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FOREST MANAGEMENT TABLES (METRIC)

Revised by
G. J. Hamilton, M Sc and J. M. Christie

FORESTRY COMMISSION

LONDON
HER MAJESTY'S STATIONERY OFFICE
1971

PREFACE AND ACKNOWLEDGMENTS

This publication is a revised, metric edition of Forestry Commission Booklet No. 16, entitled *Forest Management Tables*, which was produced (in Imperial units) by Messrs R. T. Bradley, J. M. Christie, and D. R. Johnston, and published by HMSO in 1966. The content and coverage of this present version remain, with minor exceptions, fundamentally unchanged from the original booklet, though several changes have been made in the form of presentation.

Minor adjustments have been made to the General Yield Class curves of most species. In all cases these adjustments affect only those parts of the curves in the range below the heights of first thinning. A few additional tables have been included in the booklet and are explained in the appropriate part of the text.

The calculation of the major tables by computer, rather than by the graphical methods used in the original booklet, has been made possible by the mathematical characterisation of all the essential basic growth functions (Christie, 1970). Most printed tables have been produced directly from computer output.

The assistance given in graphical and computational work by the undermentioned members of the Forestry Commission staff is also acknowledged:

M. A. Mitchell
J. Dickinson
R. Q. Oakes
E. J. Fletcher
P. Bond.

A major contribution in computer programming was made by R. Q. Oakes. The General Yield Class curves and Production Class curves were prepared by M. A. Mitchell and J. Dickinson, respectively.

REFERENCE

CHRISTIE, J. M., 1970—*The characterisation of the relationships between basic crop parameters in yield table construction. Proc. 3rd Conf. Advisory Group of Forest Statisticians, Sect. 25 Int. Un. For. Res. Org. Paris* (1971, in press).

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NOTE For scientific names of species, and suggested applications to other species, see Appendix V, *rear endpaper*.

Forest Management Tables (Metric)

INTRODUCTION

The tables included in this booklet are designed as aids to the management of forests in British conditions and where profitability is a primary objective.

The booklet is divided into four parts which are:

Part I — The Yield Class System of Classifying Growth Potential
Part II — Thinning Control
Part III— Production Forecasting
Part IV— Yield Tables

Information on current and future rates of growth is important to management in that it affects the way in which stands may be treated and is an essential requirement for planning purposes. This information can be obtained by describing stands in terms of *yield classes* which are basically a series of growth rate categories. A comprehensive description of the concept of yield class and its assessment is given in Part I, page 2.

In thinning, a major consideration is the rate at which volume is removed from a stand, i.e. the thinning intensity, relative to its growth rate. The thinning intensity assumed in these Management Tables is that which, given the initial plant spacings commonly used in Britain provides the greatest mean diameter increment of the maincrop, consistent with maximum volume production, assuming regular thinning. Part II, page 41, gives guidelines for controlling this intensity which is quantified for each species and yield class.

Another feature of the assumed thinning policy is that the average annual thinning yield remains constant over the thinning life of the crop. The job of forecasting production from crops of known yield class is consequently simplified, and this aspect of management is the subject of Part III, page 67.

Yield tables have for many years been a familiar tool in forest planning. Normal Yield tables embodying the thinning intensity described above are given in Part IV, page 112.

The species covered by the Forest Management Tables are listed in Appendix V (*rear endpaper*). The Appendices, which start on page 196, also include conversion factors and tables, and descriptions of the technical terms used in the booklet.

PART I

THE YIELD CLASS SYSTEM OF CLASSIFYING GROWTH POTENTIAL

THE CONCEPT OF YIELD CLASS

The growth of trees may be quantified in terms of increases in height, weight, volume or dry matter. Only height and volume are relatively easily measured, and of these two, volume is more meaningful for purposes of management. Measurable volume is conventionally described as stemwood over 7 cm diameter overbark.

The pattern of growth in an even-aged stand in terms of volume increment is typically depicted as shown in Figure 1. Some years after planting the volume increment of a stand increases, reaches a peak and falls off thereafter at a rate shown by the curve labelled CAI (Current Annual Increment). This curve represents the annual rate of increase in volume at any point in time. The *average* rate of increase in volume from planting to any point in time is shown by the second curve labelled MAI (Mean Annual Increment). For example at n years the annual volume increment *at that time* is x whilst the average annual volume increment from the time of planting to n years is y.

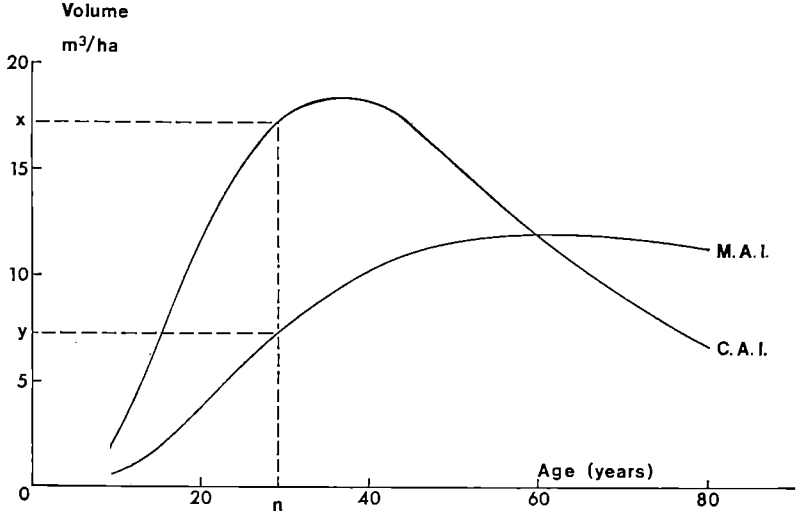


Fig. 1. Patterns of Volume Increment in an even-aged stand.

The MAI curve reaches a maximum level where the two curves meet. This point defines the maximum average rate of volume increment which a particular species can achieve on a particular site. In theory, if the stand were felled repeatedly at this point and replanted with the same species, this maximum average rate of volume production would be maintained in perpetuity.

This general pattern of growth is typical of all even-aged stands, but differences in rates of growth occur with the same species on different sites. For any one species these differences usually follow the pattern outlined in

Figure 2. The faster growing stands have higher maximum mean annual increments which also culminate earlier.

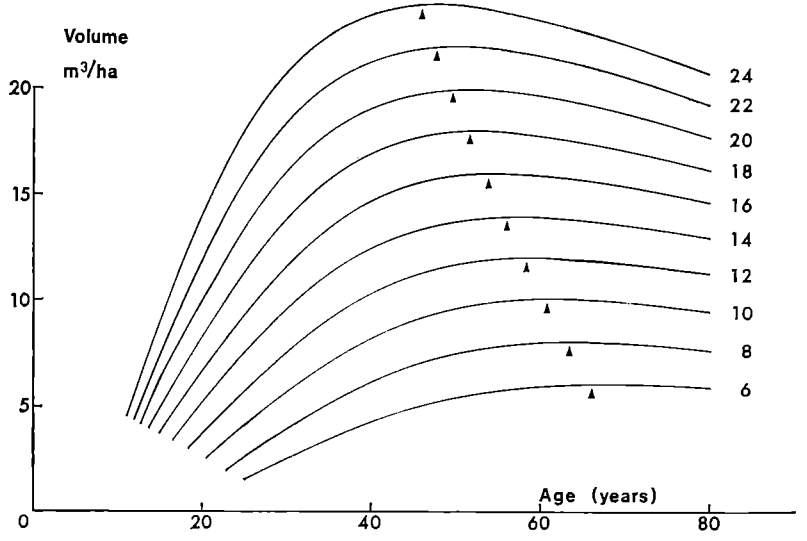


Fig. 2. Mean Annual Volume Increment Curves for Sitka Spruce.

Again, although the same general pattern of growth is true of all species there may be important differences between species. For example, maximum mean annual increments of different species may be of the same magnitude, but may culminate at totally different times. This is illustrated in Figure 3.

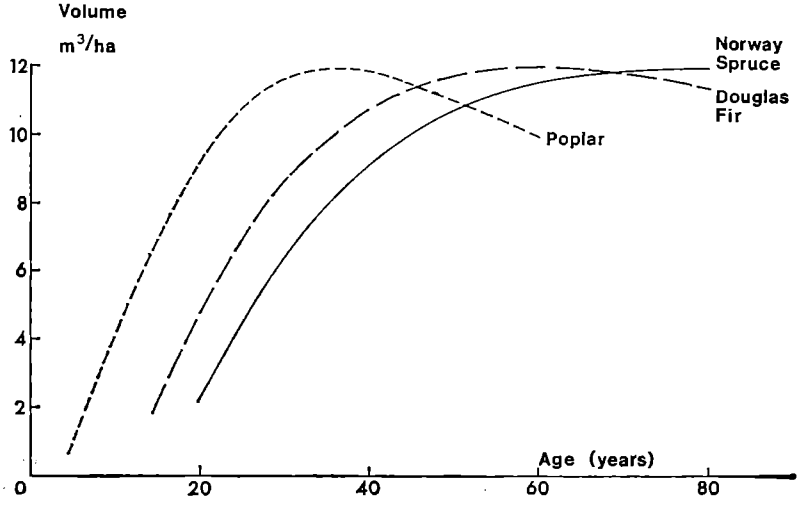


Fig. 3. Mean Annual Volume Increment Curves for Norway Spruce, Douglas Fir, and Poplar, Yield Class 12.

