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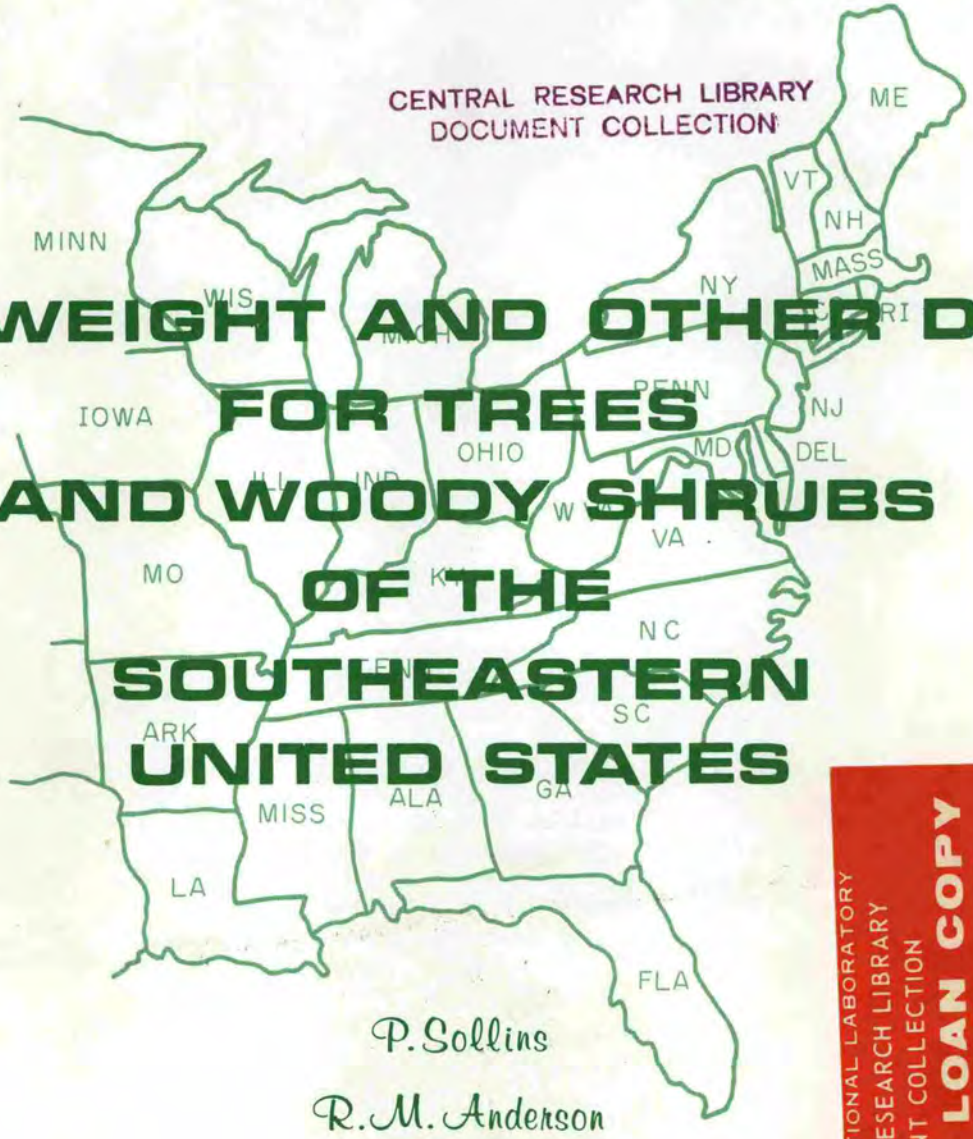

DRY-WEIGHT AND OTHER DATA FOR TREES AND WOODY SHRUBS OF THE SOUTHEASTERN UNITED STATES

P. Sollins
R. M. Anderson

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Compiled and edited by
P. Sollins and R. M. Anderson

OCTOBER 1971

Oak Ridge National Laboratory
Oak Ridge, Tennessee
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DRY-WEIGHT AND OTHER DATA FOR TREES AND WOODY SHRUBS OF THE SOUTHEASTERN UNITED STATES*

Compiled and edited by

P. Sollins and R. M. Anderson

ABSTRACT

Tables of dry weight and other data are provided for approximately 900 trees, saplings, and seedlings (43 total species) and about 100 individuals of woody shrubs (13 species). Data available for at least some individuals include bole diameter (at breast height, ground level, and base of crown), tree height; dry weight of leaves, branches, bole, and roots; crown width and height; leaf surface area; bark thickness; age; and annual radial increment. The data are summarized by species and size class. Regression equations based on these data will be published elsewhere.

1. INTRODUCTION

Biomass budgets for forest ecosystems are a prerequisite for modeling effects of fertilization and other management practices on forest growth and nutrient loss. Harvest data have been accumulated slowly over the last decade and many authors (e.g., Whittaker 1966, Whittaker and Woodwell 1968, Young and Carpenter 1967, Thomas 1969, Blackmon and Ralston 1970, Clebsch and Shanks 1962) have published regressions of dry weight of various tree components on height and/or DBH (diameter at breast height).

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These equations have been used to estimate standing crop in study areas where harvest is undesirable (e.g., Whittaker and Woodwell 1969, Satoo 1970). However, our experience indicates that such equations are most accurate when tailored to a specific application. The selection of the data on which the regressions are performed should reflect the species composition of the sites in which the equations will be used. The choice of regression technique (linear or nonlinear) is a subject of controversy (Baskerville 1970, Madgwick 1970) and should be left to the investigators using the equations. This, however, requires that the raw data for each tree be available. Only one journal article (Monk, Child and Nicholson 1970) and two reports (Thomas 1967, Young, Strand and Altenburger 1964) actually contain such data for species present in the Southeastern United States.

We have therefore undertaken a preliminary compilation of harvest data for trees and woody shrubs of the Southern Appalachians with emphasis on unpublished data on hardwood species. Conifer species have been included when data are readily available but no attempt has been made to consider or even cite the extensive forestry literature on such species as loblolly pine. We recognize that even for the hardwoods this report is incomplete and may contain errors. A revised edition is anticipated and anyone with knowledge of additional data is urged to contact the editors.*

---

*Since this manuscript was submitted for review, the following persons have supplied additional data: J. P. Witherspoon, Oak Ridge National Laboratory (4 white oak saplings and 20 white oak seedlings including root weights); C. W. Ralston, Duke University (17 white oak, 14 red oak, 13 hickory and 28 loblolly pine; see Ralston and Prince 1965); W. W. King (20 black oaks); W. F. Harris and G. S. Henderson (root weights for 10 of the trees already described); F. G. Taylor, Jr., Oak Ridge National Laboratory (6 small dogwoods including root weights).

This report is also an experiment by the Oak Ridge and Coweeta Sites of the Eastern Deciduous Forest program (IBP) in cooperation with the Tennessee Valley Authority, the University of Tennessee, and the U.S. Forest Service in the cooperative exchange and dissemination of raw data. By combining and publishing these data as an IBP report, we hope to make it readily available to all Biome investigators. We appreciate the possibility that these data might be used without consultation with the original researche. However, we hope that anyone interested in making extensive use of complete sets of the harvest data will communicate with the respective authors -- both to eliminate duplication of effort and to permit participation by the harvesters in any open-literature publications.

2. DATA FORMAT AND AVAILABILITY

The data are arranged by source: i.e., the contributions of an investigator or team have been kept together and form a single chapter. Within each chapter the data are separated into data sets (Table 1) corresponding to either a specific harvest site or time of harvesting. Each chapter contains a description of methods and a brief description of each site. In the case of the TVA data, in which each tree was harvested at a different location, the entire set was considered a data set and the location of the individual trees discussed at the beginning of the chapter. In several cases where large numbers of trees were harvested in one area, a separate data set number was assigned for each species.

A numerical species code was adopted based on one used by TVA in its continuous forest inventory (CFI) program. Several modifications were necessary to allow for new species and to resolve ambiguities. In the final

Table 1. Summary description of harvest data sets including year and general location of harvest, and number, size and species composition of harvested specimens. Data set numbers were assigned arbitrarily. Chapter numbers have been included after the data set numbers for cross-reference purposes.

Data set numbers	Chapter numbers	Year harvested	Location	Number of trees	Number of saplings	Species (Number of species)
1	5	1969-70	Athens, Ga.	16	199	Mixed (25)
2	4	1969-70	Coweeta Watershed, Franklin, N.C.	9	108	Mixed (21)
3	9	1961	U.S. AEC Reservation, Oak Ridge, Tenn.	30	0	*Quercus alba*, *Liriodendron tulipifera*, *Pinus echinata*
4	7	1970	U.S. AEC Reservation, Oak Ridge, Tenn.	0	11	*Nyssa sylvatica*, *Carya* spp.
6	7	1966	U.S. AEC Reservation, Oak Ridge, Tenn.	5	23	*Cornus florida*
7	7	1966	U.S. AEC Reservation, Oak Ridge, Tenn.	0	20	*Cornus florida*
8	3	1969	U.S. AEC Reservation, Walker Branch Watershed, Oak Ridge, Tenn.	0	12	*Cornus florida*
9	3	1969	U.S. AEC Reservation, Walker Branch Watershed, Oak Ridge, Tenn.	0	397	Mixed (9)
10	8	1970	U.S. AEC Reservation, Oak Ridge, Tenn.	0	50	Mixed (5)
13	2	1970-71	U.S. AEC Reservation, Walker Branch Watershed, Oak Ridge, Tenn.	22	7	Mixed (13)
14	6	1970	Tenn. River Valley, Tenn.	1	0	*Quercus velutina*
19	1	1960	Franklin County, Tenn.	10	0	*Quercus* spp. (3)
22	1	1961	GSMNP[a], Swain County, N.C.	9	6	*Picea rubens*
23	1	1961	GSMNP, Swain County, N.C.	7	10	*Fagus grandifolia*
25	1	1961	Thomas Divide, GSMNP, Swain County, N.C.	8	2	Mixed (3)
28	1	1961	UT-AEC Agr. Exp. Sta., Oak Ridge, Tenn.	17	2	*Quercus alba*

[a]Great Smoky Mountains National Park

Table 1 (Cont'd)

Data set numbers	Chapter numbers	Year harvested	Location	Number of trees	Number of saplings	Species (Number of species)
31	1	1961	Metcalf Bottoms, GSMNP, Sevier County, Tenn.	4	8	Mixed (7)
32	1	1961	GSMNP, Swain County, N.C.	18	5	Mixed (7)
41	1	1961	U.S. AEC Reservation, Oak Ridge, Tenn.	10	3	Liriodendron tulipifera
42	1	1961	U.S. AEC Reservation, Oak Ridge, Tenn.	4	10	Fagus grandifolia
43	1	1961	U.S. AEC Reservation, Oak Ridge, Tenn.	7	8	Aesculus octandra
46	1	1962	Cosby Campground, GSMNP, Cocke County, Tenn.	3	2	Liquidambar styraciflua
47	1	1962	Newfound Gap, GSMNP	5	0	Acer saccharum
48	1	1962	Cosby Campground, GSMNP	3	2	Betula lenta
49	1	1962	Newfound Gap, GSMNP	2	3	Sorbus americana
50	1	1962	Cosby Campground, GSMNP	2	2	Sassafras albidum
51	1	1962	Cosby Campground, GSMNP	2	2	Mixed (3)
52	1	1962	Cosby Campground, GSMNP	2	1	Acer rubrum
53	1	1962	Newfound Gap, GSMNP	2	1	Amelanchier laevis
54	1	1962	Newfound Gap, GSMNP	2	0	Prunus pennsylvanicus
55	1	1962	Newfound Gap, GSMNP	7	1	Fagus grandifolia

system, shown in Table 2, the technical and preferred common names were a compromise between those of Little (1953) and Radford *et al.* (1968). Other frequently used common names were listed as alternates to prevent confusion.

Data were available for 55 species and included a total of 194 trees (over 10 cm DBH) and 906 saplings, seedlings, and woody shrubs (less than 10 cm DBH or 5 m height). Table 3 consists of an analysis of the pooled data by species showing the number of individuals in various height and diameter classes. Important species for which no data were available included redbud (*Cercis canadensis*), and sycamore (*Platanus occidentalis*). Hopefully this table will serve as a guideline for further harvesting.

All data are available on punch cards in the format outlined in Table 4. Data other than code numbers (data set, tree, and species) and age are punched in the indicated columns with a decimal point. Although the exact location of the decimal point depends on the magnitude of the number, these items may be retrieved with a FORTRAN program using an Fn.0 format (where n is the field width). In all cases 0.0 means that the measurement was not made. Listings of the programs used to print the harvest data tables and Table 3 have been included as Appendix 2. Copies of the data cards and programs may be obtained from R. Anderson, Building 3017, Ecological Sciences Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee 37830.

Table 2. Species codes used for all data sets with corresponding scientific and common names. Species codes generally follow the TVA system. Harvest data are not necessarily available for all species listed in this table (see Table 3).

111	PINUS TAEDA	LOBLOLLY PINE	
112	PINUS PALUSTRIS	LONGLEAF PINE	
113	PINUS RIGIDA	PITCH PINE	
114	PINUS ECHINATA	SHORTLEAF PINE	
115	PINUS ELLIOTTII	SLASH PINE	
116	PINUS PUNGENS	TABLE MOUNTAIN PINE	
117	PINUS VIRGINIANA	VIRGINIA PINE	
121	PINUS STROBUS	EAST. WHITE PINE	
125	ABIES FRASERI	FRASER FIR	
126	TSUGA CANADENSIS	EAST. HEMLOCK	
127	PICEA RUBENS	RED SPRUCE	
201	QUERCUS VELUTINA	BLACK OAK	
203	QUERCUS RUBRA	N. RED OAK	
204	QUERCUS SHUMARDII	SHUMARD OAK	
205	QUERCUS FALCATA	SO. RED OAK	CHERRYBARK OAK
211	QUERCUS MARILANDICA	BLACKJACK OAK	
212	QUERCUS PALUSTRIS	PIN OAK	
213	QUERCUS COCCINEA	SCARLET OAK	
214	QUERCUS IMBRICARIA	SHINGLE OAK	
215	QUERCUS NIGRA	WATER OAK	
216	QUERCUS PHELLOS	WILLOW OAK	
221	QUERCUS MACROCARPA	BUR OAK	
222	QUERCUS PRINUS	CHESTNUT OAK	
223	QUERCUS MUHLENBERGII	CHINQUAPIN OAK	
224	QUERCUS LYRATA	OVERCUP OAK	
225	QUERCUS STELLATA	POST OAK	
226	QUERCUS MICHAUXII	SWAMP CH. OAK	
227	QUERCUS BICOLOR	SWAMP WH. OAK	
228	QUERCUS ALBA	WHITE OAK	
230	TILIA HETEROPHYLLA	WHITE. BASSWOOD	
231	AESCULUS OCTANDRA	YELLOW BUCKEYE	
232	POPULUS DELTOIDES	EAST. COTTONWOOD	
233	MAGNOLIA ACUMINATA	CUCUMBERTREE	
234	NYSSA SYLVATICA	BLACK TUPELO	BLACKGUM
235	LIQUIDAMBAR STYRACIFLUA	SWEETGUM	
236	NYSSA AQUATICA	WATER TUPELO	
237	MAGNOLIA SPP.	MAGNOLIA SPP.	
238	ACER RUBRUM	RED MAPLE	
239	LIRIODENDRON TULIPIFERA	YELLOW-POPLAR	TULIP POPLAR
241	POPULUS GRANDIDENTATA	BIGTOOTH ASPEN	
242	ACER NEGUNDO	BOXELDER	
243	JUGLANS CINEREA	BUTTERNUT	
244	ACER SACCHARINUM	SILVER MAPLE	
245	MAGNOLIA VIRGINIANA	SWEETBAY	
246	SALIX NIGRA	BLACK WILLOW	
247	MAGNOLIA FRASERI	FRASER MAGNOLIA	
250	FRAXINUS SPP.	ASH SPP.	
251	FAGUS GRANDIFOLIA	AMER. BEECH	
252	BETULA LUTEA	YELLOW BIRCH	
253	PRUNUS SEROTINA	BLACK CHERRY	
254	CORNUS FLORIDA	FLOWERING DOGWOOD	
255	ULMUS SPP.	ELM SPP.	
256	CARYA SPP.	HICKORY SPP.	
257	ACER SACCHARUM	SUGAR MAPLE	HARD MAPLE
258	DIOSPYROS VIRGINIANA	COMMON PERSIMMON	
259	JUGLANS NIGRA	BLACK WALNUT	
260	BETULA NIGRA	RIVER BIRCH	
261	BETULA LENTA	SWEET BIRCH	
262	ULMUS ALATA	WINGED ELM	

Table 2 (Cont'd)

263	CELTIS SPP.	HACKBERRY SPP.	
264	ILEX OPACA	HOLLY	
265	CARYA ILLINOENSIS	PECAN	
266	HALESIA CAROLINA	CAROLINA SILVERBELL	
267	OXYDENDRUM ARBOREUM	SOURWOOD	
268	PLATANUS OCCIDENTALIS	AMER. SYCAMORE	
269	CLADRASTIS LUTEA	YELLOWWOOD	
271	CATALPA SPECIOSA	NORTHERN CATALPA	
272	COTINUS OBOVATUS	AMER. SMOKETREE	CHITTAMWOOD
273	ROBINIA PSUEDO-ACACIA	BLACK LOCUST	
274	GLEDITSIA TRIACANTHOS	HONEYLOCUST	
275	MORUS RUBRA	RED MULBERRY	
276	MACLURA POMIFERA	OSAGE-ORANGE	
277	SASSAFRAS ALBIDUM	SASSAFRAS	
278	ILEX VOMITORIA	YAUPON	
301	AILANTHUS ALTISSIMA	AILANTHUS	
302	MALUS PUMILA	APPLE	
303	CARPINUS CAROLINIANA	AMER. HORNBEAM	BLUE BEECH
304	RHAMNUS CAROLINIANA	CAROLINA BUCKTHORN	
305	PRUNUS VIRGINIANA	COMMON CHOKECHERRY	
306	CASTANEA PUMILA	ALLEG. CHINQUAPIN	
309	PRUNUS PENSYLVANICA	PIN CHERRY	FIRE CHERRY
310	CRATAEGUS SPP.	HAWTHORN SPP.	
311	OSTRYA VIRGINIANA	EAST. HOPHORNBEAM	IRONWOOD
312	SORBUS AMERICANA	AMER. MOUNTAIN ASH	
313	ACER SPICATUM	MOUNTAIN MAPLE	
314	PAULOWNIA TOMENTOSA	ROYAL PAULOWNIA	PRINCESS TREE
316	PYRUS COMMUNIS	PEAR	
317	CERCIS CANADENSIS	EAST. REDBUD	
318	AMELANCHIER LAEVIS	ALLEG. SERVICEBERRY	
319	ACER PENSYLVANICUM	STRIPED MAPLE	
401	CASTANEA DENTATA	AM. CHESTNUT	
500	VACCINEUM STAMINEUM	DEERBERRY	
501	GAYLUSSACIA URSINA	BEAR HUCKLEBERRY	
502	CALYCANTHUS FLORIDUS	SWEETSHRUB	
503	AESCULUS PAVIA	RED BUCKEYE	
504	VIBURNUM RUFIDULUM	RUSTY BLACK HAW	
505	VIBURNUM ACERIFOLIUM	MAPLE LEAF VIBURNUM	
506	ACER LEUCODERME	CHALK MAPLE	
507	HAMAMAELIS VIRGINIANA	WITCH-HAZEL	
508	AESCULUS SYLVATICA	PAINTED BUCKEYE	
509	VACCINEUM CONSTABLEI		
510	SYMPLOCOS TINCTORIA	COMMON SWEATLEAF	
511	KALMIA LATIFOLIA	MOUNTAIN LAUREL	
512	RHODODENDRON MAXIMUM	RHODODENDRON	
513	RHUS GLABRA	SMOOTH SUMAC	

TABLE 3. NUMBER OF SAMPLES IN VARIOUS HEIGHT AND DIAMETER CLASSES.

SPECIES CODE	TOTAL	DBH<1 OR HT<1	DBH<5 OR HT<5	<10	<15	<20	<30	<40	<50	≥50	cm m
111	84	41	34	2	6	1	0	0	0	0	
114	24	10	2	1	1	0	3	5	2	0	
121	20	20	0	0	0	0	0	0	0	0	
126	3	0	0	0	0	0	0	0	0	3	
127	15	0	0	6	1	3	1	1	1	2	
201	28	17	5	2	3	0	0	0	0	1	
203	40	38	0	0	0	1	0	0	0	1	
205	8	0	0	0	5	1	1	1	0	0	
211	1	0	0	0	0	1	0	0	0	0	
213	2	0	0	0	1	0	1	0	0	0	
222	22	17	0	0	1	1	3	0	0	0	
225	7	4	0	1	0	0	0	2	0	0	
228	75	40	0	3	3	5	3	4	8	9	
230	6	0	0	1	1	1	1	2	0	0	
231	20	0	5	4	1	2	2	2	2	2	
233	1	0	1	0	0	0	0	0	0	0	
234	99	89	8	1	1	0	0	0	0	0	
235	17	10	2	1	3	0	1	0	0	0	
238	64	40	16	3	1	1	0	2	1	0	
239	68	35	2	4	5	4	9	7	1	1	
247	1	0	0	0	1	0	0	0	0	0	
250	6	3	1	0	0	1	1	0	0	0	
251	40	0	14	7	3	4	8	3	0	1	
252	1	1	0	0	0	0	0	0	0	0	
253	67	64	0	2	0	1	0	0	0	0	
254	80	38	37	4	1	0	0	0	0	0	
256	71	54	11	3	2	1	0	0	0	0	
257	9	0	0	1	0	1	0	1	3	3	
258	5	5	0	0	0	0	0	0	0	0	
261	6	0	1	2	1	1	1	0	0	0	
263	2	2	0	0	0	0	0	0	0	0	
266	3	0	0	1	1	0	1	0	0	0	
267	26	20	1	3	1	0	1	0	0	0	
268	1	0	1	0	0	0	0	0	0	0	
275	1	1	0	0	0	0	0	0	0	0	
277	39	32	1	4	1	1	0	0	0	0	
309	6	0	0	1	0	1	3	0	1	0	
310	3	3	0	0	0	0	0	0	0	0	
311	4	4	0	0	0	0	0	0	0	0	
312	5	0	0	3	1	0	1	0	0	0	
318	5	1	0	1	1	1	1	0	0	0	
401	3	1	2	0	0	0	0	0	0	0	
500	2	2	0	0	0	0	0	0	0	0	
501	2	2	0	0	0	0	0	0	0	0	
502	1	1	0	0	0	0	0	0	0	0	
503	29	29	0	0	0	0	0	0	0	0	
504	3	3	0	0	0	0	0	0	0	0	
505	7	7	0	0	0	0	0	0	0	0	
506	5	5	0	0	0	0	0	0	0	0	
507	10	0	10	0	0	0	0	0	0	0	
509	2	2	0	0	0	0	0	0	0	0	
510	2	2	0	0	0	0	0	0	0	0	
511	18	0	10	7	1	0	0	0	0	0	
512	30	0	16	14	0	0	0	0	0	0	
513	1	0	1	0	0	0	0	0	0	0	
TOTAL	1100	643	181	82	47	33	42	30	19	23	

Table 4. Format of harvest data cards

Column numbers (inclusive)	Units	Description
1-3	-	Data set code number. (See Table 1)
4-6	-	Tree number within data set
7-9	-	Species code. (See Table 2)
10-14	cm	Diameter at breast height (1.37 m) or ground level as indicated in table headings (abbreviated DBH and DAG respectively)
15-18	m	Tree height
19-24	kg	Dry weight of leaves
25-30	kg	Dry weight of branches
31-36	kg	Dry weight of bole
37-42	kg	Dry weight of stem (branches + bole)
43-48	kg	Dry weight of roots
49-54	m^2	Surface area of foliage (one side)
55-59	m	Crown width (mean diameter)
60-63	m	Crown depth (tree height minus height of lowest major branch)
64-68	cm	Bole diameter at height of lowest major branch
69-72	cm	Bark thickness (one side)
73-75	years	Age
76-79	mm/yr	Mean of last 5 years annual radial increment measured at breast height

3. LITERATURE CITED

Baskerville, G. L. 1970. Testing the uniformity of variance in arithmetic units of Y-variable for classes of an X-variable. Report No. ORNL-IBP-70-1, Oak Ridge National Lab., Oak Ridge, Tenn.

