

RUBBER.

RUBBER TAPPING EXPERIMENTS, HENARATGODA.

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These experiments were started in April 1923, upon a block of rubber planted in 1913. The trees available were divided into three groups of 20 trees each. The average girths of the groups were as follows:—Group 1—36.25 inches, Group 2—36 inches, Group 3—36.75 inches. Group 1 was tapped on one-third circumference with a single cut to the left at an angle of 16° starting at its lowest point at a height of 24 inches from the ground. Group 2 was similarly tapped on one half circumference, and Group 3 on $\frac{1}{4}$ circumference. The experiments were designed to test the relative values in yield of rubber from tappings on $\frac{1}{2}$, $\frac{1}{3}$, and $\frac{1}{4}$ circumferences.

The tapping has been done by one tapper on alternate days throughout the year (Sundays included), and records for the individual tree yields have been kept. The results in grammes for the 21 months (April 1923 to December 1924) are given in the annexed tables.

From these figures the following facts may be ascertained:—

Ratios Between Yields for Nine Months in 1923 and Yields for 12 Months in 1924.

			grammes		
1923	Half circumference	...	24,944	=	100
1924	" "	...	42,529	=	170
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1923	Third circumference	...	19,986	=	100
1924	" "	...	33,484	=	167.5
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1923	Quarter circumference	...	13,129	=	100
1924	" "	...	24,765	=	188.6

From these figures it is seen that the relative ratios for the quarters is somewhat in excess of those for the thirds and halves.

PROPORTIONATE YIELDS.

1923	$\frac{1}{2}$:	$\frac{1}{3}$:	$\frac{1}{4}$	=	24,944	:	19,986	:	13,129
						=	100	:	76.5	:	52.7
1924	$\frac{1}{2}$:	$\frac{1}{3}$:	$\frac{1}{4}$	=	42,529	:	33,484	:	24,765
						=	100	:	78.7	:	58.8

These figures show an improvement in the yields secured from the tappings in the year 1924. They also show a marked superiority in the yields of the tappings of the thirds over what would have been expected. An analysis of the individual yields shows that this is due to abnormally high yields from one tree in 1923 and from two trees in 1924. If their yields are eliminated from the averages the ratios stand at 73.1 in 1923 and 68.8 in 1924.

FREQUENCY OF YIELDS.

If an examination is made of the frequency of yields, due allowance being given to the units of bark removed, the following figures are obtained :—

				Number of Trees.						
				1923			1924			
				$\frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{2}$	
Under	400	532	800	grammes	4	4	7	—	—	1
Up to	600	798	1,200	„	4	3	4	1	—	5
	800	1,064	1,600	„	5	6	2	6	4	2
	1,000	1,333	2,000	„	4	3	4	2	5	3
	1,200	1,596	2,400	„	3	2	2	2	3	2
	1,400	1,862	2,800	„	—	1	1	1	1	1
	1,600	2,128	3,200	„	—	—	—	1	3	1
	1,800	2,394	3,600	„	—	—	—	3	1	2
	2,000	2,666	4,000	„	—	—	—	2	1	3
	2,200	2,926	4,400	„	—	1	—	1	—	—
above	2,400	3,132	4,800	„	—	—	—	1	2	—

These figures show that the group being tapped on $\frac{1}{2}$ has the largest percentage of low yielders while the group being tapped on $\frac{1}{3}$ rd has two outstanding yielders. The group tapped on $\frac{1}{4}$ was more uniform in individual yields than the other two groups in 1923, but in 1924, the range of individual yields in this group widened considerably and this accounts for the relative increase in yield in favour of this group. Similarly, the relatively high yields in the group tapped on the thirds is due to the yields from two high yielders.

PROPORTION OF SCRAP.

The percentage of scrap on total rubber is shown in the following table :—

	1923	1924
Quarters	10' 1%	11' 3%
Thirds	10' 0%	9' 5%
Halves	14' 2%	14' 5%

Although these percentages are fairly constant, an examination of the individual yields show that, whereas some trees give very low percentages of scrap, others give a very high percentage.

CONCLUSIONS.

