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KARRI POLE VOLUME TABLE

PREPARED BY

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INVENTORY AND PLANNING SECTION

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GUIDE TO THE KARRI POLE VOLUME TABLE

This table has been constructed for use when assessing karri (*Eucalyptus diversicolor*) pole stands. The table is a three way table and provides volume underbark of sections of standing tree boles to a given height above ground, excluding a 30 centimetre stump. It also gives volume underbark to a top diameter limit (T.D.L.) of 15 centimetres underbark and a volume underbark of the stump section between 10 centimetres and 30 centimetres above ground. T.D.L. and volume underbark of stump measurements are tabulated down the right hand side of the table.

The table was constructed from measurements of 220 trees.

VOLUME TABLE CONSTRUCTION

1. TABULATION

1.1 Total Heights are tabulated for

- 10 - 20 metres in 1 metre increments
- 20 - 60 metres in 2 metre increments

1.2 Heights Above Ground are tabulated within each total height class as:

- 1 - 5 metres in 0.5 metre increments
- 5 - 20 metres in 1.0 metre increments
- 20 - 44 metres in 2.0 metre increments

1.3 Diameter at Breast Height Overbark (D.B.H.O.B.) is tabulated in 1 centimetre increments to 120 centimetres.

1.4 Volumes are in cubic metres.

2. ALLOWANCES

2.1 Stump Heights

Nominal stump height is 30 centimetres.

2.2 Bark Thickness

Taken to be 1 centimetre for every 10 centimetres of diameter overbark to a maximum of 7 centimetres.

3. CALCULATIONS

3.1 Diameter at Breast Height Underbark (cm)

$$\text{DBHUB} = -2.28602 + (0.94091 \cdot \text{DBHOB})$$

3.2 Diameter at Height 'H' (cm)

$$\begin{aligned} \text{Given THH} &= \text{Total Height} \\ \text{DBHUB} &= \text{Diameter at Breast Height Underbark} \\ \text{BH} &= \text{Breast Height} = 1.3 \text{ metres} \end{aligned}$$

Let the parameters

$$\begin{aligned} \text{TAPER} &= (\text{THT} - \text{H}) / (\text{THT} - \text{BH}) \\ \text{P1} &= 0.11271744 \\ \text{P2} &= 0.86081824 \\ \text{P3} &= 22.30953 \\ \text{P4} &= -1.683813\text{E} - 02 \end{aligned}$$

$$\begin{aligned} \text{FACTOR} &= 1.0 - \text{P1} \cdot (\text{P2} - \text{TAPER}) \cdot (\text{P3} - \text{TAPER}) \\ &\quad \cdot (\text{P4} - \text{TAPER}) \cdot (1 - \text{TAPER}) \end{aligned}$$

Then Diameter at Height "H" = DBHUB . TAPER . FACTOR

3.3 Volumes (cu.m)

The volume of a bole section is calculated using the mid-section diameter and length of the section (Huber's Formula). Sections are of the lengths given by the difference between successive heights above ground. Volume to a tabulated height above ground is the sum of the volumes of the sections below, excluding stump volume for a stump height of 30 centimetres above ground.

Volume of the stump is given separately for the section between 10 centimetres and 30 centimetres above ground.

3.4 Crown Break (m)

Crown break is estimated to be two thirds total height. Volumes are estimated for additional heights. These volumes allow for actual crown breaks exceeding estimated crown break.

3.5 For trees exceeding the upper limits of this table refer to Mature Karri Volume Table.

HOW TO USE THE VOLUME TABLE

For consistency, where measurements are midway between classes, heights should be taken to the class below and diameters to the class above.

To calculate the volume underbark of a bole section:

1. Find the tabulated TOTAL HEIGHT nearest the one you have estimated.
2. Find the column having HEIGHT ABOVE GROUND nearest the height of the lower end of the bole section.
3. Find the row having the DBHOB nearest the DBHOB you have measured.
4. Read off the VOLUME LOWER, which is the volume from the stump to the lower end of the bole section.
5. Within the same TOTAL HEIGHT class, find the column having the HEIGHT ABOVE GROUND nearest the height of the upper end of the bole section.
6. As for 3.
7. Read off the VOLUME UPPER, which is the volume from the stump to the upper end of the bole section.
8. Volume of section = VOLUME UPPER - VOLUME LOWER.

To calculate volume underbark to the TOP DIAMETER LIMIT (T.D.L.).

1. Find the tabulated TOTAL HEIGHT nearest the one you have estimated.
2. Find the row having DBHOB nearest the DBHOB you have measured.
3. Read off volume to T.D.L. 15 centimetres.

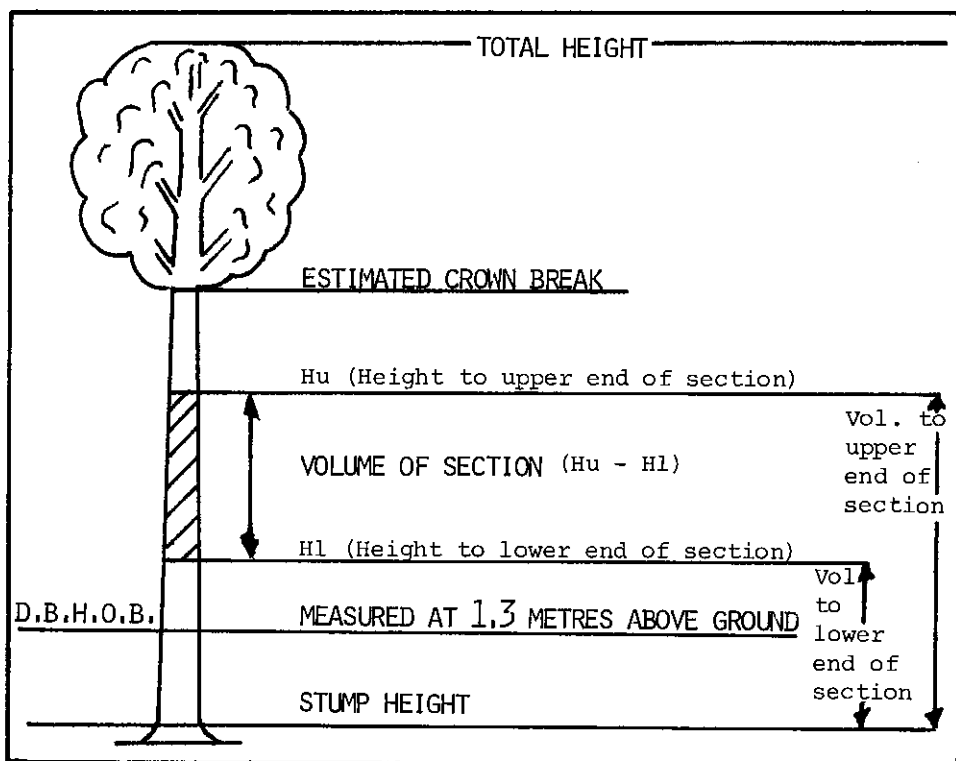
To calculate volume underbark of the stump, follow procedure for volume to T.D.L. Use column headed 10 - 30cm to read off stump volume.

EXAMPLE

1. Volume of a section

Estimated TOTAL HEIGHT (THT)	= 20.0 metres
Estimated HEIGHT to lower end of section	= 7.0 metres
Measured DBHOB	= 71 centimetres
Volume underbark to 7 metres	= 1.74 cubic metres
Estimated HEIGHT to upper end of section	= 13.0 metres
Volume underbark to 13 metres	= 2.55 cubic metres
Volume of section = $H_u - H_l$	= 2.55 - 1.74 = 0.81 cubic metres

2. Volume to T.D.L. 15 centimetres underbark = 2.70 cubic metres
3. Volume of STUMP (10 - 30 centimetres) = 0.08 cubic metres





TOTAL HEIGHT = 10 METRES

VOLUMES ARE UNDERBARK, IN CUBIC METRES.

DBHOS FROM 5 TO 80CM CROWN BREAK IS ESTIMATED TO BE 7 METRES.

HEIGHT ABOVE GROUND IN METRES

D.B.H O.B. 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 6 7 8 9 O.B. 15 10-30 (CM) CM CM

D.B.H	O.B. 1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	6	7	8	9	O.B. 15	10-30	STUMP
(CM)	CM	CM	CM	CM	CM	CM	CM	CM	CM	CM	CM	CM	CM	CM	CM	CM
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
10	.00	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
11	.00	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
12	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
13	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
14	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
15	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
16	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
17	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
18	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
19	.02	.03	.03	.03	.04	.05	.05	.06	.06	.07	.07	.08	.08	.09	.09	.03
20	.02	.03	.04	.05	.06	.06	.07	.07	.08	.09	.09	.10	.10	.10	.10	.04
21	.02	.03	.04	.05	.06	.07	.08	.08	.09	.10	.10	.11	.11	.11	.11	.05
22	.02	.04	.05	.06	.07	.08	.08	.09	.10	.11	.12	.12	.12	.12	.12	.07
23	.03	.04	.05	.07	.08	.09	.09	.10	.11	.12	.13	.13	.13	.13	.13	.09
24	.03	.04	.06	.07	.08	.09	.10	.11	.12	.13	.14	.14	.15	.15	.15	.11
25	.03	.05	.06	.08	.09	.10	.11	.12	.13	.15	.15	.16	.16	.16	.16	.12
26	.03	.05	.07	.09	.10	.11	.12	.13	.14	.16	.17	.17	.18	.18	.18	.14
27	.04	.06	.08	.09	.11	.12	.13	.14	.16	.17	.18	.19	.19	.19	.19	.16
28	.04	.06	.08	.10	.12	.13	.15	.16	.17	.19	.20	.20	.21	.21	.21	.18
29	.04	.07	.09	.11	.13	.14	.16	.17	.18	.20	.21	.22	.22	.22	.22	.20
30	.05	.07	.10	.12	.14	.15	.17	.18	.20	.22	.23	.24	.24	.24	.24	.22
31	.05	.08	.10	.13	.15	.16	.18	.19	.21	.23	.25	.26	.26	.26	.26	.24
32	.05	.08	.11	.13	.16	.18	.19	.21	.23	.25	.27	.27	.27	.27	.27	.26
33	.06	.09	.12	.14	.17	.19	.21	.22	.24	.27	.28	.29	.30	.30	.30	.28
34	.06	.10	.13	.15	.18	.20	.22	.24	.26	.28	.30	.31	.31	.31	.31	.30
35	.06	.10	.13	.16	.19	.21	.24	.26	.27	.30	.32	.33	.34	.34	.34	.32
36	.07	.11	.14	.17	.20	.23	.25	.27	.29	.32	.34	.35	.36	.36	.36	.34
37	.07	.12	.15	.18	.21	.24	.27	.29	.31	.34	.36	.37	.38	.37	.37	.36
38	.08	.12	.16	.20	.23	.26	.28	.30	.33	.36	.38	.40	.40	.38	.38	.38
39	.08	.13	.17	.21	.24	.27	.30	.32	.34	.38	.41	.42	.42	.42	.41	.41
40	.09	.14	.18	.22	.25	.28	.31	.34	.36	.40	.43	.44	.45	.45	.45	.43
41	.09	.14	.19	.23	.27	.30	.33	.36	.38	.42	.45	.47	.47	.47	.47	.46
42	.10	.15	.20	.24	.28	.32	.35	.38	.40	.45	.48	.49	.50	.50	.50	.48
43	.10	.16	.21	.25	.29	.33	.37	.40	.42	.47	.50	.52	.52	.52	.52	.51
44	.11	.17	.22	.27	.31	.35	.38	.42	.44	.49	.52	.54	.55	.55	.55	.54
45	.11	.17	.23	.28	.32	.36	.40	.44	.47	.52	.55	.57	.57	.57	.57	.56
46	.12	.18	.24	.29	.34	.38	.42	.46	.49	.54	.58	.60	.60	.60	.60	.59
47	.12	.19	.25	.31	.36	.40	.44	.48	.51	.57	.60	.62	.63	.63	.63	.62
48	.13	.20	.26	.32	.37	.42	.46	.50	.53	.59	.63	.65	.66	.66	.66	.65
49	.13	.21	.28	.33	.39	.44	.48	.52	.56	.62	.66	.68	.69	.69	.69	.68
50	.14	.22	.29	.35	.40	.46	.50	.54	.58	.65	.69	.71	.72	.72	.72	.71
51	.14	.23	.30	.36	.42	.47	.52	.57	.61	.67	.72	.74	.75	.75	.75	.74
52	.15	.24	.31	.38	.44	.49	.55	.59	.63	.70	.75	.77	.78	.78	.78	.77
53	.16	.25	.32	.39	.46	.51	.57	.62	.66	.73	.78	.80	.81	.81	.81	.80
54	.16	.26	.34	.41	.48	.54	.59	.64	.68	.76	.81	.83	.84	.84	.84	.83
55	.17	.27	.35	.43	.49	.56	.61	.66	.71	.79	.84	.87	.88	.88	.88	.87
56	.18	.28	.36	.44	.51	.58	.64	.69	.74	.82	.87	.90	.91	.91	.91	.90
57	.18	.29	.38	.46	.53	.60	.66	.72	.77	.85	.90	.93	.94	.94	.94	.93
58	.19	.30	.39	.48	.55	.62	.69	.74	.80	.88	.94	.97	.98	.98	.98	.97
59	.20	.31	.41	.49	.57	.64	.71	.77	.82	.91	.97	.100	.101	.101	.101	.101
60	.20	.32	.42	.51	.59	.67	.74	.80	.85	.94	.101	.104	.105	.105	.105	.104
61	.21	.33	.44	.53	.61	.69	.76	.83	.88	.98	1.04	1.08	1.09	1.09	1.09	1.08
62	.22	.34	.45	.55	.63	.71	.79	.85	.91	1.01	1.08	1.11	1.12	1.12	1.12	1.12
63	.22	.35	.47	.57	.66	.75	.81	.88	.94	1.05	1.11	1.15	1.16	1.16	1.16	1.15
64	.23	.37	.48	.58	.68	.76	.84	.91	.98	1.08	1.15	1.19	1.20	1.20	1.20	1.19
65	.24	.38	.50	.60	.70	.79	.87	.94	1.01	1.12	1.19	1.23	1.24	1.24	1.24	1.23
66	.25	.39	.51	.62	.72	.81	.90	.97	1.04	1.15	1.23	1.27	1.28	1.28	1.28	1.27
67	.25	.40	.53	.64	.75	.84	.92	1.00	1.07	1.19	1.27	1.31	1.32	1.32	1.32	1.31
68	.26	.41	.55	.66	.77	.87	.95	1.03	1.11	1.23	1.31	1.35	1.36	1.36	1.36	1.35
69	.27	.42	.56	.68	.79	.89	.98	1.07	1.14	1.26	1.35	1.39	1.40	1.40	1.40	1.39
70	.28	.44	.58	.70	.82	.92	1.01	1.10	1.18	1.30	1.39	1.43	1.45	1.45	1.45	1.44
71	.29	.45	.60	.72	.84	.95	1.04	1.13	1.21	1.34	1.43	1.47	1.49	1.49	1.49	1.48
72	.30	.47	.61	.75	.87	.97	1.07	1.16	1.25	1.38	1.47	1.52	1.53	1.53	1.53	1.52
73	.30	.48	.63	.77	.89	1.00	1.10	1.20	1.28	1.42	1.51	1.56	1.58	1.58	1.58	1.57
74	.31	.49	.65	.79	.92	1.03	1.14	1.23	1.32	1.46	1.56	1.61	1.62	1.62	1.62	1.61
75	.32	.51	.67	.81	.94	1.06	1.17	1.27	1.36	1.50	1.60	1.65	1.67	1.67	1.67	1.66
76	.33	.52	.69	.83	.97	1.09	1.20	1.30	1.39	1.54	1.64	1.70	1.71	1.71	1.71	1.71
77	.34	.54	.71	.86	.99	1.12	1.23	1.34	1.43	1.59	1.69	1.74	1.76	1.76	1.76	1.75
78	.35	.55	.72	.88	1.02	1.15	1.27	1.37	1.47	1.63	1.73	1.79	1.81	1.81	1.81	1.80
79	.36	.56	.74	.90	1.05	1.18	1.30	1.41	1.51	1.67	1.78	1.84	1.86	1.86	1.86	1.85
80	.37	.58	.76	.93	1.08	1.21	1.33	1.45	1.55	1.72	1.83	1.89	1.91	1.91	1.91	1.90

D.B.H O.B. 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 6 7 8 9 O.B. 15 10-30 (CM) CM CM

HEIGHT ABOVE GROUND IN METRES

TOTAL HEIGHT = 11 METRES

VOLUMES ARE UNDERBARK, IN CUBIC METRES.