Blackmon, B. G. and C. W. Ralston. 1968. Dry weight of several piedmont hardwoods. J. Forestry 66: 418-420.

Clebsch, E. E. C. and R. E. Shanks. 1962. Computer programs for the estimation of forest stand weight and mineral pool. Ecology 43: 339-341.

Little, E. L. 1953. Checklist of native and naturalized trees of the United States (including Alaska). U.S. Dept. Agr. Handbook 41, Washington, D.C.

Madgwick, H. A. I. 1970. Biomass and productivity models of forest canopies, pp. 47-54. In: Reichle, D. E. (ed.), Analysis of Temperate Forest Ecosystems. Springer-Verlag, Berlin, Heidelberg and New York.

Monk, C. D., G. I. Child and S. A. Nicholson. 1970. Biomass, litter and leaf surface area estimates of an oak-hickory forest. Oikos 21: 138-141.

Radford, A. E., H. E. Ahles and C. R. Bell. 1968. Manual of the vascular flora of the Carolinas. U. of North Carolina Press, Chapel Hill, N.C.

Ralston, C. W. and A. B. Prince. 1965. Accumulation of dry matter and nutrients by pine and hardwood forests in the lower Piedmont of North Carolina, pp. 77-94. In: Youngberg, C. T. (ed.), Forest-Soils Relationships in North America, Proc. Second North American Forest Soils Conf., Oregon State Univ. Press, Corvallis.

Satoo, T. 1970. A synthesis of studies by the harvest method, pp. 55-71. In: Reichle, D. E. (ed.), Analysis of Temperate Forest Ecosystems. Springer-Verlag, Berlin, Heidelberg and New York.

Thomas, W. A. 1969. Accumulation and cycling of calcium by dogwood trees. Ecol. Monog. 39: 101-120.

Thomas, W. A., S. I. Auerbach and J. S. Olson. 1967. Accumulation and cycling of calcium by flowering dogwood trees. Report No. ORNL-TM-1910, Oak Ridge National Lab., Oak Ridge, Tenn.

Whittaker, R. H. 1966. Forest dimensions and production in the Great Smoky Mountains. Ecology 47: 103-121.

Whittaker, R. H. and G. M. Woodwell. 1968. Dimension and production relations of trees and shrubs in the Brookhaven forest, New York. J. Ecol. 56: 1-25.

Whittaker, R. H. and G. M. Woodwell. 1969. Structure, production and diversity of the oak-pine forest at Brookhaven, New York. J. Ecol. 57: 155-174.

Young, H. E., L. Strand and R. Altenberger. 1964. Preliminary fresh and dry weight tables for seven tree species in Maine. Maine Agr. Exp. Sta., Tech. Bul. 12, Orono, Maine.

Young, H. E. and P. M. Carpenter. 1967. Weight, nutrient element and productivity studies of seedlings and saplings of eight tree species in natural ecosystems. Maine Agr. Exp. Sta., Tech. Bul. 28, Orono, Maine.

4. DATA SOURCES

4.A. Dry Weight of Trees and Saplings from The Great Smoky Mountains National Park (GSMNP) and Eastern Tennessee*

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Studies of factors related to the movement of radioactive wastes, initiated by the late Dr. R. E. Shanks in the mid-1950's, were expanded to include studies of the circulation of stable isotopes in forest ecosystems (Clebsch and DeSelm 1963). Above-ground parts of trees, shrubs and forbs were sampled for dry weight, and mineral content and quantities of dry matter and minerals transferred through litterfall and present on the forest floor were determined in several vegetation types. The period of intensive sampling spanned the years 1959 to 1963 and involved many colleagues and students.**

Of the extensive data collected only the dry weights of trees and saplings are reported here. Allometric regression relations, dry weights of forest floor and herbaceous ground cover, and mineral cycling and production implications of the data are in preparation and will be reported elsewhere.

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**The participation of Dr. H. R. DeSelm is appreciated, as are the chemical analytical services of Dr. James A. Wolfe. The technical help of Mrs. Roger Neiswender has been invaluable. Cooperation of the National Park Service in granting permission to fell trees in the Great Smoky Mountains National Park is acknowledged.

A.1. Methods

The field procedure and computational methods have been described previously (Clebsch and Shanks 1962). Trees were selected to span the diameter range available for each species at each site. Only trees of good form were harvested. Felled boles were cut into 1-2 m sections and end diameters were recorded for each section. Except as noted in Table A-1, sections were weighed fresh on portable platform scales or spring scales. Wafers were cut from the bole sections near the base, middle and tip of the tree, and their diameters were recorded. Branches were tallied by basal diameter for each tree. Sample branches were selected from each series of trees and weighed fresh. Leaf counts and fresh weights were determined for each sample branch. Wafers, sample branches, and leaves from sample branches were used to derive dry weight conversion factors and as a source of material for chemical analyses. All dry weights were obtained by drying to constant weight at 105° C.

Bole dry weight was calculated in one of three ways depending on the data available. (1) Dry weights of wafers were used to calculate overall bole bulk density for each tree (sum of the dry weights for the three wafers divided by the sum of their calculated volumes). This figure was then multiplied by the calculated bole volume for each tree to arrive at its bole weight. (2) When fresh weights were not recorded for some trees or tree sections (Table 1, Part B and C), the average bole bulk density for all wafers of the series was used. (3) When field fresh weights were lacking for an entire series (Table 1, Part D), a wood bulk density figure for that species was obtained from the U.S. Forest Service Wood Handbook (1955).

Table A-1. Status of field fresh weight information for boles. For series and trees other than those indicated, complete bole fresh weights were obtained.

A. Field fresh weights measured for all trees: Series 19 and 23.

B. Series for which fresh weights are partially missing (weights are missing for the following trees):

Series No.	Tree No.
22	111, 112
25	20, 101, 102, 103
28	101, 108, 111, 117, 118
31	11-16
41	1
42	3-15, 19, 21-23.

C. Trees for which partial weights were available:

Series No.	Tree No.
22	101
28	113-116
31	5

D. Series for which no field fresh weights were measured:

47, 48, 50-55.

For each series dry weights of sample branches were used to derive an estimating equation for branch dry weight as a function of branch basal diameter. This equation was then applied to the branch diameter tally for each tree to estimate its total branch biomass. In a few cases, branch weights for a species from one locality were calculated using an estimating equation based on samples of the same species taken from a different locality.

Leaf dry weights were estimated from branch basal diameters in a manner analogous to that for branch weights.

A.2. Site Descriptions

Individuals in Series 19 were harvested during December 1960 from Oak barrens in Franklin County, Tennessee, located in the natural area on the University of Tennessee Highland Rim Experimental Forest. Although fire had been a regular part of this environment, the forest apparently had been unburned for some 20 years prior to sampling. Crowns of the trees were not overlapping. Slopes were less than 5%. The stands consisted of two general age groups -- understory less than 20 years old, and canopy trees of various ages greater than 20 years.

Series 22 and 23 consisted respectively of red spruce and American beech sampled in March 1961 from a beech gap and an adjacent spruce stand at approximately 1460 m in the Great Smoky Mountains National Park (GSMNP), Swain County, North Carolina. The site was located along highway right-of-way which was to be cleared for the relocation of US 441. The vegetation of the gap consisted of American beech and red spruce with some yellow buckeye, yellow birch, and serviceberry. The spruce stand, located on adjacent mid-slope positions, was essentially pure. Both stands had closed canopies and apparently had not been subjected to fire or logging.

Series 25 includes eastern hemlock, red maple, and pin cherry sampled in April 1961 from ridgecrest or high slope positions along the Thomas Divide, GSMNP, Swain County, North Carolina, at the point where US 441 now crosses the divide. The stand was relatively open with a nearly continuous heath understory. As far as is known, the stand had not been subjected to fire or cutting and could thus be interpreted as an all-age stand of hemlock-hardwood forest.

Series 28 consists of white oaks cut from a north-facing slope underlain by Knox dolomite on the UT-AEC Agricultural Experiment Station in Anderson County, Tennessee. The site was near a former homesite and apparently had been a grazed farm woodlot until government acquisition of the lands in 1943. The stand had a closed canopy and was of nearly pure all-aged white oak. The fire history is unknown, but cutting apparently had been irregular and selective. Trees were harvested in early summer of 1961.

Series 31 consists of various species harvested in June 1961 at Metcalf Bottoms in the GSMNP, Sevier County, Tennessee (elev. 600 m) from a field abandoned in the late 1930's or early 1940's. The vegetation, in the pine stage of old field succession, was predominantly Virginia and pitch pine.

Trees in Series 32 were taken from a mixed mesophytic forest at approximately 1370 m elevation in the GSMNP, Swain County, North Carolina, along the route of relocation of US 441. Although the stand was in secondary succession, selective cutting some 30 years prior to sampling in July 1961 had not been extreme. All trees were taken from upper slope positions. The canopy was fully closed.

Series 41 contains trees harvested on the U.S. AEC Oak Ridge Reservation in March 1961 from two areas now occupied by the inner fence around the Health Physics Research Reactor (see Olson 1965, Fig. 1). One area was located in a high cove on a north-facing slope west of the gap in Copper Ridge now occupied by the access road to the HPRR Control Facility. The second area was between the reactor and the cesium-137 tagged forest. Both areas consisted of almost pure stands of second growth yellow poplar. Although tree diameter varies widely, the stands were probably of nearly uniform age.

Series 42 and 43 were taken in March 1961 from sites now inundated by the waters of Melton Hill Reservoir. Stands were located on the Oak Ridge Reservation about 1 mile upstream from the present dam site and consisted of mixed mesophytic forest which undoubtedly had been selectively logged in the past. Trees were taken from slope bottoms, lower slope positions, or the inner edge of the flood plain.

Series 46 through 55 were collected from mid-july to mid-August, 1962 in the GSMNP. Series 46, 48, 50, 51, and 52 were taken from the vicinity of Cosby Campground, Cocke County, Tennessee. Sites were bottomland mixed mesophytic forest of unknown history. Series 47, 49, 53, and 55 were collected from the vicinity of Newfound Gap on the Tennessee-North Carolina line along the route of relocation of US 441. The trees were taken from high slope positions from previously undisturbed stands of spruce or northern hardwoods. The pin cherry (Series 54) came from nearby areas which had undergone disturbance from earlier road building or natural disaster.

A.3. Literature Cited

Clebsch, E. E. C. and H. R. DeSelm. 1963. Vegetation studies related to movement of radioactive wastes. Report No. TID-19618, Div. Tech. Inf., U.S. Atomic Energy Comm., Oak Ridge, Tenn.

Clebsch, E. E. C. and R. E. Shanks. 1962. Computer programs for the estimation of forest stand weight and mineral pool. Ecology 43: 339-341.

Olson, J. S. 1965. Equations for Cesium transfer in a *Liriodendron* forest. Health Physics 11: 1385-1392.

U.S. Forest Service. 1955. Wood Handbook. U.S. Dept. Agr. Handbook No. 72, Washington, D.C.

4.B. Dry Weight of Trees from the Walker Branch Watershed, Oak Ridge, Tennessee*

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The purpose of acquiring additional harvest data (Data set 13) in the East Tennessee area was twofold: (1) tree weights for major species comprising the forest cover of Walker Branch Watershed were needed to validate existing allometric relationships of biomass to mensuration data developed in the East Tennessee area (Shanks, DeSelm and Clebsch 1961), and (2) samples of woody components from Walker Branch Watershed were required for analysis of mineral content in order to develop estimates of the standing mineral pool.

The ecological characteristics of Walker Branch Watershed, located on the U.S. AEC Oak Ridge Reservation, have been described previously (Curlin and Nelson 1968). Tree harvest was confined to sites immediately adjacent to the watershed on Chestnut Ridge, which forms the northern, upper boundary of the catchment. The stands selected for harvest were young (25 to 50 years of age), second growth, closed, and of mixed composition. The soils were typic paleudults of the Fullerton and Bodine series on slopes varying from 5 to 20%.

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**We would like to acknowledge the capable assistance of Mr. O. C. Phillips in all field operations.

Species selected for harvest were limited to those comprising the bulk of the basal area density on the Walker Branch site (Grigal and Goldstein 1971). For each species, approximately four specimens were harvested ranging from 5 cm to 28 cm DBH. Trees were felled during the period from late November, 1970, to March, 1971. Fresh weights of all woody components were measured in the field using a tripod assembly and a set of dial scales accurate to 0.2 kg. At least three bole slabs and from three to nine limbs were collected at 1.37 m above-ground with the others collected at recorded intervals to the tip of the tree. Branch samples usually included replicate branches from the lower, middle and upper canopy plus the tip of the crown. The sampling pattern varied somewhat with size and canopy structure of individual trees. Branches were separated into current and past growth components. Conifer needles were handled separately from branch material. The subsamples were dried to constant weight at 80-90°C and used for conversion to oven-dry weight of the entire tree. Dry-weight conversion factors for bole and branch material were similar, with a coefficient of variation of 10%.

Concentrations of N (total), P, K, Ca, Na and Mg will be available (approximately September, 1971) for branch components of current and past growth. Separate bole bark and wood components and a composite bole wood and bark sample proportional to the diameter of bole will be analyzed. These values will be used to establish total tree contents of the above elements.

Literature Cited

Curlin, J. W. and D. J. Nelson. 1968. Walker Branch Watershed Project: objectives, facilities and ecological characteristics. Report No. ORNL-TM-2271, Oak Ridge National Lab., Oak Ridge, Tenn.

Grigal, D. F. and R. A. Goldstein. 1971. An integrated ordination-classification analysis of an intensively sampled oak-hickory forest. J. Ecology (in press).

Clebsch, E. E. C. and H. R. DeSelm. 1963. Vegetation studies related to movement of radioactive wastes. Report No. TID-19618, Div. Tech. Inf., U.S. Atomic Energy Comm., Oak Ridge, Tenn.

4.C. Dry Weight of Saplings and Seedlings on the Walker Branch Watershed, Oak Ridge, Tenn.*

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As part of the characterization of vegetation on the Walker Branch Watershed (see Chapter 4.B), 11 species of seedlings and saplings (Data sets 8 and 9) were harvested from a recently burned area immediately adjacent to the West Watershed. Many of the samples were stump sprouts with highly irregular growth patterns.

Transects were begun at random along the road to the field laboratory and extended north-south for 70 m. Quadrats (5 x 5 m) alternating on either side of the transect line were used for sampling. Initially, everything in each quadrat was harvested but, because this appeared to be inadequately sampling the larger height classes, harvesting was thereafter restricted to heights $\geq$ 0.3 m. Height from the ground of the highest leaf and diameter one foot (0.305 m) above the ground were recorded for each individual. Leaves and woody parts (stem) were oven dried to constant weight at 80°C and weighed separately for each individual. Hickory (*Carya* sp.) leaf weights include the rachis. No additional data (other than diameter one foot above ground) are available.

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4.D. Dry Weight of Tree and Shrub Species from the Coweeta Hydrologic Laboratory, Franklin, N.C.

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The plants listed in data set 2 were collected in 1968 and 1970 from a variety of vegetation cover types. Specimens 1-48 were harvested August 1968 from watershed 13 at the Coweeta Hydrologic Laboratory. In 1940 this watershed was covered by a mixed hardwood forest, mostly oak-hickory. During that year the watershed was clear cut and a 23 year old coppice developed. Again in 1963 the watershed was clear cut. Thus the majority of these trees are of sprout origin. All stems over 1 cm DBH within two 10 x 10 m plots were harvested individually, separated into leaves and stems and wet weights determined. Subsamples of leaves and stems of each specimen were dried for dry weight conversions.

The white pines 49-68 were harvested February 1968 from watershed 1. This watershed was converted from a mixed hardwood forest to a white pine plantation in 1957. The trees were collected at random and once cut were separated into leaves, branches, and bole. All of the leaves and branches were dried and weighed; the bole was weighed wet and subsampled for dry weight conversions. Leaf surface areas include radial surfaces.

The remaining individuals (69-117) came from a mixed hardwood stand located between watersheds 14 and 18 at Coweeta. All stems were randomly selected. Total wet weights of leaves and stems were determined, then subsamples were taken for dry weight conversions.

Leaf surface area for Kalmia latifolia was based on about 50 leaves for each specimen. The Rhododendron maximum leaves were separated into three age groups (1, 2, and greater than 2 years old). Weight and surface area estimates were made for each age group. The surface area-leaf weight relationships vary with age: 1 year old (58.00 ± 5.64 cm^2/gm), 2 year old (52.87 ± 4.40 cm^2/gm) and greater than 2-year-old leaves (49.33 ± 3.13 cm^2/gm). Surface area and weight data for specimens 87-101 reflect the age differences. The small hardwoods 102-117 were separated into leaves and stems, dried, then weighed.

All plants in plot 2 with the exception of white pines 49-68 were dried at 100° C. The pines were dried at 70° C.

4.E. Dry Weight of Tree and Shrub Species from the Georgia Piedmont*

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The data tabulated for data set 1 were collected during the summers of 1968 and 1970 in conjunction with a research project designed to examine structural characteristics of vegetation over a 200-year succession on abandoned farmland on the Georgia Piedmont. More specifically the diameter and weight relationships derived from these data, coupled with field mensuration records, were to be employed to give estimates of the biomass structure of such a successional series.

All of the hardwood species from the Athens area were growing in secondary growth oak-hickory forests of 75-125 years of age. Most of the stems were of seed origin. The selection of stems $\geq$ 2.54 cm (specimens 179-201) was systematic from a singly randomly chosen point. Once the point location was determined the smaller trees were felled individually and separated into leaves and stems. The total wet weight of each plant compartment was determined and subsamples were collected, dried and weighed for dry weight conversions. All drying for this data set was to constant weight at 100° C. Fifty leaves were collected from each for surface area determinations. As the forest opening grew, larger trees were selected and harvested. Collections were made during July and August 1968.

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*Support for this study was supplied in part by NSF Grant No. GB-7700 to the University of Georgia.

The smaller hardwood specimens (1-107) listed in plot 1 fall primarily into a $\geq$ 0.3 m high $\leq$ 2.54 cm DBH size class. The individuals were collected from two different hardwood forests and during two growing seasons. Specimens 1-57 were harvested in June 1970 and 58-107 in September 1968. The plants were chosen systematically along randomly established lines. The closest plant between 0.3 m high and 2.54 cm DBH to the line at each meter interval was cut at ground level, separated into leaves and stems, dried and weighed. Stem diameter measurements were made above the root collar flange.

All of the pines but one (specimen 215, August 1968) were harvested during August 1970. They were mostly open grown specimens from old fields. None of them came from communities where a continuous canopy had developed. Stems were collected by specific diameter categories. Once each tree was felled the leaves and stems were separated, weighed, subsampled for dry weight conversions. Actually, the leaves for all of the pines listed here were separated into new and old; however, the data given here is total leaf weight. Those who are interested may write the author for a separation of leaf weight into old and new. Twenty-five fascicles both of old and new were collected for surface area determination (includes radial surfaces). When expressed on a unit weight basis the new leaves have a higher surface area. The surface area per gram of new leaves is 174.51 $\pm$ 15.74 (1 S.D.)cm^2 and 136.90 $\pm$ 7.33 cm^2 for old leaves. The surface area data given for specimens 202-211 reflect these differences.

4.F. Green and Oven-Dried Weight of Commercially Important Trees of the Tennessee River Valley

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Because of increased emphasis on total tree utilization, TVA has begun compiling fresh and dry weight tables for commercially important hardwood trees of the Tennessee Valley. Although data for only one tree (Data set 14), a black oak (Quercus velutina), are now available, we intend to harvest a total of about 30 black oaks and similar numbers of other red oaks, hickories and yellow poplar in the 30-80 cm diameter range. This range is not adequately represented by the available data (see Table 3) and is of great commercial importance. The exact number of trees harvested will depend on the extent to which data on different species can be combined into single regression relations of tree component weight and DBH and/or height.

Normally the following procedure is followed. Twigs and limbs are separated into diameter classes and weighed in the field. Leaves are collected and weighed when present. Bole length and diameter at several points are measured to permit subsequent calculation of bole volume. Bole and limb samples are removed and weighed both green and oven dried. These data are then used to convert bole volume to green and dry weight. Bark weights for limbs and bole are also determined.

Tree #1 (Q. velutina) was harvested on the Norris Watershed, Anderson County, Tennessee. This is an upland site with slope of 12 to 35 percent and moderate to rapid internal drainage. Soil consists of Fullerton cherty

silt loam, hilly phase, and is a residuum from cherty dolomite or dolomitic limestone. The tree was cut with about a 0.3 m stump which measured 68.6 cm in diameter inside bark and 75.0 cm in diameter outside bark. Leaf weight data are gathered but are not included because considerable leaf fall had already occurred.

4.G. Dry Weight of Trees and Seedlings of the U.S. AEC Reservation, Oak Ridge, Tennessee*

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G.1. Site Descriptions

The Oak Ridge Reservation, Roane and Anderson Counties, Tennessee, is in the Ridge and Valley Province between the Cumberland Plateau and the Great Smoky Mountains and is in the Humid Mesothermal climatic region of Southeastern United States. Much of the reservation was used for agriculture prior to early 1940's when the area was acquired by the (now) Atomic Energy Commission. Vegetation of the area has been designated by Braun (1950) as Oak Chestnut Forest Region, Ridge and Valley Section. The area's geology, climate, and former land use have been described by DeSelm and Shanks (1963). Three sites on the reservation were used for all collections of experimental material.