It would be unsafe to draw any definite conclusions from an experiment conducted for a limited period with a small number of trees in single groups showing markedly different individual yields. The group tapped on thirds shows the highest relative figures, but this is shown to be due to the presence in this group of abnormally high yielders. Tapping on two quarters instead of upon one half would be expected to give increased yields, but it is questionable whether this yield might not be in the form of scrap rather than in the form of first quality rubber. Such an increase—in the form of scrap—would not warrant the adoption of this method which involves greater labour unless it is found that bark renewal is very considerably better.

These results clearly demonstrate the necessity of a very large amount of duplication in tapping experiments with rubber if the errors due to the individuality of the trees is to be eliminated.

HENARATGODA RUBBER TAPPING RESULTS.

April to December 1923.

No. of Tree.	April		May		June		July		August		Sept.		Oct.		Nov.		Dec.		Total for Grand period		Total
	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	
1	65	14	75	15	63	15	48	12	62	10	98	14	109	14	99	19	177	20	791	188	924
2	275	11	326	12	274	15	208	13	184	14	235	18	386	28	357	17	311	18	2566	141	2707
3	38	5	38	4	36	4	39	4	41	4	61	7	77	4	99	4	131	6	560	42	602
4	35	16	61	18	39	13	35	10	41	11	71	11	78	11	120	13	134	12	614	115	729
5	188	5	66	4	66	4	75	4	68	5	100	7	125	8	128	6	125	4	891	42	933
6	83	26	124	16	142	36	120	27	97	30	146	46	171	41	205	36	169	38	1257	296	1553
7	13	11	25	3	14	3	15	8	15	9	25	11	58	6	72	6	84	9	321	76	397
8	66	6	88	10	69	9	87	8	78	10	100	11	188	15	172	14	164	18	937	96	1033
10	106	9	143	12	136	12	120	10	107	12	118	4	146	9	151	11	144	15	1171	94	1265
12	68	9	90	6	57	6	54	5	51	5	85	7	120	6	136	6	154	6	810	56	866
13	114	9	168	6	122	7	118	7	101	8	118	4	159	7	153	6	160	8	1213	62	1275
14	59	8	48	4	28	4	27	3	27	4	50	4	68	4	82	4	74	5	438	35	473
16	35	13	33	12	30	9	47	20	26	9	39	4	68	10	65	11	65	14	418	102	520
21	32	7	46	8	25	7	20	8	24	7	53	4	78	7	82	9	80	11	440	68	508
22	69	6	95	4	68	4	57	4	52	4	82	4	109	4	134	4	131	5	797	39	836
23	11	6	35	6	92	6	75	5	80	7	82	4	100	6	121	6	133	6	839	52	891
24	142	14	171	20	132	22	154	14	165	24	167	25	250	26	287	25	290	12	1658	182	1840
25	146	12	165	4	164	4	110	3	76	5	110	4	178	4	212	6	136	6	1287	48	1335
26	80	16	58	13	57	9	52	8	40	9	61	11	87	11	110	18	100	14	645	104	749
29	34	14	46	20	20	24	26	20	11	30	39	25	45	27	65	26	54	30	389	216	555
	1,624	212	1,841	202	1,634	218	1,486	193	1,866	217	1,835	225	2,555	288	2,850	242	2,796	252	17,967	1,999	19,966

1/3 Circumference

HENARATGODA RUBBER TAPPING RESULTS.

January 1924 to December 1925.