The important point here is that the maximum mean annual increment is the maximum average rate of volume production which can be attained by a given species on a given site, irrespective of the time of culmination, and it is this feature which is the basis of the *Yield Class System.*

The range of maximum mean annual increments commonly encountered in British conditions varies with individual species and can be as low as four cubic metres per hectare for many hardwoods, larch and pines, and as high as thirty cubic metres per hectare in the case of Grand fir. *Yield Classes* are created simply by splitting this range into steps of two cubic metres per hectare and numbered (even numbers) accordingly. Thus a stand of *Yield Class* 14 has a maximum mean annual increment of *about* 14 cubic metres per hectare, i.e. greater than 13 m^3/ha but less than 15 m^3/ha.

Such a classification is of limited use if it can only be used to categorise crops which have already reached their maximum mean annual increment, since part of its purpose is to predict the future rate of growth of younger crops. Ideally stands which have not yet reached the age of maximum mean annual increment would be classified by reference to the mean annual increment curves for the species as in Figure 2. This, however, would necessitate establishing the mean annual increment of the stand, information which is seldom available because previous thinning yields have not been recorded. Even where thinning records are available, or where the stand has not been thinned, the measurement of the main crop volume can prove a relatively expensive procedure if required only for yield class assessment.

General Yield Class

Fortunately, a good relationship exists between top height (the mean height of the 100 trees of largest diameter at breast height (dbh) per hectare) and total (cumulative) volume production of a stand, and this can be used to avoid the necessity of actually measuring or recording total volume production. The logical sequence for assessing yield class would thus be to measure top height, convert this to total volume production, and divide this by the age of the stand to derive mean annual increment. Yield class could then be determined from a series of mean annual increment curves, as in Figure 2, for the appropriate species. This procedure has been simplified by constructing Top height/age curves from which yield class can be read directly. Yield class obtained through top height and age of the stand alone is termed *General Yield Class* (GYC). Top height/age curves (i.e. General Yield Class curves) have been produced for all major species and are given on pages 10–25.

Production Class

It was stated above that a good relationship exists between top height and total volume production for any one species, but there are, however, local variations in this relationship. These variations have been largely accommodated by employing three top height/total volume production functions rather than one (see Figure 4).

These three levels of total volume production for a given height are termed *Production Classes.* Production Class 'b' is the normal top height/volume production relationship embodied in the General Yield Class curves. The effect of using Production Class 'a' is to raise the yield class by one class (i.e. to raise the maximum MAI 2m^3/ha) over that indicated by the General Yield Class curves. The effect of using 'c' is to lower the General Yield Class estimate by one class.

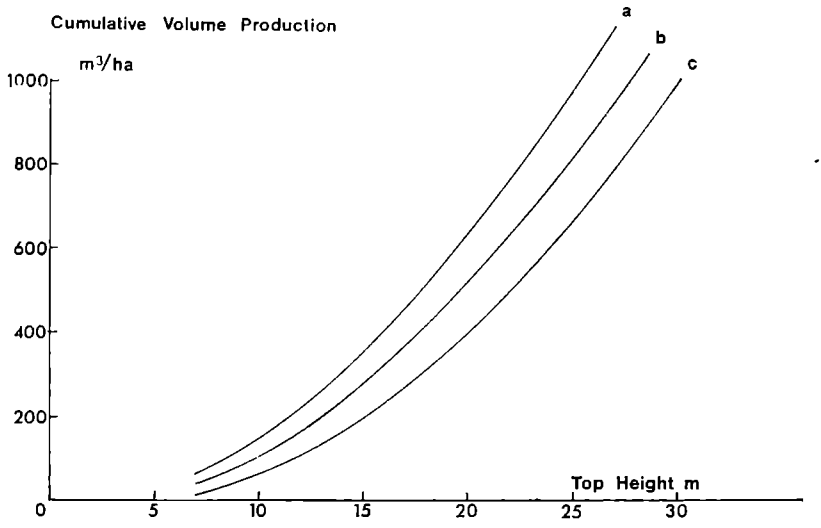


Fig. 4. Cumulative (Total) Volume Production/Top Height relationship showing three production classes.

Local Yield Class

Where Production class has been taken into account the yield class is termed a *Local Yield Class* (LYC).

For example:

General Yield Class 14, Production Class 'a' = Local Yield Class 16
,, ,, ,, 14, ,, ,, 'b' = ,, ,, ,, 14
,, ,, ,, 14, ,, ,, 'c' = ,, ,, ,, 12

Production Classes are best thought of as devices which may be used to provide an improved estimate of yield class.

The assessment of Production Class is considered on page 7.

The growth patterns described above assume that height growth remains vigorous throughout the life of the crop. (The common exceptions to this are considered on page 6). It is also assumed that crops are established at conventional plant spacings (see Yield Tables, Part IV), and thinned regularly to an intensity not exceeding certain limits specified in Part II. Thinning intensities which are beyond these limits may result in losses in volume production and the consequent failure to attain the predicted maximum mean annual increment. Treatments such as the application of fertiliser to pole-stage crops may also divert the course of growth from the predicted pattern; but in this case, so little is known about the longer-term effects that no specific guidance can be given here.

THE ASSESSMENT OF YIELD CLASS

Assessment of General Yield Class

The top height/age curves (pages 10–25) are used to determine *General Yield Class*. Top height is defined as the mean height of the 100 trees of largest diameter at breast height (dbh) per hectare. These may not necessarily be the 100 tallest trees. In any even-aged stand at least 5 top height trees must be measured in assessing General Yield Class, but the actual number will depend on the extent of the stand and its uniformity. The table below gives the likely minimum number of samples required to give adequate estimates of yield class in a particular stand.

Area (ha)	No. of Top Height Trees	
	Uniform crop	Variable crop
0·5–2·0	6	8
2·0–10·0	8	12
Over 10·0	10	16

In even-aged pure stands, each top-height tree must be selected from a plot of 0·01 hectares. A series of points, which will be equal in number to the desired number of sample trees, should be located at random throughout the stand. The height of the tree of largest breast height diameter within a radius of 5·6 m (six paces) from each point is measured and the arithmetic mean of heights thus selected gives the top height of the stand.

The age of the stand is defined as the number of growing seasons since planting. Using top height and age, General Yield Class can be established from the top height/age curves. For example, given that the top height of a stand of Scots pine is 13 m at an age of 40 years, then using Graph 1, page 10, the General Yield Class is found to be 8.

Where there is more than one species in the stand, the General Yield Class of each species should be assessed separately. Where there are two main species, plots of 0·02 ha (radius 8 m) are used and when there are three or four main species use 0·05 ha (radius 12·6 m) plots, measuring in each plot the height of the tree of largest dbh of each species. The average yield class of the stand can be obtained by averaging the component yield classes weighted according to the proportion of the canopy each occupies. For example, if one species occupies 40% of the canopy and has a General Yield Class of 10 whilst a second species of General Yield Class 14 occupies 60% of the canopy, the average General Yield Class is $[10 \times 40 + 14 \times 60] \div 100 = 12{\cdot}4$ (which rounds to 12).

Uneven aged stands are treated in a similar way in that the yield class of each *age category* is assessed separately, and the average yield class again obtained, weighting according to the proportion of canopy occupied by each category.

Where height growth has not remained vigorous throughout the life of the stand, a modified technique is required in assessing General Yield Class. There are two common situations where this arises. Where the crop has remained in check for a period of years but has resumed vigorous height

growth, yield class should not be assessed from actual age and top height, but rather from a notional age and top height, which are derived by subtracting the number of years spent in check from actual age and subtracting also whatever height growth was achieved in that same period from actual top height.

The second situation arises where height growth has markedly fallen off, possibly on account of exposure or leader damage, but where it can be assumed that volume growth is largely unaffected. In these cases height should be measured to the point at which height growth started to decline, and the age appropriate to this point should be used. Age can be deduced in most cases through whorl counts.