Pine stand A (Data set 6: Trees 21-28) is a loblolly pine (*Pinus taeda* L.) plantation on a cherty, medium textured, colluvial soil of the Minvale series. The site is uniformly smooth with a 2 to 5% slope and had been cultivated until about 1942. The litter layer was 8 cm deep. A distinct plow layer (A_1 horizon), 18 cm deep, is a brown to dark yellowish-brown, very friable silt loam with bulk density of 1.15 ± 0.05 (N = 4). The A_2 horizon extends from 18 to 23 cm and is a yellowish-brown silt

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loam. The B_1 is a yellowish-red silty clay loam extending to 41 cm; B_2 is a yellowish-red silty clay. Pines accounted for 99.3% of the basal area of 38 m^2/ha, and flowering dogwood accounted for the remainder. Most common ground species were trumpet-creeper (Campsis radicans L.) and honeysuckle (Lonicera japonica Thunb.). The pine trees were 18 years old in 1966.

Pine stand B (Data set 6: Trees 1-10, Data set 7: Trees 1-10) is a loblolly pine plantation with a basal area of 44 m^2/ha on shallow acid soil of the Litz series which is underlain by shale. The pine trees were 19 years old in 1966. The pH of the upper 20 cm of mineral soil was 5.1 ± 0.05 (N = 4). Dogwood trees were very common in the understory.

Yellow poplar stand A (Data set 6: Trees 11-20, Data set 7: Trees 11-20) is a mixed-age yellow poplar stand on an alluvial soil of the well-drained, highly fertile Emory series. The dominant species accounted for 93% of the basal area of 43 m^2/ha. The pH of the upper 20 cm of mineral soil was 5.5 ± 0.05 (N = 4).

Black gum and hickory spp. (Data set 4) were harvested from a young, second growth stand of mixed composition located at the west end of Walker Branch Watershed near the sites discussed in Chapter 4.B. Soils were of the Fullerton series of cherty loam. The trees were used in a radioisotope tagging experiment and some additional data are available (Thomas, in prep.).

G.2. Methods

Ten dogwood trees were collected in pine stand B and ten in yellow poplar stand A in January, 1966. These trees represented the size range of dogwood trees in the understory canopy of each stand. All branches

were included with the sampled trees; dead branches contributed a negligible amount ($<< 1\%$) to tree weight since dogwood trees are efficient self-pruners. Roots were obtained when the soil was moist following several days of rain; they were first loosened with a truck-mounted power winch and then excavated with hand tools. Considerable effort was expended in collecting the root systems to insure that all roots with a diameter greater than several mm were included. Soil was washed from roots with cold water. These trees were sectioned into 11 components, and weight of each component was determined separately. Ten seedlings were collected in each of the two stands in November 1966. Weight was determined individually for leaves, tops and roots.

Weight of leaves was estimated by using the mean values of the September and October samples collected in 1966. Leaves on small trees were counted in early September and many of them were collected when they fell from the trees. Total weight of these leaves was corrected for the number of leaves that had fallen prior to sampling.

All samples were oven dried at 105° C. Details of the methods and calculations as well as calcium concentrations and some additional dry weight and structural data are available (Thomas 1967 and 1969).

G.3. Literature Cited

Braun, E. L. 1950. Deciduous forests of eastern North America. Blakiston Co., Philadelphia.

DeSelm, H. R. and R. E. Shanks. 1963. Accumulation and cycling of organic matter and chemical constituents during early vegetational succession on a radioactive waste disposal area, pp. 83-96. In: Schultz, V. and A. W. Klement, Jr. (eds.), Radioecology, Proceedings of the First National Symposium on Radioecology. Reinhold Publ. Co., New York.

Thomas, W. A. 1967. Accumulation and cycling of calcium by flowering dogwood trees. Report No. ORNL-TM-1910, Oak Ridge National Lab., Oak Ridge, Tenn.

Thomas, W. A. 1969. Accumulation and cycling of calcium by dogwood trees. Ecol. Monog. 39: 101-120.

Thomas, W. A. (in press). Accumulation of ^{144}Ce by hickory and ^{60}Co by black gum seedlings. In: Nelson, D. J. (ed.), Radionuclides in Ecosystems, Proc. Third National Symp. Radioecology, AEC Conf. 710501, National Tech. Inf. Serv., Springfield, Va.

4.H. Dry Weight of Saplings from the AEC Reservation, Oak Ridge, Tennessee*

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Fifty saplings representing five species were collected on the AEC Reservation, Oak Ridge, Tennessee (Data set 10). The sites were all ridge tops situated on cherty dolomite bedrock with soils consisting primarily of the Fullerton or Clarksville series. A more detailed description of the area is included in Chapter 4.F.

Saplings were chosen to supplement the species and height classes harvested earlier on the Walker Branch Watershed (Chapter 4.C), but were restricted to stems less than 1.25 cm DBH. Heights of trees were recorded to the nearest cm and the trees were cut off at ground level. Trees were dried to constant weight at 105° C after separation into a leaf component which included petioles and a woody stem component. The dry weight of the leaves and stems of each sapling was determined separately. No additional data are available.

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4.I. Dry Weight, Surface Area, and Other Data for Individuals of Three Tree Species at Oak Ridge, Tennessee*

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Thirty trees (Data set 3) were harvested during July 1961 from the UT-AEC Agricultural Experiment Station, Oak Ridge, Tennessee. The sites were located on Chestnut Ridge in an area of cherty loam soils underlain with dolomite. Site characteristics, field procedures, and computational methods have been described elsewhere in addition to summarizations of all data presented here (Whittaker, Cohen and Olson 1963). Although there is no provision in the data sets of this report for estimates of branch and bole surface area, these data are of sufficient importance to warrant their inclusion in the text (Table I-1). In addition, measurements of weight of current twigs and old and new leaves as well as estimates of various volume parameters are available from the editors.

Literature Cited

Whittaker, R. H., N. Cohen and J. S. Olson. 1963. Net production relations of three tree species at Oak Ridge, Tennessee. Ecology 44: 806-810.

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Table I-1. Branch and bole surface area estimates for yellow poplar, white oak and short-leaf pine at Oak Ridge, Tenn.*

Tree number	DBH cm	Branch area m^2	Bole area m^2
		Yellow poplar (239)	
10	24.1	27.40	10.14
4	26.4	27.02	10.72
1	26.7	30.83	11.26
2	28.4	53.97	11.45
5	29.0	56.41	12.14
8	35.0	89.02	14.43
7	34.0	50.24	15.46
3	40.8	174.90	18.96
6	39.1	77.10	19.63
9	54.0	210.57	25.57
		White oak (228)	
1	27.0	181.27	8.703
10	41.0	569.78	13.08
2	43.8	227.54	15.25
4	43.8	455.12	14.92
9	40.0	493.78	15.05
3	44.3	700.37	16.19
8	44.5	430.73	17.11
5	50.9	740.95	18.80
7	54.0	643.91	28.47
6	53.0	1071.9	32.47
		Short-leaf pine (114)	
3	30.1	125.16	7.898
9	25.4	64.37	12.04
2	27.4	121.44	10.66
4	29.0	133.24	11.05
1	35.4	72.55	14.63
10	33.9	154.75	14.75
8	33.7	275.83	14.81
6	35.6	104.04	19.68
7	44.7	475.11	15.60
5	40.9	201.93	24.55

*Based on methods described by Whittaker, Cohen and Olson 1963

5. APPENDICES

Appendix 1. Listing of the harvest data thus far accumulated. D.A.G. = diameter at ground level, D.B.H. = diameter at breast height.

DATA SET NO.	TREE NO.	SPECIES CODE	D.A.G. CM	HEIGHT M	LEAF WEIGHT KG	BRANCH WEIGHT KG	BOLE WEIGHT KG	STEM WEIGHT KG	ROOT WEIGHT KG	LEAF AREA SQ. M.	CROWN WIDTH M	CROWN DEPTH M	BOLE TOP DIAM. CM	BARK THICK. CM	AGE	MEAN RADIAL INCR. MM
1	1	503	0.80	0.0	0.00280	0.0	0.0	0.00760	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	2	503	0.90	0.0	0.01330	0.0	0.0	0.01360	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	3	503	0.70	0.0	0.00180	0.0	0.0	0.00250	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	4	503	1.30	0.0	0.02100	0.0	0.0	0.03670	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	5	503	0.50	0.0	0.00140	0.0	0.0	0.00240	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	6	225	0.50	0.0	0.00030	0.0	0.0	0.00220	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	7	258	0.50	0.0	0.00210	0.0	0.0	0.00190	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	8	503	1.30	0.0	0.01800	0.0	0.0	0.05230	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	9	503	0.70	0.0	0.00310	0.0	0.0	0.00450	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	10	503	1.10	0.0	0.00910	0.0	0.0	0.02580	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	11	503	0.60	0.0	0.00410	0.0	0.0	0.00360	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	12	503	0.80	0.0	0.00540	0.0	0.0	0.00690	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	13	503	0.60	0.0	0.00370	0.0	0.0	0.00660	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	14	263	0.50	0.0	0.00130	0.0	0.0	0.00490	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	15	225	2.70	0.0	0.03880	0.0	0.0	0.71110	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	16	256	1.30	0.0	0.02330	0.0	0.0	0.09380	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	17	256	1.20	0.0	0.01140	0.0	0.0	0.08540	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	18	503	1.50	0.0	0.02470	0.0	0.0	0.04180	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	19	503	2.20	0.0	0.05240	0.0	0.0	0.15400	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	20	503	1.20	0.0	0.01720	0.0	0.0	0.02580	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	21	503	1.80	0.0	0.03030	0.0	0.0	0.08050	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	22	503	1.00	0.0	0.00740	0.0	0.0	0.02000	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	23	503	1.50	0.0	0.02270	0.0	0.0	0.05130	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	24	503	1.90	0.0	0.03770	0.0	0.0	0.13510	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	25	256	1.20	0.0	0.01220	0.0	0.0	0.12720	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	26	503	2.00	0.0	0.04900	0.0	0.0	0.16290	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	27	503	1.90	0.0	0.04670	0.0	0.0	0.10870	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	28	503	1.70	0.0	0.02660	0.0	0.0	0.13300	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	29	503	1.10	0.0	0.01540	0.0	0.0	0.02700	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	30	254	1.80	0.0	0.01160	0.0	0.0	0.02220	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	31	225	0.80	0.0	0.00470	0.0	0.0	0.02010	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	32	256	0.60	0.0	0.00610	0.0	0.0	0.00790	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	33	256	0.70	0.0	0.00510	0.0	0.0	0.01010	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	34	503	1.20	0.0	0.01220	0.0	0.0	0.02590	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	35	503	1.20	0.0	0.00240	0.0	0.0	0.01570	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	36	503	1.00	0.0	0.01060	0.0	0.0	0.02030	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	37	256	0.70	0.0	0.00750	0.0	0.0	0.01180	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	38	503	0.80	0.0	0.00430	0.0	0.0	0.00970	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	39	256	1.00	0.0	0.00900	0.0	0.0	0.01650	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	40	504	0.40	0.0	0.00090	0.0	0.0	0.00330	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	41	234	0.40	0.0	0.00100	0.0	0.0	0.00150	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	42	256	1.20	0.0	0.02560	0.0	0.0	0.05160	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	43	225	0.30	0.0	0.00140	0.0	0.0	0.00120	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	44	256	0.80	0.0	0.00940	0.0	0.0	0.05650	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	45	503	1.00	0.0	0.00710	0.0	0.0	0.01850	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	46	503	0.70	0.0	0.00540	0.0	0.0	0.00590	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	47	263	0.30	0.0	0.00120	0.0	0.0	0.00220	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	48	275	1.00	0.0	0.00860	0.0	0.0	0.01600	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	49	310	0.90	0.0	0.00070	0.0	0.0	0.00560	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	50	258	0.90	0.0	0.00510	0.0	0.0	0.02700	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	51	256	1.10	0.0	0.01760	0.0	0.0	0.05900	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	52	256	1.70	0.0	0.07250	0.0	0.0	0.00900	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	53	258	0.40	0.0	0.00140	0.0	0.0	0.00200	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	54	503	0.80	0.0	0.00860	0.0	0.0	0.01170	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	55	310	0.30	0.0	0.00130	0.0	0.0	0.00150	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	56	256	1.80	0.0	0.00370	0.0	0.0	0.19500	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	57	201	2.90	0.0	0.01310	0.0	0.0	0.94300	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0

DATA SET NO.	TREE NO.	SPECIES CODE	D.A.G. CM	HEIGHT M	LEAF WEIGHT KG	BRANCH WEIGHT KG	BOLE WEIGHT KG	STEM WEIGHT KG	ROOT WEIGHT KG	LEAF AREA SQ. M.	CROWN WIDTH M	CROWN DEPTH M	BOLE TOP DIAM. CM	BARK THICK. CM	AGE	MEAN RADIAL INCR. MM
1	58	504	0.90	0.0	0.00550	0.0	0.0	0.03800	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	59	238	1.69	0.0	0.03150	0.0	0.0	0.12300	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	60	256	1.12	0.0	0.02900	0.0	0.0	0.05110	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	61	504	1.22	0.0	0.01660	0.0	0.0	0.09550	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	62	228	2.86	0.0	0.04250	0.0	0.0	0.62700	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	63	201	0.55	0.0	0.00340	0.0	0.0	0.00540	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	64	258	0.50	0.0	0.00170	0.0	0.0	0.00440	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	65	256	0.98	0.0	0.00790	0.0	0.0	0.02670	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	66	201	0.86	0.0	0.00850	0.0	0.0	0.01210	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	67	238	1.04	0.0	0.00620	0.0	0.0	0.01380	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	68	258	0.45	0.0	0.00210	0.0	0.0	0.00370	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	69	238	0.34	0.0	0.00050	0.0	0.0	0.00080	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	70	318	0.88	0.0	0.00400	0.0	0.0	0.02050	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	71	238	0.97	0.0	0.00880	0.0	0.0	0.03400	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	72	505	0.49	0.0	0.00160	0.0	0.0	0.00550	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	73	239	0.62	0.0	0.00420	0.0	0.0	0.00710	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	74	505	0.30	0.0	0.00100	0.0	0.0	0.00120	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	75	505	0.42	0.0	0.00080	0.0	0.0	0.00320	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	76	254	1.44	0.0	0.02550	0.0	0.0	0.09700	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	77	311	1.93	0.0	0.01800	0.0	0.0	0.16500	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	78	505	0.56	0.0	0.00340	0.0	0.0	0.00790	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	79	238	1.98	0.0	0.04370	0.0	0.0	0.33400	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	80	201	0.85	0.0	0.01790	0.0	0.0	0.03340	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	81	505	0.28	0.0	0.00060	0.0	0.0	0.00150	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	82	228	3.97	0.0	0.11770	0.0	0.0	1.39700	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	83	505	0.27	0.0	0.00030	0.0	0.0	0.00060	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	84	228	0.45	0.0	0.00220	0.0	0.0	0.00380	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	85	311	3.69	0.0	0.08100	0.0	0.0	1.29620	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	86	228	0.96	0.0	0.01000	0.0	0.0	0.02420	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	87	250	1.19	0.0	0.01130	0.0	0.0	0.04840	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	88	505	0.92	0.0	0.00650	0.0	0.0	0.03020	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	89	238	2.34	0.0	0.05400	0.0	0.0	0.25200	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	90	228	1.06	0.0	0.01600	0.0	0.0	0.03550	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	91	238	0.50	0.0	0.00060	0.0	0.0	0.00210	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	92	250	2.58	0.0	0.06900	0.0	0.0	0.39000	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	93	228	0.40	0.0	0.00280	0.0	0.0	0.00350	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	94	250	1.22	0.0	0.02900	0.0	0.0	0.05900	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	95	506	2.31	0.0	0.09450	0.0	0.0	0.48000	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	96	201	0.78	0.0	0.01400	0.0	0.0	0.01110	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	97	506	2.61	0.0	0.09270	0.0	0.0	0.66900	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	98	506	1.73	0.0	0.04100	0.0	0.0	0.22500	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	99	506	2.07	0.0	0.06300	0.0	0.0	0.38600	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	100	506	2.87	0.0	0.12310	0.0	0.0	0.78750	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	101	311	2.43	0.0	0.05350	0.0	0.0	0.35900	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	102	228	0.85	0.0	0.00320	0.0	0.0	0.02320	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	103	311	1.38	0.0	0.01990	0.0	0.0	0.08400	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	104	228	1.87	0.0	0.01430	0.0	0.0	0.16600	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	105	310	3.17	0.0	0.03000	0.0	0.0	1.11800	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	106	256	4.15	0.0	0.03820	0.0	0.0	1.02400	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
1	107	201	1.29	0.0	0.03650	0.0	0.0	0.05320	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0

DATA SET NO.	TREE NO.	SPECIES CODE	D.A.G. CM	HEIGHT M	LEAF WEIGHT KG	BRANCH WEIGHT KG	BOLE WEIGHT KG	STEM WEIGHT KG	ROOT WEIGHT KG	LEAF AREA SQ. M.	CROWN WIDTH M	CROWN DEPTH M	BOLE TOP DIAM. CM	BARK THICK. CM	AGE	MEAN RADIAL INCR. MM
1	108	111	0.11	0.60	0.00970	0.0	0.0	0.00720	0.0	0.0	0.160	0.320	0.50	0.0	0	0.0
1	109	111	0.12	0.75	0.01360	0.0	0.0	0.01530	0.0	0.0	0.350	0.410	0.50	0.0	0	0.0
1	110	111	0.14	0.66	0.01600	0.0	0.0	0.01410	0.0	0.0	0.360	0.420	0.40	0.0	0	0.0
1	111	111	0.14	0.62	0.01690	0.0	0.0	0.00830	0.0	0.0	0.045	0.200	0.40	0.0	0	0.0
1	112	111	0.20	0.32	0.00200	0.0	0.0	0.00070	0.0	0.0	0.090	0.080	0.15	0.0	0	0.0
1	113	111	0.30	0.48	0.00270	0.0	0.0	0.00230	0.0	0.0	0.175	0.245	0.40	0.0	0	0.0
1	114	111	0.35	0.39	0.00130	0.0	0.0	0.00080	0.0	0.0	0.055	0.220	0.20	0.0	0	0.0
1	115	111	0.40	0.33	0.00330	0.0	0.0	0.00130	0.0	0.0	0.125	0.210	0.10	0.0	0	0.0
1	116	111	0.40	0.35	0.00560	0.0	0.0	0.00240	0.0	0.0	0.112	0.030	0.20	0.0	0	0.0
1	117	111	0.50	0.43	0.00850	0.0	0.0	0.00360	0.0	0.0	0.195	0.300	0.30	0.0	0	0.0
1	118	111	0.50	0.43	0.00430	0.0	0.0	0.00200	0.0	0.0	0.190	0.250	0.20	0.0	0	0.0
1	119	111	0.50	0.39	0.00330	0.0	0.0	0.00200	0.0	0.0	0.035	0.085	0.20	0.0	0	0.0
1	120	111	0.50	0.49	0.00560	0.0	0.0	0.00390	0.0	0.0	0.240	0.280	0.30	0.0	0	0.0
1	121	111	0.50	0.45	0.00390	0.0	0.0	0.00190	0.0	0.0	0.190	0.290	1.50	0.0	0	0.0
1	122	111	0.60	0.42	0.00330	0.0	0.0	0.00190	0.0	0.0	0.185	0.340	0.20	0.0	0	0.0
1	123	111	0.60	0.36	0.00750	0.0	0.0	0.00290	0.0	0.0	0.210	0.230	0.20	0.0	0	0.0
1	124	111	0.60	0.50	0.00380	0.0	0.0	0.00270	0.0	0.0	0.160	0.240	0.30	0.0	0	0.0
1	125	111	0.60	0.50	0.00560	0.0	0.0	0.00330	0.0	0.0	0.280	0.310	0.20	0.0	0	0.0
1	126	111	0.60	0.37	0.00480	0.0	0.0	0.00250	0.0	0.0	0.200	0.200	0.20	0.0	0	0.0
1	127	111	0.60	0.55	0.00360	0.0	0.0	0.00300	0.0	0.0	0.150	0.260	1.50	0.0	0	0.0
1	128	111	0.70	0.45	0.00490	0.0	0.0	0.00280	0.0	0.0	0.250	0.300	0.20	0.0	0	0.0
1	129	111	0.70	0.55	0.00760	0.0	0.0	0.00450	0.0	0.0	0.140	0.120	0.50	0.0	0	0.0
1	130	111	0.80	0.63	0.00850	0.0	0.0	0.00550	0.0	0.0	0.340	0.350	0.30	0.0	0	0.0
1	131	111	0.80	0.57	0.00860	0.0	0.0	0.00450	0.0	0.0	0.230	0.320	0.30	0.0	0	0.0
1	132	111	0.80	0.44	0.00520	0.0	0.0	0.00460	0.0	0.0	0.240	0.300	0.20	0.0	0	0.0
1	133	111	0.90	0.53	0.00290	0.0	0.0	0.00280	0.0	0.0	0.190	0.330	0.50	0.0	0	0.0
1	134	111	0.90	0.60	0.01140	0.0	0.0	0.00760	0.0	0.0	0.260	0.420	0.40	0.0	0	0.0
1	135	111	0.90	0.69	0.01790	0.0	0.0	0.00470	0.0	0.0	0.250	0.400	0.60	0.0	0	0.0
1	136	111	0.90	0.59	0.00640	0.0	0.0	0.00570	0.0	0.0	0.290	0.310	0.40	0.0	0	0.0
1	137	111	0.95	0.39	0.00510	0.0	0.0	0.00340	0.0	0.0	0.105	0.260	0.50	0.0	0	0.0
1	138	111	1.00	0.82	0.00460	0.0	0.0	0.01630	0.0	0.0	0.190	0.300	0.50	0.0	0	0.0
1	139	111	1.00	0.76	0.01090	0.0	0.0	0.00860	0.0	0.0	0.180	0.210	0.20	0.0	0	0.0
1	140	111	1.00	0.55	0.01280	0.0	0.0	0.01790	0.0	0.0	0.265	0.220	0.20	0.0	0	0.0
1	141	111	1.00	0.54	0.01980	0.0	0.0	0.01420	0.0	0.0	0.400	0.130	0.40	0.0	0	0.0
1	142	111	1.00	1.09	0.01170	0.0	0.0	0.02790	0.0	0.0	0.440	0.460	0.40	0.0	0	0.0
1	143	111	1.00	0.56	0.01170	0.0	0.0	0.00750	0.0	0.0	0.200	0.380	0.50	0.0	0	0.0
1	144	111	1.00	0.50	0.00760	0.0	0.0	0.00410	0.0	0.0	0.220	0.330	0.50	0.0	0	0.0
1	145	111	1.00	0.81	0.00530	0.0	0.0	0.01060	0.0	0.0	0.310	0.470	0.30	0.0	0	0.0
1	146	111	1.10	0.71	0.01940	0.0	0.0	0.00240	0.0	0.0	0.375	0.210	0.30	0.0	0	0.0
1	147	111	1.20	0.66	0.01790	0.0	0.0	0.01700	0.0	0.0	0.360	0.330	0.50	0.0	0	0.0
1	148	111	1.30	1.00	0.03150	0.0	0.0	0.03470	0.0	0.0	0.480	0.630	0.40	0.0	0	0.0
1	149	111	1.50	1.55	0.03350	0.0	0.0	0.07850	0.0	0.0	0.450	0.770	0.50	0.0	0	0.0
1	150	111	1.60	1.59	0.04700	0.0	0.0	0.07450	0.0	0.0	0.395	0.550	0.90	0.0	0	0.0
1	151	111	1.70	0.97	0.03480	0.0	0.0	0.04210	0.0	0.0	0.300	0.200	0.80	0.0	0	0.0
1	152	111	1.70	1.46	0.04250	0.0	0.0	0.01140	0.0	0.0	0.500	0.720	0.40	0.0	0	0.0
1	153	111	1.70	1.04	0.06500	0.0	0.0	0.08660	0.0	0.0	0.575	0.810	0.70	0.0	0	0.0
1	154	111	1.80	1.53	0.06150	0.0	0.0	0.08200	0.0	0.0	1.640	1.050	0.70	0.0	0	0.0
1	155	111	1.90	0.95	0.01400	0.0	0.0	0.02210	0.0	0.0	0.245	0.550	0.40	0.0	0	0.0
1	156	111	1.90	1.04	0.10800	0.0	0.0	0.04000	0.0	0.0	0.460	0.680	0.90	0.0	0	0.0