DBHOB FROM 5 TO 80CM

CROWN BREAK IS ESTIMATED TO BE 7 METRES.

HEIGHT ABOVE GROUND IN METRES

D.B.H O.B. (CM)	HEIGHT ABOVE GROUND IN METRES										D.B.H O.B. (CM)	T.D.L 15 CM	STUMP 10-30 CM			
	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	6				7	8	9
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.00
9	.00	.00	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.00
10	.00	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.00
11	.00	.01	.01	.01	.01	.01	.02	.02	.02	.02	.02	.02	.02	.02	.02	.00
12	.01	.01	.01	.01	.02	.02	.02	.02	.02	.02	.03	.03	.03	.03	.03	.00
13	.01	.01	.01	.02	.02	.02	.02	.03	.03	.03	.03	.04	.04	.04	.04	.00
14	.01	.01	.02	.02	.02	.03	.03	.03	.04	.04	.04	.04	.04	.04	.04	.00
15	.01	.01	.02	.02	.03	.03	.04	.04	.04	.05	.05	.05	.05	.05	.05	.00
16	.01	.02	.02	.03	.03	.04	.04	.04	.04	.05	.05	.06	.06	.06	.06	.00
17	.01	.02	.03	.03	.04	.04	.05	.05	.05	.06	.06	.07	.07	.07	.07	.00
18	.01	.02	.03	.04	.04	.05	.05	.06	.06	.07	.07	.08	.08	.08	.08	.00
19	.02	.03	.03	.04	.05	.05	.06	.06	.07	.07	.08	.09	.09	.09	.09	.00
20	.02	.03	.04	.05	.06	.06	.07	.08	.08	.09	.10	.10	.10	.10	.10	.00
21	.02	.03	.04	.05	.06	.07	.08	.08	.09	.10	.11	.11	.11	.12	.12	.00
22	.02	.04	.05	.06	.07	.08	.09	.09	.10	.11	.12	.13	.13	.13	.13	.00
23	.03	.04	.05	.06	.08	.08	.09	.10	.11	.12	.13	.14	.14	.14	.14	.00
24	.03	.04	.06	.07	.08	.09	.10	.11	.12	.13	.14	.15	.16	.16	.16	.00
25	.03	.05	.06	.08	.09	.10	.11	.12	.13	.14	.15	.16	.17	.17	.17	.00
26	.03	.05	.07	.09	.10	.11	.12	.13	.14	.15	.16	.18	.18	.18	.18	.00
27	.04	.06	.08	.09	.11	.12	.13	.14	.15	.16	.18	.19	.20	.21	.21	.00
28	.04	.06	.08	.10	.12	.13	.15	.16	.17	.19	.21	.22	.23	.24	.24	.00
29	.04	.07	.09	.11	.13	.14	.16	.17	.18	.21	.22	.23	.24	.25	.26	.00
30	.05	.07	.10	.12	.14	.15	.17	.19	.20	.22	.24	.25	.26	.27	.28	.00
31	.05	.08	.10	.13	.15	.16	.18	.20	.21	.24	.26	.27	.28	.31	.31	.00
32	.05	.08	.11	.13	.16	.18	.20	.21	.23	.26	.28	.29	.30	.32	.33	.00
33	.06	.09	.12	.14	.17	.19	.21	.23	.24	.27	.30	.31	.32	.33	.33	.00
34	.06	.09	.13	.15	.18	.20	.22	.24	.26	.29	.32	.33	.34	.34	.34	.00
35	.06	.10	.13	.16	.19	.21	.24	.26	.28	.31	.34	.35	.36	.35	.34	.00
36	.07	.11	.14	.17	.20	.23	.25	.27	.30	.33	.36	.37	.38	.36	.37	.00
37	.07	.11	.15	.18	.21	.24	.27	.29	.31	.35	.38	.40	.41	.37	.39	.00
38	.08	.12	.16	.19	.23	.26	.28	.31	.33	.37	.40	.42	.43	.38	.41	.00
39	.08	.13	.17	.21	.24	.27	.30	.33	.35	.39	.42	.44	.45	.39	.44	.00
40	.08	.13	.18	.22	.25	.29	.32	.34	.37	.41	.45	.47	.48	.46	.47	.00
41	.09	.14	.19	.23	.27	.30	.33	.36	.39	.44	.47	.49	.51	.41	.49	.00
42	.09	.15	.20	.24	.28	.32	.35	.38	.41	.46	.50	.52	.53	.42	.52	.00
43	.10	.16	.21	.25	.29	.33	.37	.40	.43	.48	.52	.55	.56	.43	.55	.00
44	.10	.16	.22	.27	.31	.35	.39	.42	.45	.51	.55	.57	.59	.44	.58	.00
45	.11	.17	.23	.28	.32	.37	.41	.44	.47	.53	.57	.60	.63	.46	.64	.00
46	.11	.18	.24	.29	.34	.38	.42	.46	.50	.56	.60	.63	.66	.47	.67	.00
47	.12	.19	.25	.30	.36	.40	.44	.48	.52	.58	.63	.66	.69	.48	.70	.00
48	.12	.20	.26	.32	.37	.42	.46	.51	.54	.61	.66	.69	.71	.48	.70	.00
49	.13	.21	.27	.33	.39	.44	.49	.53	.57	.64	.69	.72	.74	.49	.73	.00
50	.13	.21	.28	.35	.40	.46	.51	.55	.59	.66	.72	.75	.77	.50	.76	.00
51	.14	.22	.30	.36	.42	.48	.53	.57	.62	.69	.75	.78	.80	.51	.79	.00
52	.15	.23	.31	.38	.44	.50	.55	.60	.64	.72	.78	.82	.83	.52	.83	.00
53	.15	.24	.32	.39	.46	.52	.57	.62	.67	.75	.81	.85	.87	.53	.86	.00
54	.16	.25	.33	.41	.48	.54	.59	.65	.70	.78	.84	.88	.90	.54	.90	.00
55	.16	.26	.35	.42	.49	.56	.62	.67	.72	.81	.87	.92	.94	.55	.93	.00
56	.17	.27	.36	.44	.51	.58	.64	.70	.75	.84	.91	.95	.97	.56	.97	.00
57	.18	.28	.37	.46	.53	.60	.67	.73	.78	.87	.94	.99	1.01	.57	1.01	.00
58	.18	.29	.39	.47	.55	.62	.69	.75	.81	.90	.98	1.02	1.05	.58	1.05	.00
59	.19	.30	.40	.49	.57	.65	.72	.78	.84	.94	1.01	1.06	1.09	.59	1.08	.00
60	.20	.31	.42	.51	.59	.67	.74	.81	.87	.97	1.05	1.10	1.13	.60	1.12	.00
61	.20	.32	.43	.51	.61	.69	.77	.84	.90	1.01	1.09	1.14	1.18	.61	1.16	.00
62	.21	.34	.45	.54	.63	.72	.79	.86	.93	1.04	1.12	1.18	1.21	.62	1.20	.00
63	.22	.35	.46	.56	.66	.74	.82	.89	.96	1.07	1.16	1.22	1.25	.63	1.25	.00
64	.23	.36	.48	.58	.68	.77	.85	.92	.99	1.11	1.20	1.26	1.29	.64	1.29	.00
65	.23	.37	.49	.60	.70	.79	.88	.95	1.02	1.15	1.24	1.30	1.33	.65	1.33	.00
66	.24	.38	.51	.62	.72	.82	.90	.98	1.06	1.18	1.28	1.34	1.37	.66	1.37	.00
67	.25	.39	.52	.64	.75	.84	.93	1.02	1.09	1.22	1.32	1.38	1.42	.67	1.42	.00
68	.26	.41	.54	.66	.77	.87	.96	1.05	1.13	1.26	1.36	1.43	1.46	.68	1.46	.00
69	.26	.42	.56	.68	.79	.90	.99	1.08	1.16	1.30	1.40	1.47	1.50	.69	1.51	.00
70	.27	.43	.57	.70	.82	.92	1.02	1.11	1.20	1.34	1.44	1.51	1.55	.70	1.55	.00
71	.28	.45	.59	.72	.84	.95	1.05	1.15	1.23	1.38	1.49	1.56	1.60	.71	1.60	.00
72	.29	.46	.61	.74	.87	.98	1.08	1.18	1.27	1.42	1.53	1.61	1.64	.72	1.65	.00
73	.30	.47	.63	.76	.89	1.01	1.11	1.21	1.30	1.46	1.58	1.65	1.69	.73	1.70	.00
74	.30	.49	.64	.79	.92	1.04	1.15	1.25	1.34	1.50	1.62	1.70	1.74	.74	1.75	.00
75	.31	.50	.66	.81	.94	1.06	1.18	1.28	1.38	1.54	1.67	1.75	1.79	.75	1.80	.00
76	.32	.51	.68	.83	.97	1.09	1.21	1.32	1.42	1.59	1.71	1.80	1.84	.76	1.85	.00
77	.33	.53	.70	.85	.99	1.12	1.24	1.35	1.46	1.63	1.76	1.84	1.89	.77	1.90	.00
78	.34	.54	.72	.88	1.02	1.15	1.28	1.39	1.49	1.67	1.81	1.89	1.94	.78	1.95	.00
79	.35	.56	.74	.90	1.05	1.18	1.31	1.43	1.53	1.72	1.86	1.94	1.99	.79	2.00	.00
80	.36	.57	.76	.92	1.08	1.22	1.35	1.47	1.58	1.76	1.90	2.00	2.04	.80	2.05	.00

D.B.H O.B. (CM) 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 6 7 8 9 D.B.H T.D.L STUMP O.B. 15 10-30 (CM) CM CM

TOTAL HEIGHT = 12 METRES

VOLUMES ARE UNDERBARK, IN CUBIC METRES.

DBHOB FROM 5 TO 80CM CROWN BREAK IS ESTIMATED TO BE 8 METRES.

HEIGHT ABOVE GROUND IN METRES

D.B.H O.B. 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 6 7 8 9 10 D.B.H T.D.L STUMP
(CM) (CM) CM CM