Assessment of Production Class

General Yield Class is usually adequate for most management purposes, but a better estimate of yield class can be obtained through assessing *Production Class* for the major species in a forest. Assessment of Production Class is generally expensive and time consuming. In addition, the factors which influence Production Class tend to be macro-climatical rather than specific to individual stands. For these reasons it is best to apply Production Class for a given species to whole forests or parts of forests rather than individual stands.

Production Class can be established through three alternative procedures. These are from measurements of:

(i) total (cumulative) volume production per hectare.
(ii) total (cumulative) basal area production per hectare.
(iii) the mean breast height diameter of the 100 trees of largest breast height diameter per hectare.

The second and third methods are really substitutes for the first. Since total volume production is seldom known, and generally too expensive to obtain for this purpose, it is seldom used. On the other hand it is the preferred method should information on total volume production be already available.

Total basal area production is, by comparison much more readily obtained and for this reason it is the method most commonly used. In practice the assessments are carried out in fully-stocked unthinned stands, since records are seldom available of basal area previously removed in thinned stands. In sampling an unthinned compartment for total basal area production it is advisable to lay out at least three plots of 0·01 hectares. In each plot all trees irrespective of diameter are girthed at breast height and the corresponding basal areas read from the table on page 200. By averaging the total basal area of the plots and multiplying the result by 100, the basal area per hectare is established.

Where the above methods of assessing Production Class are available, about ten compartments should be sampled for Production Class for each major species in a forest.

The third method, the use of the mean breast height diameter of the 100 trees of largest breast height diamer per hectare, should only be used where the first two alternatives are not available. Using this method it is necessary to increase the number of compartments sampled by a factor of three. For each compartment sampled the mean breast height diameter of the top height trees is determined. (*N.B.* The mean dbh referred to here is the quadratic mean dbh, i.e. the dbh corresponding to the mean basal area.)

The method of deriving Production Class from each of these methods is similar. The top height of the stand is an additional requirement common to all methods. Production Class is read from the curves on pages 26–39 as illustrated in these examples:

(i) Scots Pine, top height 16 m, total volume production 250 m^3, Production Class 'c'.

(ii) Sitka Spruce, top height 12 m, total basal area production 50 m^2, Production Class 'a'.

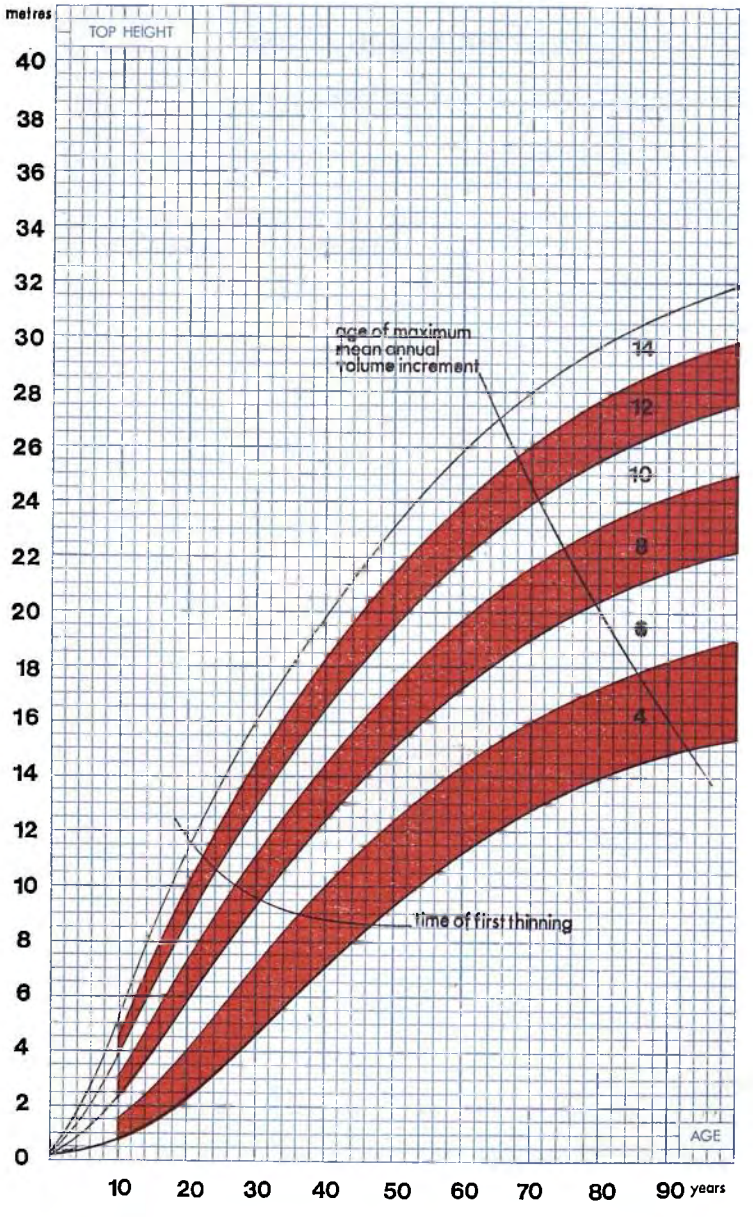
(iii) Douglas Fir—top height 14 m, dbh of 100 largest/ha 21 cm, Production Class 'b'.

The resultant predominating Production Class for each species is applied to all stands of the species in the forest.