DATA SET NO.	TREE NO.	SPECIES CODE	O.A.G. CM	HEIGHT M	LEAF WEIGHT KG	BRANCH WEIGHT KG	BOLE WEIGHT KG	STEM WEIGHT KG	ROOT WEIGHT KG	LEAF AREA SQ. M.	CROWN WIDTH M	CROWN DEPTH M	BOLE TOP DIAM. CM	BARK THICK. CM	AGE	MEAN RADIAL INCR. MM
1	157	111	2.00	1.38	0.13900	0.0	0.0	0.10190	0.0	0.0	0.840	1.000	0.80	0.0	0	0.0
1	158	111	2.00	1.01	0.04030	0.0	0.0	0.06480	0.0	0.0	0.435	0.340	0.90	0.0	0	0.0
1	159	111	2.00	1.42	0.04000	0.0	0.0	0.10850	0.0	0.0	0.950	0.680	0.40	0.0	0	0.0
1	160	111	2.10	1.20	0.06400	0.0	0.0	0.07400	0.0	0.0	0.440	0.540	1.50	0.0	0	0.0
1	161	111	2.20	2.32	0.04050	0.0	0.0	0.19100	0.0	0.0	0.870	1.610	0.40	0.0	0	0.0
1	162	111	2.20	1.68	0.09130	0.0	0.0	0.17750	0.0	0.0	0.675	0.940	0.90	0.0	0	0.0
1	163	111	2.50	1.73	0.08300	0.0	0.0	0.04850	0.0	0.0	0.750	0.990	0.50	0.0	0	0.0
1	164	111	2.50	1.84	0.03700	0.0	0.0	0.17300	0.0	0.0	0.570	0.940	1.50	0.0	0	0.0
1	165	111	2.60	2.73	0.11000	0.0	0.0	0.31700	0.0	0.0	0.770	1.640	0.40	0.0	0	0.0
1	166	111	2.60	2.58	0.10000	0.0	0.0	0.30850	0.0	0.0	0.830	1.390	0.80	0.0	0	0.0
1	167	111	2.70	2.78	0.09600	0.0	0.0	0.36900	0.0	0.0	0.720	1.280	0.80	0.0	0	0.0
1	168	111	2.80	2.70	0.09400	0.0	0.0	0.27300	0.0	0.0	0.935	1.130	0.70	0.0	0	0.0
1	169	111	2.80	1.83	0.09900	0.0	0.0	0.13250	0.0	0.0	0.720	1.260	0.80	0.0	0	0.0
1	170	111	2.90	2.38	0.08500	0.0	0.0	0.20600	0.0	0.0	0.420	1.350	0.60	0.0	0	0.0
1	171	111	2.90	1.83	0.06100	0.0	0.0	0.21700	0.0	0.0	0.720	0.850	0.50	0.0	0	0.0
1	172	111	3.20	2.62	0.07150	0.0	0.0	0.34300	0.0	0.0	0.720	1.360	0.70	0.0	0	0.0
1	173	111	3.20	1.85	0.14200	0.0	0.0	0.41900	0.0	0.0	0.735	1.100	1.50	0.0	0	0.0
1	174	111	3.30	2.62	0.09800	0.0	0.0	0.42450	0.0	0.0	0.660	1.640	0.70	0.0	0	0.0
1	175	111	3.50	2.48	0.10450	0.0	0.0	0.54100	0.0	0.0	0.840	1.120	0.70	0.0	0	0.0
1	176	111	3.50	2.89	0.19050	0.0	0.0	0.68500	0.0	0.0	0.130	1.860	1.10	0.0	0	0.0
1	177	111	3.70	2.79	0.16000	0.0	0.0	0.34150	0.0	0.0	0.800	1.870	1.20	0.0	0	0.0
1	178	111	4.20	2.46	0.42300	0.0	0.0	0.65500	0.0	0.0	0.860	1.860	1.80	0.0	0	0.0

DATA SET NO.	TREE NO.	SPECIES CODE	D.B.H. CM	HEIGHT M	LEAF WEIGHT KG	BRANCH WEIGHT KG	BOLE WEIGHT KG	STEM WEIGHT KG	ROOT WEIGHT KG	LEAF AREA SQ. M.	CROWN WIDTH M	CROWN DEPTH M	BOLE TOP DIAM. CM	BARK THICK. CM	AGE	MEAN RADIAL INCR. MM
1	179	256	2.80	5.30	0.12300	0.0	0.0	1.67400	0.0	2.50	2.900	1.500	0.0	0.0	0	0.0
1	180	256	3.00	4.70	0.13500	0.0	0.0	1.66400	0.0	0.0	1.200	2.600	0.0	0.0	0	0.0
1	181	234	3.00	4.10	0.09900	0.0	0.0	1.99300	0.0	2.32	2.500	2.000	0.0	0.0	0	0.0
1	182	234	3.80	5.40	0.09500	0.0	0.0	2.24900	0.0	2.08	1.600	3.500	0.0	0.0	0	0.0
1	183	235	4.20	6.60	0.22000	0.0	0.0	2.23800	0.0	4.12	1.700	3.100	0.0	0.0	0	0.0
1	184	254	5.20	7.10	0.63100	0.0	0.0	8.82900	0.0	14.89	3.100	2.700	0.0	0.0	0	0.0
1	185	228	5.50	6.30	0.43300	0.0	0.0	5.65600	0.0	8.89	2.100	3.400	0.0	0.0	0	0.0
1	186	256	5.50	7.70	0.49100	0.0	0.0	9.86100	0.0	9.58	2.600	3.100	0.0	0.0	0	0.0
1	187	267	5.50	7.00	0.21900	0.0	0.0	3.24800	0.0	7.22	1.600	4.300	0.0	0.0	0	0.0
1	188	253	5.80	9.00	0.70300	0.0	0.0	8.66500	0.0	16.62	3.500	4.000	0.0	0.0	0	0.0
1	189	225	8.30	9.30	0.52600	0.0	0.0	14.40900	0.0	8.23	1.400	1.500	0.0	0.0	0	0.0
1	190	256	9.60	12.00	0.87000	0.0	0.0	31.03499	0.0	15.76	0.0	8.900	0.0	0.0	0	0.0
1	191	235	10.50	11.10	1.07500	0.0	0.0	17.81299	0.0	16.39	1.700	5.800	0.0	0.0	0	0.0
1	192	201	11.20	9.40	1.18100	0.0	0.0	22.68599	0.0	17.50	3.100	3.700	0.0	0.0	0	0.0
1	193	239	12.50	18.10	1.71400	0.0	0.0	46.57199	0.0	31.16	2.700	6.800	0.0	0.0	0	0.0
1	194	213	12.50	15.90	2.49400	0.0	0.0	66.59299	0.0	26.07	3.600	4.200	0.0	0.0	0	0.0
1	195	228	14.00	15.60	4.13100	0.0	0.0	82.56499	0.0	69.87	6.700	6.900	0.0	0.0	0	0.0
1	196	256	15.00	14.70	3.99400	0.0	0.0	85.03600	0.0	60.95	0.0	8.400	0.0	0.0	0	0.0
1	197	228	16.80	16.10	4.12700	0.0	0.0	142.20999	0.0	57.41	4.900	4.400	0.0	0.0	0	0.0
1	198	228	19.30	15.90	5.68900	0.0	0.0	154.73000	0.0	80.20	12.100	6.800	0.0	0.0	0	0.0
1	199	228	21.00	20.30	8.69900	0.0	0.0	282.48999	0.0	96.42	5.800	9.900	0.0	0.0	0	0.0
1	200	213	26.70	19.70	17.07300	0.0	0.0	440.26978	0.0	164.19	7.900	9.800	0.0	0.0	0	0.0
1	201	225	36.00	20.00	25.65599	0.0	0.0	871.76978	0.0	235.40	9.200	12.600	0.0	0.0	0	0.0
1	202	111	12.10	12.10	5.80600	0.0	0.0	64.14299	0.0	92.94	3.800	6.000	2.10	0.0	0	0.0
1	203	111	7.00	6.00	1.18900	0.0	0.0	3.65100	0.0	19.10	1.800	3.400	2.20	0.0	0	0.0
1	204	111	7.60	6.00	1.30000	0.0	0.0	5.78700	0.0	20.21	2.200	3.400	2.40	0.0	0	0.0
1	205	111	4.80	5.10	0.54200	0.0	0.0	2.16900	0.0	9.09	1.700	2.800	1.40	0.0	0	0.0
1	206	111	14.60	11.40	7.63800	0.0	0.0	66.37999	0.0	105.56	4.200	7.500	2.00	0.0	0	0.0
1	207	111	3.20	3.10	0.30800	0.0	0.0	0.93700	0.0	5.02	1.200	1.400	0.60	0.0	0	0.0
1	208	111	3.80	3.20	0.49800	0.0	0.0	1.31500	0.0	8.50	1.400	1.800	0.90	0.0	0	0.0
1	209	111	5.70	4.40	0.79600	0.0	0.0	3.23100	0.0	12.14	1.800	2.600	1.80	0.0	0	0.0
1	210	111	12.70	9.30	5.54000	0.0	0.0	37.58499	0.0	84.91	3.200	5.600	1.50	0.0	0	0.0
1	211	111	10.20	6.40	2.95400	0.0	0.0	17.23599	0.0	46.17	3.300	3.800	1.50	0.0	0	0.0
1	212	114	3.80	3.10	0.34500	0.0	0.0	1.03600	0.0	0.0	1.300	2.100	0.90	0.0	0	0.0
1	213	114	10.20	5.80	2.26200	0.0	0.0	14.96600	0.0	0.0	2.400	3.700	1.70	0.0	0	0.0
1	214	114	5.70	4.90	1.35400	0.0	0.0	5.51200	0.0	0.0	1.600	2.500	1.00	0.0	0	0.0
1	215	114	7.40	6.70	2.25700	0.0	0.0	10.86000	0.0	0.0	1.800	4.100	1.00	0.0	0	0.0

DATA SET NO.	TREE NO.	SPECIES CODE	D.B.H. CM	HEIGHT M	LEAF WEIGHT KG	BRANCH WEIGHT KG	BOLE WEIGHT KG	STEM WEIGHT KG	ROOT WEIGHT KG	LEAF AREA SQ. M.	CROWN WIDTH M	CROWN DEPTH M	BOLE TOP DIAM. CM	BARK THICK. CM	AGE	MEAN RADIAL INCR. MM
2	1	203	0.50	0.0	0.01400	0.0	0.0	0.11400	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
2	2	277	1.60	3.20	0.02700	0.0	0.0	0.29600	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
2	3	277	5.30	7.00	0.38300	0.0	0.0	5.77900	0.0	0.0	0.0	3.200	0.0	0.0	0	0.0
2	4	239	7.10	9.50	1.05700	0.0	0.0	9.12800	0.0	0.0	0.0	3.000	0.0	0.0	0	0.0
2	5	261	3.80	6.40	0.38600	0.0	0.0	2.20300	0.0	0.0	0.0	4.600	0.0	0.0	0	0.0
2	6	201	2.80	4.70	0.22700	0.0	0.0	1.25000	0.0	0.0	0.0	1.800	0.0	0.0	0	0.0
2	7	201	2.30	4.10	0.09500	0.0	0.0	0.61100	0.0	0.0	0.0	1.400	0.0	0.0	0	0.0
2	8	201	2.30	2.30	0.02200	0.0	0.0	0.35500	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
2	9	201	3.80	5.20	0.44100	0.0	0.0	2.20100	0.0	0.0	0.0	2.400	0.0	0.0	0	0.0
2	10	201	3.60	5.00	0.44100	0.0	0.0	2.36800	0.0	0.0	0.0	2.600	0.0	0.0	0	0.0
2	11	201	6.10	6.40	1.24100	0.0	0.0	7.68400	0.0	0.0	0.0	3.500	0.0	0.0	0	0.0
2	12	201	5.30	6.70	0.95400	0.0	0.0	6.86900	0.0	0.0	0.0	4.200	0.0	0.0	0	0.0
2	13	238	1.00	2.70	0.01600	0.0	0.0	0.12000	0.0	0.0	0.0	1.200	0.0	0.0	0	0.0
2	14	238	1.90	3.00	0.03400	0.0	0.0	0.27100	0.0	0.0	0.0	0.700	0.0	0.0	0	0.0
2	15	238	1.30	4.50	0.08800	0.0	0.0	0.51200	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
2	16	238	2.20	4.40	0.10200	0.0	0.0	0.84300	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
2	17	238	3.50	5.50	0.26400	0.0	0.0	2.28800	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
2	18	238	1.60	4.00	0.03100	0.0	0.0	0.25600	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
2	19	238	1.70	4.20	0.03200	0.0	0.0	0.39100	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
2	20	238	1.60	3.30	0.00800	0.0	0.0	0.24100	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
2	21	238	1.60	3.20	0.01200	0.0	0.0	0.21200	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
2	22	238	1.30	3.00	0.03700	0.0	0.0	0.19600	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
2	23	238	1.90	4.50	0.04600	0.0	0.0	0.51200	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
2	24	254	4.60	4.00	0.21700	0.0	0.0	0.88300	0.0	0.0	0.0	2.600	0.0	0.0	0	0.0
2	25	254	4.30	3.70	0.24800	0.0	0.0	1.00900	0.0	0.0	0.0	2.200	0.0	0.0	0	0.0
2	26	254	1.90	3.20	0.15900	0.0	0.0	0.81400	0.0	0.0	0.0	2.200	0.0	0.0	0	0.0
2	27	401	1.70	3.70	0.06400	0.0	0.0	0.29900	0.0	0.0	0.0	1.300	0.0	0.0	0	0.0
2	28	401	0.60	2.30	0.01100	0.0	0.0	0.04500	0.0	0.0	0.0	0.900	0.0	0.0	0	0.0
2	29	256	7.10	3.80	0.61900	0.0	0.0	1.61300	0.0	0.0	0.0	2.500	0.0	0.0	0	0.0
2	30	256	4.60	3.30	0.34800	0.0	0.0	0.69300	0.0	0.0	0.0	2.100	0.0	0.0	0	0.0
2	31	256	1.50	1.80	0.01900	0.0	0.0	0.10800	0.0	0.0	0.0	1.200	0.0	0.0	0	0.0
2	32	256	4.30	3.00	0.09800	0.0	0.0	0.29100	0.0	0.0	0.0	1.100	0.0	0.0	0	0.0
2	33	256	0.60	2.40	0.02400	0.0	0.0	0.05800	0.0	0.0	0.0	1.500	0.0	0.0	0	0.0
2	34	233	1.30	3.30	0.07900	0.0	0.0	0.23900	0.0	0.0	0.0	1.800	0.0	0.0	0	0.0
2	35	507	3.30	4.60	0.24100	0.0	0.0	1.83200	0.0	0.0	0.0	3.100	0.0	0.0	0	0.0
2	36	507	2.50	4.20	0.10300	0.0	0.0	0.76700	0.0	0.0	0.0	2.500	0.0	0.0	0	0.0
2	37	507	2.80	4.00	0.18300	0.0	0.0	1.15000	0.0	0.0	0.0	2.200	0.0	0.0	0	0.0
2	38	507	2.50	5.10	0.14600	0.0	0.0	1.43200	0.0	0.0	0.0	2.300	0.0	0.0	0	0.0
2	39	507	3.00	5.30	0.23200	0.0	0.0	1.69000	0.0	0.0	0.0	4.200	0.0	0.0	0	0.0
2	40	507	1.30	3.00	0.02500	0.0	0.0	0.28400	0.0	0.0	0.0	1.000	0.0	0.0	0	0.0
2	41	507	1.90	4.00	0.10200	0.0	0.0	0.73800	0.0	0.0	0.0	1.900	0.0	0.0	0	0.0
2	42	507	3.80	5.60	0.29900	0.0	0.0	2.64200	0.0	0.0	0.0	3.700	0.0	0.0	0	0.0
2	43	507	1.90	4.60	0.11500	0.0	0.0	0.89500	0.0	0.0	0.0	3.000	0.0	0.0	0	0.0
2	44	507	2.20	4.60	0.10100	0.0	0.0	0.72400	0.0	0.0	0.0	2.800	0.0	0.0	0	0.0
2	45	238	1.70	3.90	0.08200	0.0	0.0	0.37300	0.0	0.0	0.0	3.000	0.0	0.0	0	0.0
2	46	238	1.00	2.60	0.01800	0.0	0.0	0.12000	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
2	47	238	1.20	3.30	0.03700	0.0	0.0	0.17000	0.0	0.0	0.0	1.900	0.0	0.0	0	0.0
2	48	238	2.70	4.60	0.04100	0.0	0.0	1.00000	0.0	0.0	0.0	2.500	0.0	0.0	0	0.0

DATA SET NO.	TREE NO.	SPECIES CODE	D.B.H. CM	HEIGHT M	LEAF WEIGHT KG	BRANCH WEIGHT KG	BOLE WEIGHT KG	STEM WEIGHT KG	ROOT WEIGHT KG	LEAF AREA SQ. M.	CROWN WIDTH M	CROWN DEPTH M	BOLE TOP DIAM. CM	BARK THICK. CM	AGE	MEAN RADIAL INCR. MM
2	49	121	2.52	0.0	0.14100	0.290	0.387	0.0	0.0	3.51	0.0	0.0	0.0	0.0	0	0.0
2	50	121	3.57	0.0	0.24200	0.415	1.267	0.0	0.0	5.14	0.0	0.0	0.0	0.0	0	0.0
2	51	121	3.74	0.0	0.35000	0.800	1.266	0.0	0.0	7.93	0.0	0.0	0.0	0.0	0	0.0
2	52	121	4.79	0.0	0.53300	1.112	1.642	0.0	0.0	11.42	0.0	0.0	0.0	0.0	0	0.0
2	53	121	5.05	0.0	1.01200	1.606	1.801	0.0	0.0	19.42	0.0	0.0	0.0	0.0	0	0.0
2	54	121	5.64	0.0	0.82000	1.744	2.477	0.0	0.0	17.33	0.0	0.0	0.0	0.0	0	0.0
2	55	121	5.86	0.0	1.14100	1.679	2.256	0.0	0.0	23.53	0.0	0.0	0.0	0.0	0	0.0
2	56	121	7.14	0.0	0.97900	3.078	3.651	0.0	0.0	20.99	0.0	0.0	0.0	0.0	0	0.0
2	57	121	7.65	0.0	1.40400	4.146	4.022	0.0	0.0	30.75	0.0	0.0	0.0	0.0	0	0.0
2	58	121	8.37	0.0	3.33700	7.209	6.290	0.0	0.0	64.13	0.0	0.0	0.0	0.0	0	0.0
2	59	121	9.17	0.0	2.67000	7.439	6.906	0.0	0.0	53.12	0.0	0.0	0.0	0.0	0	0.0
2	60	121	10.64	0.0	3.45000	9.745	7.559	0.0	0.0	67.30	0.0	0.0	0.0	0.0	0	0.0
2	61	121	11.45	0.0	4.14600	12.473	12.513	0.0	0.0	78.96	0.0	0.0	0.0	0.0	0	0.0
2	62	121	11.99	0.0	5.33000	13.687	13.686	0.0	0.0	91.34	0.0	0.0	0.0	0.0	0	0.0
2	63	121	11.16	0.0	5.74100	18.029	16.840	0.0	0.0	116.23	0.0	0.0	0.0	0.0	0	0.0
2	64	121	14.71	0.0	6.44100	22.531	22.440	0.0	0.0	128.76	0.0	0.0	0.0	0.0	0	0.0
2	65	121	15.47	0.0	5.75200	20.262	22.228	0.0	0.0	118.58	0.0	0.0	0.0	0.0	0	0.0
2	66	121	16.77	0.0	8.58100	29.370	26.332	0.0	0.0	159.59	0.0	0.0	0.0	0.0	0	0.0
2	67	121	17.52	0.0	8.68800	24.705	24.043	0.0	0.0	178.84	0.0	0.0	0.0	0.0	0	0.0
2	68	121	18.30	0.0	8.43200	40.154	29.505	0.0	0.0	176.82	0.0	0.0	0.0	0.0	0	0.0