5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	6	.00
7	.00	.00	.00	.00	.00	.00	.00	.01	.01	.01	.01	.01	.01	.01	7	.00
8	.00	.00	.00	.00	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	8	.00
9	.00	.00	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02	.02	9	.00
10	.00	.01	.01	.01	.01	.01	.01	.01	.02	.02	.02	.02	.02	.02	10	.00
11	.00	.01	.01	.01	.01	.01	.01	.02	.02	.02	.02	.02	.03	.03	11	.00
12	.01	.01	.01	.01	.02	.02	.02	.02	.02	.03	.03	.03	.03	.03	12	.00
13	.01	.01	.01	.02	.02	.02	.03	.03	.03	.03	.04	.04	.04	.04	13	.00
14	.01	.01	.02	.02	.02	.03	.03	.03	.04	.04	.04	.05	.05	.05	14	.00
15	.01	.01	.02	.02	.03	.03	.04	.04	.05	.05	.06	.06	.06	.07	15	.00
16	.01	.02	.02	.03	.03	.04	.04	.05	.05	.06	.06	.07	.07	.08	16	.00
17	.01	.02	.03	.03	.04	.04	.05	.05	.06	.06	.07	.07	.08	.08	17	.00
18	.01	.02	.03	.04	.04	.05	.05	.06	.06	.07	.08	.08	.09	.09	18	.00
19	.02	.03	.03	.04	.05	.06	.06	.07	.07	.08	.09	.10	.10	.10	19	.03
20	.02	.03	.04	.05	.06	.06	.07	.08	.08	.09	.10	.11	.11	.11	20	.04
21	.02	.03	.04	.05	.06	.07	.08	.08	.09	.10	.11	.12	.12	.13	21	.06
22	.02	.04	.05	.06	.07	.08	.09	.09	.10	.11	.13	.13	.14	.14	22	.08
23	.02	.04	.05	.06	.08	.09	.10	.10	.11	.13	.14	.15	.15	.15	23	.10
24	.03	.04	.06	.07	.08	.09	.10	.11	.12	.14	.15	.16	.17	.17	24	.12
25	.03	.05	.06	.08	.09	.10	.11	.13	.14	.15	.17	.18	.18	.19	25	.14
26	.03	.05	.07	.09	.10	.11	.13	.14	.15	.17	.18	.19	.20	.20	26	.16
27	.04	.06	.08	.09	.11	.12	.14	.15	.16	.18	.20	.21	.22	.22	27	.18
28	.04	.06	.08	.10	.12	.13	.15	.16	.17	.20	.21	.23	.24	.24	28	.21
29	.04	.07	.09	.11	.13	.14	.16	.17	.19	.21	.23	.24	.25	.26	29	.23
30	.04	.07	.09	.12	.14	.15	.17	.19	.20	.23	.25	.26	.27	.28	30	.25
31	.05	.08	.10	.12	.15	.17	.18	.20	.22	.24	.27	.28	.29	.30	31	.27
32	.05	.08	.11	.13	.16	.18	.20	.22	.23	.26	.29	.30	.31	.32	32	.29
33	.05	.09	.12	.14	.17	.19	.21	.23	.25	.28	.31	.32	.34	.34	33	.32
34	.06	.09	.12	.15	.18	.20	.22	.25	.26	.30	.33	.35	.36	.36	34	.34
35	.06	.10	.13	.16	.19	.22	.24	.26	.28	.32	.35	.37	.38	.39	35	.37
36	.07	.11	.14	.17	.20	.23	.25	.28	.30	.34	.37	.39	.41	.41	36	.39
37	.07	.11	.15	.18	.21	.24	.27	.29	.32	.36	.39	.41	.43	.44	37	.42
38	.07	.12	.16	.19	.23	.26	.29	.31	.34	.38	.41	.44	.45	.46	38	.44
39	.08	.12	.17	.20	.24	.27	.30	.33	.35	.40	.44	.46	.48	.49	39	.47
40	.08	.13	.18	.22	.25	.29	.32	.35	.37	.42	.46	.49	.51	.52	40	.50
41	.09	.14	.19	.23	.27	.30	.34	.37	.39	.45	.49	.52	.53	.54	41	.53
42	.09	.15	.20	.24	.28	.32	.35	.39	.42	.47	.51	.54	.56	.57	42	.56
43	.10	.15	.21	.25	.29	.33	.37	.41	.44	.49	.54	.57	.59	.60	43	.59
44	.10	.16	.22	.26	.31	.35	.39	.43	.46	.52	.56	.60	.62	.63	44	.62
45	.11	.17	.23	.28	.32	.37	.41	.45	.48	.54	.59	.63	.65	.66	45	.65
46	.11	.18	.24	.29	.34	.39	.43	.47	.50	.57	.62	.66	.68	.69	46	.68
47	.12	.19	.25	.30	.36	.40	.45	.49	.53	.59	.65	.69	.71	.73	47	.72
48	.12	.19	.26	.32	.37	.42	.47	.51	.55	.62	.68	.72	.75	.76	48	.75
49	.13	.20	.27	.33	.39	.44	.49	.53	.58	.65	.71	.75	.78	.79	49	.78
50	.13	.21	.28	.35	.41	.46	.51	.56	.60	.68	.74	.78	.81	.83	50	.82
51	.14	.22	.29	.36	.42	.48	.53	.58	.63	.71	.77	.82	.85	.86	51	.85
52	.14	.23	.31	.38	.44	.50	.55	.60	.65	.74	.80	.85	.88	.90	52	.89
53	.15	.24	.32	.39	.46	.52	.58	.63	.68	.77	.84	.89	.92	.94	53	.93
54	.15	.25	.33	.41	.48	.54	.60	.65	.71	.80	.87	.92	.96	.97	54	.97
55	.16	.26	.34	.42	.49	.56	.62	.68	.73	.83	.90	.96	.99	1.01	55	1.00
56	.17	.27	.36	.44	.51	.58	.65	.71	.76	.86	.94	1.00	1.03	1.05	56	1.04
57	.17	.28	.37	.46	.53	.60	.67	.73	.79	.89	.97	1.03	1.07	1.09	57	1.08
58	.18	.29	.39	.47	.55	.63	.70	.76	.82	.92	1.01	1.07	1.11	1.13	58	1.12
59	.19	.30	.40	.49	.57	.65	.72	.79	.85	.96	1.05	1.11	1.15	1.17	59	1.17
60	.19	.31	.41	.51	.59	.67	.75	.82	.88	.99	1.08	1.15	1.19	1.21	60	1.21
61	.20	.32	.43	.53	.61	.70	.77	.84	.91	1.03	1.12	1.19	1.23	1.26	61	1.25
62	.21	.33	.44	.54	.64	.72	.80	.87	.94	1.06	1.16	1.23	1.28	1.30	62	1.30
63	.21	.34	.46	.56	.66	.74	.83	.90	.97	1.10	1.20	1.27	1.32	1.34	63	1.34
64	.22	.35	.47	.58	.68	.77	.85	.93	1.01	1.14	1.24	1.31	1.36	1.39	64	1.38
65	.23	.37	.49	.60	.70	.79	.88	.96	1.04	1.17	1.28	1.36	1.41	1.43	65	1.43
66	.24	.38	.50	.62	.72	.82	.91	.99	1.07	1.21	1.32	1.40	1.45	1.48	66	1.48
67	.24	.39	.52	.64	.75	.85	.94	1.03	1.11	1.25	1.36	1.45	1.50	1.53	67	1.52
68	.25	.40	.54	.66	.77	.87	.97	1.06	1.14	1.29	1.41	1.49	1.55	1.57	68	1.57
69	.26	.41	.55	.68	.79	.90	1.00	1.09	1.18	1.33	1.45	1.54	1.59	1.62	69	1.62
70	.27	.43	.57	.70	.82	.93	1.03	1.12	1.21	1.37	1.49	1.58	1.64	1.67	70	1.67
71	.27	.44	.59	.72	.84	.95	1.06	1.16	1.25	1.41	1.54	1.63	1.69	1.72	71	1.72
72	.28	.45	.60	.74	.87	.98	1.09	1.19	1.28	1.45	1.58	1.66	1.74	1.77	72	1.77
73	.29	.47	.62	.76	.89	1.01	1.12	1.23	1.32	1.49	1.63	1.72	1.79	1.82	73	1.82
74	.30	.48	.64	.78	.92	1.04	1.15	1.26	1.36	1.53	1.67	1.76	1.84	1.88	74	1.88
75	.31	.49	.66	.81	.94	1.07	1.19	1.30	1.40	1.58	1.72	1.83	1.89	1.93	75	1.93
76	.32	.51	.68	.83	.97	1.10	1.22	1.33	1.44	1.62	1.77	1.88	1.95	1.98	76	1.98
77	.32	.52	.69	.85	1.00	1.13	1.25	1.37	1.48	1.67	1.82	1.93	2.00	2.03	77	2.03
78	.33	.53	.71	.87	1.02	1.16	1.29	1.41	1.52	1.71	1.87	1.99	2.05	2.09	78	2.09
79	.34	.55	.73	.90	1.05	1.19	1.32	1.44	1.56	1.76	1.92	2.03	2.11	2.15	79	2.15
80	.35	.56	.75	.92	1.08	1.22	1.36	1.48	1.60	1.80	1.97	2.09	2.16	2.20	80	2.21

D.B.H O.B. 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 6 7 8 9 10 D.B.H T.D.L STUMP
(CM) (CM) CM CM

HEIGHT ABOVE GROUND IN METRES

TOTAL HEIGHT = 14 METRES

VOLUMES ARE UNDERBARK, IN CUBIC METRES.

DBHOB FROM 5 TO 80CM CROWN BREAK IS ESTIMATED TO BE 9 METRES.

 D.B.H D.B.H T.D.L STUMP
 O.B. 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 6 7 8 9 10 11 O.B. 15 10-30
 (CM) (CM) CM CM

HEIGHT ABOVE GROUND IN METRES																		
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	6	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	7	.00	.00
8	.00	.00	.00	.00	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	8	.00	.00
9	.00	.00	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02	.02	.02	.02	9	.00	.00
10	.00	.01	.01	.01	.01	.01	.01	.01	.01	.02	.02	.02	.02	.02	.02	10	.00	.00
11	.00	.01	.01	.01	.01	.02	.02	.02	.02	.02	.03	.03	.03	.03	.03	11	.00	.00
12	.01	.01	.01	.01	.02	.02	.02	.02	.02	.03	.03	.03	.04	.04	.04	12	.00	.00
13	.01	.01	.01	.01	.02	.02	.02	.03	.03	.03	.04	.04	.04	.05	.05	13	.00	.00
14	.01	.01	.02	.02	.02	.03	.03	.03	.04	.04	.05	.05	.05	.05	.06	14	.00	.00
15	.01	.01	.02	.02	.03	.03	.03	.04	.04	.05	.05	.05	.06	.06	.07	15	.00	.00
16	.01	.02	.02	.03	.03	.04	.04	.05	.05	.06	.06	.07	.07	.07	.08	16	.00	.00
17	.01	.02	.03	.03	.04	.04	.05	.05	.06	.07	.07	.08	.08	.09	.09	17	.00	.00
18	.01	.02	.03	.04	.04	.05	.06	.06	.07	.08	.08	.09	.09	.10	.10	18	.00	.00
19	.02	.03	.03	.04	.05	.06	.06	.07	.07	.08	.09	.10	.11	.11	.11	19	.03	.00
20	.02	.03	.04	.05	.06	.06	.07	.08	.08	.10	.11	.11	.12	.13	.13	20	.04	.01
21	.02	.03	.04	.05	.06	.07	.08	.09	.09	.11	.12	.13	.13	.14	.14	21	.06	.01
22	.02	.04	.05	.06	.07	.08	.09	.10	.10	.12	.13	.14	.15	.16	.16	22	.09	.01
23	.02	.04	.05	.06	.07	.08	.09	.10	.11	.11	.13	.14	.16	.17	.17	23	.11	.01
24	.03	.04	.06	.07	.08	.10	.11	.12	.13	.14	.16	.17	.18	.19	.19	24	.14	.01
25	.03	.05	.06	.08	.09	.10	.12	.13	.14	.16	.17	.19	.20	.21	.21	25	.16	.01
26	.03	.05	.07	.08	.10	.11	.13	.14	.15	.17	.19	.21	.22	.23	.23	26	.18	.01
27	.03	.06	.07	.09	.11	.12	.14	.15	.16	.19	.21	.22	.24	.24	.25	27	.21	.01
28	.04	.06	.08	.10	.12	.13	.15	.16	.18	.20	.22	.24	.26	.26	.28	28	.23	.01
29	.04	.06	.09	.11	.13	.14	.16	.18	.19	.22	.24	.26	.28	.29	.29	29	.26	.01
30	.04	.07	.09	.12	.14	.16	.17	.19	.21	.24	.26	.28	.30	.31	.31	30	.28	.01
31	.05	.07	.10	.12	.15	.17	.19	.20	.22	.25	.28	.30	.32	.33	.34	31	.31	.01
32	.05	.08	.11	.13	.16	.18	.20	.22	.24	.27	.30	.32	.34	.35	.36	32	.34	.02
33	.05	.09	.12	.14	.17	.19	.21	.23	.25	.29	.32	.35	.36	.38	.39	33	.36	.02
34	.06	.09	.12	.15	.18	.20	.23	.25	.27	.31	.34	.37	.39	.40	.41	34	.39	.02
35	.06	.10	.13	.16	.19	.22	.24	.27	.29	.33	.36	.39	.41	.43	.44	35	.42	.02
36	.06	.10	.14	.17	.20	.23	.26	.28	.31	.35	.39	.42	.44	.46	.47	36	.45	.02
37	.07	.11	.15	.18	.21	.24	.27	.30	.32	.37	.41	.44	.47	.48	.50	37	.48	.02
38	.07	.12	.16	.19	.23	.26	.29	.32	.34	.39	.43	.47	.49	.51	.52	38	.51	.02
39	.08	.12	.17	.20	.24	.27	.31	.33	.36	.41	.46	.49	.52	.54	.55	39	.54	.02
40	.08	.13	.17	.22	.25	.29	.32	.35	.38	.44	.48	.52	.55	.57	.58	40	.57	.03
41	.08	.14	.18	.23	.27	.30	.34	.37	.40	.46	.51	.55	.58	.60	.62	41	.60	.03
42	.09	.14	.19	.24	.28	.32	.36	.39	.42	.48	.54	.58	.61	.63	.65	42	.64	.03
43	.09	.15	.20	.25	.30	.34	.38	.41	.45	.51	.56	.61	.64	.67	.68	43	.67	.03
44	.10	.16	.21	.26	.31	.35	.39	.43	.47	.53	.59	.64	.67	.70	.72	44	.71	.03
45	.10	.17	.22	.28	.33	.37	.41	.45	.49	.56	.62	.67	.71	.73	.75	45	.74	.03
46	.11	.17	.23	.29	.34	.39	.43	.48	.52	.59	.65	.70	.74	.77	.79	46	.78	.03
47	.11	.18	.25	.30	.36	.41	.45	.50	.54	.61	.68	.73	.78	.81	.82	47	.82	.04
48	.12	.19	.26	.32	.37	.42	.47	.52	.56	.64	.71	.77	.81	.84	.86	48	.85	.04
49	.12	.20	.27	.33	.39	.44	.49	.54	.59	.67	.74	.80	.85	.88	.90	49	.89	.04
50	.13	.21	.28	.35	.41	.46	.52	.57	.61	.70	.77	.84	.88	.92	.94	50	.93	.04
51	.13	.22	.29	.36	.42	.48	.54	.59	.64	.73	.81	.87	.92	.96	.98	51	.97	.04
52	.14	.23	.30	.37	.44	.50	.56	.62	.67	.76	.84	.91	.96	1.00	1.02	52	1.02	.04
53	.14	.23	.32	.39	.46	.52	.58	.64	.69	.79	.88	.94	1.00	1.04	1.06	53	1.06	.09
54	.15	.24	.33	.41	.48	.54	.61	.67	.72	.82	.91	.98	1.04	1.08	1.10	54	1.10	.05
55	.16	.25	.34	.42	.50	.57	.63	.69	.75	.86	.95	1.02	1.08	1.12	1.14	55	1.14	.05
56	.16	.26	.35	.44	.52	.59	.65	.72	.78	.89	.98	1.06	1.12	1.16	1.19	56	1.19	.05
57	.17	.27	.37	.45	.53	.61	.68	.75	.81	.92	1.02	1.10	1.16	1.21	1.23	57	1.24	.05
58	.17	.28	.38	.47	.55	.63	.70	.77	.84	.96	1.06	1.14	1.21	1.25	1.28	58	1.28	.06
59	.18	.29	.39	.49	.57	.65	.73	.80	.87	.99	1.10	1.18	1.25	1.30	1.33	59	1.33	.06
60	.19	.30	.41	.51	.59	.68	.76	.83	.90	1.03	1.13	1.22	1.29	1.34	1.37	60	1.38	.06
61	.19	.31	.42	.52	.62	.70	.78	.86	.93	1.06	1.17	1.27	1.34	1.39	1.42	61	1.43	.06
62	.20	.32	.44	.54	.64	.73	.81	.89	.96	1.10	1.21	1.31	1.39	1.44	1.47	62	1.48	.06
63	.21	.34	.45	.56	.66	.75	.84	.92	1.00	1.14	1.26	1.36	1.43	1.49	1.52	63	1.53	.07
64	.21	.35	.47	.58	.68	.78	.87	.95	1.03	1.17	1.30	1.40	1.48	1.54	1.57	64	1.58	.07
65	.22	.36	.48	.60	.70	.80	.89	.98	1.06	1.21	1.34	1.45	1.53	1.59	1.62	65	1.63	.07
66	.23	.37	.50	.62	.73	.83	.92	1.01	1.10	1.25	1.38	1.49	1.58	1.64	1.67	66	1.69	.07
67	.24	.38	.51	.64	.75	.85	.95	1.04	1.13	1.29	1.43	1.54	1.63	1.69	1.73	67	1.74	.08
68	.24	.39	.53	.66	.77	.88	.98	1.08	1.17	1.33	1.47	1.59	1.68	1.74	1.78	68	1.79	.08
69	.25	.41	.55	.68	.80	.91	1.01	1.11	1.20	1.37	1.52	1.64	1.73	1.80	1.84	69	1.85	.08
70	.26	.42	.56	.70	.82	.93	1.04	1.14	1.24	1.41	1.56	1.69	1.78	1.85	1.89	70	1.91	.08
71	.27	.43	.58	.72	.84	.96	1.07	1.18	1.28	1.46	1.61	1.74	1.84	1.91	1.95	71	1.96	.09
72	.27	.44	.60	.74	.87	.99	1.10	1.21	1.31	1.50	1.66	1.79	1.89	1.96	2.01	72	2.02	.09
73	.28	.46	.61	.76	.89	1.02	1.14	1.25	1.35	1.54	1.70	1.84	1.94	2.02	2.06	73	2.08	.09
74	.29	.47	.63	.78	.92	1.05	1.17	1.28	1.39	1.59	1.75	1.89	2.00	2.08	2.12	74	2.14	.09
75	.30	.48	.65	.80	.95	1.08	1.20	1.32	1.43	1.63	1.80	1.95	2.06	2.13	2.18	75	2.20	.10
76	.31	.50	.67	.83	.97	1.11	1.24	1.36	1.47	1.67	1.85	2.00	2.11	2.19	2.24	76	2.26	.10
77	.31	.51	.69	.85	1.00	1.14	1.27	1.39	1.51	1.72	1.90	2.05	2.17	2.25	2.30	77	2.33	.10
78	.32	.52	.70	.87	1.02	1.17	1.30	1.43	1.55	1.77	1.96	2.11	2.23	2.31	2.37	78	2.39	.10
79	.33	.54	.72	.89	1.05	1.20	1.34	1.47	1.59	1.81	2.01	2.17	2.29	2.38	2.43	79	2.45	.11
80	.34	.55	.74	.92	1.08	1.23	1.37	1.51	1.63	1.86	2.06	2.22	2.35	2.44	2.49	80	2.52	.11

 D.B.H D.B.H T.D.L STUMP
 O.B. 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 6 7 8 9 10 11 O.B. 15 10-30
 (CM) (CM) CM CM

TOTAL HEIGHT = 15 METRES

VOLUMES ARE UNDERBARK, IN CUBIC METRES.