General Yield Class
and
Production Class
Curves

SCOTS PINE

GENERAL YIELD CLASS CURVES

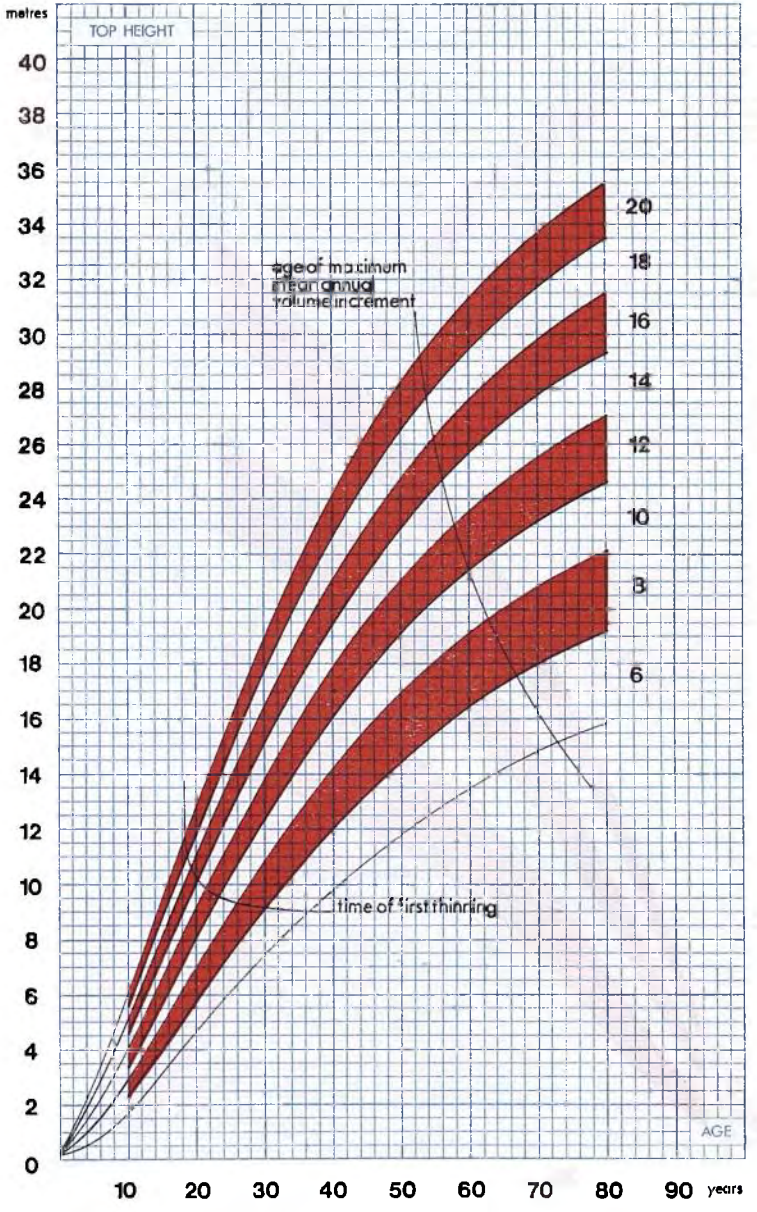


10 *Graph 1*

CP CP

CORSICAN PINE

GENERAL YIELD CLASS CURVES

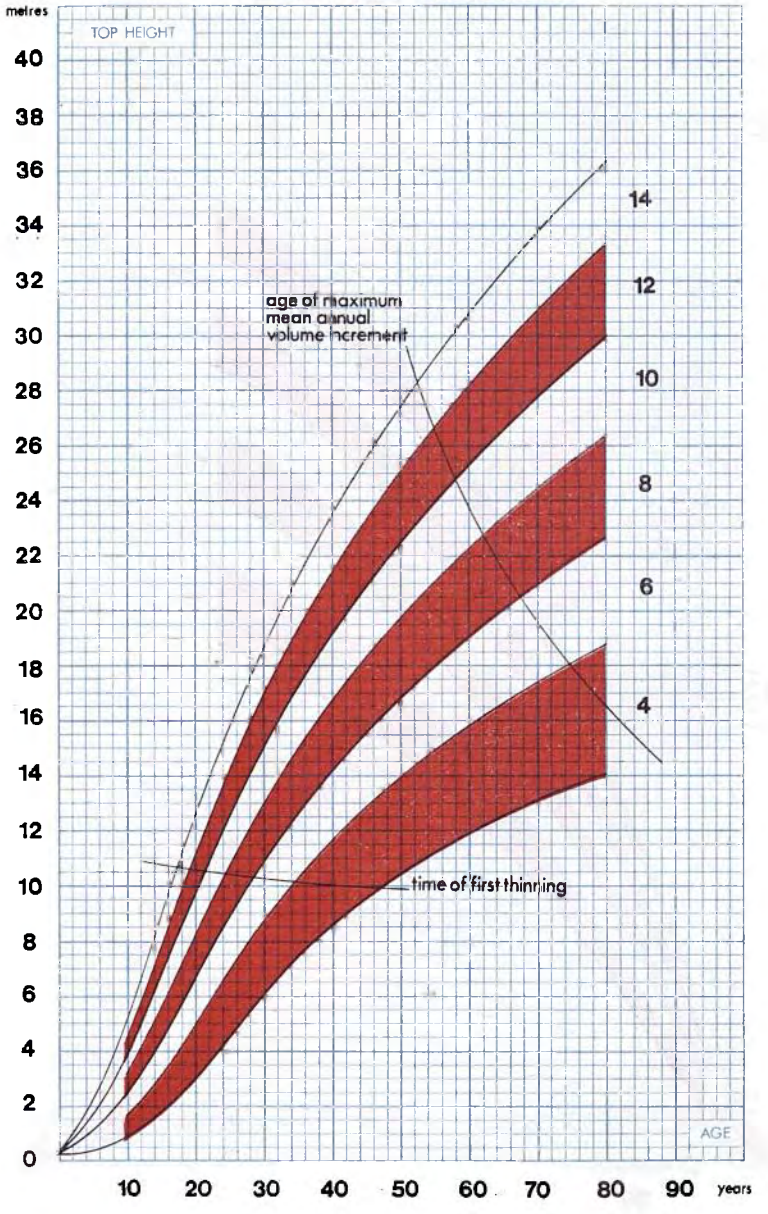


LP

LODGEPOLE PINE

LP

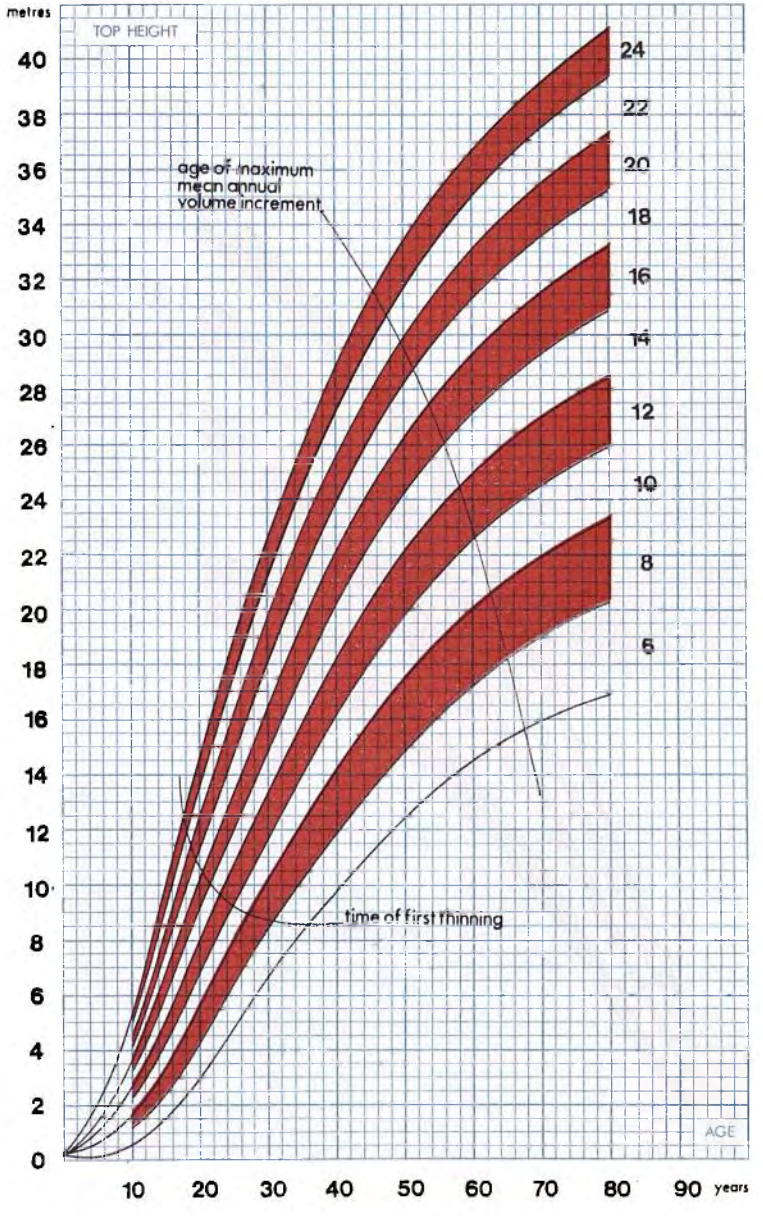
GENERAL YIELD CLASS CURVES



SS SS

SITKA SPRUCE

GENERAL YIELD CLASS CURVES



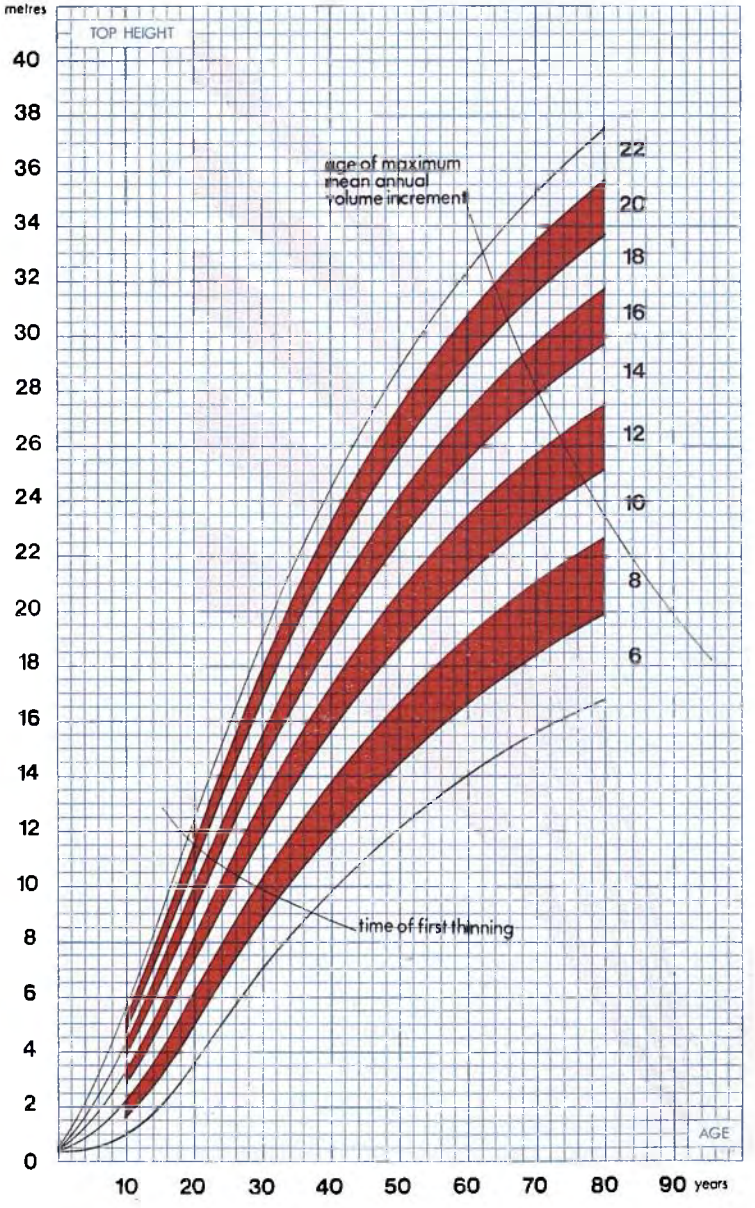
Graph 4 13

NS

NS

NORWAY SPRUCE