DATA SET NO.	TREE NO.	SPECIES CODE	D.B.H. CM	HEIGHT M	LEAF WEIGHT KG	BRANCH WEIGHT KG	BOLE WEIGHT KG	STEM WEIGHT KG	ROOT WEIGHT KG	LEAF AREA SQ. M.	CROWN WIDTH M	CROWN DEPTH M	BOLE TOP DIAM. CM	BARK THICK. CM	AGE	MEAN RADIAL INCR. MM
2	69	511	3.60	4.30	0.11000	0.0	0.0	2.22800	0.0	0.68	1.200	1.300	2.40	0.0	0	0.0
2	70	511	4.80	4.40	0.12800	0.0	0.0	3.32400	0.0	0.91	1.400	0.900	3.60	0.0	0	0.0
2	71	511	3.30	4.00	0.04600	0.0	0.0	1.42000	0.0	0.38	1.000	0.500	2.00	0.0	0	0.0
2	72	511	6.60	5.20	0.17400	0.0	0.0	6.48400	0.0	1.29	0.0	0.0	6.60	0.0	0	0.0
2	73	511	2.80	3.60	0.05900	0.0	0.0	0.95000	0.0	0.36	1.000	0.500	1.80	0.0	0	0.0
2	74	511	5.10	3.80	0.75600	0.0	0.0	2.97700	0.0	4.23	1.400	0.600	2.90	0.0	0	0.0
2	75	511	5.60	4.30	0.54900	0.0	0.0	4.79600	0.0	2.75	1.600	1.900	3.80	0.0	0	0.0
2	76	511	4.70	4.00	0.23900	0.0	0.0	2.52400	0.0	1.67	1.900	1.600	2.60	0.0	0	0.0
2	77	511	9.50	5.50	0.78800	0.0	0.0	11.45000	0.0	4.42	0.0	0.0	9.90	0.0	0	0.0
2	78	511	5.70	5.40	0.46000	0.0	0.0	5.23000	0.0	2.48	1.700	1.500	3.30	0.0	0	0.0
2	79	511	4.40	5.00	0.31000	0.0	0.0	3.76800	0.0	1.58	1.400	1.400	3.60	0.0	0	0.0
2	80	511	7.30	6.20	0.77000	0.0	0.0	11.75800	0.0	4.06	0.0	0.0	7.30	0.0	0	0.0
2	81	511	5.30	4.80	0.26600	0.0	0.0	3.92700	0.0	1.46	1.700	1.000	4.40	0.0	0	0.0
2	82	511	4.80	4.80	0.26000	0.0	0.0	2.96400	0.0	1.35	1.200	1.200	3.20	0.0	0	0.0
2	83	511	8.20	5.70	0.52600	0.0	0.0	9.06000	0.0	2.81	0.0	0.0	8.20	0.0	0	0.0
2	84	511	7.10	5.40	0.45600	0.0	0.0	6.61200	0.0	2.64	2.000	1.800	5.20	0.0	0	0.0
2	85	511	6.70	5.60	0.53500	0.0	0.0	6.91300	0.0	3.00	1.900	1.800	4.10	0.0	0	0.0
2	86	511	11.10	6.00	0.99100	0.0	0.0	16.16499	0.0	5.64	0.0	0.0	11.10	0.0	0	0.0
2	87	512	2.79	5.90	0.39800	0.0	0.0	0.0	0.0	1.78	0.0	0.0	0.0	0.0	0	0.0
2	88	512	2.54	5.40	0.35600	0.0	0.0	0.0	0.0	1.60	0.0	0.0	0.0	0.0	0	0.0
2	89	512	3.18	6.10	0.47100	0.0	0.0	0.0	0.0	2.21	0.0	0.0	0.0	0.0	0	0.0
2	90	512	7.87	6.50	2.06700	0.0	0.0	0.0	0.0	9.55	0.0	0.0	0.0	0.0	0	0.0
2	91	512	5.59	5.70	0.73800	0.0	0.0	0.0	0.0	3.59	0.0	0.0	0.0	0.0	0	0.0
2	92	512	5.33	5.50	1.28900	0.0	0.0	0.0	0.0	5.83	0.0	0.0	0.0	0.0	0	0.0
2	93	512	2.54	5.90	0.43000	0.0	0.0	0.0	0.0	2.09	0.0	0.0	0.0	0.0	0	0.0
2	94	512	9.65	10.40	3.02300	0.0	0.0	0.0	0.0	14.03	0.0	0.0	0.0	0.0	0	0.0
2	95	512	5.08	6.80	1.07000	0.0	0.0	0.0	0.0	5.18	0.0	0.0	0.0	0.0	0	0.0
2	96	512	9.65	6.20	2.73100	0.0	0.0	0.0	0.0	12.59	0.0	0.0	0.0	0.0	0	0.0
2	97	512	3.56	5.80	0.35800	0.0	0.0	0.0	0.0	1.52	0.0	0.0	0.0	0.0	0	0.0
2	98	512	5.84	6.50	0.49000	0.0	0.0	0.0	0.0	2.21	0.0	0.0	0.0	0.0	0	0.0
2	99	512	5.08	5.80	0.58700	0.0	0.0	0.0	0.0	2.62	0.0	0.0	0.0	0.0	0	0.0
2	100	512	8.38	5.50	1.76700	0.0	0.0	0.0	0.0	7.68	0.0	0.0	0.0	0.0	0	0.0
2	101	512	9.65	5.80	1.28700	0.0	0.0	0.0	0.0	5.59	0.0	0.0	0.0	0.0	0	0.0

DATA SET NO.	TREE NO.	SPECIES CODE	D.A.G. CM	HEIGHT M	LEAF WEIGHT KG	BRANCH WEIGHT KG	BOLE WEIGHT KG	STEM WEIGHT KG	ROOT WEIGHT KG	LEAF AREA SQ. M.	CROWN WIDTH M	CROWN DEPTH M	BOLE TOP DIAM. CM	BARK THICK. CM	AGE	MEAN RADIAL INCR. MM
2	102	203	2.00	0.0	0.09210	0.0	0.0	0.45310	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
2	103	203	3.50	0.0	0.35610	0.0	0.0	1.44560	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
2	104	500	1.50	0.0	0.02150	0.0	0.0	0.18650	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
2	105	500	1.40	0.0	0.02660	0.0	0.0	0.12700	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
2	106	256	2.20	0.0	0.04750	0.0	0.0	0.17250	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
2	107	201	2.30	0.0	0.06800	0.0	0.0	0.55960	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
2	108	234	1.90	0.0	0.04700	0.0	0.0	0.25700	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
2	109	501	0.60	0.0	0.00530	0.0	0.0	0.01480	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
2	110	502	0.50	0.0	0.00580	0.0	0.0	0.00590	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
2	111	256	1.10	0.0	0.01850	0.0	0.0	0.04360	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
2	112	252	1.10	0.0	0.00840	0.0	0.0	0.02790	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
2	113	510	0.80	0.0	0.00740	0.0	0.0	0.02570	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
2	114	510	0.80	0.0	0.01060	0.0	0.0	0.02570	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
2	115	501	0.40	0.0	0.00120	0.0	0.0	0.00520	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
2	116	509	0.60	0.0	0.00400	0.0	0.0	0.00590	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
2	117	509	0.70	0.0	0.00690	0.0	0.0	0.02020	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0

DATA SET NO.	TREE NO.	SPECIES CODE	D.B.H. CM	HEIGHT M	LEAF WEIGHT KG	BRANCH WEIGHT KG	BOLE WEIGHT KG	STEM WEIGHT KG	ROOT WEIGHT KG	LEAF AREA SQ. M.	CROWN WIDTH M	CROWN DEPTH M	BOLE TOP DIAM. CM	BARK THICK. CM	AGE	MEAN RADIAL INCR. MM
3	110	239	24.10	18.50	3.41000	20.950	217.060	0.0	0.0	0.0	0.0	0.0	0.0	1.320	79	0.190
3	104	239	26.40	21.50	3.56000	20.710	238.690	0.0	0.0	0.0	0.0	0.0	0.0	1.790	115	0.310
3	101	239	26.70	21.80	3.95000	23.610	243.910	0.0	0.0	0.0	0.0	0.0	0.0	1.800	50	0.240
3	102	239	28.40	20.60	6.14000	41.130	275.010	0.0	0.0	0.0	0.0	0.0	0.0	1.910	45	0.150
3	105	239	29.00	21.70	5.72000	32.660	282.700	0.0	0.0	0.0	0.0	0.0	0.0	1.650	100	0.280
3	108	239	35.00	19.90	9.47000	74.210	396.210	0.0	0.0	0.0	0.0	0.0	0.0	1.580	47	0.320
3	107	239	34.00	23.70	5.52000	31.730	433.090	0.0	0.0	0.0	0.0	0.0	0.0	1.910	80	0.180
3	103	239	40.80	26.20	16.51999	132.520	701.440	0.0	0.0	0.0	0.0	0.0	0.0	2.210	80	0.250
3	106	239	39.10	25.70	7.79000	69.220	720.960	0.0	0.0	0.0	0.0	0.0	0.0	1.940	71	0.180
3	109	239	54.00	28.10	12.02000	159.000	1086.100	0.0	0.0	0.0	0.0	0.0	0.0	2.040	79	0.180
3	203	114	30.10	14.70	11.39600	60.850	197.470	0.0	0.0	0.0	0.0	0.0	0.0	1.580	59	0.510
3	209	114	25.40	21.50	8.16200	32.090	372.390	0.0	0.0	0.0	0.0	0.0	0.0	1.940	89	0.150
3	202	114	27.40	16.20	12.34400	59.380	376.860	0.0	0.0	0.0	0.0	0.0	0.0	2.320	60	0.270
3	204	114	29.00	18.50	12.70300	62.160	402.710	0.0	0.0	0.0	0.0	0.0	0.0	2.470	72	0.270
3	201	114	35.40	20.70	9.32800	36.980	652.910	0.0	0.0	0.0	0.0	0.0	0.0	2.110	45	0.170
3	210	114	33.90	21.20	14.97800	76.530	595.240	0.0	0.0	0.0	0.0	0.0	0.0	3.120	93	0.340
3	208	114	33.70	19.30	22.65599	131.150	759.080	0.0	0.0	0.0	0.0	0.0	0.0	1.810	89	0.270
3	206	114	35.60	26.90	12.34600	52.380	839.340	0.0	0.0	0.0	0.0	0.0	0.0	4.840	84	0.200
3	207	114	44.70	19.20	34.78899	218.870	878.530	0.0	0.0	0.0	0.0	0.0	0.0	4.350	66	0.390
3	205	114	40.90	29.00	18.15700	97.040	1223.100	0.0	0.0	0.0	0.0	0.0	0.0	2.060	70	0.180
3	201	228	27.00	18.70	13.30000	108.450	338.740	0.0	0.0	0.0	0.0	0.0	0.0	1.200	55	0.230
3	210	228	41.00	17.50	26.32999	345.260	748.180	0.0	0.0	0.0	0.0	0.0	0.0	1.600	78	0.320
3	202	228	43.80	21.10	10.99000	138.380	804.070	0.0	0.0	0.0	0.0	0.0	0.0	1.600	110	0.130
3	204	228	43.80	17.90	22.62999	275.550	901.220	0.0	0.0	0.0	0.0	0.0	0.0	1.900	70	0.310
3	209	228	40.00	20.00	26.43999	297.640	975.340	0.0	0.0	0.0	0.0	0.0	0.0	1.880	85	0.290
3	203	228	44.30	21.20	24.75000	428.820	994.170	0.0	0.0	0.0	0.0	0.0	0.0	2.170	65	0.310
3	208	228	44.50	22.90	20.84999	260.440	1042.900	0.0	0.0	0.0	0.0	0.0	0.0	2.130	91	0.260
3	205	228	50.90	22.60	20.56000	461.630	1273.500	0.0	0.0	0.0	0.0	0.0	0.0	2.340	120	0.170
3	207	228	54.00	28.70	20.92000	396.540	2071.800	0.0	0.0	0.0	0.0	0.0	0.0	1.380	160	0.220
3	206	228	53.00	31.10	26.64999	668.580	2252.400	0.0	0.0	0.0	0.0	0.0	0.0	1.960	135	0.320

DATA SET NO.	TREE NO.	SPECIES CODE	D.B.H. CM	HEIGHT M	LEAF WEIGHT KG	BRANCH WEIGHT KG	BOLE WEIGHT KG	STEM WEIGHT KG	ROOT WEIGHT KG	LEAF AREA SQ. M.	CROWN WIDTH M	CROWN DEPTH M	BOLE TOP DIAM. CM	BARK THICK. CM	AGE	MEAN RADIAL INCR. MM
4	1	234	3.80	4.90	0.0	0.477	2.664	0.0	1.7390	0.0	0.0	0.0	0.0	0.0	0	0.0
4	2	234	3.50	6.10	0.0	0.492	2.432	0.0	2.3670	0.0	0.0	0.0	0.0	0.0	0	0.0
4	3	234	3.00	5.30	0.0	0.128	0.917	0.0	0.2070	0.0	0.0	0.0	0.0	0.0	0	0.0
4	4	234	3.60	7.80	0.0	0.306	1.657	0.0	1.0190	0.0	0.0	0.0	0.0	0.0	0	0.0
4	5	234	3.50	5.60	0.0	0.302	2.441	0.0	0.9210	0.0	0.0	0.0	0.0	0.0	0	0.0
4	6	234	2.90	4.20	0.0	0.179	0.903	0.0	0.9590	0.0	0.0	0.0	0.0	0.0	0	0.0
4	11	256	3.50	6.10	0.0	0.545	2.909	0.0	1.7020	0.0	0.0	0.0	0.0	0.0	0	0.0
4	12	256	3.50	5.80	0.0	1.116	2.830	0.0	2.1000	0.0	0.0	0.0	0.0	0.0	0	0.0
4	13	256	3.40	6.30	0.0	0.473	2.067	0.0	1.2340	0.0	0.0	0.0	0.0	0.0	0	0.0
4	15	256	3.50	6.70	0.0	0.171	2.150	0.0	0.9890	0.0	0.0	0.0	0.0	0.0	0	0.0
4	16	256	3.60	5.40	0.0	0.496	2.184	0.0	1.4530	0.0	0.0	0.0	0.0	0.0	0	0.0

DATA SET NO.	TREE NO.	SPECIES CODE	D.A.G. CM	HEIGHT M	LEAF WEIGHT KG	BRANCH WEIGHT KG	BOLE WEIGHT KG	STEM WEIGHT KG	ROOT WEIGHT KG	LEAF AREA SQ. M.	CROWN WIDTH M	CROWN DEPTH M	BOLE TOP DIAM. CM	BARK THICK. CM	AGE	MEAN RADIAL INCR. MM
6	1	254	3.40	2.90	0.28400	0.0	0.0	0.84100	0.2880	0.0	0.0	0.0	0.0	0.0	13	0.0
6	2	254	4.80	4.10	0.57400	0.0	0.0	1.75800	0.5820	0.0	0.0	0.0	0.0	0.0	17	0.0
6	3	254	4.00	3.70	0.18500	0.0	0.0	1.08700	0.3560	0.0	0.0	0.0	0.0	0.0	16	0.0
6	4	254	4.70	4.40	0.49200	0.0	0.0	1.87100	0.6770	0.0	0.0	0.0	0.0	0.0	14	0.0
6	5	254	5.10	4.60	0.69600	0.0	0.0	2.37800	0.9850	0.0	0.0	0.0	0.0	0.0	14	0.0
6	6	254	5.30	4.50	0.58600	0.0	0.0	2.61000	0.8710	0.0	0.0	0.0	0.0	0.0	16	0.0
6	7	254	3.60	3.50	0.30700	0.0	0.0	0.90400	0.4330	0.0	0.0	0.0	0.0	0.0	10	0.0
6	8	254	3.70	3.40	0.12300	0.0	0.0	1.17300	0.3360	0.0	0.0	0.0	0.0	0.0	13	0.0
6	9	254	4.20	3.90	0.37600	0.0	0.0	1.69900	0.4690	0.0	0.0	0.0	0.0	0.0	16	0.0
6	10	254	2.50	3.00	0.44200	0.0	0.0	0.45700	0.1230	0.0	0.0	0.0	0.0	0.0	12	0.0
6	11	254	4.20	4.20	0.57100	0.0	0.0	1.62500	0.4670	0.0	0.0	0.0	0.0	0.0	18	0.0
6	12	254	3.20	2.70	0.13400	0.0	0.0	0.46100	0.1500	0.0	0.0	0.0	0.0	0.0	14	0.0
6	13	254	2.10	2.40	0.07000	0.0	0.0	0.21900	0.0810	0.0	0.0	0.0	0.0	0.0	9	0.0
6	14	254	5.20	4.60	0.50200	0.0	0.0	2.69900	0.7370	0.0	0.0	0.0	0.0	0.0	28	0.0
6	15	254	4.60	4.60	0.29900	0.0	0.0	1.72900	0.6110	0.0	0.0	0.0	0.0	0.0	27	0.0
6	16	254	3.90	3.50	0.33700	0.0	0.0	1.10900	0.4130	0.0	0.0	0.0	0.0	0.0	15	0.0
6	17	254	4.50	3.50	0.33800	0.0	0.0	1.27700	0.4780	0.0	0.0	0.0	0.0	0.0	15	0.0
6	18	254	4.50	3.60	0.36700	0.0	0.0	1.45500	0.5370	0.0	0.0	0.0	0.0	0.0	17	0.0
6	19	254	4.80	4.00	0.50100	0.0	0.0	1.92500	0.7440	0.0	0.0	0.0	0.0	0.0	17	0.0
6	20	254	5.20	5.60	0.35400	0.0	0.0	2.49700	0.7230	0.0	0.0	0.0	0.0	0.0	18	0.0
6	21	254	5.40	5.20	0.86600	0.0	0.0	4.30500	0.8830	24.46	0.0	0.0	0.0	0.0	15	0.0
6	22	254	4.50	4.00	0.61900	0.0	0.0	2.37800	0.4700	17.50	0.0	0.0	0.0	0.0	14	0.0
6	23	254	6.30	5.10	0.83000	0.0	0.0	3.88400	0.9940	23.45	0.0	0.0	0.0	0.0	15	0.0
6	24	254	6.10	5.00	1.06000	0.0	0.0	4.08200	1.0020	29.95	0.0	0.0	0.0	0.0	16	0.0
6	25	254	7.10	5.20	1.12000	0.0	0.0	6.44300	1.4300	31.64	0.0	0.0	0.0	0.0	15	0.0
6	26	254	4.80	3.60	0.34900	0.0	0.0	1.96300	0.3240	9.87	0.0	0.0	0.0	0.0	15	0.0
6	27	254	5.60	4.50	0.53600	0.0	0.0	2.63900	0.5880	15.14	0.0	0.0	0.0	0.0	16	0.0
6	28	254	4.40	3.30	0.40300	0.0	0.0	1.75700	0.3720	11.39	0.0	0.0	0.0	0.0	13	0.0

DATA SET NO.	TREE NO.	SPECIES CODE	D.A.G. CM	HEIGHT M	LEAF WEIGHT KG	BRANCH WEIGHT KG	BOLE WEIGHT KG	STEM WEIGHT KG	ROOT WEIGHT KG	LEAF AREA SQ. M.	CROWN WIDTH M	CROWN DEPTH M	BOLE TOP DIAM. CM	BARK THICK. CM	AGE	MEAN RADIAL INCR. MM
7	1	254	1.70	1.34	0.01820	0.0	0.0	0.08660	0.0495	0.0	0.0	0.0	0.0	0.0	0	0.0
7	2	254	0.70	0.42	0.00110	0.0	0.0	0.00470	0.0032	0.0	0.0	0.0	0.0	0.0	0	0.0
7	3	254	0.90	0.71	0.00480	0.0	0.0	0.01040	0.0050	0.0	0.0	0.0	0.0	0.0	0	0.0
7	4	254	2.10	1.45	0.03590	0.0	0.0	0.12960	0.0606	0.0	0.0	0.0	0.0	0.0	0	0.0
7	5	254	0.70	0.47	0.00260	0.0	0.0	0.00510	0.0018	0.0	0.0	0.0	0.0	0.0	0	0.0
7	6	254	0.80	0.63	0.00370	0.0	0.0	0.00750	0.0043	0.0	0.0	0.0	0.0	0.0	0	0.0
7	7	254	0.60	0.62	0.00120	0.0	0.0	0.00560	0.0020	0.0	0.0	0.0	0.0	0.0	0	0.0
7	8	254	1.10	0.78	0.00390	0.0	0.0	0.01950	0.0072	0.0	0.0	0.0	0.0	0.0	0	0.0
7	9	254	1.90	0.96	0.01610	0.0	0.0	0.05470	0.0340	0.0	0.0	0.0	0.0	0.0	0	0.0
7	10	254	1.80	1.66	0.00340	0.0	0.0	0.10050	0.0500	0.0	0.0	0.0	0.0	0.0	0	0.0
7	11	254	1.40	1.51	0.01190	0.0	0.0	0.07170	0.0300	0.0	0.0	0.0	0.0	0.0	0	0.0
7	12	254	1.00	1.05	0.00240	0.0	0.0	0.02230	0.0129	0.0	0.0	0.0	0.0	0.0	0	0.0
7	13	254	1.00	1.09	0.00560	0.0	0.0	0.02730	0.0124	0.0	0.0	0.0	0.0	0.0	0	0.0
7	14	254	1.70	1.71	0.02970	0.0	0.0	0.13000	0.0478	0.0	0.0	0.0	0.0	0.0	0	0.0
7	15	254	0.80	0.70	0.00280	0.0	0.0	0.01060	0.0048	0.0	0.0	0.0	0.0	0.0	0	0.0
7	16	254	0.40	0.36	0.00070	0.0	0.0	0.00220	0.0009	0.0	0.0	0.0	0.0	0.0	0	0.0
7	17	254	0.60	0.48	0.00120	0.0	0.0	0.00570	0.0048	0.0	0.0	0.0	0.0	0.0	0	0.0
7	18	254	0.80	0.72	0.00180	0.0	0.0	0.01260	0.0073	0.0	0.0	0.0	0.0	0.0	0	0.0
7	19	254	0.70	0.71	0.00310	0.0	0.0	0.01060	0.0047	0.0	0.0	0.0	0.0	0.0	0	0.0
7	20	254	0.70	0.70	0.00400	0.0	0.0	0.01080	0.0063	0.0	0.0	0.0	0.0	0.0	0	0.0