DBH@ 5 TO 80CM

CROWN BREAK IS ESTIMATED TO BE 10 METRES.

HEIGHT ABOVE GROUND IN METRES

D.B.H O.B. 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 6 7 8 9 10 11 12 D.B.H T.D.L STUMP
(CM) (CM) CM CM

D.B.H	O.B.	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	6	7	8	9	10	11	12	D.B.H	T.D.L	STUMP
(CM)	(CM)																	(CM)	15	10-30
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5		.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.01	.01	.01	6		.00
7	.00	.00	.00	.00	.00	.00	.00	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	7		.00
8	.00	.00	.00	.00	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	8		.00
9	.00	.00	.01	.01	.01	.01	.01	.01	.01	.01	.01	.02	.02	.02	.02	.02	.02	9		.00
10	.00	.01	.01	.01	.01	.01	.01	.01	.01	.02	.02	.02	.02	.02	.02	.02	.02	10		.00
11	.00	.01	.01	.01	.01	.02	.02	.02	.02	.02	.03	.03	.03	.03	.03	.03	.03	11		.00
12	.01	.01	.01	.01	.02	.02	.02	.03	.03	.03	.03	.04	.04	.04	.04	.04	.04	12		.00
13	.01	.01	.01	.02	.02	.02	.03	.03	.03	.03	.04	.04	.04	.04	.05	.05	.05	13		.00
14	.01	.01	.02	.02	.02	.03	.03	.03	.04	.04	.05	.05	.05	.05	.06	.06	.06	14		.00
15	.01	.01	.02	.02	.03	.03	.04	.04	.04	.05	.06	.06	.06	.06	.07	.07	.07	15		.00
16	.01	.02	.02	.03	.03	.04	.04	.05	.05	.06	.06	.07	.07	.07	.08	.08	.08	16		.00
17	.01	.02	.03	.03	.04	.04	.05	.05	.06	.06	.07	.07	.08	.08	.09	.09	.09	17		.00
18	.01	.02	.03	.04	.04	.05	.05	.06	.06	.07	.08	.08	.09	.09	.10	.11	.11	18		.00
19	.02	.02	.03	.04	.05	.05	.06	.06	.07	.08	.09	.10	.10	.11	.12	.12	.12	19		.00
20	.02	.03	.04	.05	.06	.06	.07	.07	.08	.08	.10	.11	.12	.12	.13	.13	.14	20		.01
21	.02	.03	.04	.05	.06	.07	.07	.08	.09	.09	.11	.12	.13	.14	.15	.15	.15	21		.01
22	.02	.03	.04	.05	.06	.07	.08	.09	.10	.10	.12	.13	.14	.15	.16	.17	.17	22		.01
23	.02	.04	.05	.06	.07	.08	.09	.10	.11	.12	.13	.14	.15	.16	.17	.18	.18	23		.01
24	.03	.04	.06	.07	.08	.10	.11	.12	.13	.14	.15	.16	.18	.19	.20	.20	.21	24		.01
25	.03	.05	.06	.08	.09	.10	.12	.13	.14	.16	.18	.19	.21	.21	.22	.22	.25	25		.01
26	.03	.05	.07	.08	.10	.11	.13	.14	.15	.17	.19	.21	.22	.23	.24	.25	.26	26		.01
27	.03	.05	.07	.09	.11	.12	.14	.15	.17	.19	.21	.22	.25	.26	.27	.27	.27	27		.01
28	.04	.06	.08	.10	.12	.13	.15	.16	.18	.20	.23	.25	.26	.28	.28	.29	.28	28		.01
29	.04	.06	.09	.11	.13	.14	.16	.18	.19	.22	.25	.27	.28	.30	.31	.31	.31	29		.01
30	.04	.07	.09	.12	.14	.16	.17	.19	.21	.22	.26	.29	.31	.32	.33	.34	.34	30		.01
31	.05	.07	.10	.12	.15	.17	.19	.21	.22	.26	.28	.30	.33	.34	.35	.36	.36	31		.01
32	.05	.08	.11	.14	.17	.19	.21	.24	.26	.29	.33	.35	.38	.39	.41	.41	.41	32		.02
33	.05	.08	.12	.15	.18	.20	.23	.25	.27	.31	.35	.38	.40	.42	.43	.44	.44	33		.02
34	.06	.09	.12	.15	.18	.20	.23	.25	.27	.31	.35	.38	.40	.42	.43	.44	.44	34		.02
35	.06	.10	.13	.16	.19	.22	.24	.27	.29	.33	.37	.40	.43	.45	.46	.47	.47	35		.02
36	.06	.10	.14	.17	.20	.23	.26	.28	.31	.35	.39	.43	.45	.47	.49	.50	.50	36		.02
37	.07	.11	.15	.18	.21	.25	.27	.30	.33	.37	.42	.45	.48	.50	.52	.53	.53	37		.02
38	.07	.12	.16	.19	.23	.26	.29	.32	.35	.40	.44	.48	.51	.53	.55	.56	.56	38		.02
39	.07	.12	.16	.20	.24	.27	.31	.34	.37	.42	.47	.51	.54	.56	.58	.59	.59	39		.02
40	.08	.13	.17	.22	.25	.29	.32	.36	.39	.44	.49	.53	.57	.59	.61	.62	.62	40		.03
41	.08	.14	.18	.23	.27	.31	.34	.38	.41	.47	.52	.56	.60	.63	.65	.66	.66	41		.03
42	.09	.14	.19	.24	.28	.32	.36	.40	.43	.49	.55	.59	.63	.66	.68	.69	.69	42		.03
43	.09	.15	.20	.25	.30	.34	.38	.42	.45	.52	.57	.62	.66	.69	.71	.73	.73	43		.03
44	.10	.16	.21	.26	.31	.35	.40	.44	.47	.54	.60	.65	.70	.73	.75	.76	.76	44		.03
45	.10	.16	.22	.28	.33	.37	.42	.46	.50	.57	.63	.69	.73	.76	.79	.80	.80	45		.03
46	.11	.17	.23	.29	.34	.39	.44	.48	.52	.60	.66	.72	.76	.80	.82	.84	.84	46		.03
47	.11	.18	.24	.30	.36	.41	.46	.50	.54	.62	.69	.75	.80	.84	.86	.88	.88	47		.04
48	.12	.19	.26	.32	.37	.43	.48	.52	.57	.65	.72	.79	.84	.87	.90	.92	.92	48		.04
49	.12	.20	.27	.33	.39	.45	.50	.55	.59	.68	.76	.82	.87	.91	.94	.96	.96	49		.04
50	.13	.21	.28	.34	.41	.46	.52	.57	.62	.71	.79	.86	.91	.95	.98	1.00	.50	50		.04
51	.13	.21	.29	.36	.42	.48	.54	.60	.65	.74	.82	.89	.95	.99	1.02	1.04	.51	51		.04
52	.14	.22	.30	.37	.44	.50	.56	.62	.67	.77	.86	.93	.99	1.03	1.07	1.08	.52	52		.04
53	.14	.23	.31	.39	.46	.53	.59	.65	.70	.80	.89	.97	1.03	1.08	1.11	1.13	.53	53		.05
54	.15	.24	.33	.41	.48	.55	.61	.67	.73	.83	.93	1.01	1.07	1.12	1.15	1.17	.54	54		.05
55	.15	.25	.34	.42	.50	.57	.63	.70	.76	.87	.96	1.05	1.11	1.16	1.20	1.22	.55	55		.05
56	.16	.26	.35	.44	.52	.59	.66	.72	.79	.90	1.00	1.09	1.16	1.21	1.24	1.27	.56	56		.05
57	.17	.27	.37	.45	.54	.61	.68	.75	.82	.93	1.04	1.13	1.20	1.25	1.29	1.31	.57	57		.05
58	.17	.28	.38	.47	.56	.63	.71	.78	.85	.97	1.08	1.17	1.24	1.30	1.34	1.36	.58	58		.05
59	.18	.29	.39	.49	.58	.66	.73	.81	.88	1.00	1.11	1.21	1.29	1.35	1.39	1.41	.59	59		.06
60	.19	.30	.41	.51	.60	.68	.76	.84	.91	1.04	1.15	1.25	1.33	1.40	1.44	1.46	.60	60		.06
61	.19	.31	.42	.52	.62	.70	.79	.87	.94	1.08	1.20	1.30	1.38	1.46	1.49	1.51	.61	61		.06
62	.20	.32	.44	.54	.64	.73	.81	.90	.97	1.11	1.24	1.34	1.43	1.49	1.54	1.57	.62	62		.06
63	.20	.33	.45	.56	.66	.75	.84	.93	1.00	1.15	1.28	1.39	1.48	1.54	1.59	1.62	.63	63		.07
64	.21	.34	.47	.58	.68	.78	.87	.96	1.04	1.20	1.32	1.44	1.53	1.60	1.64	1.67	.64	64		.07
65	.22	.36	.48	.60	.70	.80	.90	.99	1.07	1.23	1.36	1.48	1.58	1.65	1.70	1.73	.65	65		.07
66	.23	.37	.50	.62	.73	.83	.93	1.02	1.11	1.27	1.41	1.53	1.63	1.70	1.75	1.78	.66	66		.07
67	.23	.38	.51	.64	.75	.86	.96	1.05	1.14	1.31	1.45	1.58	1.68	1.76	1.81	1.84	.67	67		.07
68	.24	.39	.53	.66	.77	.89	.99	1.08	1.18	1.35	1.50	1.63	1.73	1.81	1.87	1.90	.68	68		.08
69	.25	.40	.54	.68	.80	.91	1.02	1.12	1.21	1.39	1.54	1.68	1.78	1.87	1.92	1.96	.69	69		.08
70	.25	.42	.56	.70	.82	.94	1.05	1.15	1.25	1.42	1.59	1.73	1.84	1.92	1.98	2.02	.70	70		.08
71	.26	.43	.58	.72	.85	.97	1.08	1.19	1.29	1.47	1.64	1.78	1.89	1.98	2.04	2.08	.71	71		.08
72	.27	.44	.60	.74	.87	.99	1.11	1.22	1.33	1.52	1.69	1.83	1.95	2.04	2.10	2.14	.72	72		.09
73	.28	.45	.61	.76	.90	1.02	1.14	1.26	1.36	1.56	1.74	1.88	2.00	2.10	2.16	2.20	.73	73		.09
74	.29	.47	.63	.78	.92	1.05	1.18	1.29	1.40	1.61	1.78	1.92	2.06	2.16	2.22	2.26	.74	74		.09
75	.29	.48	.65	.80	.95	1.08	1.21	1.33	1.44	1.65	1.83	1.99	2.12	2.22	2.28	2.32	.75	75		.09
76	.30	.49	.67	.82	.97	1.11	1.24	1.37	1.48	1.70	1.89	2.05	2.18	2.28	2.35	2.39	.76	76		.10
77	.31	.51	.68	.85	1.00	1.14	1.28	1.40	1.52	1.74	1.94	2.10	2.24	2.34	2.41	2.46	.77	77		.10
78	.32	.52	.70	.87	1.03	1.17	1.31	1.44	1.56	1.79	1.99	2.16	2.30	2.40	2.48	2.52	.78	78		.10
79	.33	.53	.72	.89	1.05	1.20	1.35	1.48	1.61	1.84	2.04	2.22	2.36	2.47	2.54	2.59	.79	79		

TOTAL HEIGHT = 16 METRES

VOLUMES ARE UNDERBARK, IN CUBIC METRES.

DBHOB FROM 5 TO 80CM

CROWN BREAK IS ESTIMATED TO BE 11 METRES.