GENERAL YIELD CLASS CURVES

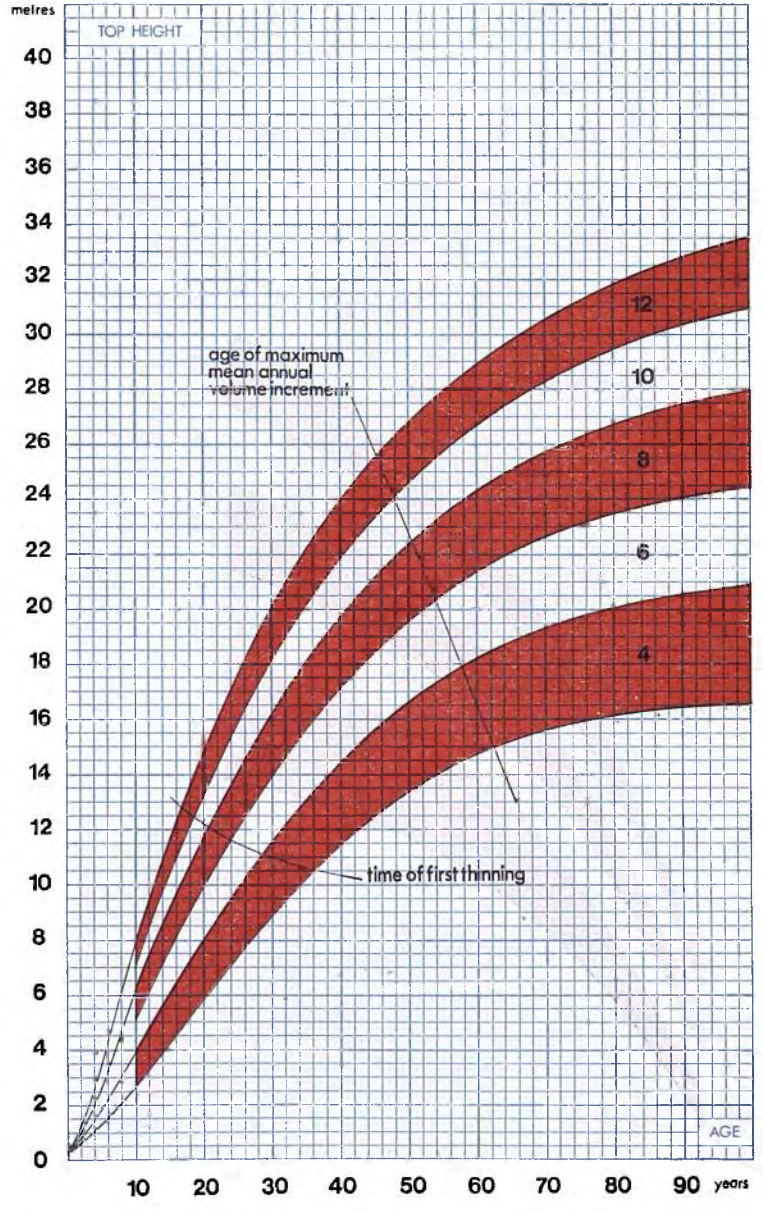


EL

EUROPEAN LARCH

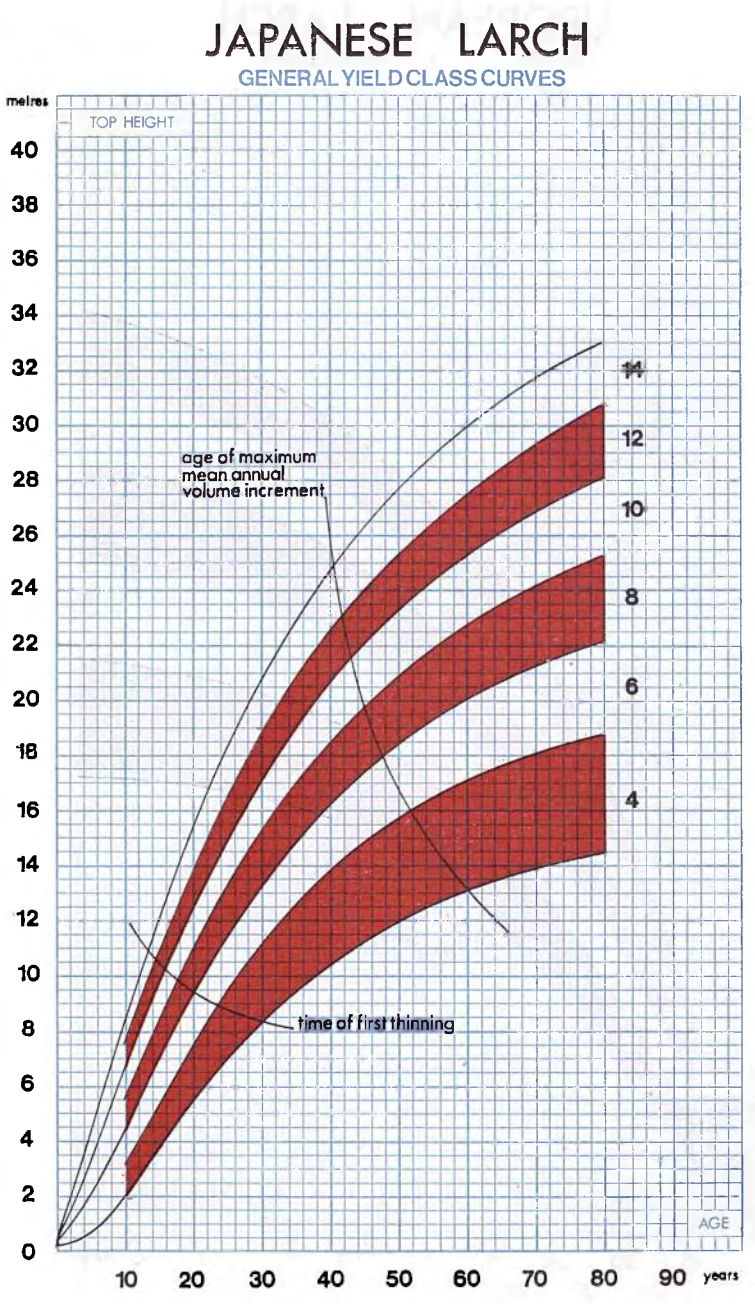
EL

GENERAL YIELD CLASS CURVES



Graph 6 15

JL JL

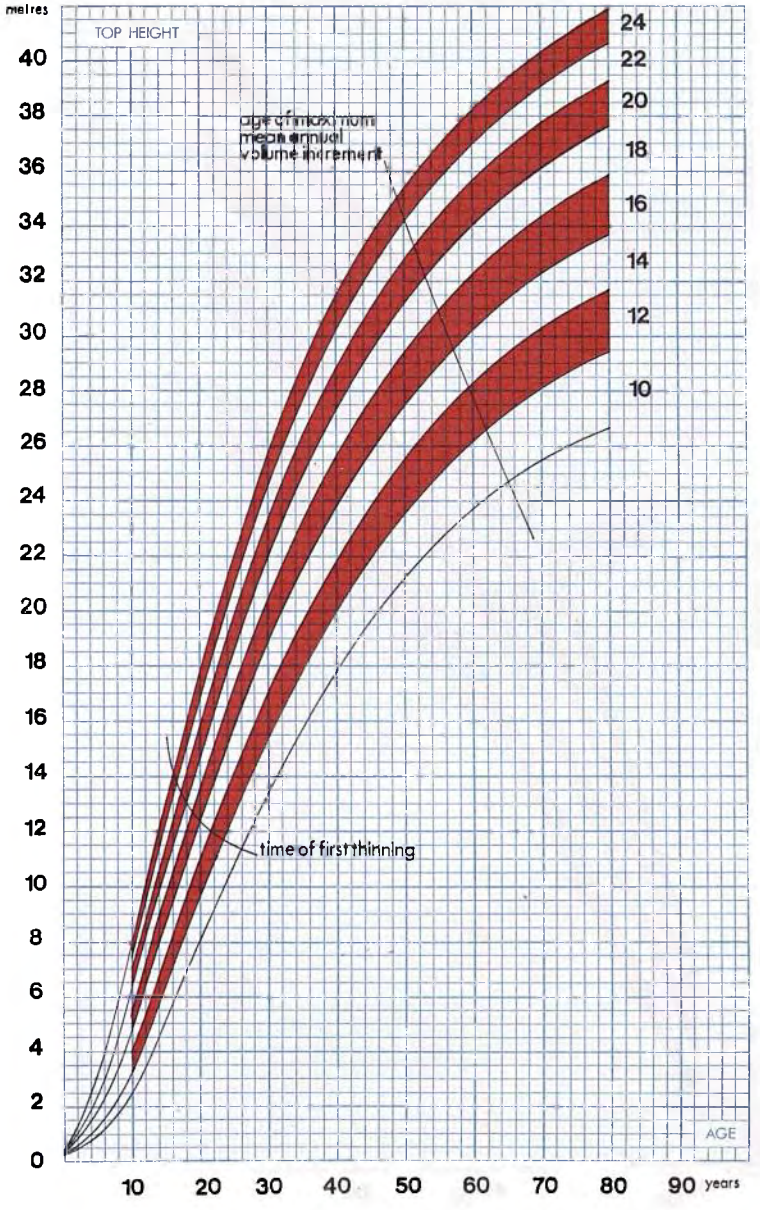

JAPANESE LARCH
GENERAL YIELD CLASS CURVES
metres
TOP HEIGHT
40
38
36
34
32
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2
0
age of maximum mean annual volume increment
time of first thinning
14
12
10
8
6
4
AGE
10
20
30
40
50
60
70
80
90
years