DATA SET NO.	TREE NO.	SPECIES CODE	D.B.H. CM	HEIGHT M	LEAF WEIGHT KG	BRANCH WEIGHT KG	BOLE WEIGHT KG	STEM WEIGHT KG	ROOT WEIGHT KG	LEAF AREA SQ. M.	CROWN WIDTH M	CROWN DEPTH M	BOLE TOP DIAM. CM	BARK THICK. CM	AGE	MEAN RADIAL INCR. MM
8	1	254	0.0	1.00	0.05155	0.0	0.0	0.07699	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
8	2	254	0.0	0.60	0.00441	0.0	0.0	0.00320	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
8	3	254	0.0	0.71	0.01845	0.0	0.0	0.02610	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
8	4	254	0.0	0.42	0.00454	0.0	0.0	0.00343	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
8	5	254	0.0	0.26	0.00078	0.0	0.0	0.00083	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
8	6	254	0.0	1.12	0.02120	0.0	0.0	0.05650	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
8	7	254	0.0	0.96	0.00910	0.0	0.0	0.01772	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
8	8	254	0.0	0.33	0.00050	0.0	0.0	0.00116	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
8	9	254	0.0	1.82	0.09027	0.0	0.0	0.18370	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
8	10	254	0.0	0.81	0.02650	0.0	0.0	0.04341	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
8	11	254	0.0	1.30	0.04240	0.0	0.0	0.08508	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
8	12	254	0.0	0.83	0.20560	0.0	0.0	0.03771	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	1	234	0.0	1.46	0.02860	0.0	0.0	0.03935	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	2	234	0.0	0.43	0.00714	0.0	0.0	0.00648	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	3	234	0.0	0.28	0.00247	0.0	0.0	0.00233	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	4	234	0.0	0.46	0.00952	0.0	0.0	0.00914	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	5	234	0.0	0.60	0.01250	0.0	0.0	0.01677	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	6	234	0.0	0.56	0.00607	0.0	0.0	0.00822	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	7	234	0.0	0.43	0.00817	0.0	0.0	0.00871	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	8	234	0.0	1.25	0.05940	0.0	0.0	0.10359	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	9	234	0.0	0.71	0.00968	0.0	0.0	0.02260	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	10	234	0.0	0.70	0.00439	0.0	0.0	0.00588	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	11	234	0.0	0.73	0.01430	0.0	0.0	0.01726	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	12	234	0.0	0.88	0.01060	0.0	0.0	0.01409	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	13	234	0.0	1.10	0.02630	0.0	0.0	0.04555	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	14	234	0.0	1.12	0.03570	0.0	0.0	0.04416	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	15	234	0.0	1.17	0.01583	0.0	0.0	0.02366	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	16	234	0.0	0.31	0.00180	0.0	0.0	0.00158	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	17	234	0.0	1.18	0.03280	0.0	0.0	0.05803	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	18	234	0.0	1.30	0.03670	0.0	0.0	0.06667	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	19	234	0.0	1.80	0.05460	0.0	0.0	0.11161	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	20	234	0.0	0.65	0.00439	0.0	0.0	0.00891	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	21	234	0.0	0.46	0.00170	0.0	0.0	0.00207	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	22	234	0.0	0.81	0.00782	0.0	0.0	0.01066	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	23	234	0.0	0.54	0.00389	0.0	0.0	0.00510	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	24	234	0.0	0.92	0.00459	0.0	0.0	0.01197	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	25	234	0.0	0.68	0.00371	0.0	0.0	0.00687	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	26	234	0.0	0.30	0.00105	0.0	0.0	0.00081	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	27	234	0.0	0.35	0.00183	0.0	0.0	0.00153	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	28	234	0.0	0.21	0.00044	0.0	0.0	0.00055	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	29	234	0.0	0.26	0.00099	0.0	0.0	0.00059	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	30	234	0.0	0.25	0.00191	0.0	0.0	0.00176	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	31	234	0.0	0.43	0.00166	0.0	0.0	0.00147	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	32	234	0.0	1.25	0.00969	0.0	0.0	0.02217	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	33	234	0.0	1.37	0.01340	0.0	0.0	0.02596	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	34	234	0.0	0.77	0.00542	0.0	0.0	0.00711	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	35	234	0.0	0.47	0.00130	0.0	0.0	0.00171	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	36	234	0.0	0.64	0.00252	0.0	0.0	0.00324	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	37	234	0.0	0.67	0.00657	0.0	0.0	0.00668	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	38	234	0.0	0.70	0.01910	0.0	0.0	0.02213	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	39	234	0.0	0.53	0.00765	0.0	0.0	0.00965	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0

DATA SET NO.	TREE NO.	SPECIES CODE	D.B.H. CM	HEIGHT M	LEAF WEIGHT KG	BRANCH WEIGHT KG	BOLE WEIGHT KG	STEM WEIGHT KG	ROOT WEIGHT KG	LEAF AREA SQ. M.	CROWN WIDTH M	CROWN DEPTH M	BOLE TOP DIAM. CM	BARK THICK. CM	AGE	MEAN RADIAL INCR. MM
9	40	234	0.0	0.44	0.00241	0.0	0.0	0.00233	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	41	234	0.0	0.23	0.00067	0.0	0.0	0.00045	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	42	234	0.0	0.29	0.00063	0.0	0.0	0.00058	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	43	234	0.0	0.19	0.00077	0.0	0.0	0.00060	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	44	234	0.0	0.30	0.00093	0.0	0.0	0.00080	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	45	234	0.0	0.52	0.00301	0.0	0.0	0.00266	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	46	234	0.0	0.54	0.00193	0.0	0.0	0.00239	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	47	234	0.0	0.33	0.00194	0.0	0.0	0.00131	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	48	234	0.0	0.40	0.00372	0.0	0.0	0.00303	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	49	234	0.0	0.40	0.00278	0.0	0.0	0.00366	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	50	234	0.0	0.44	0.00588	0.0	0.0	0.00578	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	51	234	0.0	0.40	0.00216	0.0	0.0	0.00188	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	52	234	0.0	0.23	0.00128	0.0	0.0	0.00092	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	53	234	0.0	1.27	0.00787	0.0	0.0	0.01993	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	54	234	0.0	1.46	0.01334	0.0	0.0	0.04916	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	55	234	0.0	1.41	0.01923	0.0	0.0	0.04551	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	56	234	0.0	1.38	0.01557	0.0	0.0	0.03574	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	57	234	0.0	1.44	0.01375	0.0	0.0	0.03670	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	58	234	0.0	1.23	0.00846	0.0	0.0	0.01927	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	59	234	0.0	1.06	0.00729	0.0	0.0	0.01451	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	60	234	0.0	1.52	0.02760	0.0	0.0	0.04256	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	61	234	0.0	1.20	0.00766	0.0	0.0	0.01739	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	62	234	0.0	1.47	0.02381	0.0	0.0	0.06298	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	63	234	0.0	1.32	0.01621	0.0	0.0	0.04216	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	64	234	0.0	1.29	0.00809	0.0	0.0	0.03127	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	65	234	0.0	1.80	0.02402	0.0	0.0	0.09581	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	66	234	0.0	1.28	0.02270	0.0	0.0	0.05903	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	67	234	0.0	1.34	0.01994	0.0	0.0	0.04033	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	68	234	0.0	0.94	0.01603	0.0	0.0	0.03568	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	69	234	0.0	0.50	0.01191	0.0	0.0	0.02302	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	70	234	0.0	0.63	0.00688	0.0	0.0	0.00934	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	71	234	0.0	0.71	0.00738	0.0	0.0	0.01332	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	72	234	0.0	0.81	0.00379	0.0	0.0	0.00743	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	73	234	0.0	0.46	0.00148	0.0	0.0	0.00153	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	74	234	0.0	0.82	0.00350	0.0	0.0	0.00561	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	75	234	0.0	0.60	0.00230	0.0	0.0	0.00316	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	76	234	0.0	0.81	0.00271	0.0	0.0	0.00614	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	78	234	0.0	0.45	0.00145	0.0	0.0	0.00170	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	79	234	0.0	0.28	0.00073	0.0	0.0	0.00062	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	80	234	0.0	0.49	0.00298	0.0	0.0	0.00415	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	81	234	0.0	0.50	0.00125	0.0	0.0	0.00143	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	83	234	0.0	0.25	0.00192	0.0	0.0	0.00184	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	84	234	0.0	0.48	0.00442	0.0	0.0	0.00740	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	85	234	0.0	0.38	0.00097	0.0	0.0	0.00126	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	86	234	0.0	0.80	0.00572	0.0	0.0	0.01202	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	87	234	0.0	0.57	0.00375	0.0	0.0	0.00426	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	88	234	0.0	0.32	0.00119	0.0	0.0	0.00109	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	89	234	0.0	2.05	0.09226	0.0	0.0	0.19840	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0

DATA SET NO.	TREE NO.	SPECIES CODE	D.B.H. CM	HEIGHT M	LEAF WEIGHT KG	BRANCH WEIGHT KG	BOLE WEIGHT KG	STEM WEIGHT KG	ROOT WEIGHT KG	LEAF AREA SQ. M.	CROWN WIDTH M	CROWN DEPTH M	BOLE TOP DIAM. CM	BARK THICK. CM	AGE	MEAN RADIAL INCR. MM
9	101	222	0.0	0.27	0.00160	0.0	0.0	0.00138	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	102	222	0.0	0.19	0.00076	0.0	0.0	0.00057	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	103	222	0.0	0.17	0.00033	0.0	0.0	0.00022	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	104	222	0.0	0.27	0.00102	0.0	0.0	0.00084	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	105	222	0.0	0.19	0.00089	0.0	0.0	0.00028	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	106	222	0.0	0.17	0.00008	0.0	0.0	0.00007	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	107	222	0.0	0.27	0.00104	0.0	0.0	0.00043	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	108	222	0.0	0.62	0.00914	0.0	0.0	0.00876	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	109	222	0.0	0.56	0.00375	0.0	0.0	0.00430	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	110	222	0.0	0.38	0.00198	0.0	0.0	0.00183	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	111	222	0.0	0.32	0.00325	0.0	0.0	0.00237	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	112	222	0.0	0.30	0.00092	0.0	0.0	0.00058	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	113	222	0.0	0.58	0.00678	0.0	0.0	0.00754	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	114	222	0.0	0.47	0.00514	0.0	0.0	0.00405	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	115	222	0.0	2.04	0.07630	0.0	0.0	0.24905	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	116	222	0.0	1.76	0.04570	0.0	0.0	0.10413	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	118	222	0.0	1.81	0.05913	0.0	0.0	0.16945	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	201	253	0.0	0.67	0.00394	0.0	0.0	0.00744	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	202	253	0.0	0.61	0.00332	0.0	0.0	0.00517	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	203	253	0.0	0.57	0.00356	0.0	0.0	0.00545	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	204	253	0.0	0.53	0.00184	0.0	0.0	0.00255	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	207	253	0.0	0.78	0.00692	0.0	0.0	0.01459	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	208	253	0.0	0.54	0.00294	0.0	0.0	0.00497	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	209	253	0.0	0.66	0.00304	0.0	0.0	0.00607	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	210	253	0.0	0.29	0.00069	0.0	0.0	0.00085	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	211	253	0.0	0.38	0.00083	0.0	0.0	0.00161	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	212	253	0.0	0.70	0.00273	0.0	0.0	0.00481	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	213	253	0.0	0.36	0.00214	0.0	0.0	0.00218	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	214	253	0.0	0.50	0.00221	0.0	0.0	0.00374	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	215	253	0.0	0.28	0.00059	0.0	0.0	0.00075	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	216	253	0.0	0.25	0.00045	0.0	0.0	0.00052	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	217	253	0.0	0.24	0.00067	0.0	0.0	0.00051	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	218	253	0.0	0.22	0.00023	0.0	0.0	0.00018	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	219	253	0.0	0.74	0.00386	0.0	0.0	0.00590	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	220	253	0.0	0.35	0.00211	0.0	0.0	0.00207	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	221	253	0.0	0.74	0.00704	0.0	0.0	0.01268	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	222	253	0.0	0.86	0.00827	0.0	0.0	0.01842	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	223	253	0.0	0.51	0.00487	0.0	0.0	0.00688	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	224	253	0.0	0.97	0.00880	0.0	0.0	0.01587	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	225	253	0.0	0.72	0.00292	0.0	0.0	0.00548	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	226	253	0.0	0.58	0.00154	0.0	0.0	0.00864	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	227	253	0.0	0.63	0.00386	0.0	0.0	0.00773	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	228	253	0.0	0.23	0.00122	0.0	0.0	0.00120	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	229	253	0.0	0.53	0.00145	0.0	0.0	0.00269	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	230	253	0.0	0.31	0.00197	0.0	0.0	0.00172	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	231	253	0.0	0.40	0.00302	0.0	0.0	0.00454	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	232	253	0.0	0.08	0.00018	0.0	0.0	0.00012	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	233	253	0.0	1.03	0.00850	0.0	0.0	0.01577	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	234	253	0.0	0.54	0.00335	0.0	0.0	0.00476	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	235	253	0.0	0.85	0.00558	0.0	0.0	0.01118	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	236	253	0.0	0.67	0.00333	0.0	0.0	0.00495	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	237	253	0.0	1.10	0.01070	0.0	0.0	0.02719	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	238	253	0.0	0.40	0.00095	0.0	0.0	0.00145	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	239	253	0.0	0.51	0.00173	0.0	0.0	0.00215	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0

DATA SET NO.	TREE NO.	SPECIES CODE	D.B.H. CM	HEIGHT M	LEAF WEIGHT KG	BRANCH WEIGHT KG	BOLE WEIGHT KG	STEM WEIGHT KG	ROOT WEIGHT KG	LEAF AREA SQ. M.	CROWN WIDTH M	CROWN DEPTH M	BOLE TOP DIAM. CM	BARK THICK. CM	AGE	MEAN RADIAL INCR. MM
9	240	253	0.0	0.54	0.00318	0.0	0.0	0.00462	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	241	253	0.0	0.51	0.00316	0.0	0.0	0.00355	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	242	253	0.0	0.31	0.00047	0.0	0.0	0.00062	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	243	253	0.0	0.21	0.00016	0.0	0.0	0.00026	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	244	253	0.0	0.82	0.00379	0.0	0.0	0.00676	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	245	253	0.0	0.34	0.00117	0.0	0.0	0.00165	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	246	253	0.0	0.34	0.00212	0.0	0.0	0.00310	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	247	253	0.0	1.00	0.00688	0.0	0.0	0.01679	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	248	253	0.0	0.86	0.00479	0.0	0.0	0.00863	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	249	253	0.0	0.81	0.00483	0.0	0.0	0.00718	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	250	253	0.0	0.88	0.00509	0.0	0.0	0.00901	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	251	253	0.0	0.55	0.00243	0.0	0.0	0.00315	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	252	253	0.0	0.53	0.00390	0.0	0.0	0.00484	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	253	253	0.0	1.00	0.00347	0.0	0.0	0.00780	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	254	253	0.0	0.69	0.00335	0.0	0.0	0.00565	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	255	253	0.0	0.55	0.00306	0.0	0.0	0.00399	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	256	253	0.0	0.47	0.00095	0.0	0.0	0.00151	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	257	253	0.0	0.57	0.00221	0.0	0.0	0.00337	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	258	253	0.0	0.53	0.00120	0.0	0.0	0.00254	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	259	253	0.0	0.43	0.00132	0.0	0.0	0.00389	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	260	253	0.0	0.26	0.00082	0.0	0.0	0.00072	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	261	253	0.0	0.20	0.00037	0.0	0.0	0.00020	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	262	253	0.0	0.20	0.00026	0.0	0.0	0.00032	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	263	253	0.0	0.25	0.00071	0.0	0.0	0.00068	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	264	253	0.0	0.23	0.00059	0.0	0.0	0.00049	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	265	253	0.0	0.20	0.00057	0.0	0.0	0.00070	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	266	253	0.0	0.27	0.00103	0.0	0.0	0.00104	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	301	256	0.0	1.20	0.03051	0.0	0.0	0.04227	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	302	256	0.0	0.93	0.01147	0.0	0.0	0.01120	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	303	256	0.0	0.30	0.00146	0.0	0.0	0.00265	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	304	256	0.0	0.37	0.00265	0.0	0.0	0.00277	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	305	256	0.0	0.20	0.00032	0.0	0.0	0.00076	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	306	256	0.0	0.30	0.00174	0.0	0.0	0.00173	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	307	256	0.0	0.51	0.01697	0.0	0.0	0.01286	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	308	256	0.0	0.22	0.00307	0.0	0.0	0.00122	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	309	256	0.0	0.28	0.00080	0.0	0.0	0.00050	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	310	256	0.0	0.32	0.00766	0.0	0.0	0.00388	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	311	256	0.0	0.23	0.00337	0.0	0.0	0.00086	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	312	256	0.0	1.20	0.02402	0.0	0.0	0.05976	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	313	256	0.0	0.08	0.00087	0.0	0.0	0.00043	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	314	256	0.0	0.27	0.00358	0.0	0.0	0.00076	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	315	256	0.0	0.17	0.00073	0.0	0.0	0.00042	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	316	256	0.0	0.35	0.00865	0.0	0.0	0.00476	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	317	256	0.0	0.32	0.00647	0.0	0.0	0.00305	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	318	256	0.0	0.45	0.00777	0.0	0.0	0.00690	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	321	256	0.0	1.02	0.07555	0.0	0.0	0.08185	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	322	256	0.0	0.86	0.03667	0.0	0.0	0.04904	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	323	256	0.0	0.24	0.00180	0.0	0.0	0.00371	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	324	256	0.0	0.31	0.00601	0.0	0.0	0.00433	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	327	256	0.0	0.71	0.02121	0.0	0.0	0.01571	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	329	256	0.0	1.31	0.04816	0.0	0.0	0.06730	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0

DATA SET NO.	TREE NO.	SPECIES CODE	D.B.H. CM	HEIGHT M	LEAF WEIGHT KG	BRANCH WEIGHT KG	BOLE WEIGHT KG	STEM WEIGHT KG	ROOT WEIGHT KG	LEAF AREA SQ. M.	CROWN WIDTH M	CROWN DEPTH M	BOLE TOP DIAM. CM	BARK THICK. CM	AGE	MEAN RADIAL INCR. MM
9	330	256	0.0	0.60	0.02729	0.0	0.0	0.03398	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	331	256	0.0	0.19	0.00121	0.0	0.0	0.00029	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	332	256	0.0	0.34	0.00541	0.0	0.0	0.00225	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	333	256	0.0	0.31	0.00779	0.0	0.0	0.00325	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	334	256	0.0	0.22	0.00366	0.0	0.0	0.00110	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	335	256	0.0	0.51	0.00849	0.0	0.0	0.01002	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	336	256	0.0	0.39	0.00619	0.0	0.0	0.00504	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	337	256	0.0	0.68	0.03733	0.0	0.0	0.04729	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	338	256	0.0	0.45	0.00212	0.0	0.0	0.00601	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	339	256	0.0	0.35	0.00436	0.0	0.0	0.00143	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	340	256	0.0	1.73	0.11892	0.0	0.0	0.14112	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	341	256	0.0	2.02	0.17761	0.0	0.0	0.37478	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	401	238	0.0	1.31	0.05317	0.0	0.0	0.07733	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	402	238	0.0	1.30	0.02549	0.0	0.0	0.04972	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	403	238	0.0	1.51	0.04617	0.0	0.0	0.09370	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	404	238	0.0	0.85	0.01405	0.0	0.0	0.02374	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	405	238	0.0	0.85	0.00570	0.0	0.0	0.00700	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	406	238	0.0	1.41	0.01734	0.0	0.0	0.03122	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	407	238	0.0	0.56	0.01820	0.0	0.0	0.01759	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	408	238	0.0	0.32	0.00132	0.0	0.0	0.00149	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	409	238	0.0	0.38	0.00066	0.0	0.0	0.00118	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	410	238	0.0	0.54	0.00192	0.0	0.0	0.00248	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	411	238	0.0	0.32	0.00072	0.0	0.0	0.00064	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	412	238	0.0	0.20	0.00060	0.0	0.0	0.00030	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	413	238	0.0	0.55	0.00276	0.0	0.0	0.00285	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	414	238	0.0	0.16	0.00030	0.0	0.0	0.00027	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	415	238	0.0	0.68	0.00622	0.0	0.0	0.00722	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	416	238	0.0	0.40	0.00069	0.0	0.0	0.00067	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	417	238	0.0	0.28	0.00058	0.0	0.0	0.00024	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	418	238	0.0	0.28	0.00046	0.0	0.0	0.00035	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	419	238	0.0	1.35	0.03923	0.0	0.0	0.06589	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	420	238	0.0	0.55	0.00795	0.0	0.0	0.00973	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	421	238	0.0	0.67	0.00581	0.0	0.0	0.00804	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	422	238	0.0	0.30	0.00023	0.0	0.0	0.00099	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	423	238	0.0	0.49	0.00124	0.0	0.0	0.00263	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	424	238	0.0	0.63	0.00575	0.0	0.0	0.00561	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	425	238	0.0	2.32	0.05459	0.0	0.0	0.17688	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	426	238	0.0	1.70	0.01778	0.0	0.0	0.04883	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	427	238	0.0	2.20	0.05103	0.0	0.0	0.13804	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	428	238	0.0	2.44	0.09232	0.0	0.0	0.23604	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	429	238	0.0	1.27	0.01011	0.0	0.0	0.02383	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	430	238	0.0	2.58	0.08585	0.0	0.0	0.22495	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	431	238	0.0	1.09	0.00375	0.0	0.0	0.01306	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	432	238	0.0	2.63	0.09454	0.0	0.0	0.24013	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	433	238	0.0	2.73	0.11598	0.0	0.0	0.31451	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	501	203	0.0	0.19	0.00155	0.0	0.0	0.00053	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	502	203	0.0	0.22	0.00259	0.0	0.0	0.00091	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	503	203	0.0	0.28	0.00354	0.0	0.0	0.00125	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	504	203	0.0	0.18	0.00106	0.0	0.0	0.00041	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	505	203	0.0	0.24	0.00155	0.0	0.0	0.00060	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	506	203	0.0	0.39	0.00559	0.0	0.0	0.00423	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	507	203	0.0	0.29	0.00140	0.0	0.0	0.00087	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	508	203	0.0	0.27	0.00252	0.0	0.0	0.00116	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	509	203	0.0	0.22	0.00091	0.0	0.0	0.00059	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0