D.B.H O.B. (CM)	HEIGHT ABOVE GROUND IN METRES													D.B.H T.D.L STUMP							
	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	6	7	8	9	10	11	12	13	O.B. (CM)	15 CM	10-30 CM	
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
10	.00	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
11	.00	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
12	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
13	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
14	.01	.01	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02
15	.01	.01	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02
16	.01	.01	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02
17	.01	.02	.02	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03
18	.01	.02	.03	.03	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04
19	.02	.02	.03	.04	.04	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05
20	.02	.03	.04	.04	.05	.06	.06	.06	.06	.06	.06	.06	.06	.06	.06	.06	.06	.06	.06	.06	.06
21	.02	.03	.04	.05	.06	.06	.07	.07	.07	.07	.07	.07	.07	.07	.07	.07	.07	.07	.07	.07	.07
22	.02	.03	.04	.05	.06	.07	.07	.08	.08	.08	.08	.08	.08	.08	.08	.08	.08	.08	.08	.08	.08
23	.02	.04	.05	.06	.08	.08	.09	.10	.11	.12	.13	.14	.15	.16	.17	.18	.19	.20	.21	.22	.23
24	.03	.04	.06	.07	.08	.10	.11	.12	.13	.15	.16	.18	.19	.20	.21	.22	.24	.25	.26	.27	.28
25	.03	.05	.06	.08	.09	.10	.12	.13	.14	.16	.18	.20	.21	.22	.23	.24	.26	.27	.28	.29	.30
26	.03	.05	.07	.08	.10	.11	.13	.14	.15	.19	.20	.21	.23	.24	.25	.26	.28	.29	.30	.31	.32
27	.03	.05	.07	.09	.11	.12	.14	.15	.17	.19	.21	.23	.25	.26	.27	.28	.30	.31	.32	.33	.34
28	.04	.06	.08	.10	.12	.13	.15	.17	.18	.21	.23	.25	.27	.28	.29	.30	.32	.33	.34	.35	.36
29	.04	.06	.09	.11	.13	.15	.16	.18	.19	.22	.25	.27	.29	.31	.32	.33	.35	.36	.37	.38	.39
30	.04	.07	.09	.12	.14	.16	.18	.19	.21	.24	.27	.29	.31	.33	.34	.35	.37	.38	.39	.40	.41
31	.05	.07	.10	.12	.15	.17	.19	.21	.23	.26	.29	.31	.34	.35	.37	.38	.40	.41	.42	.43	.44
32	.05	.08	.11	.13	.16	.18	.20	.22	.24	.28	.31	.34	.36	.38	.39	.41	.42	.43	.44	.45	.46
33	.05	.08	.11	.14	.17	.19	.22	.24	.26	.30	.33	.36	.38	.41	.42	.43	.45	.46	.47	.48	.49
34	.06	.09	.12	.15	.18	.21	.23	.25	.28	.32	.35	.38	.41	.43	.45	.46	.48	.49	.50	.51	.52
35	.06	.10	.13	.16	.19	.22	.24	.27	.29	.34	.38	.41	.44	.46	.48	.49	.50	.51	.52	.53	.54
36	.06	.10	.14	.17	.20	.23	.26	.29	.31	.36	.40	.43	.47	.49	.51	.52	.53	.54	.55	.56	.57
37	.07	.11	.15	.18	.22	.25	.28	.30	.33	.38	.42	.46	.49	.52	.54	.55	.56	.57	.58	.59	.60
38	.07	.11	.16	.19	.23	.26	.29	.32	.35	.40	.45	.49	.52	.55	.57	.58	.59	.60	.61	.62	.63
39	.07	.12	.16	.20	.24	.28	.31	.34	.37	.42	.47	.52	.55	.58	.60	.62	.63	.64	.65	.66	.67
40	.08	.13	.17	.21	.25	.29	.33	.36	.39	.45	.50	.54	.58	.61	.64	.65	.66	.67	.68	.69	.70
41	.08	.13	.18	.23	.27	.31	.34	.38	.41	.47	.53	.57	.61	.65	.67	.69	.70	.71	.72	.73	.74
42	.09	.14	.19	.24	.28	.32	.36	.40	.43	.50	.55	.60	.65	.68	.71	.72	.73	.74	.75	.76	.77
43	.09	.15	.20	.25	.30	.34	.38	.42	.45	.52	.58	.63	.68	.72	.74	.76	.77	.78	.79	.80	.81
44	.10	.16	.21	.26	.31	.36	.40	.44	.48	.55	.61	.67	.71	.75	.78	.80	.81	.82	.83	.84	.85
45	.10	.16	.22	.28	.33	.37	.42	.46	.50	.57	.64	.70	.75	.79	.82	.84	.85	.86	.87	.88	.89
46	.10	.17	.23	.29	.34	.39	.44	.48	.52	.60	.67	.73	.78	.82	.86	.88	.89	.90	.91	.92	.93
47	.11	.18	.24	.30	.36	.41	.46	.50	.55	.63	.70	.77	.82	.86	.90	.92	.93	.94	.95	.96	.97
48	.11	.19	.25	.32	.37	.43	.48	.53	.57	.66	.73	.80	.86	.90	.94	.96	.97	.98	.99	.00	.01
49	.12	.20	.27	.33	.39	.45	.50	.55	.60	.69	.77	.84	.90	.94	.98	1.00	1.02	1.04	1.06	1.08	1.10
50	.13	.20	.28	.34	.41	.47	.52	.57	.62	.72	.80	.87	.93	.98	1.02	1.05	1.06	1.07	1.09	1.11	
51	.13	.21	.29	.36	.42	.49	.54	.60	.65	.75	.83	.91	.97	1.03	1.06	1.09	1.11	1.13	1.15	1.17	
52	.14	.22	.30	.37	.44	.51	.57	.62	.68	.78	.87	.95	1.01	1.07	1.11	1.14	1.15	1.16	1.18	1.20	
53	.14	.23	.31	.39	.46	.53	.59	.65	.71	.81	.90	.99	1.06	1.11	1.15	1.18	1.20	1.21	1.23	1.25	
54	.15	.24	.33	.40	.48	.55	.61	.68	.73	.84	.94	1.03	1.10	1.16	1.20	1.23	1.25	1.26	1.28	1.30	
55	.15	.25	.34	.42	.50	.57	.64	.70	.76	.88	.98	1.07	1.14	1.20	1.25	1.28	1.30	1.31	1.33	1.35	
56	.16	.26	.35	.44	.52	.59	.66	.73	.79	.91	1.02	1.11	1.18	1.25	1.29	1.33	1.34	1.36	1.38	1.40	
57	.16	.27	.36	.45	.54	.61	.69	.76	.82	.94	1.05	1.15	1.23	1.29	1.34	1.38	1.40	1.41	1.43	1.45	
58	.17	.28	.38	.47	.56	.64	.71	.78	.85	.98	1.09	1.19	1.27	1.34	1.39	1.43	1.45	1.46	1.48	1.50	
59	.18	.29	.39	.49	.58	.66	.74	.81	.88	1.01	1.13	1.23	1.32	1.39	1.44	1.48	1.50	1.51	1.53	1.55	
60	.18	.30	.41	.50	.60	.68	.76	.84	.92	1.05	1.17	1.28	1.37	1.44	1.49	1.53	1.55	1.56	1.58	1.60	
61	.19	.31	.42	.52	.62	.71	.79	.87	.95	1.09	1.21	1.32	1.42	1.49	1.55	1.58	1.61	1.61	1.63	1.65	
62	.20	.32	.43	.54	.64	.73	.82	.90	.98	1.13	1.26	1.37	1.46	1.54	1.60	1.64	1.66	1.66	1.68	1.70	
63	.20	.33	.45	.56	.66	.76	.85	.93	1.01	1.16	1.30	1.42	1.51	1.59	1.65	1.69	1.72	1.72	1.74	1.76	
64	.21	.34	.46	.58	.68	.78	.87	.96	1.05	1.20	1.34	1.46	1.56	1.65	1.71	1.75	1.78	1.78	1.80	1.82	
65	.22	.35	.48	.60	.70	.81	.90	.99	1.08	1.24	1.38	1.51	1.62	1.70	1.76	1.81	1.83	1.83	1.85	1.87	
66	.22	.37	.50	.62	.73	.83	.93	1.03	1.12	1.28	1.43	1.56	1.67	1.76	1.82	1.87	1.89	1.89	1.91	1.93	
67	.23	.38	.51	.63	.75	.86	.96	1.06	1.15	1.32	1.47	1.61	1.72	1.81	1.87	1.93	1.95	1.95	1.97	2.00	
68	.24	.39	.53	.65	.77	.89	.99	1.09	1.19	1.36	1.52	1.66	1.77	1.87	1.94	1.99	2.01	2.01	2.03	2.06	
69	.24	.40	.54	.67	.80	.91	1.02	1.13	1.22	1.41	1.57	1.71	1.83	1.93	2.00	2.05	2.08	2.08	2.10	2.13	
70	.25	.41	.56	.70	.82	.94	1.05	1.16	1.26	1.45	1.61	1.76	1.88	1.98	2.06	2.11	2.14	2.14	2.16	2.19	
71	.26	.42	.58	.72	.85	.97	1.08	1.19	1.30	1.49	1.66	1.81	1.94	2.04	2.12	2.17	2.20	2.20	2.22	2.25	
72	.27	.44	.59	.74	.87	1.00	1.12	1.23	1.34	1.53	1.71	1.87	2.00	2.10	2.18	2.24	2.27	2.27	2.28	2.31	
73	.28	.45	.61	.76	.90	1.03	1.15	1.26	1.38	1.58	1.76	1.92	2.06	2.16	2.25	2.30	2.33	2.33	2.34	2.37	
74	.28	.46	.63	.78	.92	1.06	1.18	1.30	1.41	1.62	1.81	1.98	2.11	2.23	2.31	2.37	2.40	2.40	2.41	2.44	
75	.29	.48	.65	.80	.95	1.09	1.21	1.34	1.45	1.67	1.86	2.03	2.17	2.29	2.37	2.43	2.47	2.47	2.48	2.51	
76	.30	.49	.66	.82	.97	1.12	1.25	1.37	1.49	1.72	1.91	2.09	2.23	2.35	2.44	2.50	2.54	2.54			

TOTAL HEIGHT = 22 METRES

VOLUMES ARE UNDERBARK, IN CUBIC METRES.

DBMOB FROM 10 TO 85CM

CROWN BREAK IS ESTIMATED TO BE 15 METRES.

HEIGHT ABOVE GROUND IN METRES

D.B.H O.B. (CM)	HEIGHT ABOVE GROUND IN METRES																D.B.H.T.D.L STUMP							
	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	6	7	8	9	10	11	12	13	14	15	16	O.B.	15	10-30	
(CM)																	(CM)	CM	CM					
10	.00	.01	.01	.01	.01	.01	.01	.02	.02	.02	.02	.02	.03	.03	.03	.03	.03	.03	.03	.04	10		.00	
11	.00	.01	.01	.01	.01	.02	.02	.02	.02	.02	.03	.03	.03	.04	.04	.04	.04	.04	.04	.04	.05	11		.00
12	.00	.01	.01	.01	.02	.02	.02	.02	.03	.03	.03	.04	.04	.05	.05	.05	.05	.05	.05	.06	.06	12		.00
13	.01	.01	.01	.02	.02	.02	.03	.03	.03	.04	.04	.05	.05	.06	.06	.06	.06	.06	.07	.07	.07	13		.00
14	.01	.01	.02	.02	.03	.03	.04	.04	.04	.05	.05	.06	.06	.07	.07	.07	.08	.08	.08	.08	.09	14		.00
15	.01	.01	.02	.02	.03	.03	.04	.04	.05	.05	.06	.06	.07	.07	.08	.08	.09	.09	.09	.10	.10	15		.00
16	.01	.02	.02	.03	.03	.04	.04	.05	.05	.06	.06	.07	.07	.08	.08	.09	.10	.10	.11	.11	.11	16		.00
17	.01	.02	.03	.03	.04	.04	.05	.05	.06	.06	.07	.07	.08	.08	.09	.10	.11	.12	.12	.12	.13	17		.00
18	.01	.02	.03	.04	.04	.05	.05	.06	.06	.07	.07	.08	.08	.09	.10	.11	.12	.13	.14	.14	.15	18		.00
19	.01	.02	.03	.04	.05	.05	.06	.06	.07	.07	.08	.08	.09	.10	.11	.12	.13	.14	.15	.16	.16	19		.00
20	.02	.03	.04	.05	.05	.06	.06	.07	.07	.08	.09	.10	.11	.12	.13	.14	.15	.16	.17	.17	.18	20		.01
21	.02	.03	.04	.05	.06	.06	.07	.07	.08	.09	.10	.11	.13	.14	.16	.17	.18	.19	.20	.20	.21	21		.01
22	.02	.03	.05	.06	.06	.07	.07	.08	.09	.10	.11	.13	.14	.16	.17	.19	.20	.21	.22	.22	.23	22		.01
23	.02	.04	.05	.06	.08	.09	.10	.11	.12	.14	.16	.18	.19	.21	.22	.23	.24	.25	.25	.26	.26	23		.01
24	.02	.04	.06	.07	.08	.10	.11	.12	.13	.15	.17	.19	.21	.23	.24	.25	.26	.27	.28	.28	.29	24		.01
25	.03	.04	.06	.08	.09	.11	.12	.13	.15	.17	.19	.21	.23	.25	.26	.28	.29	.30	.31	.31	.32	25		.01
26	.03	.05	.07	.08	.10	.12	.13	.15	.16	.18	.21	.23	.25	.27	.29	.30	.32	.33	.33	.34	.34	26		.01
27	.03	.05	.07	.09	.11	.13	.14	.16	.17	.20	.23	.25	.27	.29	.31	.33	.34	.35	.36	.37	.37	27		.01
28	.03	.06	.08	.10	.12	.14	.15	.17	.19	.22	.25	.27	.30	.32	.34	.36	.37	.38	.39	.40	.40	28		.01
29	.04	.06	.09	.11	.13	.15	.17	.18	.20	.23	.27	.29	.32	.34	.37	.38	.40	.41	.42	.43	.43	29		.01
30	.04	.07	.09	.12	.14	.16	.18	.20	.22	.25	.29	.32	.34	.37	.39	.41	.43	.45	.46	.46	.47	30		.01
31	.04	.07	.10	.12	.15	.17	.19	.21	.23	.27	.31	.34	.37	.40	.42	.44	.46	.48	.49	.50	.50	31		.01
32	.05	.08	.11	.13	.15	.18	.21	.23	.25	.29	.33	.36	.40	.43	.45	.48	.50	.51	.53	.54	.54	32		.01
33	.05	.08	.11	.14	.17	.20	.22	.24	.27	.31	.35	.39	.42	.46	.48	.51	.53	.55	.56	.57	.57	33		.02
34	.05	.09	.12	.15	.18	.21	.24	.26	.29	.33	.37	.41	.45	.49	.52	.54	.57	.59	.60	.61	.61	34		.02
35	.06	.09	.13	.16	.19	.22	.25	.28	.30	.35	.40	.44	.48	.52	.55	.58	.60	.62	.64	.65	.65	35		.02
36	.06	.10	.14	.17	.20	.24	.27	.30	.32	.38	.42	.47	.51	.55	.58	.61	.64	.66	.68	.69	.69	36		.02
37	.06	.11	.14	.18	.22	.25	.28	.31	.34	.40	.45	.50	.54	.58	.62	.65	.68	.70	.72	.73	.73	37		.02
38	.07	.11	.15	.19	.23	.27	.30	.33	.36	.42	.48	.53	.57	.62	.65	.69	.72	.74	.76	.78	.78	38		.02
39	.07	.12	.16	.20	.24	.28	.32	.35	.38	.45	.50	.56	.61	.65	.69	.73	.76	.78	.80	.82	.82	39		.02
40	.08	.12	.17	.21	.26	.30	.33	.37	.40	.47	.53	.59	.64	.69	.73	.77	.80	.83	.85	.87	.87	40		.02
41	.08	.13	.18	.23	.27	.31	.35	.39	.43	.50	.56	.62	.67	.72	.77	.81	.84	.87	.90	.91	.91	41		.02
42	.08	.14	.19	.24	.28	.33	.37	.41	.45	.52	.59	.65	.71	.76	.81	.85	.89	.92	.94	.96	.96	42		.03
43	.09	.15	.20	.25	.30	.34	.39	.43	.47	.55	.62	.68	.75	.80	.85	.90	.93	.97	.99	1.01	1.01	43		.03
44	.09	.15	.21	.26	.31	.36	.41	.45	.49	.58	.65	.72	.78	.84	.89	.94	.98	1.01	1.04	1.06	1.04	44		.03
45	.10	.16	.22	.28	.33	.38	.43	.47	.52	.60	.68	.75	.82	.88	.94	.99	1.03	1.06	1.09	1.11	1.11	45		.03
46	.10	.17	.23	.29	.34	.40	.45	.50	.54	.63	.71	.79	.86	.92	.98	1.03	1.08	1.11	1.14	1.16	1.16	46		.03
47	.11	.18	.24	.30	.36	.42	.47	.52	.57	.66	.75	.83	.90	.97	1.03	1.08	1.13	1.16	1.20	1.22	1.22	47		.03
48	.11	.18	.25	.32	.38	.43	.49	.54	.59	.68	.78	.86	.94	1.01	1.07	1.13	1.18	1.22	1.25	1.27	1.27	48		.03
49	.12	.19	.26	.33	.39	.45	.51	.57	.62	.72	.82	.90	.98	1.06	1.12	1.18	1.23	1.27	1.31	1.33	49		.04	
50	.12	.20	.27	.34	.41	.47	.53	.59	.65	.75	.85	.94	1.03	1.10	1.17	1.23	1.28	1.33	1.36	1.39	50		.04	
51	.13	.21	.29	.36	.43	.49	.56	.62	.68	.79	.89	.98	1.07	1.15	1.22	1.28	1.34	1.38	1.42	1.45	51		.04	
52	.13	.22	.30	.37	.45	.51	.58	.64	.70	.82	.92	1.02	1.11	1.20	1.27	1.34	1.39	1.44	1.48	1.51	52		.04	
53	.14	.23	.31	.39	.46	.54	.60	.67	.73	.85	.96	1.06	1.16	1.25	1.32	1.39	1.45	1.50	1.54	1.57	53		.04	
54	.14	.23	.32	.40	.48	.56	.63	.70	.76	.89	1.00	1.11	1.21	1.29	1.38	1.45	1.51	1.56	1.60	1.63	54		.04	
55	.15	.24	.33	.42	.50	.58	.65	.72	.79	.92	1.04	1.15	1.25	1.35	1.43	1.50	1.57	1.62	1.66	1.70	55		.04	
56	.15	.25	.35	.44	.52	.60	.68	.75	.82	.96	1.08	1.19	1.30	1.40	1.48	1.56	1.63	1.69	1.73	1.76	56		.05	
57	.16	.26	.36	.45	.54	.62	.70	.78	.85	.99	1.12	1.24	1.35	1.45	1.54	1.62	1.69	1.75	1.79	1.83	57		.05	
58	.16	.27	.37	.47	.56	.65	.73	.81	.88	1.03	1.16	1.29	1.40	1.50	1.60	1.68	1.75	1.81	1.86	1.89	58		.05	
59	.17	.28	.39	.49	.58	.67	.76	.84	.92	1.07	1.20	1.33	1.45	1.56	1.66	1.74	1.82	1.88	1.93	1.96	59		.05	
60	.18	.29	.40	.50	.60	.69	.78	.87	.95	1.10	1.25	1.38	1.50	1.61	1.71	1.80	1.88	1.94	1.99	2.03	60		.05	
61	.18	.30	.42	.52	.62	.72	.81	.90	.98	1.14	1.29	1.43	1.55	1.67	1.77	1.87	1.95	2.01	2.06	2.10	61		.06	
62	.19	.31	.43	.54	.64	.74	.84	.93	1.02	1.18	1.33	1.48	1.61	1.73	1.84	1.93	2.01	2.08	2.14	2.18	62		.06	
63	.20	.32	.44	.56	.67	.77	.87	.96	1.05	1.22	1.38	1.53	1.66	1.79	1.90	2.00	2.08	2.15	2.21	2.25	63		.06	
64	.20	.33	.46	.58	.69	.79	.90	.99	1.09	1.26	1.43	1.58	1.72	1.85	1.96	2.06	2.15	2.22	2.28	2.33	64		.06	
65	.21	.35	.47	.60	.71	.82	.92	1.02	1.12	1.30	1.47	1.63	1.77	1.91	2.03	2.13	2.22	2.30	2.36	2.40	65		.06	
66	.21	.36	.49	.61	.73	.85	.95	1.06	1.16	1.35	1.52	1.68	1.83	1.97	2.09	2.20	2.29	2.37	2.43	2.48	66		.07	
67	.22	.37	.50	.63	.76	.87	.98	1.09	1.19	1.39	1.57	1.73	1.89	2.03	2.16	2.27	2.36	2.44	2.51	2.56	67		.07	
68	.23	.38	.52	.65	.78	.90	1.02	1.13	1.23	1.43	1.62	1.79	1.95	2.09	2.22	2.34	2.44	2.52	2.59	2.64	68		.07	
69	.24	.39	.54	.67	.80	.93	1.05	1.16	1.27	1.48	1.67	1.84	2.01	2.16	2.29	2.41	2.51	2.60	2.67	2.72	69		.07	
70	.24	.40	.55	.69	.83	.96	1.08	1.20	1.31	1.52	1.72	1.90	2.07	2.22	2.36	2.48	2.59	2.68	2.75	2.80	70		.07	
71	.25	.41	.57	.71	.85	.98	1.11	1.23	1.35	1.57	1.77	1.96	2.13	2.29	2.43	2.56	2.67	2.76	2.83	2.88	71		.08	
72	.26	.43	.59	.74	.88	1.01	1.14	1.27	1.39	1.62	1.82	2.01	2.19	2.36	2.50	2.63	2.75	2.84	2.91	2.97	72		.08	
73	.26	.44	.60	.76	.90	1.04	1.18	1.30	1.43	1.66	1.87	2.07	2.26	2.42	2.58	2.71	2.82	2.92	3.00	3.06	73			