DF

DF

DOUGLAS FIR

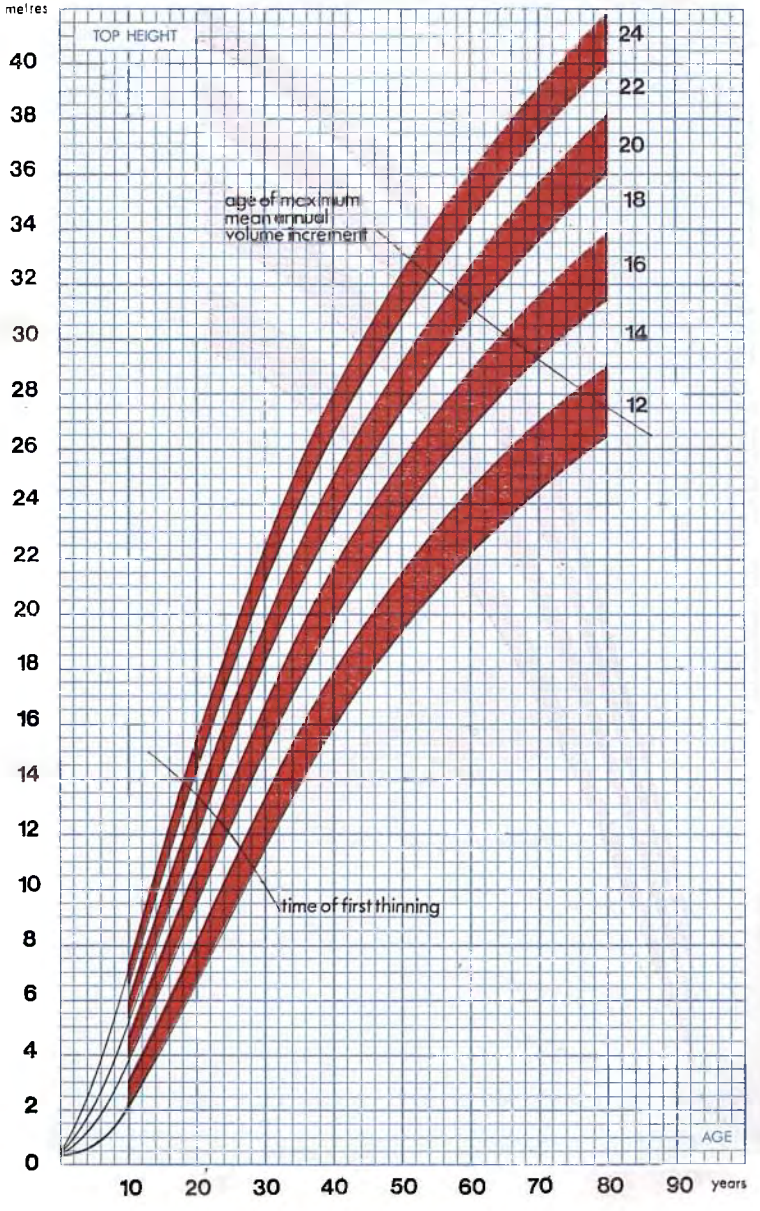
GENERAL YIELD CLASS CURVES



Graph 8 17

WESTERN HEMLOCK

GENERAL YIELD CLASS CURVES

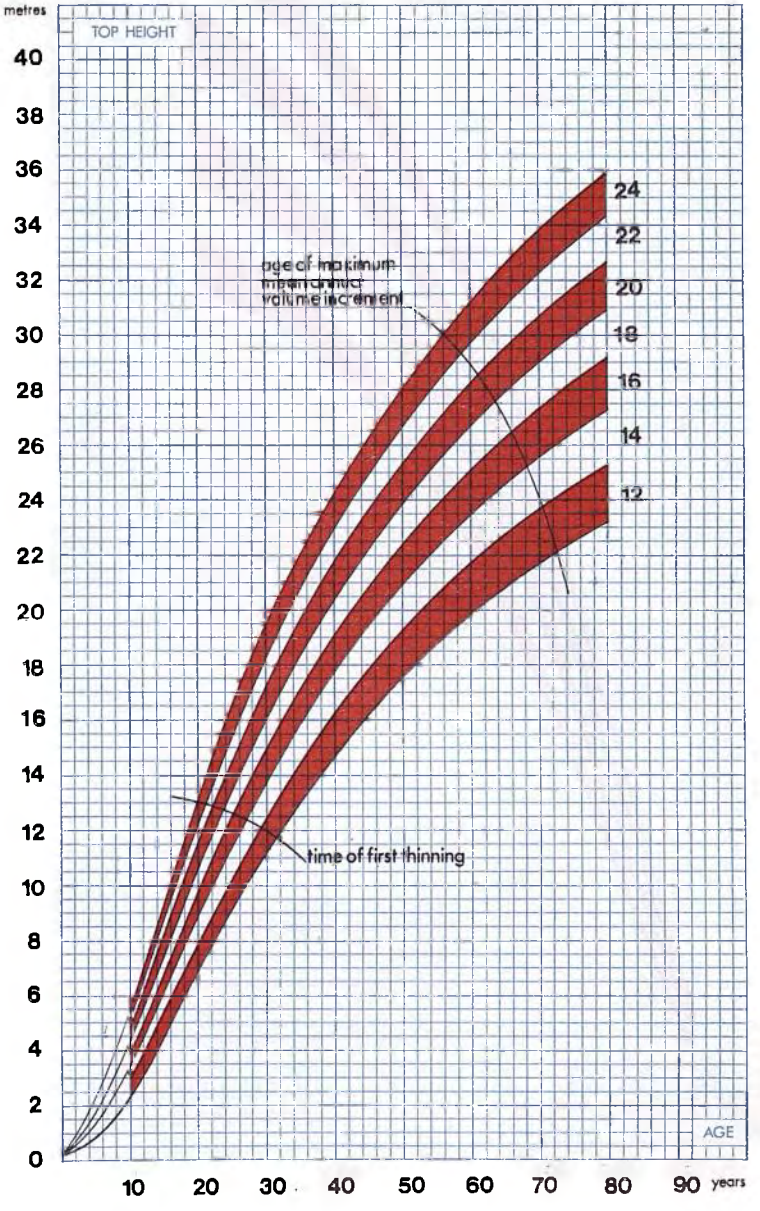


RC

RC

RED CEDAR

GENERAL YIELD CLASS CURVES

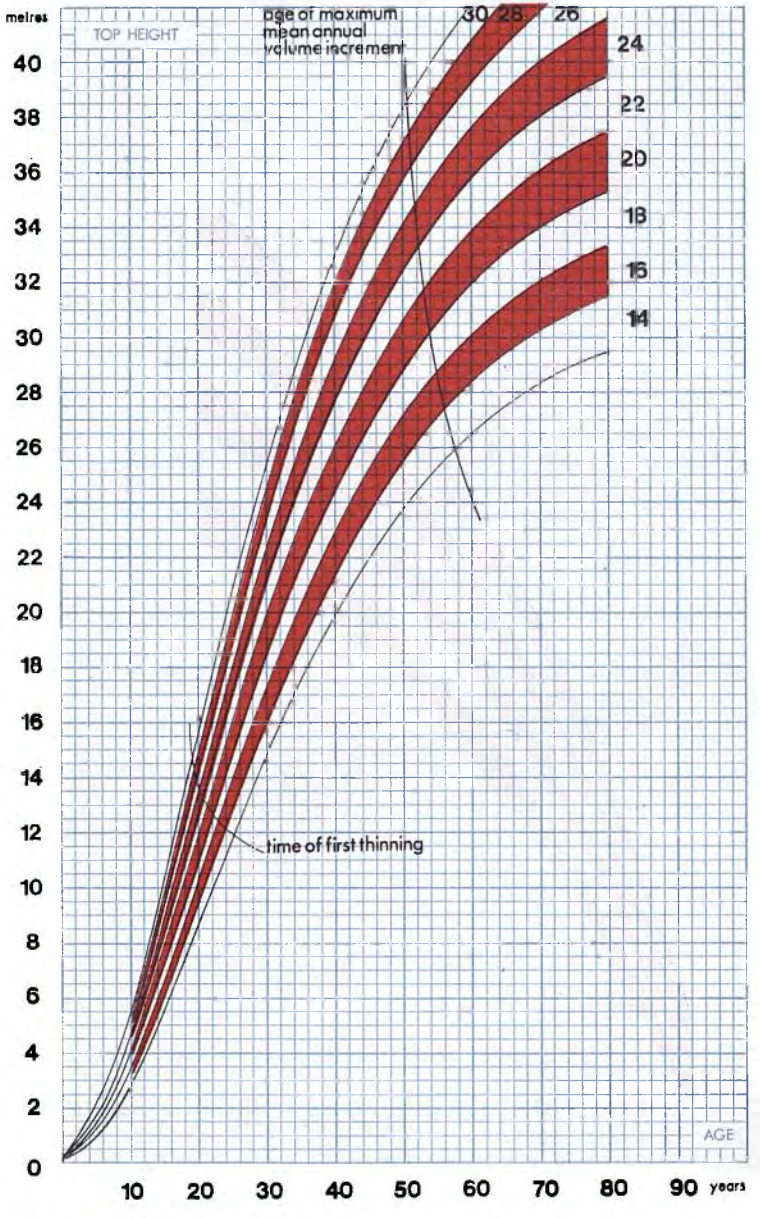


Graph 10 19

GF GF

GRAND FIR

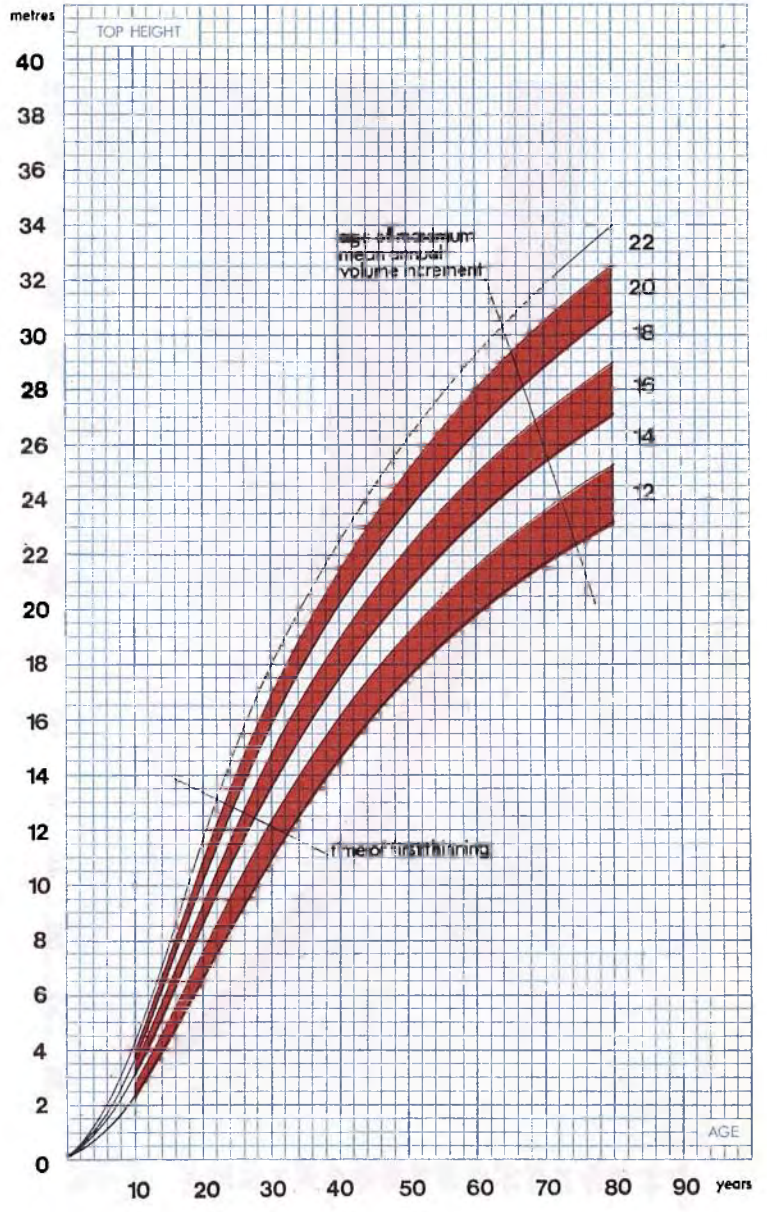
GENERAL YIELD CLASS CURVES



NF NF

NOBLE FIR