DATA SET NO.	TREE NO.	SPECIES CODE	D.B.H. CM	HEIGHT M	LEAF WEIGHT KG	BRANCH WEIGHT KG	BOLE WEIGHT KG	STEM WEIGHT KG	ROOT WEIGHT KG	LEAF AREA SQ. M.	CROWN WIDTH M	CROWN DEPTH M	BOLE TOP DIAM. CM	BARK THICK. CM	AGE	MEAN RADIAL INCR. MM
9	510	203	0.0	0.22	0.00126	0.0	0.0	0.00062	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	511	203	0.0	0.23	0.00138	0.0	0.0	0.00067	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	512	203	0.0	0.24	0.00248	0.0	0.0	0.00109	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	513	203	0.0	0.22	0.00096	0.0	0.0	0.00039	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	514	203	0.0	0.33	0.00505	0.0	0.0	0.00314	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	515	203	0.0	0.27	0.00364	0.0	0.0	0.00131	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	516	203	0.0	0.91	0.02493	0.0	0.0	0.02273	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	517	203	0.0	0.20	0.00238	0.0	0.0	0.00073	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	518	203	0.0	0.50	0.00385	0.0	0.0	0.00587	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	519	203	0.0	0.40	0.00898	0.0	0.0	0.00388	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	520	203	0.0	0.25	0.00407	0.0	0.0	0.00142	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	521	203	0.0	0.45	0.00730	0.0	0.0	0.00425	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	522	203	0.0	0.47	0.01192	0.0	0.0	0.00797	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	524	203	0.0	0.67	0.01208	0.0	0.0	0.00737	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	525	203	0.0	1.01	0.03699	0.0	0.0	0.01751	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	526	203	0.0	0.82	0.02686	0.0	0.0	0.02612	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	601	277	0.0	0.25	0.00102	0.0	0.0	0.00058	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	602	277	0.0	0.27	0.00065	0.0	0.0	0.00033	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	603	277	0.0	0.24	0.00031	0.0	0.0	0.00017	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	604	277	0.0	0.24	0.00084	0.0	0.0	0.00034	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	605	277	0.0	0.20	0.00045	0.0	0.0	0.00025	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	606	277	0.0	0.28	0.00059	0.0	0.0	0.00033	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	607	277	0.0	0.40	0.00215	0.0	0.0	0.00234	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	608	277	0.0	0.38	0.00090	0.0	0.0	0.00061	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	609	277	0.0	0.29	0.00065	0.0	0.0	0.00034	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	610	277	0.0	0.32	0.00076	0.0	0.0	0.00064	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	611	277	0.0	0.33	0.00180	0.0	0.0	0.00143	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	612	277	0.0	0.37	0.00184	0.0	0.0	0.00117	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	613	277	0.0	0.22	0.00036	0.0	0.0	0.00024	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	614	277	0.0	0.26	0.00092	0.0	0.0	0.00043	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	615	277	0.0	0.17	0.00030	0.0	0.0	0.00022	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	616	277	0.0	0.67	0.00437	0.0	0.0	0.00714	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	617	277	0.0	0.31	0.00125	0.0	0.0	0.00086	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	618	277	0.0	0.36	0.00218	0.0	0.0	0.00173	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	619	277	0.0	0.32	0.00090	0.0	0.0	0.00055	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	620	277	0.0	0.17	0.00023	0.0	0.0	0.00019	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	621	277	0.0	0.27	0.00060	0.0	0.0	0.00054	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	622	277	0.0	0.23	0.00028	0.0	0.0	0.00022	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	623	277	0.0	0.38	0.00112	0.0	0.0	0.00109	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	624	277	0.0	0.27	0.00092	0.0	0.0	0.00061	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	626	277	0.0	0.24	0.00047	0.0	0.0	0.00020	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	632	277	0.0	0.99	0.00779	0.0	0.0	0.01536	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	633	277	0.0	0.87	0.01439	0.0	0.0	0.02698	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	634	277	0.0	0.73	0.00649	0.0	0.0	0.00687	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	635	277	0.0	0.62	0.00406	0.0	0.0	0.00575	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	636	277	0.0	1.72	0.03719	0.0	0.0	0.06544	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	637	277	0.0	1.07	0.01067	0.0	0.0	0.01527	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	638	277	0.0	1.61	0.01437	0.0	0.0	0.03361	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0

DATA SET NO.	TREE NO.	SPECIES CODE	D.B.H. CM	HEIGHT M	LEAF WEIGHT KG	BRANCH WEIGHT KG	BOLE WEIGHT KG	STEM WEIGHT KG	ROOT WEIGHT KG	LEAF AREA SQ. M.	CROWN WIDTH M	CROWN DEPTH M	BOLE TOP DIAM. CM	BARK THICK. CM	AGE	MEAN RADIAL INCR. MM
9	701	267	0.0	0.68	0.00189	0.0	0.0	0.00298	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	702	267	0.0	1.09	0.04059	0.0	0.0	0.08283	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	703	267	0.0	0.90	0.04488	0.0	0.0	0.09814	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	704	267	0.0	0.81	0.01912	0.0	0.0	0.03796	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	705	267	0.0	0.32	0.00391	0.0	0.0	0.00470	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	706	267	0.0	0.41	0.00107	0.0	0.0	0.00159	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	707	267	0.0	0.34	0.00754	0.0	0.0	0.01314	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	708	267	0.0	0.22	0.00084	0.0	0.0	0.00130	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	709	267	0.0	1.45	0.04813	0.0	0.0	0.11341	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	710	267	0.0	1.21	0.08022	0.0	0.0	0.17037	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	711	267	0.0	0.32	0.00842	0.0	0.0	0.00899	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	712	267	0.0	0.63	0.01246	0.0	0.0	0.01576	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	713	267	0.0	0.72	0.00347	0.0	0.0	0.00705	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	714	267	0.0	0.38	0.00291	0.0	0.0	0.00511	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	715	267	0.0	0.26	0.00031	0.0	0.0	0.00049	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	716	267	0.0	1.36	0.03545	0.0	0.0	0.07062	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	717	267	0.0	0.63	0.02402	0.0	0.0	0.02474	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	718	267	0.0	1.04	0.01720	0.0	0.0	0.03858	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	719	267	0.0	1.98	0.04216	0.0	0.0	0.12977	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	720	267	0.0	0.77	0.02366	0.0	0.0	0.05151	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	801	239	0.0	0.18	0.00056	0.0	0.0	0.00035	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	803	239	0.0	0.21	0.00027	0.0	0.0	0.00021	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	802	239	0.0	0.29	0.00049	0.0	0.0	0.00032	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	804	239	0.0	0.30	0.00134	0.0	0.0	0.00087	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	805	239	0.0	0.52	0.00171	0.0	0.0	0.00158	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	806	239	0.0	0.23	0.00056	0.0	0.0	0.00040	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	807	239	0.0	0.96	0.00710	0.0	0.0	0.00806	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	808	239	0.0	0.25	0.00067	0.0	0.0	0.00043	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	809	239	0.0	0.16	0.00023	0.0	0.0	0.00021	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	810	239	0.0	0.18	0.00081	0.0	0.0	0.00064	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	811	239	0.0	0.20	0.00059	0.0	0.0	0.00031	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	812	239	0.0	0.23	0.00069	0.0	0.0	0.00052	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	813	239	0.0	1.03	0.00617	0.0	0.0	0.00941	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	814	239	0.0	0.80	0.00799	0.0	0.0	0.01142	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	815	239	0.0	0.49	0.00170	0.0	0.0	0.00192	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	816	239	0.0	0.33	0.00120	0.0	0.0	0.00101	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	817	239	0.0	0.34	0.00122	0.0	0.0	0.00104	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	818	239	0.0	0.48	0.00162	0.0	0.0	0.00236	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	819	239	0.0	0.35	0.00233	0.0	0.0	0.00148	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	820	239	0.0	0.49	0.00238	0.0	0.0	0.00251	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	821	239	0.0	0.41	0.00182	0.0	0.0	0.00179	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	822	239	0.0	0.44	0.00188	0.0	0.0	0.00232	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	823	239	0.0	0.38	0.00119	0.0	0.0	0.00144	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	824	239	0.0	0.34	0.00092	0.0	0.0	0.00095	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	825	239	0.0	0.30	0.00019	0.0	0.0	0.00109	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	826	239	0.0	0.23	0.00051	0.0	0.0	0.00061	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	827	239	0.0	0.47	0.00201	0.0	0.0	0.00230	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	828	239	0.0	0.86	0.00572	0.0	0.0	0.00750	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	829	239	0.0	0.74	0.00387	0.0	0.0	0.00511	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	830	239	0.0	1.94	0.05574	0.0	0.0	0.17148	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	831	239	0.0	1.79	0.02722	0.0	0.0	0.05021	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	832	239	0.0	1.68	0.02086	0.0	0.0	0.04424	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	833	239	0.0	2.30	0.12734	0.0	0.0	0.29322	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	834	239	0.0	1.22	0.00980	0.0	0.0	0.01894	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0

DATA SET NO.	TREE NO.	SPECIES CODE	D.B.H. CM	HEIGHT M	LEAF WEIGHT KG	BRANCH WEIGHT KG	BOLE WEIGHT KG	STEM WEIGHT KG	ROOT WEIGHT KG	LEAF AREA SQ. M.	CROWN WIDTH M	CROWN DEPTH M	BOLE TOP DIAM. CM	BARK THICK. CM	AGE	MEAN RADIAL INCR. MM
9	901	228	0.0	0.33	0.00552	0.0	0.0	0.00283	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	902	228	0.0	0.27	0.00453	0.0	0.0	0.00187	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	903	228	0.0	0.28	0.00153	0.0	0.0	0.00078	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	904	228	0.0	0.34	0.00309	0.0	0.0	0.00304	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	905	228	0.0	0.35	0.00325	0.0	0.0	0.00185	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	906	228	0.0	0.42	0.00370	0.0	0.0	0.00286	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	907	228	0.0	0.55	0.01065	0.0	0.0	0.00785	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	908	228	0.0	0.50	0.00610	0.0	0.0	0.00483	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	909	228	0.0	0.61	0.00977	0.0	0.0	0.00872	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	910	228	0.0	0.37	0.00665	0.0	0.0	0.00428	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	911	228	0.0	0.29	0.00394	0.0	0.0	0.00242	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	912	228	0.0	0.83	0.01896	0.0	0.0	0.02771	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	913	228	0.0	1.05	0.03149	0.0	0.0	0.05396	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	914	228	0.0	0.37	0.00225	0.0	0.0	0.00442	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	915	228	0.0	0.92	0.02233	0.0	0.0	0.03844	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	916	228	0.0	0.89	0.01185	0.0	0.0	0.01795	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	917	228	0.0	0.60	0.00728	0.0	0.0	0.00782	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	918	228	0.0	0.54	0.00846	0.0	0.0	0.01220	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	919	228	0.0	0.36	0.00185	0.0	0.0	0.00262	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	920	228	0.0	0.39	0.00737	0.0	0.0	0.01194	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	921	228	0.0	0.24	0.00092	0.0	0.0	0.00113	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	922	228	0.0	0.49	0.00953	0.0	0.0	0.01763	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	923	228	0.0	0.51	0.00292	0.0	0.0	0.00665	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	924	228	0.0	0.43	0.00393	0.0	0.0	0.00800	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	925	228	0.0	0.28	0.00322	0.0	0.0	0.00566	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	926	228	0.0	1.56	0.04643	0.0	0.0	0.12956	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	927	228	0.0	1.83	0.05259	0.0	0.0	0.14067	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	928	228	0.0	0.56	0.00779	0.0	0.0	0.00717	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	929	228	0.0	0.31	0.00767	0.0	0.0	0.00473	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	930	228	0.0	1.95	0.04916	0.0	0.0	0.14052	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	931	228	0.0	2.48	0.09298	0.0	0.0	0.29278	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
9	932	228	0.0	2.46	0.07691	0.0	0.0	0.28004	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0

DATA SET NO.	TREE NO.	SPECIES CODE	D.B.H. CM	HEIGHT M	LEAF WEIGHT KG	BRANCH WEIGHT KG	BOLE WEIGHT KG	STEM WEIGHT KG	ROOT WEIGHT KG	LEAF AREA SQ. M.	CROWN WIDTH M	CROWN DEPTH M	BOLE TOP DIAM. CM	BARK THICK. CM	AGE	MEAN RADIAL INCR. MM
10	1	254	0.0	0.72	0.00940	0.0	0.0	0.03210	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	2	254	0.0	0.45	0.00140	0.0	0.0	0.00310	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	3	254	0.0	1.17	0.02070	0.0	0.0	0.06570	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	4	254	0.0	0.28	0.00120	0.0	0.0	0.00360	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	5	254	0.0	1.30	0.04770	0.0	0.0	0.18390	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	6	254	0.0	1.39	0.02730	0.0	0.0	0.07850	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	7	254	0.0	0.56	0.00860	0.0	0.0	0.01920	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	8	254	0.0	0.26	0.00130	0.0	0.0	0.00190	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	9	254	0.0	0.63	0.01010	0.0	0.0	0.02160	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	10	254	0.0	0.54	0.00220	0.0	0.0	0.00370	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	11	114	0.0	0.49	0.00860	0.0	0.0	0.01020	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	12	114	0.0	0.51	0.01580	0.0	0.0	0.00850	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	13	114	0.0	1.53	0.03060	0.0	0.0	0.08060	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	14	114	0.0	0.99	0.02990	0.0	0.0	0.03700	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	15	114	0.0	2.13	0.02710	0.0	0.0	0.16240	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	16	114	0.0	0.41	0.00130	0.0	0.0	0.00170	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	17	114	0.0	0.68	0.00800	0.0	0.0	0.00910	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	18	114	0.0	1.27	0.03540	0.0	0.0	0.05150	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	19	114	0.0	0.33	0.00360	0.0	0.0	0.00130	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	20	114	0.0	0.58	0.01470	0.0	0.0	0.00950	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	21	203	0.0	0.91	0.03530	0.0	0.0	0.09200	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	22	203	0.0	1.49	0.06140	0.0	0.0	0.15950	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	23	203	0.0	0.76	0.02410	0.0	0.0	0.04800	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	24	203	0.0	0.83	0.02800	0.0	0.0	0.05180	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	25	203	0.0	0.81	0.01290	0.0	0.0	0.02390	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	26	203	0.0	1.49	0.05160	0.0	0.0	0.13310	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	27	203	0.0	0.28	0.00110	0.0	0.0	0.00140	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	28	203	0.0	2.24	0.10000	0.0	0.0	0.20030	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	29	203	0.0	0.50	0.01730	0.0	0.0	0.01010	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	30	203	0.0	0.17	0.00140	0.0	0.0	0.00090	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	31	201	0.0	1.36	0.04150	0.0	0.0	0.07680	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	32	201	0.0	1.54	0.05220	0.0	0.0	0.12650	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	33	201	0.0	1.18	0.02520	0.0	0.0	0.07740	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	34	201	0.0	0.99	0.02600	0.0	0.0	0.04530	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	35	201	0.0	0.68	0.01720	0.0	0.0	0.02450	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	36	201	0.0	0.63	0.01730	0.0	0.0	0.02020	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	37	201	0.0	0.33	0.00350	0.0	0.0	0.00390	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	38	201	0.0	1.90	0.05700	0.0	0.0	0.38030	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	39	201	0.0	0.76	0.03190	0.0	0.0	0.05290	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	40	201	0.0	0.50	0.01220	0.0	0.0	0.01290	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	41	235	0.0	0.94	0.00450	0.0	0.0	0.02580	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	42	235	0.0	0.74	0.00400	0.0	0.0	0.01220	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	43	235	0.0	1.55	0.05130	0.0	0.0	0.08080	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	44	235	0.0	0.51	0.00330	0.0	0.0	0.00280	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	45	235	0.0	0.43	0.00320	0.0	0.0	0.00340	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	46	235	0.0	1.37	0.02190	0.0	0.0	0.05370	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	47	235	0.0	0.38	0.00210	0.0	0.0	0.00180	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	48	235	0.0	1.09	0.01460	0.0	0.0	0.03460	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	49	235	0.0	0.40	0.00100	0.0	0.0	0.00140	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
10	50	235	0.0	1.47	0.04820	0.0	0.0	0.09360	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0

DATA SET NO.	TREE NO.	SPECIES CODE	D.B.H. CM	HEIGHT M	LEAF WEIGHT KG	BRANCH WEIGHT KG	BOLE WEIGHT KG	STEM WEIGHT KG	ROOT WEIGHT KG	LEAF AREA SQ. M.	CROWN WIDTH M	CROWN DEPTH M	BOLE TOP DIAM. CM	BARK THICK. CM	AGE	MEAN RADIAL INCR. MM
13	5	239	17.00	17.40	0.0	14.300	88.400	0.0	0.0	0.0	4.800	8.800	11.90	0.700	33	4.600
13	6	256	7.10	11.30	0.0	2.980	17.200	0.0	0.0	0.0	2.550	5.500	4.80	0.440	32	0.650
13	7	267	12.50	12.00	0.0	11.500	39.830	0.0	0.0	0.0	3.850	3.700	8.40	0.680	45	0.0
13	10	222	11.20	14.30	0.0	7.930	44.600	0.0	0.0	0.0	3.700	7.800	8.90	0.730	43	0.900
13	12	234	11.40	12.20	0.0	7.320	32.750	0.0	0.0	0.0	4.300	6.000	8.60	0.650	47	0.0
13	150	203	17.00	13.70	0.0	34.070	115.050	0.0	0.0	0.0	4.750	6.400	12.00	0.950	35	2.600
13	1	253	8.90	10.40	0.0	5.290	18.200	0.0	0.0	0.0	3.350	5.180	6.60	0.450	32	1.400
13	3	254	7.90	7.60	0.0	8.780	8.660	0.0	0.0	0.0	4.000	4.570	6.90	0.300	28	0.800
13	4	238	13.50	16.30	0.0	15.260	66.300	0.0	0.0	0.0	4.500	10.400	10.40	0.340	36	1.600
13	11	238	7.10	11.30	0.0	2.500	11.770	0.0	0.0	0.0	3.700	7.000	6.10	0.190	29	0.950
13	13	234	7.90	9.10	0.0	2.820	13.000	0.0	0.0	0.0	3.550	5.180	6.40	0.480	23	1.200
13	148	256	14.00	14.00	0.0	11.130	64.150	0.0	0.0	0.0	3.120	7.600	8.90	0.790	34	1.250
13	149	239	14.50	17.00	0.0	7.680	60.260	0.0	0.0	0.0	4.270	7.770	10.20	0.580	34	3.750
13	182	267	7.10	8.50	0.0	2.090	10.310	0.0	0.0	0.0	2.750	4.000	5.30	0.390	25	1.200
13	183	201	13.00	12.80	0.0	11.040	59.880	0.0	0.0	0.0	4.450	5.500	7.90	0.950	32	2.300
13	187	267	5.80	8.10	0.0	0.650	6.160	0.0	0.0	0.0	2.800	1.520	3.10	0.410	27	1.400
13	184	222	24.90	19.50	0.0	132.030	291.470	0.0	0.0	0.0	5.800	6.700	21.30	1.300	36	2.300
13	185	228	16.50	15.50	0.0	28.380	114.600	0.0	0.0	0.0	3.350	8.840	12.70	0.560	34	2.000
13	186	256	10.90	12.50	0.0	6.290	34.060	0.0	0.0	0.0	2.700	6.710	7.40	0.480	27	0.900
13	8	222	23.90	21.90	0.0	47.910	299.400	0.0	0.0	0.0	5.650	13.700	19.80	1.280	40	2.150
13	9	222	17.50	19.50	0.0	19.030	153.900	0.0	0.0	0.0	4.350	9.100	12.40	1.100	51	1.730
13	16	267	26.40	14.90	0.0	22.230	136.660	0.0	0.0	0.0	4.950	6.700	12.20	1.080	75	0.0
13	14	251	13.70	14.60	0.0	27.550	63.130	0.0	0.0	0.0	8.080	10.400	12.20	0.140	60	2.330
13	34	222	26.20	16.80	0.0	108.010	301.090	0.0	0.0	0.0	6.850	12.800	25.10	1.540	29	3.180
13	145	111	12.40	14.00	1.64000	3.850	36.530	0.0	0.0	0.0	5.800	4.900	7.40	0.063	25	0.870
13	146	111	19.80	16.50	5.70000	17.430	108.470	0.0	0.0	0.0	4.600	6.400	15.20	0.128	27	2.050
13	17	253	19.60	17.10	0.0	29.270	121.110	0.0	0.0	0.0	5.850	11.600	17.00	0.680	45	2.700
13	18	201	13.70	14.90	0.0	16.220	73.160	0.0	0.0	0.0	4.750	7.600	10.20	0.880	32	1.850
13	147	111	10.70	13.90	0.50000	1.380	22.110	0.0	0.0	0.0	1.900	5.000	5.60	0.043	18	0.600

DATA SET NO.	TREE NO.	SPECIES CODE	D.B.H. CM	HEIGHT M	LEAF WEIGHT KG	BRANCH WEIGHT KG	BOLE WEIGHT KG	STEM WEIGHT KG	ROOT WEIGHT KG	LEAF AREA SQ. M.	CROWN WIDTH M	CROWN DEPTH M	BOLE TOP DIAM. CM	BARK THICK. CM	AGE	MEAN RADIAL INCR. MM
14	1	201	60.96	25.90	0.0	1403.500	1427.000	0.0	0.0	0.0	15.540	13.700	46.33	3.180	125	0.0

DATA SET NO.	TREE NO.	SPECIES CODE	D.B.H. CM	HEIGHT M	LEAF WEIGHT KG	BRANCH WEIGHT KG	BOLE WEIGHT KG	STEM WEIGHT KG	ROOT WEIGHT KG	LEAF AREA SQ. M.	CROWN WIDTH M	CROWN DEPTH M	BOLE TOP DIAM. CM	BARK THICK. CM	AGE	MEAN RADIAL INCR. MM
19	3	205	11.40	8.27	0.0	4.191	55.655	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
19	21	205	12.20	11.20	0.0	5.110	80.013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
19	2	205	12.40	6.98	0.0	6.832	56.336	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
19	22	205	12.40	10.70	0.0	6.861	73.560	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
19	8	205	14.70	8.45	0.0	16.966	95.420	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
19	20	205	17.00	10.30	0.0	28.162	150.520	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
19	35	211	17.80	10.50	0.0	37.693	128.250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
19	36	205	28.20	15.50	0.0	158.470	437.960	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
19	32	225	30.20	16.50	0.0	367.660	532.970	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
19	9	205	33.80	13.50	0.0	86.755	513.330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0

DATA SET NO.	TREE NO.	SPECIES CODE	D.B.H. CM	HEIGHT M	LEAF WEIGHT KG	BRANCH WEIGHT KG	BOLE WEIGHT KG	STEM WEIGHT KG	ROOT WEIGHT KG	LEAF AREA SQ. M.	CROWN WIDTH M	CROWN DEPTH M	BOLE TOP DIAM. CM	BARK THICK. CM	AGE	MEAN RADIAL INCR. MM
22	102	127	5.80	5.03	1.47250	1.600	4.364	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
22	103	127	6.90	6.01	2.36710	2.583	6.472	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
22	106	127	7.10	5.43	2.10370	3.464	6.090	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
22	104	127	8.60	6.19	2.50060	2.954	11.360	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
22	108	127	9.70	7.84	2.74600	3.546	14.957	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
22	109	127	9.90	6.41	3.83370	5.010	14.129	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
22	107	127	12.20	8.24	5.79960	10.163	24.927	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
22	115	127	18.30	15.10	12.23600	24.674	78.924	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
22	114	127	18.80	16.00	10.20900	22.583	97.784	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
22	113	127	19.80	16.10	17.39799	45.275	128.870	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
22	116	127	24.90	20.20	30.95900	99.672	240.460	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
22	110	127	33.80	24.00	24.39899	64.840	393.070	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
22	105	127	44.70	27.00	58.24300	235.980	855.030	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
22	111	127	71.60	30.30	99.16800	584.750	2260.800	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
22	101	127	71.60	32.80	63.35100	359.290	2422.300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
23	108	251	1.30	2.59	0.0	0.106	0.266	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
23	105	251	2.50	3.42	0.0	0.266	0.664	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
23	106	251	3.00	4.21	0.0	0.584	1.567	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
23	103	251	3.00	3.96	0.0	0.744	0.930	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
23	102	251	3.30	4.06	0.0	0.664	1.301	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
23	111	251	5.60	6.74	0.0	0.717	4.966	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
23	117	251	6.60	10.60	0.0	5.471	7.286	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
23	118	251	7.40	10.60	0.0	5.019	13.119	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
23	120	251	7.60	9.85	0.0	5.152	12.266	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
23	121	251	8.10	10.40	0.0	3.001	14.620	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
23	119	251	11.40	10.90	0.0	15.483	36.076	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
23	122	251	16.30	16.20	0.0	23.318	85.387	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
23	109	251	17.50	17.50	0.0	26.505	133.850	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
23	112	251	24.10	17.00	0.0	113.830	239.720	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
23	110	251	25.10	17.50	0.0	150.560	242.880	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
23	113	251	28.20	18.90	0.0	87.295	365.720	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
23	115	251	33.30	18.80	0.0	351.120	442.140	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
25	1	238	15.50	15.70	0.0	16.465	93.178	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
25	3	238	35.30	20.80	0.0	147.790	687.770	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
25	2	238	3.60	7.47	0.0	0.648	2.455	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
25	1	309	6.30	8.33	0.37800	1.418	7.724	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
25	2	309	15.50	13.50	2.53600	18.439	59.822	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
25	3	309	27.70	20.80	4.32460	32.061	266.730	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
25	20	309	41.90	27.00	19.70200	299.930	558.780	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
25	103	126	80.30	32.60	49.01999	1589.900	3741.800	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
25	101	126	85.10	26.50	57.07999	1654.700	3183.200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
25	102	126	68.60	24.00	37.70999	730.680	2017.700	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0

