

Table 5. Least square means for yield and fiber quality traits in the 2023 RBTN at Stoneville, MS. Planted 9 May 2023 and harvested on 24 October 2023. (Cooperator: J. Scheffler)

Genotype	HVI data							Fibrogram Data								QS1 ¹	QS2 ¹	QS3 ¹
	LINT YEILD	LINT PERCENT	MIC	UHM	UI	STR	ELO	Short Fiber Index	UHMLf	MLf	UQLf	LHMLf	LQLf	Uif	SFCf			
units	lb/acre	%	units	in	%	g/tex	%	%	in	in	in	in	in	%	%			
Ark 1514-34	1039	36.5	5.0	1.24	85.8	34.6	6.2	5.35	1.198	0.946	1.169	0.712	0.804	78.90	14.25	56.75	71.00	62.25
Ark 1512-32	1025	37.6	5.2	1.24	85.7	33.7	6.3	5.55	1.202	0.934	1.170	0.691	0.750	77.60	16.26	54.75	68.00	60.00
Ark 1510-28	1018	34.7	5.3	1.26	85.9	35.0	5.7	5.10	1.218	0.952	1.189	0.704	0.793	78.10	15.19	58.50	71.50	63.25
UA 222 CK	967	34.6	5.1	1.26	85.1	33.9	6.9	5.23	1.205	0.928	1.173	0.673	0.753	77.00	16.14	59.00	66.00	65.25
OA-23104	967	38.8	5.0	1.24	85.1	37.6	5.2	5.45	1.195	0.933	1.168	0.685	0.771	78.00	14.75	46.75	65.75	57.75
OA-23105	939	38.5	5.0	1.25	85.0	37.8	5.2	5.23	1.199	0.934	1.168	0.688	0.779	77.90	14.81	55.75	73.00	63.00
OA-23106	908	37.4	5.2	1.26	85.4	35.8	5.2	5.13	1.216	0.939	1.185	0.685	0.769	77.20	16.43	54.75	65.00	61.75
DP 393 CK	883	36.6	5.2	1.22	86.1	36.5	6.1	5.33	1.195	0.952	1.165	0.727	0.828	79.60	13.37	73.50	85.25	78.00
DP 493 CK	871	38.0	5.4	1.19	83.9	34.9	5.2	7.08	1.130	0.843	1.099	0.577	0.602	74.60	21.20	84.25	81.50	86.25
Ark 1510-31	865	36.6	5.6	1.25	85.3	35.8	6.0	5.48	1.208	0.924	1.178	0.670	0.727	76.40	17.25	52.00	67.25	58.75
PD 2017030	857	34.1	5.1	1.28	86.6	39.0	5.2	4.40	1.255	0.983	1.221	0.742	0.831	78.30	14.38	58.00	71.75	67.00
Ark 1519-16	852	37.0	5.1	1.25	84.5	33.8	6.7	5.53	1.195	0.922	1.160	0.675	0.727	77.10	16.12	55.75	62.25	63.75
GA 2018139	826	35.6	5.2	1.25	85.0	34.6	6.0	5.55	1.190	0.916	1.163	0.657	0.742	77.00	16.78	54.50	65.75	63.00
17020-22-9-9	813	37.5	5.0	1.24	85.0	36.0	5.5	5.80	1.184	0.913	1.156	0.658	0.739	77.10	16.73	55.00	68.25	63.75
GA 2017126	810	35.8	5.0	1.21	84.6	36.9	5.6	6.05	1.156	0.891	1.126	0.642	0.720	77.00	17.15	33.25	55.00	45.50
GA 2017132	714	36.7	5.2	1.24	85.7	37.1	5.6	5.23	1.201	0.953	1.169	0.728	0.833	79.40	13.61	53.25	65.00	63.50
FM 958 CK	704	35.1	5.1	1.24	84.5	36.4	5.6	5.78	1.186	0.918	1.152	0.668	0.744	77.30	17.01	69.75	74.50	76.50
PD 20150030	695	29.8	5.0	1.28	85.3	37.1	5.1	4.48	1.236	0.966	1.200	0.723	0.821	78.20	14.68	59.75	70.25	66.00
GA 2017024	669	36.4	5.1	1.24	84.8	35.5	5.2	5.98	1.186	0.898	1.153	0.640	0.691	75.70	18.59	52.25	73.75	57.75
PD 20150002	483	31.8	4.9	1.33	86.3	35.9	5.6	3.93	1.283	1.007	1.253	0.749	0.840	78.50	13.72	60.50	72.50	69.75
Mean	845	36.0	5.1	1.25	85.3	35.9	5.7	5.38	1.202	0.933	1.171	0.685	0.763	77.55	15.92	57.40	69.66	64.63
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	0.0003	0.0001	0.0013	0.0004	<0.0001	<0.0001	<0.0001
R-square	0.77	0.89	0.58	0.64	0.56	0.79	0.92	0.61	0.65	0.57	0.64	0.53	0.54	0.51	0.50	0.66	0.67	0.68
Entry LSD (0.05)	132	1.9	0.2	0.03	1.1	1.2	0.3	0.90	0.039	0.049	0.039	0.064	0.087	2.06	3.06	11.75	8.00	9.50
CV (%)	16.5	6.1	3.1	2.2	0.8	4.0	9.4	12.2	2.7	3.7	2.7	5.9	7.6	1.5	11.9	17.6	9.4	13.1

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.