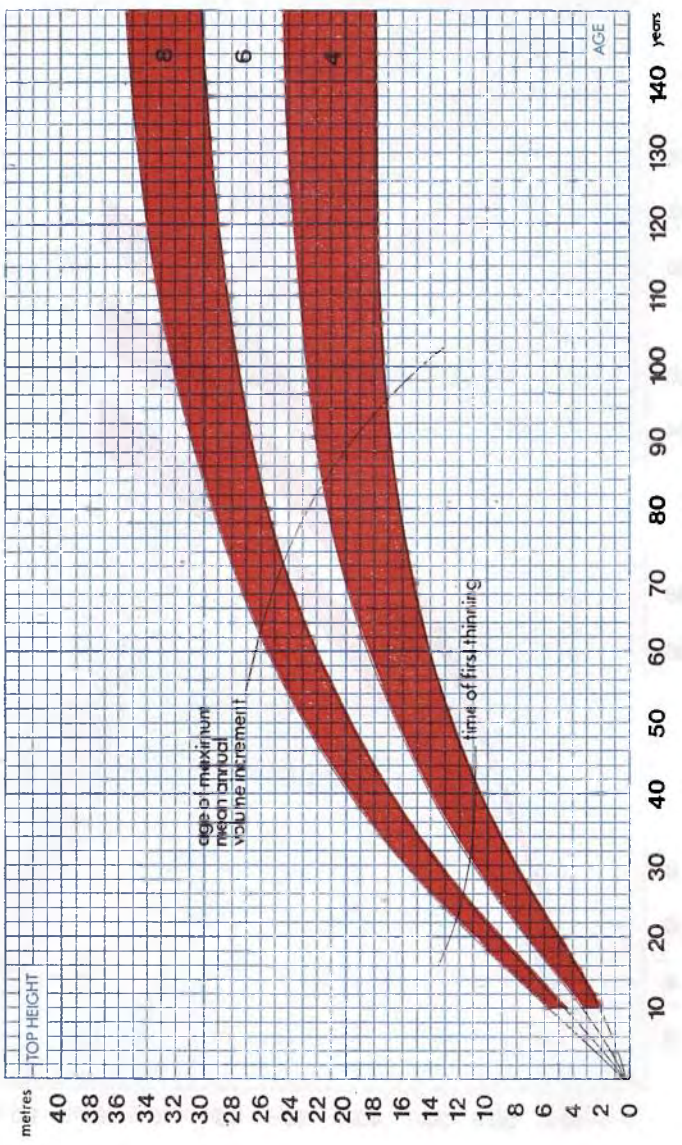
GENERAL YIELD CLASS CURVES



Graph 12 21

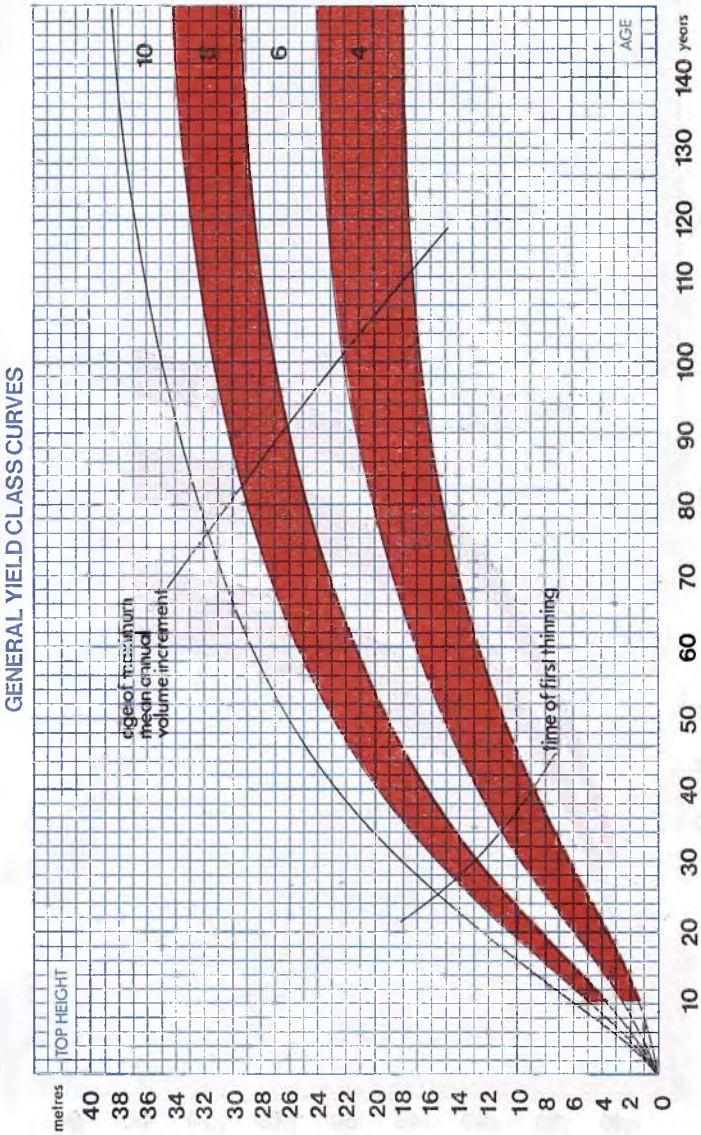
OAK

OAK


GENERAL YIELD CLASS CURVES
TOP HEIGHT
metres
40
38
36
34
32
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2
0
8
6
4
age of maximum mean annual volume increment
time of first thinning
10
20
30
40
50
60
70
80
90
100
110
120
130
140
years
AGE

BE

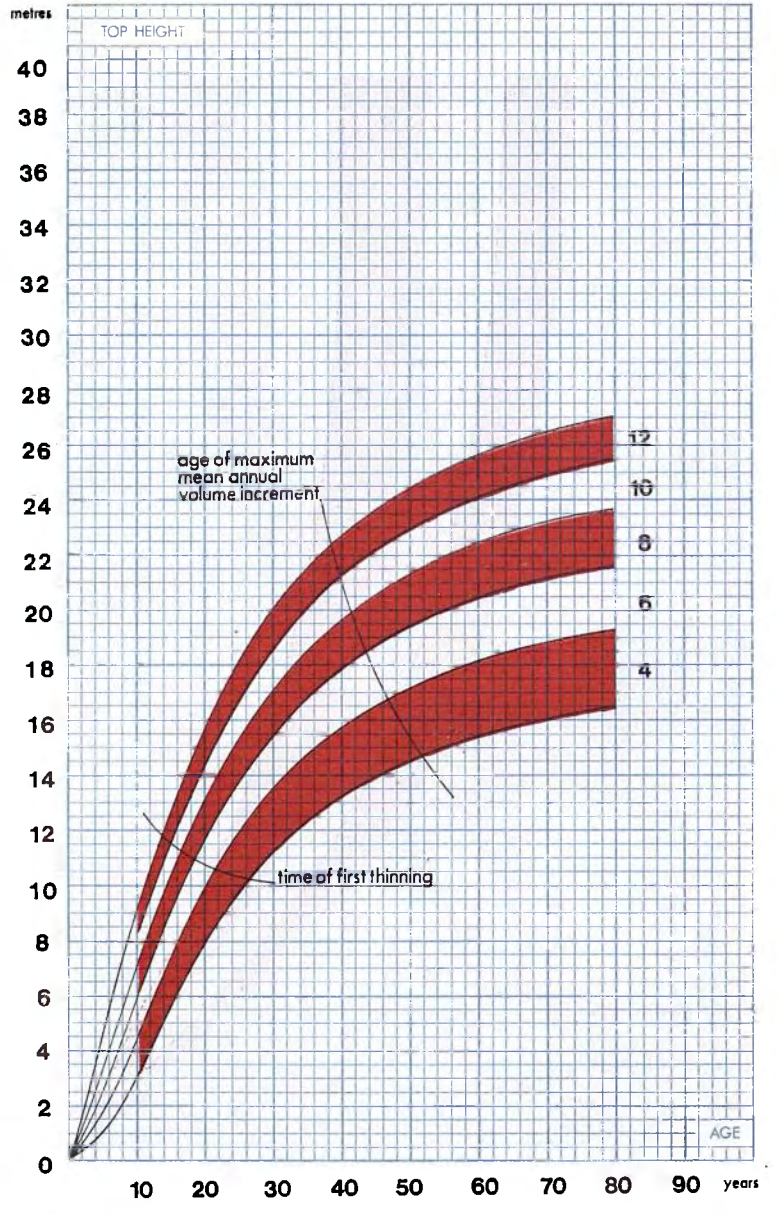