DATA SET NO.	TREE NO.	SPECIES CODE	D.B.H. CM	HEIGHT M	LEAF WEIGHT KG	BRANCH WEIGHT KG	BOLE WEIGHT KG	STEM WEIGHT KG	ROOT WEIGHT KG	LEAF AREA SQ. M.	CROWN WIDTH M	CROWN DEPTH M	BOLE TOP DIAM. CM	BARK THICK. CM	AGE	MEAN RADIAL INCR. MM
28	102	228	5.10	7.47	0.93580	1.875	5.806	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
28	106	228	7.60	9.91	0.81090	1.349	14.830	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
28	103	228	10.20	12.00	2.34400	6.081	32.710	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
28	105	228	12.70	13.20	3.22000	8.253	46.860	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
28	107	228	15.20	19.10	4.08300	12.200	99.880	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
28	104	228	17.30	16.50	5.31800	19.180	112.800	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
28	119	228	20.10	16.60	6.54000	23.790	150.200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
28	112	228	32.80	19.40	20.80199	163.070	374.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
28	111	228	35.30	19.20	27.62799	157.570	439.300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
28	110	228	39.10	19.50	30.43500	238.430	652.800	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
28	108	228	39.40	19.60	43.17400	388.610	586.400	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
28	101	228	44.20	27.90	28.52399	235.840	942.300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
28	109	228	44.40	21.60	49.25899	455.640	856.100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
28	116	228	50.80	28.20	43.18799	324.060	1157.300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
28	115	228	55.40	25.00	64.74500	581.010	1764.900	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
28	113	228	59.20	29.30	62.29999	734.280	2124.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
28	114	228	61.00	28.60	46.63799	553.130	2137.300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
28	117	228	63.50	33.70	49.73599	520.820	2609.800	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
28	118	228	64.00	29.00	40.32399	416.950	1900.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0

DATA SET NO.	TREE NO.	SPECIES CODE	D.B.H. CM	HEIGHT M	LEAF WEIGHT KG	BRANCH WEIGHT KG	BOLE WEIGHT KG	STEM WEIGHT KG	ROOT WEIGHT KG	LEAF AREA SQ. M.	CROWN WIDTH M	CROWN DEPTH M	BOLE TOP DIAM. CM	BARK THICK. CM	AGE	MEAN RADIAL INCR. MM
31	1	239	2.50	4.00	0.23830	0.942	0.788	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
31	3	239	8.10	12.60	0.59410	1.596	14.109	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
31	2	239	14.50	14.60	2.67400	11.982	52.034	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
31	6	239	17.80	14.80	4.57800	18.905	72.843	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
31	4	239	23.60	18.40	4.57500	26.598	140.970	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
31	5	239	33.50	21.30	15.66600	88.584	328.260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
31	13	238	6.90	9.39	0.0	6.805	8.702	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
31	14	513	3.80	5.76	0.11800	0.406	1.721	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
31	16	267	4.10	5.92	0.54200	1.540	2.366	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
31	12	268	4.80	7.78	0.78400	2.506	3.469	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
31	11	277	6.10	7.69	0.56700	2.517	5.302	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
31	15	254	6.30	8.54	0.36100	1.245	6.469	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0

DATA SET NO.	TREE NO.	SPECIES CODE	D.B.H. CM	HEIGHT M	LEAF WEIGHT KG	BRANCH WEIGHT KG	BOLE WEIGHT KG	STEM WEIGHT KG	ROOT WEIGHT KG	LEAF AREA SQ. M.	CROWN WIDTH M	CROWN DEPTH M	BOLE TOP DIAM. CM	BARK THICK. CM	AGE	MEAN RADIAL INCR. MM
32	102	257	7.40	13.60	0.87750	4.007	19.504	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
32	101	257	15.50	19.50	2.68910	41.330	118.410	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
32	104	257	38.10	25.60	13.68100	135.250	758.660	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
32	103	257	44.20	27.90	15.09700	164.040	931.750	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
32	201	231	7.90	10.50	0.03587	1.605	8.845	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
32	203	231	12.70	16.70	0.17597	5.306	33.485	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
32	202	231	22.60	22.40	1.45170	32.220	145.060	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
32	204	231	34.30	25.00	6.53590	130.920	352.830	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
32	205	231	48.00	29.40	12.10900	287.630	805.350	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0

DATA SET NO.	TREE NO.	SPECIES CODE	D.B.H. CM	HEIGHT M	LEAF WEIGHT KG	BRANCH WEIGHT KG	BOLE WEIGHT KG	STEM WEIGHT KG	ROOT WEIGHT KG	LEAF AREA SQ. M.	CROWN WIDTH M	CROWN DEPTH M	BOLE TOP DIAM. CM	BARK THICK. CM	AGE	MEAN RADIAL INCR. MM
32	5	230	8.10	13.70	0.07477	0.948	9.980	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
32	6	230	12.20	16.40	0.43720	7.224	25.079	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
32	3	230	17.80	23.70	0.57430	8.191	90.521	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
32	2	230	22.90	26.10	1.25000	24.686	172.690	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
32	4	230	30.00	23.00	4.95210	59.952	192.880	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
32	1	230	32.80	26.30	4.57550	74.778	295.750	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
32	303	250	4.80	9.91	0.39000	1.980	4.939	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
32	501	318	10.20	13.20	0.16250	1.883	41.353	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
32	301	266	12.70	19.50	1.76900	13.867	57.712	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
32	401	247	14.00	16.80	1.34200	8.758	50.535	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
32	601	250	15.50	19.30	1.13400	20.940	90.106	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
32	602	250	26.20	24.60	2.89100	36.754	224.630	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
32	603	266	28.40	27.00	6.46700	96.940	383.210	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
32	302	266	7.60	14.80	0.39800	1.679	15.486	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0

DATA SET NO.	TREE NO.	SPECIES CODE	D.B.H. CM	HEIGHT M	LEAF WEIGHT KG	BRANCH WEIGHT KG	BOLE WEIGHT KG	STEM WEIGHT KG	ROOT WEIGHT KG	LEAF AREA SQ. M.	CROWN WIDTH M	CROWN DEPTH M	BOLE TOP DIAM. CM	BARK THICK. CM	AGE	MEAN RADIAL INCR. MM
41	7	239	4.10	7.87	0.0	0.134	2.392	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
41	8	239	5.10	6.65	0.0	0.582	3.906	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
41	9	239	9.10	12.80	0.0	2.975	18.211	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
41	5	239	12.20	15.10	0.0	6.107	41.974	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
41	12	239	14.00	18.90	0.0	3.557	62.261	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
41	4	239	15.20	19.60	0.0	7.718	73.504	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
41	10	239	17.00	18.20	0.0	6.018	82.622	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
41	14	239	21.30	21.80	0.0	13.333	147.720	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
41	13	239	24.60	22.10	0.0	44.138	209.640	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
41	2	239	25.10	23.10	0.0	23.725	214.800	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
41	6	239	31.50	26.90	0.0	67.359	411.810	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
41	3	239	38.60	27.50	0.0	137.920	675.390	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
41	1	239	39.40	22.90	0.0	104.790	470.100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
42	4	251	1.70	4.03	0.0	0.533	1.115	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
42	5	251	1.80	4.82	0.0	0.908	0.728	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
42	8	251	2.00	4.33	0.0	0.783	1.003	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
42	6	251	2.30	4.57	0.0	0.971	1.135	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
42	11	251	3.00	3.42	0.0	1.942	1.844	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
42	10	251	3.00	5.79	0.0	2.130	2.715	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
42	12	251	3.00	5.58	0.0	1.535	1.908	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
42	13	251	4.10	6.10	0.0	1.629	3.548	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
42	7	251	4.30	7.01	0.0	2.944	4.461	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
42	1	251	6.30	9.61	0.0	8.442	11.496	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
42	17	251	17.80	12.40	0.0	30.041	129.560	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
42	18	251	20.30	12.40	0.0	49.399	154.240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
42	2	251	22.90	18.70	0.0	103.000	300.660	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
42	16	251	38.60	23.00	0.0	575.470	797.830	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
43	4	231	2.80	3.87	0.0	1.363	0.819	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
43	3	231	2.80	3.02	0.0	0.694	0.626	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
43	2	231	3.00	3.72	0.0	0.772	0.812	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
43	9	231	4.10	5.64	0.0	1.414	1.706	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
43	5	231	4.80	4.27	0.0	2.675	2.081	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
43	8	231	5.10	7.44	0.0	2.392	3.240	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
43	6	231	5.80	6.71	0.0	2.186	3.729	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
43	7	231	6.10	6.86	0.0	3.215	4.258	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
43	10	231	18.30	18.50	0.0	10.694	96.447	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
43	11	231	18.50	20.40	0.0	20.767	104.670	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
43	12	231	20.80	19.10	0.0	6.364	121.140	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
43	13	231	32.50	17.80	0.0	199.130	221.200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
43	15	231	45.20	25.50	0.0	322.520	707.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
43	1	231	51.80	16.50	0.0	102.570	665.300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
43	16	231	55.90	24.60	0.0	810.970	1076.500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0

DATA SET NO.	TREE NO.	SPECIES CODE	D.B.H. CM	HEIGHT M	LEAF WEIGHT KG	BRANCH WEIGHT KG	BOLE WEIGHT KG	STEM WEIGHT KG	ROOT WEIGHT KG	LEAF AREA SQ. M.	CROWN WIDTH M	CROWN DEPTH M	BOLE TOP DIAM. CM	BARK THICK. CM	AGE	MEAN RADIAL INCR. MM
46	205	235	2.50	6.28	0.75770	1.295	1.207	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
46	201	235	6.30	7.32	1.11200	2.114	6.156	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
46	202	235	12.20	10.90	1.68400	4.070	33.658	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
46	203	235	13.00	13.70	2.90200	7.236	48.146	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
46	204	235	20.60	19.30	8.17500	21.596	136.450	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
47	201	257	42.20	29.30	8.29100	199.100	1059.900	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
47	203	257	46.50	27.90	10.60900	324.970	1374.700	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
47	205	257	54.10	28.10	9.22300	396.620	1654.800	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
47	204	257	58.70	32.40	17.15799	454.880	2441.600	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
47	202	257	60.70	30.60	19.58699	823.360	2179.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
48	202	261	6.10	10.60	0.41640	2.150	10.751	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
48	203	261	7.60	11.80	0.69300	3.277	14.038	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
48	205	261	12.40	12.10	2.02840	23.657	47.574	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
48	204	261	17.30	18.40	4.11740	45.351	119.620	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
48	201	261	25.90	22.60	14.44600	341.340	341.130	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
49	201	312	6.90	8.08	0.51230	1.645	5.330	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
49	203	312	8.10	8.97	1.03090	3.875	9.535	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
49	204	312	9.90	9.76	1.95420	7.014	15.222	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
49	202	312	14.20	10.20	3.68860	14.774	33.244	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
49	206	312	25.70	8.78	12.34400	256.380	121.710	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
50	201	277	8.60	10.50	0.50080	1.731	17.474	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
50	202	277	9.10	8.36	0.27850	0.471	11.660	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
50	204	277	13.70	13.40	1.98300	9.755	49.506	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
50	203	277	15.20	13.90	3.00400	12.204	59.841	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
51	201	401	2.00	2.96	0.17100	0.393	0.572	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
51	202	254	6.30	7.72	0.74700	3.331	6.398	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
51	201	254	11.20	8.78	2.91800	23.609	18.517	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
51	201	203	72.90	30.60	22.48999	952.200	2485.500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
52	201	238	38.10	12.60	0.0	45.547	509.530	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
52	202	238	45.50	15.80	0.0	64.577	796.110	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
52	203	238	7.10	7.47	0.0	5.857	12.867	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
53	201	318	8.90	8.69	0.88370	9.657	39.394	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
53	203	318	19.60	13.70	2.93970	38.047	142.200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
53	202	318	25.40	13.40	6.84050	127.800	166.100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
54	202	309	23.40	12.30	3.06920	22.595	143.930	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
54	201	309	27.40	15.40	6.08670	43.561	224.450	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
55	203	251	7.60	7.78	0.74530	4.327	13.530	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
55	202	251	11.70	9.67	1.01090	8.827	31.190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
55	205	251	17.00	9.39	2.04900	33.020	65.890	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
55	209	251	20.10	12.10	1.71780	28.050	97.230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
55	204	251	23.90	11.20	2.76360	54.210	147.990	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
55	207	251	28.40	13.40	3.07900	88.010	256.040	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
55	206	251	33.00	13.30	3.59780	126.830	433.870	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
55	208	251	51.60	19.00	8.78510	385.440	1282.400	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0

Appendix 2. Listing of computer programs used in preparation of this report.

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LEVEL 19.6 (DEC. 70)                                    OS/360  FORTRAN H

          COMPILER OPTIONS - NAME=  MAIN,OPT=02,LINECNT=60,SIZE=0000K,
                             SOURCE,EBCDIC,NOLIST,NODECK,LOAD,MAP,NOEDIT,NOID,NOXREF
 ISN 0002            INTEGER AGE
 ISN 0003            REAL LEAF
 ISN 0004         10 READ(50,201,END=99) IPLOT,ITREE,ISPEC,DBH,HEIGHT,LEAF,BRANCH,
                   1 BOLE,STEM,ROOT,AREA,CROWNW,CROWND,DTOP,BARK,AGE,RADINC
 ISN 0005        201 FORMAT (3I3,F5.0,F4.0,F6.0,5F6.0,F5.0,F4.0,F5.0,F4.0,I3,F4.0)
 ISN 0006            IF (IPLOT .NE. 0) GO TO 20
                C
                C  PRINT HEADING
 ISN 0008            PRINT 100
 ISN 0009            PRINT 101
 ISN 0010            PRINT 102
 ISN 0011            PRINT 103
 ISN 0012        100 FORMAT ('1DATA  TREE SPECIES  D.A.G.  HEIGHT',
                   1      T40,'LEAF     BRANCH     BOLE      STEM      ROOT    LEAF',
                   2      T55,'CROWN   CROWN  BOLE   BARK        MEAN')
 ISN 0013        101 FORMAT ('  SET   NO.   CODE     CM',T32,'M     ',5('  WEIGHT  '),
                   1     T88,'AREA   WIDTH   DEPTH   TOP  THICK. AGE  RADIAL')
 ISN 0014        102 FORMAT ('  NO.',T33,5(8X,'KG'),
                   1     T87,'SQ. M.    M       M    DIAM.   CM          INCR.'/' ',
                   2     T130,'MM', T111,'CM')
 ISN 0015        103 FORMAT (' ')
 ISN 0016            GO TO 10
                C
 ISN 0017         20 PRINT 200,IPLOT,ITREE,ISPEC,DBH,HEIGHT,LEAF,BRANCH,BOLE,STEM,
                   1          ROOT,AREA,CROWNW,CROWND,DTOP,BARK,AGE,RADINC
 ISN 0018        200 FORMAT(1X,I4,I6,I7,F9.2,F8.2,F10.5,2F10.3,F10.5,F10.4,
                   1                                  F6.2,2F8.3,F6.2,F7.3,I5,F8.3)
 ISN 0019            GO TO 10
                C
 ISN 0020         99 STOP
 ISN 0021            END
```

```
LEVEL 19.6 (DEC. 70)                                    OS/360  FORTRAN H

          COMPILER OPTIONS - NAME=  MAIN,OPT=02,LINECNT=60,SIZE=0000K,
                             SOURCE,EBCDIC,NOLIST,NODECK,LOAD,MAP,NOEDIT,NOID,NOXREF
 ISN 0002            INTEGER AGE
 ISN 0003            REAL LEAF
 ISN 0004         10 READ(50,201,END=99) IPLOT,ITREE,ISPEC,DBH,HEIGHT,LEAF,BRANCH,
                   1 BOLE,STEM,ROOT,AREA,CROWNW,CROWND,DTOP,BARK,AGE,RADINC
 ISN 0005        201 FORMAT (3I3,F5.0,F4.0,F6.0,5F6.0,F5.0,F4.0,F5.0,F4.0,I3,F4.0)
 ISN 0006            IF (IPLOT .NE. 0) GO TO 20
               C
               C  PRINT HEADING
 ISN 0008            PRINT 100
 ISN 0009            PRINT 101
 ISN 0010            PRINT 102
 ISN 0011            PRINT 103
 ISN 0012        100 FORMAT ('1DATA  TREE SPECIES  D.B.H.  HEIGHT',
                   1      T40,'LEAF      BRANCH      BOLE       STEM       ROOT     LEAF',
                   2      T95,'CROWN   CROWN  BOLE    BARK          MEAN')
 ISN 0013        101 FORMAT ('  SET   NO.   CODE      CM',T32,'M     ',5('  WEIGHT  '),
                   1     T88,'AREA   WIDTH   DEPTH   TOP  THICK. AGE  RADIAL')
 ISN 0014        102 FORMAT ('  NO.',T33,5(8X,'KG'),
                   1     T87,'SQ. M.     M        M     DIAM.   CM          INCR.'/' ',
                   2     T130,'MM', T111,'CM')
 ISN 0015        103 FORMAT (' ')
 ISN 0016            GO TO 10
               C
 ISN 0017         20 PRINT 200,IPLOT,ITREE,ISPEC,DBH,HEIGHT,LEAF,BRANCH,BOLE,STEM,
                   1          ROOT,AREA,CROWNW,CROWND,DTOP,BARK,AGE,RADINC
 ISN 0018        200 FORMAT(1X,I4,I6,I7,F9.2,F8.2,F10.5,2F10.3,F10.5,F10.4,
                   1                                   F6.2,2F8.3,F6.2,F7.3,I5,F8.3)
 ISN 0019            GO TO 10
               C
 ISN 0020         99 STOP
 ISN 0021            END
```

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LEVEL 19.6 (DEC. 70)                                OS/360  FORTRAN H

          COMPILER OPTIONS - NAME=  MAIN,OPT=02,LINECNT=60,SIZE=0000K,
                             SOURCE,EECDIC,NOLIST,NODECK,LCAD,MAP,NCEDIT,NOID,NOXREF
 ISN 0002            INTEGER TALLY(600,10),SUM(10)
               C  ZERO ACCUMULATORS
 ISN 0003            DO 19 J=1,10
 ISN 0004            DO 17 I=1,600
 ISN 0005         17 TALLY(I,J) = 0
 ISN 0006         19 SUM(J) = 0
               C
               C  READ AND FIND RIGHT SLOT
 ISN 0007         20 READ (50,100,END=50) ISPEC,DBH,HEIGHT
 ISN 0008        100 FORMAT (T7,I3,F5.0,F4.0)
               C  SKIP BLANK CARDS SEPARATING PLOTS
 ISN 0009            IF (ISPEC .EQ. 0) GO TO 20
 ISN 0011            IF (HEIGHT .LT. 1.  .OR.  DBH .LT. 1.) GO TO 22
 ISN 0013            IF ((HEIGHT .GE. 1. .AND. HEIGHT .LT. 5.) .OR. (DBH  .GE. 1.
                    1      .AND. DBH .LT. 5.)) GO TO 23
 ISN 0015            IF (DBH .LT. 10.) GO TO 24
 ISN 0017            IF (DBH .LT. 15.) GO TO 25
 ISN 0019            IF (DBH .LT. 20.) GO TO 26
 ISN 0021            IF (DBH .LT. 30.) GO TO 27
 ISN 0023            IF (DBH .LT. 40.) GO TO 28
 ISN 0025            IF (DBH .LT. 50.) GO TO 29
 ISN 0027            I=10
 ISN 0028            GO TO 40
               C
 ISN 0029         22 I=2
 ISN 0030            GO TO 40
 ISN 0031         23 I=3
 ISN 0032            GO TO 40
 ISN 0033         24 I=4
 ISN 0034            GO TO 40
 ISN 0035         25 I=5
 ISN 0036            GO TO 40
 ISN 0037         26 I=6
 ISN 0038            GO TO 40
 ISN 0039         27 I=7
 ISN 0040            GO TO 40
 ISN 0041         28 I=8
 ISN 0042            GO TO 40
 ISN 0043         29 I=9
               C
               C  NOW TALLY RIGHT SLOT AND TOTAL
 ISN 0044         40 TALLY(ISPEC,I) = TALLY(ISPEC,I)+1
 ISN 0045            TALLY(ISPEC,1) = TALLY(ISPEC,1) + 1
 ISN 0046            GO TO 20
               C
               C  GET GRAND TOTALS
 ISN 0047         50 DO 57 I=1,600
 ISN 0048            DO 57 J=1,10
 ISN 0049         57 SUM(J) = SUM(J) + TALLY(I,J)
               C
               C  PRINT IT OUT WITH HEADING
 ISN 0050            PRINT 200
 ISN 0051        200 FORMAT ('1',T11,'TABLE 3.  NUMBER OF SAMPLES IN VARIOUS HEIGHT '
                    1  ,'AND DIAMETER CLASSES.')
 ISN 0052            PRINT 201
 ISN 0053        201 FORMAT ('0SPECIES   TOTAL   DBH<1    DBH<5',T39,'<10',
                    1        T47,'<15     <20     <30     <40     <50     >50'/
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                 2        '  CODE  ',T19,'OR HT<1  OR HI<5'/' ')
ISN 0054            DO 67 I=1,600
ISN 0055            IF (TALLY(I,1).GT. 0) PRINT 210,I     ,(TALLY(I,J),J=1,10)
ISN 0057        210 FORMAT (1X,I5,3X,I6,2X,I7,1X,8I8)
ISN 0058         67 CONTINUE
ISN 0059            PRINT 211, (SUM(J),J=1,10)
ISN 0060        211 FORMAT (' TOTAL    ',I6,2X,I7,1X,8I8)
ISN 0061            STOP
ISN 0062            END
```