

Table 9. Least square means for yield and fiber quality traits in the 2024 RBTN at Stoneville, MS. Planted on 9 May 2024 and harvested on 5 Novemeber 2024. (Cooperator: J. Scheffler)

				HVI data				Fibrogram Data												
Genotype	LINT YIELD	LINT PERCENT	MIC	UHM	UI	STR	ELO	Short Fiber Index	UHMLf	MLf	UQLf	LHMLf	LQLf	Uif	SFCf	QS1 ¹	QS2 ¹	QS3 ¹	Protein	Oil
units	lb/acre	%	units	in	%	g/tex	%	%	in	in	in	in	in	%	%				%	%
ACX167-27-347	1595	43.6	5.3	1.20	85.5	33.2	6.2	5.90	1.155	0.893	1.124	0.652	0.750	77.4	18.04	46.00	63.50	53.25	14.3	19.5
Ark1620-030	1731	43.7	5.4	1.22	85.7	34.1	6.0	5.83	1.173	0.916	1.143	0.675	0.772	78.1	16.37	50.75	66.00	56.75	15.6	18.3
Ark1620-055	1640	43.5	5.5	1.23	85.8	34.0	6.7	5.70	1.183	0.914	1.153	0.668	0.741	77.2	16.78	51.75	66.75	58.00	14.4	17.8
Ark1620-098	1757	43.7	5.3	1.22	86.2	34.3	6.8	5.65	1.186	0.915	1.155	0.675	0.746	77.2	16.91	53.75	69.25	58.00	14.9	20.2
Ark1622-058	1672	44.1	5.6	1.16	84.4	33.3	6.7	6.80	1.099	0.828	1.069	0.576	0.621	75.3	21.26	25.00	52.50	36.50	15.7	18.0
Ark1622-086	1698	43.6	5.3	1.19	84.4	32.3	7.0	6.00	1.130	0.872	1.094	0.640	0.711	77.0	17.50	38.75	55.75	49.25	13.8	17.5
AU17014-45-250	1681	44.6	5.2	1.20	85.7	32.7	6.3	5.78	1.159	0.905	1.129	0.671	0.748	78.0	16.31	48.00	65.25	54.50	15.6	18.3
AU17016-19-285	1621	45.7	5.1	1.21	85.0	33.2	5.9	6.40	1.154	0.877	1.121	0.626	0.695	76.0	18.64	49.75	62.00	58.25	14.5	18.3
DP393	1691	43.3	5.2	1.20	85.0	33.2	6.9	6.20	1.140	0.877	1.111	0.633	0.704	76.9	18.09	43.75	60.25	52.75	14.8	16.8
DP493	1587	46.1	5.3	1.16	83.7	31.9	5.8	7.20	1.086	0.809	1.053	0.561	0.595	74.5	21.37	30.75	52.50	43.25	13.8	18.1
FM958	1339	40.3	5.1	1.26	85.2	33.7	6.0	5.30	1.197	0.920	1.165	0.672	0.742	76.8	16.77	65.25	67.00	71.75	15.6	18.6
GA2021049	1633	44.1	5.0	1.24	85.7	31.8	6.5	5.38	1.192	0.940	1.157	0.717	0.800	78.8	13.39	60.00	68.00	66.00	14.5	17.8
GA2021058	1658	45.7	5.0	1.21	85.2	32.1	6.7	6.10	1.158	0.890	1.128	0.639	0.722	76.9	18.30	52.75	64.00	60.50	15.7	19.3
GA2022052	1333	45.5	5.3	1.25	86.4	34.8	6.5	5.30	1.208	0.938	1.180	0.693	0.757	77.6	15.90	63.25	73.75	67.00	14.1	18.6
KS2202	1699	42.8	4.9	1.20	85.7	32.8	7.7	5.88	1.158	0.898	1.129	0.657	0.739	77.5	17.06	53.25	67.00	59.50	15.1	18.7
OA-24107	1517	43.0	5.0	1.21	85.2	31.1	6.9	6.50	1.155	0.879	1.128	0.619	0.667	76.1	18.95	53.25	64.25	60.50	14.4	18.9
OA-24108	1597	45.0	5.0	1.24	85.7	33.9	5.7	5.95	1.182	0.904	1.154	0.647	0.711	76.4	18.47	61.00	69.75	67.25	15.0	18.8
OA-24109	1501	45.6	4.9	1.28	85.7	36.0	5.6	4.80	1.224	0.957	1.191	0.709	0.807	78.2	14.92	74.75	76.25	81.00	15.9	18.1
PD2018041	1092	40.0	5.0	1.29	86.8	36.3	5.8	4.53	1.249	0.990	1.217	0.755	0.851	79.2	13.25	78.00	83.50	81.00	16.4	18.9
PD2018060	1251	38.6	5.0	1.29	85.9	34.1	5.7	4.63	1.234	0.961	1.198	0.718	0.795	77.9	15.55	74.00	72.25	77.75	14.5	17.4
TAM18SHB-08	1413	43.7	5.0	1.20	84.7	33.8	6.3	6.40	1.142	0.871	1.112	0.621	0.676	76.1	19.52	50.25	62.25	59.75	14.7	19.0
TAM18WSL-37	1285	37.8	4.4	1.34	87.5	38.0	6.4	3.75	1.311	1.050	1.280	0.813	0.908	80.1	11.68	98.00	95.50	99.25	15.1	18.1
TAMYDC255	1091	37.8	4.5	1.34	88.1	39.5	6.0	3.78	1.316	1.071	1.283	0.850	0.946	81.4	10.56	98.00	98.25	98.75	14.5	19.0
UA222	1677	42.2	5.2	1.20	84.9	31.9	7.6	6.25	1.142	0.877	1.113	0.631	0.695	76.8	17.85	45.00	60.00	54.00	13.1	17.1
Mean	1532	43.1	5.1	1.23	85.6	33.8	6.4	5.66	1.181	0.914	1.149	0.672	0.745	77.4	16.81	56.88	68.14	63.50	14.8	18.4
Entry (P>F)	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.5223	0.7062
R-square	0.81	0.85	0.83	0.77	0.68	0.84	0.89	0.68	0.78	0.76	0.78	0.73	0.65	0.59	0.58	0.81	0.83	0.82	0.69	0.95
Entry LSD (0.05)	164	0.3	0.4	0.08	2.1	2.5	0.7	1.80	0.091	0.106	0.092	0.128	0.184	4.0	3.76	14.30	8.50	11.50	NS	NS
CV (%)	13.0	5.7	5.4	3.9	1.1	5.9	8.8	15.3	4.7	6.6	4.8	9.8	10.7	1.9	15.8	13.3	15.5	24.0	5.2	4.3

¹QS1, 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).

²NS- Not significant at the 0.05 level of probability.