TOTAL HEIGHT = 22 METRES

VOLUMES ARE UNDERBARK, IN CUBIC METRES.

DBHOB FROM 10 TO 85CM

CROWN BREAK IS ESTIMATED TO BE 15 METRES.

 HEIGHT ABOVE GROUND IN METRES
 D.B.H D.B.H T.D.L STUMP
 O.B. 17 O.B. 15 10-30
 (CM) (CM) CM CM

10	.04	10		.00
11	.05	11		.00
12	.06	12		.00
13	.07	13		.00
14	.08	14		.00
15	.10	15		.00
16	.11	16		.00
17	.13	17		.00
18	.15	18		.00
19	.17	19	.03	.00
20	.19	20	.06	.01
21	.21	21	.09	.01
22	.24	22	.12	.01
23	.26	23	.16	.01
24	.29	24	.20	.01
25	.32	25	.23	.01
26	.35	26	.27	.01
27	.36	27	.31	.01
28	.41	28	.35	.01
29	.44	29	.38	.01
30	.47	30	.42	.01
31	.51	31	.46	.01
32	.54	32	.50	.01
33	.58	33	.54	.02
34	.62	34	.58	.02
35	.66	35	.62	.02
36	.70	36	.67	.02
37	.74	37	.71	.02
38	.79	38	.76	.02
39	.83	39	.81	.02
40	.88	40	.85	.02
41	.93	41	.90	.02
42	.97	42	.95	.03
43	1.02	43	1.01	.03
44	1.07	44	1.06	.03
45	1.13	45	1.11	.03
46	1.18	46	1.17	.03
47	1.24	47	1.23	.03
48	1.29	48	1.28	.03
49	1.35	49	1.34	.04
50	1.41	50	1.40	.04
51	1.47	51	1.46	.04
52	1.53	52	1.53	.04
53	1.59	53	1.59	.04
54	1.65	54	1.66	.04
55	1.72	55	1.72	.04
56	1.78	56	1.79	.05
57	1.85	57	1.85	.05
58	1.92	58	1.93	.05
59	1.99	59	2.00	.05
60	2.06	60	2.07	.05
61	2.13	61	2.15	.06
62	2.21	62	2.22	.06
63	2.28	63	2.30	.06
64	2.36	64	2.38	.06
65	2.43	65	2.45	.06
66	2.51	66	2.53	.07
67	2.59	67	2.62	.07
68	2.67	68	2.70	.07
69	2.76	69	2.78	.07
70	2.84	70	2.87	.07
71	2.92	71	2.95	.08
72	3.01	72	3.04	.08
73	3.10	73	3.13	.08
74	3.19	74	3.22	.08
75	3.28	75	3.31	.09
76	3.37	76	3.40	.09
77	3.46	77	3.50	.09
78	3.55	78	3.59	.09
79	3.65	79	3.69	.10
80	3.74	80	3.79	.10
81	3.84	81	3.89	.10
82	3.94	82	3.99	.10
83	4.04	83	4.09	.11
84	4.14	84	4.19	.11
85	4.24	85	4.30	.11

 D.B.H D.B.H T.D.L STUMP
 O.B. 17 O.B. 15 10-30
 (CM) (CM) CM CM

HEIGHT ABOVE GROUND IN METRES

TOTAL HEIGHT = 24 METRES

VOLUMES ARE UNDERBARK, IN CUBIC METRES.

DBHOB FROM 10 TO 85CM

CROWN BREAK IS ESTIMATED TO BE 16 METRES.

HEIGHT ABOVE GROUND IN METRES

D.B.H O.B. 17 18 O.B. 15 10-30
(CM) (CM) CM CM

10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	
.04	.05	.06	.07	.09	.11	.12	.14	.16	.18	.21	.23	.25	.28	.31	.34	.37	.40	.44	.47	.50	.54	.59	.63	.67	.70	.74	.79	.84	.88	.93	.98	1.03	1.09	1.18	1.20	1.25	1.31	1.37	1.43	1.50	1.56	1.62	1.68	1.75	1.83	1.90	1.97	2.04	2.11	2.19	2.27	2.34	2.42	2.50	2.59	2.67	2.75	2.84	2.93	2.99	3.07	3.15	3.24	3.34	3.43	3.53	3.63	3.73	3.83	3.93	4.03	4.14	4.24	4.35	4.46	4.57
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.06	.09	.13	.17	.21	.25	.29	.33	.37	.42	.46	.50	.54	.59	.63	.68	.72	.77	.82	.87	.93	.98	1.03	1.09	1.15	1.21	1.27	1.33	1.39	1.45	1.52	1.59	1.65	1.72	1.79	1.87	1.94	2.02	2.09	2.17	2.25	2.33	2.41	2.49	2.58	2.66	2.75	2.84	2.93	3.02	3.11	3.20	3.30	3.39	3.49	3.59	3.69	3.79	3.90	4.00	4.11	4.21	4.32	4.43	4.54	4.66

D.B.H O.B. 17 18 O.B. 15 10-30
(CM) (CM) CM CM

HEIGHT ABOVE GROUND IN METRES

TOTAL HEIGHT = 26 METRES

VOLUMES ARE UNDERBARK, IN CUBIC METRES.

DBHOB FROM 10 TO 85CM

CROWN BREAK IS ESTIMATED TO BE 17 METRES.

 HEIGHT ABOVE GROUND IN METRES
 D.B.H O.B. 17 18 19 D.B.H T.D.L STUMP
 O.B. 15 10-30
 (CM) (CM) CM CM

10	.04	.04	.04	10		.00
11	.05	.05	.05	11		.00
12	.06	.06	.07	12		.00
13	.08	.08	.08	13		.00
14	.09	.09	.10	14		.00
15	.11	.11	.11	15		.00
16	.13	.13	.13	16		.00
17	.15	.15	.15	17		.00
18	.17	.17	.17	18		.00
19	.19	.19	.20	19	.03	.00
20	.21	.22	.22	20	.06	.00
21	.24	.24	.25	21	.10	.01
22	.27	.27	.28	22	.14	.01
23	.29	.30	.30	23	.18	.01
24	.32	.33	.33	24	.23	.01
25	.35	.36	.37	25	.27	.01
26	.39	.39	.40	26	.32	.01
27	.42	.43	.43	27	.36	.01
28	.45	.46	.47	28	.40	.01
29	.49	.50	.51	29	.45	.01
30	.53	.54	.55	30	.49	.01
31	.57	.58	.59	31	.54	.01
32	.61	.62	.63	32	.58	.01
33	.65	.66	.67	33	.63	.01
34	.69	.71	.72	34	.68	.02
35	.74	.75	.76	35	.73	.02
36	.78	.80	.81	36	.78	.02
37	.83	.85	.86	37	.83	.02
38	.88	.90	.91	38	.89	.02
39	.93	.95	.96	39	.94	.02
40	.98	1.00	1.01	40	1.00	.02
41	1.03	1.05	1.07	41	1.06	.02
42	1.09	1.11	1.12	42	1.11	.02
43	1.14	1.16	1.18	43	1.16	.03
44	1.20	1.22	1.24	44	1.24	.03
45	1.26	1.28	1.30	45	1.30	.03
46	1.32	1.34	1.36	46	1.37	.03
47	1.38	1.41	1.43	47	1.43	.03
48	1.44	1.47	1.49	48	1.50	.03
49	1.50	1.53	1.56	49	1.57	.03
50	1.57	1.60	1.63	50	1.64	.04
51	1.64	1.67	1.69	51	1.71	.04
52	1.70	1.74	1.77	52	1.78	.04
53	1.77	1.81	1.84	53	1.86	.04
54	1.84	1.88	1.91	54	1.93	.04
55	1.92	1.96	1.99	55	2.01	.04
56	1.99	2.03	2.06	56	2.09	.05
57	2.07	2.11	2.14	57	2.17	.05
58	2.14	2.18	2.22	58	2.25	.05
59	2.22	2.26	2.30	59	2.34	.05
60	2.30	2.34	2.38	60	2.42	.05
61	2.38	2.43	2.46	61	2.51	.05
62	2.46	2.51	2.55	62	2.60	.06
63	2.54	2.60	2.64	63	2.69	.06
64	2.63	2.68	2.72	64	2.78	.06
65	2.71	2.77	2.81	65	2.87	.06
66	2.80	2.86	2.90	66	2.96	.06
67	2.89	2.95	3.00	67	3.06	.07
68	2.98	3.04	3.09	68	3.15	.07
69	3.07	3.14	3.18	69	3.25	.07
70	3.17	3.23	3.28	70	3.35	.07
71	3.26	3.33	3.38	71	3.45	.07
72	3.36	3.42	3.48	72	3.56	.08
73	3.45	3.52	3.58	73	3.66	.08
74	3.55	3.62	3.68	74	3.76	.08
75	3.65	3.73	3.78	75	3.87	.08
76	3.75	3.83	3.89	76	3.98	.09
77	3.86	3.93	3.99	77	4.09	.09
78	3.96	4.04	4.10	78	4.20	.09
79	4.07	4.15	4.21	79	4.31	.09
80	4.17	4.26	4.32	80	4.43	.10
81	4.28	4.37	4.43	81	4.54	.10
82	4.39	4.48	4.55	82	4.66	.10
83	4.50	4.59	4.66	83	4.78	.10
84	4.61	4.71	4.78	84	4.90	.11
85	4.73	4.82	4.90	85	5.02	.11

 D.B.H O.B. 17 18 19 D.B.H T.D.L STUMP
 O.B. 15 10-30
 (CM) (CM) CM CM

TOTAL HEIGHT = 28 METRES

VOLUMES ARE UNDERBARK, IN CUBIC METRES.

DBHOB FROM 10 TO 85CM

CROWN BREAK IS ESTIMATED TO BE 19 METRES.

