25	57.00
MS 2010-96-8	1254	40.64	8.03	<b>6.34</b>	31.93	11.74	—	—	<b>5.01</b>	1.192	84.68	32.35	6.35	6.00	35.50	49.75	44.25
FM 958 CK	1165	39.42	8.06	<b>6.19</b>	30.25	12.38	—	—	4.82	1.244	84.58	32.80	5.73	5.53	52.25	56.00	60.25
TAM 17 SHK-43	1130	40.69	8.25	5.41	26.68	12.03	—	—	4.80	1.303	84.93	32.08	6.08	4.20	70.75	65.50	76.00
TAM 17 WSE-66	984	37.20	7.70	<b>6.09</b>	29.52	<b>13.02</b>	—	—	4.23	1.407	<b>85.95</b>	<b>36.48</b>	5.53	3.78	<b>95.00</b>	<b>86.75</b>	<b>98.50</b>
TAM 17 WSE-68	894	36.39	7.29	5.41	27.06	<b>12.75</b>	—	—	4.02	1.360	85.28	32.85	5.90	3.78	<b>90.75</b>	<b>76.00</b>	<b>93.25</b>
TAM 17 WSG-51	868	35.77	7.09	<b>6.06</b>	30.66	<b>12.72</b>	—	—	4.27	<b>1.442</b>	<b>86.68</b>	32.88	6.20	3.70	<b>95.75</b>	<b>87.75</b>	<b>94.00</b>
<b>Mean</b>	1366	40.99	7.88	5.75	29.89	11.39	—	—	4.67	1.269	84.98	32.88	6.03	5.05	60.69	62.56	67.07
<b>LSD (.05)</b>	135	1.20	0.42	0.86	ns	0.54	—	—	0.21	0.035	1.13	1.46	0.24	0.86	12.91	12.13	10.27
<b>Entry (P&gt;F)</b>	<.0001	<.0001	<.0001	0.0186	0.0912	<.0001	—	—	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
<b>CV(%)</b>	7.02	2.08	3.77	10.58	10.29	3.38	—	—	3.14	1.95	0.94	3.15	2.83	12.09	15.12	13.78	10.88
<b>R-Square</b>	0.87	0.91	0.78	0.41	0.34	0.91	—	—	0.83	0.88	0.56	0.75	0.92	0.73	0.80	0.68	0.82
<b>Reps</b>	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> PENDING - Percent oil and protein (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>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).