

Table 5. Least square means for lint yield and fiber quality traits in the 2024 RBTN at Jackson, TN. Planted on 31 May 2024 and harvested on 4 November 2024. (Cooperator: Tyson Raper)

				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	1313	43.0	4.9	1.18	84.2	31.8	6.2	6.43	1.132	0.865	1.099	0.624	0.687	76.3	19.02	47.50	62.75	55.75	11.1	16.2
Ark1620-030	1078	41.0	4.9	1.23	85.8	34.3	6.5	5.30	1.199	0.942	1.170	0.709	0.786	78.5	15.23	68.50	77.50	71.50	11.8	18.3
Ark1620-055	1364	43.0	4.7	1.25	85.2	32.7	7.3	5.50	1.199	0.911	1.170	0.646	0.686	76.0	18.61	73.00	73.25	76.00	12.1	18.6
Ark1620-098	1343	43.0	4.6	1.22	85.1	33.0	7.5	5.78	1.178	0.910	1.143	0.671	0.735	77.2	18.10	65.50	73.00	70.50	13.2	17.7
Ark1622-058	1332	44.0	4.9	1.18	84.2	32.1	6.8	6.53	1.130	0.859	1.099	0.608	0.657	76.0	19.95	47.00	62.25	55.75	11.9	17.9
Ark1622-086	1240	42.0	4.6	1.20	84.5	31.6	7.2	5.70	1.156	0.900	1.124	0.664	0.764	77.9	16.71	59.75	67.25	66.25	11.6	17.9
AU17014-45-250	976	44.0	4.7	1.19	84.7	31.2	6.5	6.00	1.146	0.889	1.118	0.647	0.731	77.5	17.45	54.50	67.25	61.25	11.0	14.5
AU17016-19-285	1294	44.0	4.9	1.20	84.9	32.8	6.0	6.28	1.147	0.884	1.123	0.631	0.697	77.0	18.67	54.50	67.75	60.00	11.9	15.1
DP393	1242	43.0	4.9	1.17	84.7	31.6	6.9	6.13	1.118	0.866	1.095	0.626	0.705	77.4	17.94	46.50	64.75	53.75	10.5	16.8
DP493	1140	43.0	4.8	1.17	83.4	30.6	5.5	7.03	1.096	0.826	1.070	0.566	0.600	75.3	21.38	43.75	57.50	55.25	9.3	15.6
FM958	1043	41.0	4.7	1.21	83.9	32.3	6.0	6.35	1.146	0.873	1.113	0.619	0.681	76.1	19.16	58.50	63.50	66.75	11.0	17.5
GA2021049	1066	44.0	4.8	1.20	84.5	30.9	6.4	6.28	1.146	0.876	1.112	0.637	0.696	76.3	18.24	54.00	65.50	61.00	10.5	14.5
GA2021058	1021	45.0	4.5	1.22	85.2	31.5	6.7	5.45	1.176	0.916	1.146	0.681	0.764	77.8	15.18	67.75	73.25	72.00	10.5	14.7
GA2022052	1027	42.0	4.8	1.19	83.6	31.5	6.8	7.25	1.124	0.833	1.093	0.567	0.583	74.1	22.80	50.75	60.00	60.75	11.3	18.3
KS2202	860	43.0	4.9	1.20	85.3	33.1	7.2	5.50	1.163	0.917	1.131	0.691	0.796	78.8	15.91	56.25	71.25	61.25	10.3	14.3
OA-24107	1094	42.0	4.3	1.19	84.0	29.9	7.0	6.70	1.129	0.850	1.101	0.592	0.641	75.2	19.47	57.00	64.25	65.75	10.1	13.8
OA-24108	1168	44.0	4.6	1.22	84.5	33.6	5.8	6.03	1.158	0.891	1.131	0.638	0.726	76.9	17.59	63.50	68.50	70.25	10.3	15.4
OA-24109	1274	44.0	4.3	1.23	83.9	33.6	5.6	6.20	1.158	0.885	1.128	0.629	0.706	76.4	18.01	66.50	67.00	74.75	9.9	14.1
PD2018041	954	39.0	4.6	1.24	84.5	34.3	5.6	5.73	1.182	0.903	1.149	0.650	0.710	76.4	17.71	69.50	70.75	75.75	10.7	15.2
PD2018060	877	39.0	4.4	1.23	84.0	32.0	5.7	6.20	1.170	0.878	1.136	0.612	0.650	75.0	19.87	68.25	67.00	75.50	11.3	15.2
TAM18SHB-08	1100	43.0	4.5	1.16	83.4	32.2	6.2	6.70	1.098	0.836	1.067	0.596	0.654	76.0	20.03	45.00	59.00	56.50	12.7	20.0
TAM18WSL-37	395	36.0	3.7	1.35	87.6	37.4	6.2	3.70	1.335	1.065	1.306	0.823	0.927	79.8	12.06	85.50	93.00	85.75	12.3	17.8
TAMYDC255	745	38.0	4.2	1.30	87.2	38.1	6.3	3.95	1.282	1.039	1.249	0.826	0.936	81.1	11.86	95.75	97.50	96.75	12.0	18.0
UA222	1046	42.0	4.6	1.21	84.1	31.6	7.0	6.07	1.149	0.879	1.120	0.624	0.699	76.5	18.27	60.50	65.25	68.25	12.6	17.8
Mean	1083	42.2	4.6	1.21	84.6	32.6	6.4	5.94	1.163	0.895	1.133	0.649	0.717	76.9	17.88	60.80	69.12	67.37	11.2	16.5
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	0.0006	<0.0001
R-square	0.70	0.76	0.60	0.72	0.62	0.77	0.82	0.69	0.74	0.72	0.74	0.70	0.64	0.61	0.59	0.64	0.69	0.66	0.57	0.95
Entry LSD (0.05)	252	1.0	0.4	0.08	2.6	3.2	0.9	0.9	0.099	0.116	0.099	0.135	0.210	4.1	3.6	15.70	10.50	12.50	1.7	2.6
CV (%)	20.4	5.2	6.1	3.5	1.2	5.9	9.2	13.8	4.5	6.3	4.6	9.9	11.7	2.0	14.1	20.7	13.6	15.3	8.8	10.6

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.