 HEIGHT ABOVE GROUND IN METRES

D.B.H O.B. (CM)	HEIGHT ABOVE GROUND IN METRES																D.B.H T.D.L STUMP							
	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	6	7	8	9	10	11	12	13	14	15	16	O.B.	15	10-30	
(CM)																					(CM)	CM	CM	
10	.00	.00	.01	.01	.01	.01	.01	.02	.02	.02	.02	.02	.03	.03	.03	.03	.04	.04	.04	.04	.04	.04	.04	.04
11	.00	.01	.01	.01	.01	.02	.02	.02	.02	.03	.03	.03	.04	.04	.04	.05	.05	.05	.05	.05	.05	.05	.05	.05
12	.00	.01	.01	.01	.02	.02	.02	.02	.03	.03	.04	.04	.05	.05	.05	.06	.06	.06	.06	.06	.06	.06	.06	.06
13	.01	.01	.01	.02	.02	.03	.03	.03	.03	.04	.04	.05	.05	.06	.06	.06	.07	.07	.07	.07	.07	.07	.07	.07
14	.01	.01	.02	.02	.03	.03	.04	.04	.04	.05	.05	.06	.06	.07	.07	.08	.08	.08	.08	.08	.08	.08	.08	.08
15	.01	.02	.02	.03	.03	.04	.04	.05	.05	.06	.06	.07	.07	.08	.08	.09	.09	.09	.09	.09	.09	.09	.09	.09
16	.01	.02	.03	.03	.04	.04	.05	.05	.06	.06	.07	.07	.08	.09	.09	.10	.10	.11	.11	.11	.11	.11	.11	.11
17	.01	.02	.03	.04	.04	.05	.05	.06	.06	.07	.07	.08	.09	.10	.11	.12	.12	.13	.13	.13	.13	.13	.13	.13
18	.01	.02	.03	.04	.04	.05	.06	.06	.07	.07	.08	.09	.10	.11	.12	.13	.14	.14	.15	.15	.15	.15	.15	.15
19	.01	.02	.03	.04	.05	.06	.06	.07	.07	.08	.09	.10	.11	.12	.13	.14	.15	.16	.16	.17	.17	.17	.17	.17
20	.02	.03	.04	.05	.06	.07	.07	.08	.09	.10	.11	.12	.13	.14	.15	.16	.17	.18	.18	.19	.19	.19	.19	.19
21	.02	.03	.04	.05	.06	.07	.08	.09	.10	.11	.12	.13	.14	.15	.16	.17	.18	.19	.20	.20	.20	.20	.20	.20
22	.02	.03	.05	.06	.07	.08	.09	.10	.11	.12	.13	.14	.15	.16	.17	.18	.19	.20	.21	.21	.21	.21	.21	.21
23	.02	.04	.05	.06	.08	.09	.10	.11	.12	.13	.14	.15	.16	.17	.18	.19	.20	.21	.22	.22	.22	.22	.22	.22
24	.02	.04	.06	.07	.08	.10	.11	.12	.14	.15	.16	.17	.18	.19	.20	.21	.22	.23	.23	.23	.23	.23	.23	.23
25	.03	.04	.06	.08	.09	.11	.12	.14	.15	.17	.18	.19	.20	.21	.22	.23	.24	.25	.25	.25	.25	.25	.25	.25
26	.03	.05	.07	.08	.10	.12	.13	.15	.16	.18	.19	.21	.22	.24	.25	.26	.27	.28	.28	.28	.28	.28	.28	.28
27	.03	.05	.07	.09	.11	.13	.14	.16	.18	.20	.21	.23	.24	.26	.28	.29	.31	.31	.31	.31	.31	.31	.31	.31
28	.03	.06	.08	.10	.12	.14	.16	.17	.19	.22	.22	.26	.28	.31	.34	.36	.38	.41	.42	.44	.44	.44	.44	.44
29	.04	.06	.08	.11	.13	.15	.17	.19	.21	.24	.24	.28	.31	.34	.38	.42	.44	.46	.48	.48	.48	.48	.48	.48
30	.04	.07	.09	.12	.14	.16	.18	.20	.22	.26	.26	.30	.33	.36	.39	.42	.46	.47	.49	.51	.51	.51	.51	.51
31	.04	.07	.10	.12	.15	.17	.20	.22	.24	.28	.28	.32	.35	.39	.42	.45	.48	.51	.53	.55	.57	.57	.57	.57
32	.05	.08	.11	.13	.16	.19	.21	.23	.26	.30	.34	.38	.42	.45	.48	.51	.54	.57	.59	.61	.63	.65	.65	.65
33	.05	.08	.11	.14	.17	.20	.22	.25	.27	.32	.36	.41	.45	.48	.52	.55	.58	.61	.63	.65	.67	.70	.70	.70
34	.05	.09	.12	.15	.18	.21	.24	.27	.29	.34	.39	.44	.48	.51	.55	.59	.62	.66	.69	.72	.74	.76	.76	.76
35	.06	.09	.13	.16	.19	.22	.25	.28	.31	.36	.41	.46	.51	.55	.59	.62	.66	.69	.72	.74	.76	.79	.79	.79
36	.06	.10	.14	.17	.21	.24	.27	.30	.33	.39	.44	.49	.54	.58	.62	.66	.70	.73	.76	.78	.81	.84	.84	.84
37	.06	.10	.14	.18	.22	.25	.29	.32	.35	.41	.47	.52	.57	.62	.66	.70	.74	.78	.81	.84	.86	.89	.89	.89
38	.07	.11	.15	.19	.23	.27	.30	.34	.37	.43	.49	.55	.60	.65	.70	.74	.78	.82	.86	.89	.93	.96	.96	.96
39	.07	.12	.16	.20	.24	.28	.32	.36	.39	.46	.52	.58	.64	.69	.74	.79	.83	.87	.90	.94	.98	.99	.99	.99
40	.07	.12	.17	.21	.26	.30	.34	.38	.41	.48	.55	.61	.67	.73	.78	.83	.88	.92	.96	.99	1.00	1.00	1.00	1.00
41	.08	.13	.18	.23	.27	.31	.36	.40	.44	.51	.58	.65	.71	.77	.82	.88	.92	.97	1.01	1.04	1.04	1.04	1.04	1.04
42	.08	.14	.19	.24	.29	.33	.38	.42	.46	.54	.61	.68	.75	.81	.87	.92	.97	1.02	1.06	1.10	1.10	1.10	1.10	1.10
43	.09	.14	.20	.25	.30	.35	.39	.44	.48	.56	.64	.72	.78	.85	.91	.97	1.02	1.07	1.11	1.15	1.15	1.15	1.15	1.15
44	.09	.15	.21	.26	.32	.37	.41	.46	.51	.59	.67	.75	.82	.89	.96	1.02	1.07	1.12	1.17	1.21	1.21	1.21	1.21	1.21
45	.09	.16	.22	.28	.33	.38	.43	.48	.53	.62	.71	.79	.86	.94	1.00	1.07	1.12	1.18	1.23	1.27	1.27	1.27	1.27	1.27
46	.10	.17	.23	.29	.35	.40	.46	.51	.56	.65	.74	.83	.90	.99	1.05	1.12	1.18	1.23	1.28	1.33	1.33	1.33	1.33	1.33
47	.10	.18	.24	.30	.36	.42	.48	.53	.58	.68	.78	.86	.95	1.03	1.10	1.17	1.23	1.29	1.34	1.39	1.39	1.39	1.39	1.39
48	.11	.18	.25	.32	.38	.44	.50	.55	.61	.71	.81	.90	.99	1.07	1.15	1.22	1.29	1.35	1.41	1.45	1.45	1.45	1.45	1.45
49	.11	.19	.26	.34	.40	.46	.52	.58	.64	.74	.85	.94	1.03	1.12	1.20	1.28	1.35	1.41	1.47	1.52	1.52	1.52	1.52	1.52
50	.12	.20	.27	.34	.41	.48	.54	.60	.66	.76	.88	.98	1.08	1.17	1.25	1.33	1.40	1.47	1.53	1.58	1.58	1.58	1.58	1.58
51	.12	.21	.28	.36	.43	.50	.57	.63	.69	.81	.92	1.03	1.12	1.22	1.31	1.39	1.46	1.53	1.60	1.65	1.65	1.65	1.65	1.65
52	.13	.21	.30	.37	.45	.52	.59	.66	.72	.84	.96	1.07	1.17	1.27	1.36	1.43	1.52	1.60	1.66	1.72	1.72	1.72	1.72	1.72
53	.13	.22	.31	.39	.47	.54	.61	.68	.75	.86	1.00	1.11	1.22	1.32	1.42	1.50	1.59	1.66	1.73	1.79	1.79	1.79	1.79	1.79
54	.14	.23	.32	.40	.49	.56	.64	.71	.78	.90	1.04	1.16	1.27	1.37	1.47	1.56	1.65	1.72	1.80	1.86	1.86	1.86	1.86	1.86
55	.14	.24	.33	.42	.50	.58	.66	.74	.81	.95	1.08	1.20	1.32	1.43	1.53	1.63	1.71	1.80	1.87	1.94	1.94	1.94	1.94	1.94
56	.15	.25	.35	.44	.52	.61	.69	.77	.84	.98	1.12	1.25	1.37	1.48	1.59	1.69	1.78	1.87	1.94	2.01	2.01	2.01	2.01	2.01
57	.16	.26	.36	.45	.54	.63	.71	.80	.87	1.02	1.16	1.29	1.42	1.54	1.65	1.75	1.85	1.94	2.01	2.09	2.09	2.09	2.09	2.09
58	.16	.27	.37	.47	.56	.65	.74	.82	.91	1.06	1.21	1.34	1.47	1.59	1.71	1.82	1.92	2.01	2.09	2.16	2.16	2.16	2.16	2.16
59	.17	.28	.39	.49	.58	.68	.77	.85	.94	1.10	1.25	1.39	1.53	1.65	1.77	1.88	1.99	2.08	2.17	2.24	2.24	2.24	2.24	2.24
60	.17	.29	.40	.50	.60	.70	.79	.88	.97	1.14	1.29	1.44	1.58	1.71	1.83	1.95	2.06	2.15	2.24	2.32	2.32	2.32	2.32	2.32
61	.18	.30	.41	.52	.63	.73	.82	.92	1.01	1.18	1.34	1.49	1.64	1.77	1.90	2.02	2.13	2.22	2.32	2.40	2.40	2.40	2.40	2.40
62	.18	.31	.43	.54	.65	.75	.85	.95	1.04	1.22	1.38	1.54	1.69	1.83	1.96	2.09	2.20	2.31	2.40	2.49	2.49	2.49	2.49	2.49
63	.19	.32	.44	.56	.67	.78	.88	.98	1.08	1.26	1.43	1.59	1.75	1.89	2.03	2.16	2.28	2.39	2.48	2.57	2.57	2.57	2.57	2.57
64	.20	.33	.46	.58	.69	.80	.91	1.01	1.11	1.30	1.48	1.65	1.81	1.96	2.10	2.23	2.35	2.46	2.56	2.66	2.66	2.66	2.66	2.66
65	.20	.34	.47	.60	.71	.83	.94	1.05	1.15	1.34	1.53	1.70	1.87	2.02	2.17	2.30	2.43	2.54	2.65	2.74	2.74	2.74	2.74	2.74
66	.21	.35	.49	.61	.74	.86	.97	1.08	1.18	1.39	1.58	1.76	1.93	2.09	2.24	2.38	2.51	2.63	2.73	2.83	2.83	2.83	2.83	2.83
67	.22	.36	.50	.63	.76	.88	1.00	1.11	1.22	1.43	1.63	1.81	1.99	2.15	2.31	2.45	2.59	2.71	2.82	2.92	2.92	2.92	2.92	2.92
68	.22	.37	.52	.65	.78	.91	1.03	1.15	1.26	1.48	1.68	1.87	2.05	2.22	2.38	2.53	2.67	2.79	2.91	3.01	3.01	3.01	3.01	3.01
69	.23	.39	.53	.67	.81	.94	1.06	1.18	1.30	1.52	1.73	1.93	2.11	2.29	2.45	2.61	2.75	2.86	3.00	3.10	3.10	3.10	3.10	3.10
70	.24	.40	.55	.69	.83	.97	1.10	1.22	1.34	1.57	1.78	1.9												

TOTAL HEIGHT = 28 METRES

VOLUMES ARE UNDERBARK, IN CUBIC METRES.

DBHOB FROM 10 TO 85CM

CROWN BREAK IS ESTIMATED TO BE 19 METRES.

