

Table 9. Least square means for yield and fiber quality traits in the 2025 RBTN at Stoneville, MS. Planted on 19 May 2025 and harvested on 11 November 2025. (Cooperator: Jodi Scheffler)

Genotype	Entry	Agronomic Data				HVI Data						Fibrogram Data						Quality Score			
		Lint Yield	Lint Percent	Boll Size	Seed index	Mic	UHML	UI	Str	Elo	Short Fiber Index	UHMLf	MLf	UQLf	LHMLf	LQLf	Ulf	SFCf	QS1 <sup>1</sup>	QS2 <sup>1</sup>	QS3 <sup>1</sup>
		units: lb/acre	%	g	g		in	%	g/tex	%	%	in	in	in	in	in	%	%			
Ark 1704-53	1	<b>1374</b>	<b>44.5</b>	5.4	10.2	4.3	1.29	<b>85.2</b>	31.1	6.8	<b>4.5</b>	1.242	0.934	1.217	0.651	0.688	75.2	18.0	55	57	63
Ark 1706-45	2	<b>1454</b>	<b>44.5</b>	5.8	10.1	4.7	1.23	84.1	30.9	<b>7.3</b>	6.0	1.178	0.886	1.148	0.616	0.658	75.2	20.4	43	48	54
Ark 1704-26	3	<b>1401</b>	<b>46.4</b>	5.3	10.3	4.8	1.19	83.4	30.1	7.0	6.9	<b>1.132</b>	0.844	1.104	0.573	0.583	74.5	22.1	50	60	56
Ark 1720-52	4	<b>1447</b>	<b>45.0</b>	5.7	9.8	4.8	1.22	84.8	30.9	6.7	6.2	1.177	0.896	1.147	0.640	0.691	76.1	18.5	52	59	59
Ark 1706-34	5	<b>1437</b>	<b>44.5</b>	5.4	10.0	4.7	1.22	84.5	30.8	6.8	6.6	1.162	0.868	1.138	0.597	0.618	74.6	20.3	<b>82</b>	<b>80</b>	<b>87</b>
TAM 18J-13	6	1072	38.8	<b>6.1</b>	<b>12.0</b>	4.2	<b>1.37</b>	<b>86.4</b>	<b>37.0</b>	6.0	<b>3.8</b>	<b>1.335</b>	<b>1.049</b>	<b>1.306</b>	<b>0.792</b>	<b>0.878</b>	<b>78.5</b>	<b>12.9</b>	<b>90</b>	<b>75</b>	<b>95</b>
TAM 19J-04	7	834	38.1	5.1	<b>12.1</b>	4.1	<b>1.36</b>	84.4	33.8	5.3	<b>3.8</b>	<b>1.286</b>	0.948	<b>1.255</b>	0.635	0.645	73.7	19.4	<b>76</b>	<b>73</b>	<b>82</b>
TAM 19O-09	8	1054	40.3	5.1	11.1	4.5	1.28	84.7	<b>35.4</b>	6.1	<b>4.9</b>	1.232	0.950	1.203	0.687	0.766	<b>77.1</b>	15.9	57	58	65
OA-25110	9	<b>1397</b>	<b>45.3</b>	5.1	9.6	4.7	1.24	84.0	32.7	5.5	5.9	1.183	0.895	1.151	0.630	0.659	75.5	19.7	48	46	59
OA-25111	10	1312	<b>45.3</b>	4.9	9.4	4.7	1.21	82.8	31.1	5.7	6.7	1.140	0.853	1.104	0.588	0.619	74.8	21.4	68	<b>64</b>	75
OA-25112	11	1135	44.3	4.5	9.0	4.5	1.25	84.1	33.9	5.6	5.3	1.192	0.913	1.162	0.652	0.724	<b>76.5</b>	18.0	<b>77</b>	<b>71</b>	<b>81</b>
OA-25113	12	1200	<b>46.2</b>	4.8	10.2	4.6	1.27	84.7	33.0	5.9	<b>4.8</b>	1.224	0.944	1.188	0.692	<b>0.770</b>	<b>77.1</b>	16.0	56	<b>63</b>	61
OA-25114	13	1154	<b>46.4</b>	4.7	9.4	4.9	1.21	84.8	31.0	<b>7.0</b>	5.9	1.178	0.905	1.145	0.662	0.729	<b>76.7</b>	17.5	<b>75</b>	<b>72</b>	80
GA2023279	14	1192	<b>45.7</b>	4.8	9.8	4.8	1.23	83.9	31.8	6.2	6.1	1.175	0.884	1.142	0.618	0.651	75.1	20.4	<b>72</b>	<b>71</b>	77
DP 393	15	<b>1370</b>	43.6	5.3	10.5	4.7	1.22	84.7	33.0	6.8	6.0	1.173	0.899	1.143	0.646	0.718	<b>76.6</b>	18.3	37	46	48
DP 493	16	1127	44.2	4.7	8.7	5.0	1.16	83.3	32.4	5.8	7.1	1.108	0.829	1.076	0.578	0.612	74.7	21.7	55	56	63
FM 958	17	1001	40.7	5.1	10.4	4.9	1.21	83.8	32.3	5.9	6.4	1.152	0.862	1.125	0.592	0.642	74.7	21.2	64	<b>66</b>	70
UA 222	18	<b>1360</b>	42.1	4.8	10.5	4.6	1.24	84.6	32.2	6.9	5.7	1.188	0.907	1.159	0.644	0.729	76.3	18.2	79	<b>76</b>	80
<b>Mean</b>		<b>1240</b>	<b>43.7</b>	<b>5.1</b>	<b>10.2</b>	<b>4.6</b>	<b>1.24</b>	<b>84.3</b>	<b>32.4</b>	<b>6.3</b>	<b>5.7</b>	<b>1.192</b>	<b>0.904</b>	<b>1.162</b>	<b>0.638</b>	<b>0.688</b>	<b>75.7</b>	<b>18.9</b>	<b>63.0</b>	<b>63</b>	<b>70</b>
Entry (P>F)		<0.0001	<0.0001	0.0002	<0.0001	<0.0001	<0.0001	0.0026	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0008	0.0035	0.0119	0.0276	<0.0001	0.0113	<0.0001
R-square		0.8373	0.7890	0.6184	0.7698	0.7604	0.7793	0.5378	0.6814	0.8792	0.6558	0.7057	0.6439	0.7154	0.5764	0.5325	0.5044	0.4729	0.5867	0.4392	0.6321
Entry LSD (0.05)		118	2.0	0.6	0.7	0.2	0.02	1.2	1.8	0.3	1.1	0.055	0.064	0.054	0.074	0.111	2.0	4.2	18	17	14
CV (%)		7.5	3.6	8.6	5.7	3.5	2.7	1.1	4.3	4.3	1.6	3.7	5.3	3.7	9.1	12.8	2.1	17.6	23.0	21.5	16.3

<sup>1</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 the 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)

<sup>2</sup>NS-Not significant at the 0.05 level of probability.