No. of Tree	January		February		March		April		May		June		July		August		September		October		November		December		Total for period		Grand Total		
	Biscuits		Biscuits		Biscuits		Biscuits		Biscuits		Biscuits		Biscuits		Biscuits		Biscuits		Biscuits		Biscuits		Biscuits		Biscuits			Scrap	
	gms.	gms.	gms.	gms.	gms.	gms.	gms.	gms.	gms.	gms.	gms.	gms.	gms.	gms.	gms.	gms.	gms.	gms.	gms.	gms.	gms.	gms.	gms.	gms.	gms.	gms.		gms.	gms.
1	159	26	70	34	286	19	124	27	99	26	92	23	111	26	196	44	239	38	178	35	151	32	227	28	358	2,290			
2	249	26	137	25	272	24	297	25	281	16	179	10	227	17	283	18	313	24	297	17	243	20	386	21	3,164	3,405			
3	110	5	105	5	97	4	106	4	101	4	51	2	57	7	94	6	107	12	56	12	72	7	102	7	1,058	75	1,133		
4	89	7	60	12	110	10	120	12	112	13	87	8	101	13	142	13	154	14	115	15	122	13	157	22	1,369	152	1,521		
5	103	5	52	6	60	5	111	5	100	4	84	5	107	4	104	5	96	4	89	4	78	3	102	6	1,086	56	1,142		
6	147	27	99	37	150	41	133	29	110	27	68	16	112	27	154	31	145	36	142	30	98	37	172	42	1,550	380	1,910		
7	80	9	93	12	86b	10	75	7	68	8	54	7	78	10	121	10	110	9	103	10	115	10	142	11	1,125	113	1,238		
8	157	8	149	10	193	9	167	10	149	10	121	6	158	4	185	12	173	13	133	14	152	7	179	14	1,916	117	2,033		
10	109	22	59	17	160	24	167	13	138	12	102	2	133	14	161	12	132	14	132	14	113	18	123	21	1,529	189	1,718		
12	127	9	108	7	102	5	129	5	117	4	70	3	89	3	117	6	117	5	110	8	138	8	165	8	1,389	71	1,460		
13	169	7	152	8	149	6	150	8	144	5	108	4	160	5	190	9	195	5	171	7	170	8	219	9	1,977	81	2,058		
14	82	7	40	7	64	3	58	4	52	4	44	3	57	6	89	6	85	4	75	5	83	4	107	7	836	60	896		
18	52	18	45	41	44	13	38	13	51	5	47	6	59	12	69	8	72	8	67	9	64	8	87	15	695	156	851		
21	44	17	57	7	78	9	80	8	73	7	61	6	72	9	70	9	61	8	66	12	76	9	92	12	830	113	943		
22	128	6	146	5	103	4	92	3	78	3	55	2	66	12	107	6	106	4	147	2	161	5	233	11	1,422	63	1,485		
23	98	10	68	8	71	6	94	6	93	5	59	5	84	8	103	9	83	8	83	8	92	6	119	10	1,047	89	1,136		
24	239	25	223	46	511	21	344	25	295	18	244	20	235	22	307	28	256	24	231	26	236	26	300	25	3,421	306	3,727		
25	201	7	152	7	204	3	187	7	160	3	12	2	163	4	305	6	247	5	238	5	214	7	245	6	2,418	62	2,480		
26	89	14	70	12	66	13	68	14	73	10	76	8	76	10	94	11	88	10	87	10	84	12	95	13	966	137	1,103		
29	36	30	31	28	25	33	22	29	37	18	39	15	54	37	64	28	63	28	65	31	58	34	100	50	594	361	955		
	2,468	285	1,916	334	2,831	262	2,562	252	2,331	202	1,743	159	2,199	250	2,955	277	2,842	273	2,585	274	2,520	274	3,552	338	30,304	3,180	33,484		

1/3 Circumference

HENARATGODA RUBBER TAPPING RESULTS.

April to December, 1923.