HEIGHT ABOVE GROUND IN METRES

D.B.H						D.B.H T.D.L STUMP		
O.B.	17	18	19	20	22	O.B.	15	10-30
(CM)						(CM)	CM	CM

10	.04	.04	.04	.04	.04	.10		.00
11	.05	.05	.06	.06	.06	.11		.00
12	.07	.07	.07	.07	.07	.12		.00
13	.08	.08	.08	.08	.09	.13		.00
14	.10	.10	.10	.10	.10	.14		.00
15	.11	.12	.12	.12	.12	.15		.00
16	.13	.14	.14	.14	.14	.16		.00
17	.15	.16	.16	.16	.16	.17		.00
18	.17	.18	.18	.18	.19	.18		.00
19	.20	.20	.21	.21	.21	.19	.03	.00
20	.22	.23	.23	.24	.24	.20	.07	.00
21	.25	.25	.26	.26	.27	.21	.10	.01
22	.28	.28	.29	.29	.30	.22	.15	.01
23	.31	.31	.32	.32	.33	.23	.19	.01
24	.34	.34	.35	.36	.36	.24	.24	.01
25	.37	.38	.38	.39	.40	.25	.29	.01
26	.40	.41	.42	.43	.43	.26	.34	.01
27	.44	.45	.46	.46	.47	.27	.38	.01
28	.47	.48	.49	.50	.51	.28	.43	.01
29	.51	.52	.53	.54	.55	.29	.48	.01
30	.55	.56	.57	.58	.59	.30	.53	.01
31	.59	.60	.62	.63	.64	.31	.58	.01
32	.63	.65	.66	.67	.68	.32	.63	.01
33	.67	.69	.70	.72	.73	.33	.68	.01
34	.72	.74	.75	.76	.78	.34	.73	.02
35	.77	.78	.80	.81	.83	.35	.78	.02
36	.81	.83	.85	.86	.88	.36	.84	.02
37	.86	.88	.90	.92	.93	.37	.89	.02
38	.91	.94	.95	.97	.99	.38	.95	.02
39	.96	.99	1.01	1.02	1.05	.39	1.01	.02
40	1.02	1.04	1.06	1.08	1.10	.40	1.07	.02
41	1.07	1.10	1.12	1.14	1.16	.41	1.13	.02
42	1.13	1.16	1.18	1.20	1.22	.42	1.20	.02
43	1.19	1.22	1.24	1.26	1.29	.43	1.26	.03
44	1.25	1.28	1.30	1.32	1.35	.44	1.33	.03
45	1.31	1.34	1.37	1.39	1.42	.45	1.39	.03
46	1.37	1.40	1.43	1.45	1.48	.46	1.46	.03
47	1.43	1.47	1.50	1.52	1.55	.47	1.53	.03
48	1.50	1.53	1.57	1.59	1.62	.48	1.61	.03
49	1.56	1.60	1.64	1.66	1.70	.49	1.68	.03
50	1.63	1.67	1.71	1.73	1.77	.50	1.76	.04
51	1.70	1.74	1.78	1.81	1.85	.51	1.83	.04
52	1.77	1.82	1.85	1.88	1.92	.52	1.91	.04
53	1.84	1.89	1.93	1.96	2.00	.53	1.99	.04
54	1.92	1.97	2.00	2.04	2.08	.54	2.07	.04
55	1.99	2.04	2.08	2.12	2.16	.55	2.16	.04
56	2.07	2.12	2.16	2.20	2.24	.56	2.24	.04
57	2.15	2.20	2.25	2.28	2.33	.57	2.33	.05
58	2.23	2.28	2.33	2.37	2.42	.58	2.42	.05
59	2.31	2.36	2.41	2.45	2.50	.59	2.51	.05
60	2.39	2.45	2.50	2.54	2.59	.60	2.60	.05
61	2.47	2.54	2.59	2.63	2.68	.61	2.69	.05
62	2.56	2.62	2.68	2.72	2.78	.62	2.78	.06
63	2.65	2.71	2.77	2.81	2.87	.63	2.88	.06
64	2.73	2.80	2.86	2.90	2.97	.64	2.98	.06
65	2.82	2.89	2.95	3.00	3.06	.65	3.08	.06
66	2.91	2.99	3.05	3.10	3.16	.66	3.18	.06
67	3.01	3.08	3.14	3.19	3.26	.67	3.28	.07
68	3.10	3.18	3.24	3.29	3.36	.68	3.38	.07
69	3.20	3.28	3.34	3.39	3.47	.69	3.49	.07
70	3.29	3.37	3.44	3.50	3.57	.70	3.59	.07
71	3.39	3.47	3.54	3.60	3.68	.71	3.70	.07
72	3.49	3.58	3.65	3.71	3.79	.72	3.81	.08
73	3.59	3.68	3.75	3.81	3.90	.73	3.92	.08
74	3.69	3.79	3.86	3.92	4.01	.74	4.04	.08
75	3.80	3.89	3.97	4.03	4.12	.75	4.15	.08
76	3.90	4.00	4.08	4.15	4.23	.76	4.27	.08
77	4.01	4.11	4.19	4.26	4.35	.77	4.39	.09
78	4.12	4.22	4.31	4.37	4.47	.78	4.51	.09
79	4.23	4.33	4.42	4.49	4.59	.79	4.63	.09
80	4.34	4.45	4.54	4.61	4.71	.80	4.75	.09
81	4.45	4.56	4.65	4.73	4.83	.81	4.87	.10
82	4.57	4.68	4.77	4.85	4.95	.82	5.00	.10
83	4.68	4.80	4.89	4.97	5.08	.83	5.13	.10
84	4.80	4.92	5.02	5.10	5.20	.84	5.26	.10
85	4.92	5.04	5.14	5.22	5.33	.85	5.39	.11

D.B.H D.B.H T.D.L STUMP
O.B. 17 18 19 20 22 O.B. 15 10-30
(CM) (CM) CM CM

HEIGHT ABOVE GROUND IN METRES

TOTAL HEIGHT = 30 METRES

VOLUMES ARE UNDERBARK, IN CUBIC METRES.

DBHOB FROM 20 TO 95CM

CROWN BREAK IS ESTIMATED TO BE 20 METRES.

HEIGHT ABOVE GROUND IN METRES

D.B.H O.B. (CM)	HEIGHT ABOVE GROUND IN METRES															D.B.H T.D.L STUMP										
	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	6	7	8	9	10	11	12	13	14	15	16	O.B.	15	10-30			
(CM)																								CM	CM	CH
20	.02	.03	.04	.05	.06	.07	.07	.09	.11	.12	.14	.15	.17	.18	.19	.20	.21	.21	.22	.22	.25	.25	.25	.00		
21	.02	.03	.04	.05	.06	.07	.08	.09	.10	.12	.14	.15	.17	.18	.19	.20	.21	.22	.22	.23	.24	.25	.27	.01		
22	.02	.03	.04	.05	.06	.07	.08	.09	.10	.11	.12	.13	.14	.15	.16	.17	.18	.19	.20	.21	.22	.23	.24	.01		
23	.02	.04	.05	.06	.08	.09	.10	.11	.12	.13	.14	.15	.16	.17	.18	.19	.20	.21	.22	.23	.24	.25	.27	.01		
24	.02	.04	.05	.06	.07	.09	.10	.11	.12	.13	.14	.15	.16	.17	.18	.19	.20	.21	.22	.23	.24	.25	.27	.01		
25	.03	.04	.06	.08	.09	.11	.12	.14	.15	.16	.18	.20	.22	.25	.27	.29	.31	.32	.34	.35	.37	.39	.40	.01		
26	.03	.05	.07	.08	.10	.12	.13	.15	.16	.19	.22	.24	.27	.29	.31	.33	.35	.37	.39	.40	.42	.43	.44	.01		
27	.03	.05	.07	.09	.11	.13	.15	.16	.18	.21	.24	.27	.29	.32	.34	.36	.38	.40	.42	.43	.44	.45	.46	.01		
28	.03	.06	.08	.10	.12	.14	.16	.18	.19	.23	.26	.29	.32	.34	.37	.39	.41	.43	.45	.47	.49	.50	.51	.01		
29	.04	.06	.08	.11	.13	.15	.17	.19	.21	.24	.28	.31	.34	.37	.40	.42	.45	.47	.49	.51	.53	.55	.56	.01		
30	.04	.07	.09	.12	.14	.16	.18	.20	.22	.26	.30	.33	.37	.40	.43	.46	.48	.51	.53	.55	.57	.59	.60	.01		
31	.04	.07	.10	.12	.15	.17	.20	.22	.24	.28	.32	.36	.39	.43	.46	.49	.52	.54	.57	.59	.61	.63	.64	.01		
32	.05	.08	.11	.13	.16	.19	.21	.23	.26	.30	.34	.38	.42	.46	.49	.52	.55	.58	.61	.63	.65	.67	.68	.01		
33	.05	.08	.11	.14	.17	.20	.23	.25	.28	.32	.37	.41	.45	.49	.53	.56	.59	.62	.65	.67	.69	.72	.73	.01		
34	.05	.09	.12	.15	.18	.21	.24	.27	.29	.34	.39	.44	.48	.52	.56	.60	.63	.66	.69	.72	.74	.76	.77	.02		
35	.05	.09	.13	.16	.19	.23	.26	.28	.31	.37	.42	.47	.51	.56	.60	.64	.67	.71	.74	.76	.78	.81	.82	.02		
36	.06	.10	.14	.17	.21	.24	.27	.30	.33	.39	.44	.50	.54	.59	.63	.67	.71	.75	.78	.81	.83	.86	.87	.02		
37	.06	.10	.14	.18	.22	.25	.29	.32	.35	.41	.47	.53	.58	.63	.67	.72	.76	.79	.83	.86	.89	.91	.92	.02		
38	.07	.11	.15	.19	.23	.27	.30	.34	.37	.44	.50	.56	.61	.66	.71	.76	.80	.84	.88	.91	.93	.96	.97	.02		
39	.07	.12	.16	.20	.24	.28	.32	.36	.39	.46	.53	.59	.65	.70	.75	.80	.85	.89	.93	.96	.99	.102	.103	.02		
40	.07	.12	.17	.21	.26	.30	.34	.38	.42	.49	.56	.62	.68	.74	.79	.85	.89	.94	.98	.102	.105	.108	.109	.02		
41	.08	.13	.18	.23	.27	.32	.36	.40	.44	.51	.59	.65	.72	.78	.84	.89	.94	.99	.103	.107	.111	.114	.115	.02		
42	.08	.14	.19	.24	.29	.33	.38	.42	.46	.54	.62	.69	.76	.82	.88	.94	.99	.104	.109	.113	.117	.120	.121	.02		
43	.09	.14	.20	.25	.30	.35	.40	.44	.49	.57	.65	.72	.79	.86	.93	.99	.104	.109	.114	.119	.123	.126	.127	.03		
44	.09	.15	.21	.26	.32	.37	.42	.46	.51	.60	.68	.76	.83	.90	.97	.103	.109	.115	.120	.125	.130	.133	.134	.03		
45	.09	.16	.22	.28	.33	.38	.44	.49	.53	.63	.71	.80	.87	.95	.102	.109	.115	.120	.126	.131	.136	.140	.141	.03		
46	.10	.16	.23	.29	.35	.40	.46	.51	.56	.66	.75	.83	.92	.99	.107	.114	.120	.126	.132	.137	.142	.146	.147	.03		
47	.10	.17	.24	.30	.36	.42	.48	.53	.59	.69	.78	.87	.96	.104	.112	.119	.126	.132	.138	.143	.148	.152	.153	.03		
48	.11	.18	.25	.32	.38	.44	.50	.56	.61	.72	.82	.91	1.00	.109	.117	.124	.131	.138	.144	.150	.155	.159	.160	.03		
49	.11	.19	.26	.33	.40	.46	.52	.58	.64	.75	.85	.95	1.05	.114	.122	.130	.137	.144	.151	.156	.161	.165	.166	.03		
50	.12	.20	.27	.34	.41	.48	.54	.61	.67	.78	.89	.99	1.09	.118	.127	.135	.143	.150	.157	.163	.168	.172	.173	.04		
51	.12	.20	.28	.36	.43	.50	.57	.63	.70	.82	.93	1.04	1.14	.124	.133	.141	.149	.157	.164	.170	.175	.179	.180	.04		
52	.13	.21	.30	.37	.45	.52	.59	.66	.72	.85	.97	1.08	1.19	.129	.138	.147	.156	.163	.171	.177	.182	.185	.186	.04		
53	.13	.22	.31	.39	.47	.54	.62	.69	.75	.88	1.01	1.12	1.23	.134	.144	.153	.162	.170	.178	.184	.189	.192	.193	.04		
54	.14	.23	.32	.40	.49	.56	.64	.71	.78	.92	1.05	1.17	1.28	.139	.150	.159	.168	.177	.185	.191	.196	.199	.200	.04		
55	.14	.24	.33	.42	.51	.59	.67	.74	.82	.96	1.09	1.21	1.33	.145	.155	.165	.175	.184	.192	.198	.203	.206	.207	.04		
56	.15	.25	.34	.43	.52	.61	.69	.77	.85	.99	1.13	1.26	1.39	.150	.161	.172	.182	.191	.199	.205	.210	.213	.214	.04		
57	.15	.26	.36	.45	.54	.63	.72	.80	.88	1.03	1.17	1.31	1.44	.156	.167	.178	.189	.198	.207	.214	.220	.223	.224	.05		
58	.16	.27	.37	.47	.56	.66	.74	.83	.91	1.07	1.22	1.36	1.49	.162	.174	.185	.196	.205	.214	.221	.227	.230	.231	.05		
59	.17	.28	.38	.49	.58	.68	.77	.86	.94	1.11	1.26	1.41	1.54	.168	.180	.192	.203	.213	.222	.230	.237	.240	.241	.05		
60	.17	.29	.40	.50	.61	.70	.80	.89	.98	1.15	1.31	1.46	1.60	.174	.186	.198	.210	.220	.230	.238	.245	.249	.250	.05		
61	.18	.30	.41	.52	.63	.73	.83	.92	1.01	1.19	1.35	1.51	1.66	.180	.193	.205	.217	.228	.238	.247	.254	.258	.259	.05		
62	.18	.31	.43	.54	.65	.75	.85	.95	1.05	1.23	1.40	1.56	1.71	.186	.200	.212	.225	.236	.246	.255	.262	.266	.267	.06		
63	.19	.32	.44	.56	.67	.78	.88	.98	1.08	1.27	1.45	1.61	1.77	.192	.206	.220	.232	.244	.255	.264	.271	.275	.276	.06		
64	.20	.33	.46	.58	.69	.80	.91	1.02	1.12	1.31	1.49	1.67	1.83	.198	.213	.227	.240	.252	.263	.272	.280	.284	.285	.06		
65	.20	.34	.47	.60	.72	.83	.94	1.05	1.15	1.35	1.54	1.72	1.89	.205	.220	.234	.248	.260	.272	.282	.290	.294	.295	.06		
66	.21	.35	.49	.61	.74	.86	.97	1.08	1.19	1.40	1.59	1.79	1.95	.212	.227	.242	.256	.269	.281	.291	.299	.303	.304	.06		
67	.22	.36	.50	.63	.76	.89	1.00	1.12	1.23	1.44	1.64	1.83	2.01	.218	.234	.250	.264	.278	.289	.300	.308	.312	.313	.06		
68	.22	.37	.52	.65	.79	.91	1.04	1.15	1.27	1.49	1.69	1.89	2.08	.225	.242	.257	.272	.286	.298	.310	.318	.322	.323	.07		
69	.23	.38	.53	.67	.81	.94	1.07	1.19	1.31	1.53	1.75	1.95	2.14	.232	.249	.265	.281	.295	.308	.319	.327	.331	.332	.07		
70	.24	.40	.55	.69	.83	.97	1.10	1.23	1.35	1.58	1.80	2.01	2.20	.239	.257	.273	.289	.304	.317	.329	.340	.348	.349	.07		
71	.24	.41	.56	.72	.86	1.00	1.13	1.26	1.39	1.63	1.85	2.07	2.27	.246	.264	.282	.298	.313	.326	.339	.350	.358	.359	.07		
72	.25	.42	.58	.74	.88	1.03	1.17	1.30	1.43	1.67	1.91	2.13	2.34	.253	.272	.290	.306	.322	.336	.349	.360	.368	.369	.08		
73	.26	.43	.60	.76	.91	1.06	1.20	1.34	1.47	1.72	1.96	2.19	2.41	.261	.280	.298	.315	.331	.346	.359	.370	.378	.379	.08		
74	.27	.44	.62	.78	.94	1.09	1.23	1.37	1.51	1.77	2.02	2.25	2.47	.268	.288	.307	.324	.341	.356	.369	.380	.388	.389	.08		
75	.27	.46	.63	.80	.96	1.12	1.27	1.41	1.55	1.82	2.07	2.31	2.54	.276	.296	.315	.333	.350	.366	.380	.392	.400	.401	.08		
76	.28	.47	.65	.82	.99	1.15	1.30	1.45	1.60	1.87	2.13	2.38	2.61	.283	.304	.324	.343	.360	.376	.390	.402	.410	.411	.08		
77	.29	.49	.67	.85	1.02	1.18	1.34	1.49	1.64	1.92	2.19	2.44	2.68	.291	.313	.333	.352	.370	.386	.401	.413	.421	.422	.09		
78	.30	.50	.69	.87	1.04	1.21	1.38	1.53	1.68	1.98	2.25	2.50	2.76	.299	.321	.342	.362	.380	.396	.412	.427	.435	.436	.09		
79	.30	.51	.70	.89	1.07	1.24	1.41	1.57	1.73	2.03	2.31	2.58	2.83	.307	.330	.351	.371	.390	.407	.423	.438	.446	.447	.09		
80	.31	.52	.72	.92	1.10	1.28	1.45	1.61	1.78	2.08	2.37	2.64	2.90	.315	.338	.360	.381	.400	.418	.434	.449	.457	.458	.09		
81	.																									