No. of Tree	April		May		June		July		August		September		October		November		December		Total for Period		Grand Total	
	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap		gms.
30	125	35	165	72	125	72	163	163	40	158	102	256	96	245	94	247	130	256	114	1740	715	2,455
31	97	16	139	16	117	16	119	15	15	90	13	160	11	221	15	291	20	243	22	1,477	138	1,615
33	29	5	29	5	24	3	22	3	3	19	5	39	4	45	4	55	5	52	7	314	43	357
34	157	30	166	33	140	28	143	28	28	155	25	199	18	225	23	286	21	294	36	1,765	251	2,016
35	26	18	31	24	36	24	44	24	24	40	24	135	39	367	31	487	21	291	60	1,457	265	1,722
36	35	13	36	14	52	12	34	12	12	27	13	68	14	87	14	73	16	77	21	489	133	622
38	19	22	32	18	39	18	57	20	20	55	22	71	21	107	16	110	22	120	25	610	183	793
40	18	8	54	7	41	7	23	7	7	32	8	82	7	76	8	102	9	60	10	488	71	559
41	55	19	76	20	81	18	64	18	18	62	17	118	21	161	21	161	18	146	21	924	180	1,104
42	59	23	135	20	178	12	146	12	12	130	13	192	18	195	14	198	16	145	15	1,378	155	1,533
43	77	26	133	12	125	9	89	9	9	82	10	128	7	145	11	334	10	336	14	1,549	115	1,664
44	9	36	16	38	18	20	13	13	20	11	33	32	46	60	84	51	68	48	48	311	357	668
46	70	10	89	6	98	5	80	5	5	81	6	100	4	126	5	174	4	135	5	954	53	1,006
48	86	18	82	16	103	15	116	15	15	115	14	178	11	317	20	415	17	375	22	1,787	154	1,941
49	71	30	65	25	63	26	50	26	26	77	28	278	21	403	24	483	24	337	35	1,827	239	2,066
50	58	11	64	17	106	14	79	14	14	89	16	128	18	127	21	169	19	134	28	953	159	1,113
51	66	15	66	16	94	17	119	17	17	109	24	157	21	177	20	216	21	181	27	1,185	182	1,367
52	32	10	53	8	81	8	88	8	8	83	9	135	11	147	10	182	14	192	14	993	94	1,087
54	52	4	69	6	77	5	59	5	5	46	5	57	4	71	5	71	4	80	6	582	45	627
55	29	4	85	5	67	4	41	4	4	46	5	71	4	67	3	125	4	57	5	588	41	629
	1,170	353	1,585	378	1,665	378	1,549	311	1,507	392	2,584	396	3,469	386	4,263	446	3,579	535	21,371	3,573	24,944	

† Circumference.

HENARATGODA RUBBER TAPPING RESULTS.
January 1924, to December 1924.

No. of Tree	January		February		March		April		May		June		July		August		September		October		November		December		Total for period		Grand Total	
	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap		gms.
30	145	142	123	144	176	140	206	147	251	91	86	172	120	236	104	262	110	231	104	231	104	227	158	145	209	2399	1491	3,890
31	199	24	181	21	233	21	256	20	203	14	158	194	8	240	18	222	15	198	15	198	15	180	16	243	23	2507	206	2,713
33	40	8	39	6	42	4	35	5	33	3	25	34	3	56	6	53	5	62	33	62	33	58	6	91	8	568	90	658
34	232	40	230	31	239	25	220	20	239	16	193	204	19	248	23	270	22	278	30	278	30	285	45	377	47	3015	331	3,346
35	235	53	259	50	201	42	239	31	221	28	218	190	30	304	24	334	42	351	39	351	39	360	36	384	41	3,296	431	3,727
36	88	28	55	25	52	23	67	27	46	6	36	50	10	68	10	78	12	49	12	49	12	54	11	67	15	710	189	899
38	92	29	68	51	47	28	62	13	65	9	78	110	18	100	28	78	21	65	26	65	26	93	29	155	33	1,013	298	1,311
40	64	7	33	8	45	23	46	8	106	8	55	92	10	90	10	91	9	66	10	66	10	67	10	84	14	839	123	962
41	60	19	108	26	90	27	99	19	103	14	66	97	12	122	10	119	19	129	20	129	20	137	24	186	30	1,316	241	1,557
42	124	14	109	18	146	22	191	21	177	18	110	119	18	193	21	190	30	158	17	158	17	173	26	179	34	1,869	251	2,120
43	273	22	124	53	275	19	240	15	269	19	216	268	13	244	13	347	18	317	17	317	17	347	19	444	25	3,364	221	3,585
44	72	52	41	55	34	56	31	62	35	36	31	47	41	62	56	66	51	60	52	60	52	51	45	75	52	605	594	1,199
46	122	5	80	3	120	3	138	4	139	3	107	144	23	194	8	198	6	197	6	197	6	189	6	208	7	1,836	78	1,914
48	322	21	121	28	283	30	326	18	153	13	206	271	21	386	22	370	76	322	19	322	19	254	26	375	21	3,389	310	3,699
49	271	49	119	74	199	52	190	45	179	24	82	185	27	274	36	316	31	258	5	258	5	239	30	292	51	2,604	448	3,052
50	123	23	110	39	197	26	160	25	131	18	81	97	15	140	23	103	24	84	26	84	26	100	33	150	37	1,476	305	1,781
51	161	21	167	20	116	29	125	20	118	12	135	136	15	159	12	173	14	167	13	167	13	187	17	257	22	1,901	207	2,108
52	147	19	59	27	216	19	177	13	146	12	129	113	16	147	13	189	19	147	12	147	12	154	12	178	17	1,802	191	1,993
54	67	7	40	6	81	5	103	6	105	4	69	91	6	115	6	108	6	94	4	94	4	117	6	122	8	1,112	69	1,181
55	52	4	25	3	48	4	80	3	69	6	42	85	4	80	7	78	15	59	3	59	3	67	6	85	6	770	64	834
	2,889	587	2,091	668	2,840	598	2,991	522	2,788	354	2,198	2,699	429	3,458	459	3,645	545	3,292	463	3,292	463	3,339	553	4,161	636	36,391	6,138	42,529

1/2 Circumference.

HENARATGODA RUBBER TAPPING RESULTS
April to December 1923.

No. of Tree	April		May		June		July		August		Sept.		Oct.		Nov.		Dec.		Total for period		Grand Total	
	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap
50	22	3	67	4	109	6	125	4	134	4	167	4	130	4	150	5	867	36	903			
61	94	5	49	4	52	4	68	10	137	10	200	9	181	8	891	8	891	53	944			
63	28	3	20	3	20	4	39	4	46	4	54	3	59	4	329	4	329	31	360			
66m	34	4	40	3	31	3	46	3	48	3	68	3	64	3	432	3	432	32	464			
69	23	5	33	3	33	11	43	3	49	3	52	12	50	17	351	17	351	84	435			
70	84	6	90	4	81	4	82	4	89	4	112	3	90	4	828	4	828	38	866			
71	52	4	54	4	37	5	61	6	74	6	85	5	75	5	575	5	575	41	616			
72	89	8	89	7	73	6	103	6	110	6	151	9	157	11	969	11	969	63	1032			
74	25	5	22	3	20	3	25	4	36	4	52	2	54	4	279	4	279	30	309			
75	15	7	19	11	16	12	25	14	31	14	51	15	51	12	253	12	253	93	346			
76	38	9	30	12	34	11	43	13	74	13	103	16	89	23	486	23	486	116	602			
78	46	7	58	7	36	6	39	6	64	6	79	6	96	12	569	12	569	66	635			
81	26	19	24	8	43	4	93	26	108	26	109	30	118	59	598	59	598	216	814			
83	34	9	44	7	49	5	85	6	124	6	109	5	117	8	699	8	699	62	761			
90	46	7	27	3	26	4	50	3	61	3	79	4	77	5	454	5	454	37	491			
91	64	9	90	4	90	4	114	5	149	5	196	5	151	5	1031	5	1031	45	1076			
95	41	9	56	5	50	5	71	7	69	7	89	6	83	9	584	9	584	57	641			
97	13	11	35	8	35	8	43	10	53	10	52	9	39	10	190	10	190	64	254			
98	7	8	12	6	12	6	21	8	32	8	44	6	40	10	1095	10	1095	75	1170			
100	78	9	99	7	98	10	121	9	138	9	178	9	180	10	11803	10	11803	1326	13129			
	659	151	958	119	945	121	1297	100	1626	150	2030	161	1901	221	11803	221	11803	1326	13129			

‡ Circumference

HENARATGODA RUBBER TAPPING RESULTS
January 1924 to December 1924.

No. of Tree	January		February		March		April		May		June		July		August		September		October		November		December		Total for period		Grand Total
	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	Biscuits	Scrap	
59	106	3	114	5	74	7	117	3	103	8	84	3	140	3	155	5	182	6	187	8	198	8	152	4	1,607	48	1,655
61	152	8	80	8	189	28	183	16	150	20	104	22	121	26	158	67	89	61	93	41	73	44	75	25	1,417	861	1,778
62	55	5	35	5	39	2	38	4	45	3	35	2	44	4	64	5	68	5	56	3	61	4	81	6	616	47	664
66	62	4	38	2	37	2	54	3	56	2	47	2	48	3	71	4	72	4	58	2	65	3	78	4	681	35	716
69	41	18	84	20	50	18	58	14	54	6	41	12	44	11	58	17	54	16	56	12	55	20	75	20	630	179	799
70	72	4	98	4	79	3	124	4	128	2	85	3	94	4	120	8	182	4	99	5	120	4	109	5	1,255	45	1,300
71	82	7	45	5	67	4	30	5	66	3	44	3	52	4	80	6	90	5	62	6	60	6	91	7	819	61	880
72	188	17	75	20	109	12	126	8	169	7	112	9	117	11	167	8	184	11	143	10	148	12	178	20	1,666	145	1,801
74	51	4	20	3	29	3	24	3	22	3	28	3	51	3	71	4	62	4	77	3	68	3	77	4	580	40	620
75	58	18	22	19	24	13	31	12	34	8	29	11	46	14	70	22	49	20	59	18	56	17	66	20	544	192	736
76	104	94	72	24	101	25	124	15	88	9	67	12	92	16	122	12	116	26	108	17	118	27	156	29	1,269	286	1,505
78	108	10	74	16	72	9	73	7	77	6	70	5	78	9	96	9	91	9	102	9	108	18	119	17	1,068	119	1,182
81	118	50	86	16	94	48	180	34	126	20	84	20	112	25	201	44	204	44	141	51	146	94	140	87	1,582	498	2,025
82	116	7	92	16	188	9	139	7	181	8	131	5	156	12	170	8	228	10	179	9	177	11	162	18	1,869	115	1,984
90	97	5	77	5	44	4	50	4	57	4	40	4	58	4	69	6	66	5	80	6	77	5	114	9	829	61	890
91	120	3	60	3	101	3	146	3	137	3	114	2	126	3	161	4	178	4	178	4	148	4	152	6	1,605	42	1,647
95	97	5	53	14	49	12	68	9	69	8	61	5	55	8	116	13	106	9	77	9	104	11	94	12	949	114	1,063
97	50	12	20	18	38	16	37	12	35	10	28	8	45	11	57	12	59	15	45	14	49	18	74	10	537	146	688
98	37	11	14	8	11	10	21	6	16	7	25	5	41	6	64	8	42	8	52	8	58	11	77	11	468	99	567
100	172	11	128	11	129	11	126	11	167	9	181	9	167	12	197	9	189	10	208	101	218	16	224	23	2,045	235	2,280
	1,821	226	1,182	217	1,474	229	1,698	180	1,770	151	1,360	145	1,686	189	2,267	265	2,251	276	2,056	331	2,092	323	2,284	282	21,951	2,814	24,765

1/4 Circumference

Girth measurements of the 1/3 girth Expt. Group I 3 ft. from ground. Girth measurements of the 1/2 girth Expt. Group II 3 ft. from the ground. Girth measurements of the 2/3 girth Expt. Group III 3 ft. from ground

Tree No.	Girth measurement		Tree No.	Girth measurement		Tree No.	Girth measurement	
	Feet	Inches		Feet	Inches		Feet	Inches
1	3	1	30	4	2	59	3	6
2	4	—	31	4	3	61	3	8½
3	3	6	33	2	9½	63	3	2½
4	3	1	34	3	½	66	3	2½
5	3	4	35	3	7½	69	4	2
6	3	9½	36	3	8	76	3	6
7	4	4	38	3	2½	71	4	1½
8	2	9½	40	2	9	72	3	8½
10	3	11¼	41	3	7½	74	3	2½
12	4	5½	42	3	2½	75	3	5
13	4	6½	43	4	2	76	4	½
14	3	6¾	44	3	6	78	3	9
18	3	—	46	3	4½	81	4	3
21	3	2	48	3	10	83	4	6
22	3	3	49	3	10½	90	4	—
23	2	11½	50	3	1	91	3	8
24	3	11½	51	3	4	95	3	5
25	3	7	52	4	3½	97	3	3
26	3	4½	54	2	6½	98	3	4½
29	3	2	55	2	8	100	4	3