BEECH



Graph 14

SYCAMORE, ASH AND BIRCH

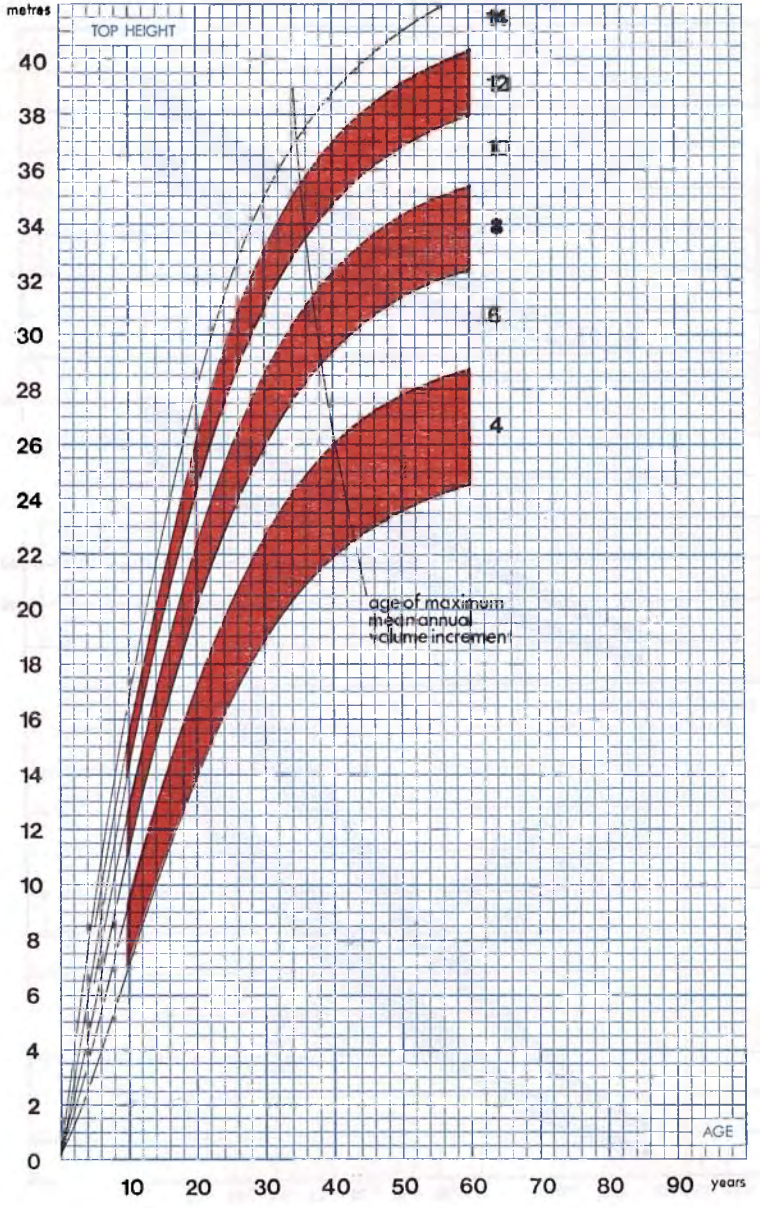
GENERAL YIELD CLASS CURVES



Note: The volume yields for Ash will be those for one Yield Class less than is indicated by the height growth, i.e. Production Class 'c'. For example, the yield table for Yield Class 10 should be used for Ash if the Yield Class according to the height/age curves is 12.

POPLAR

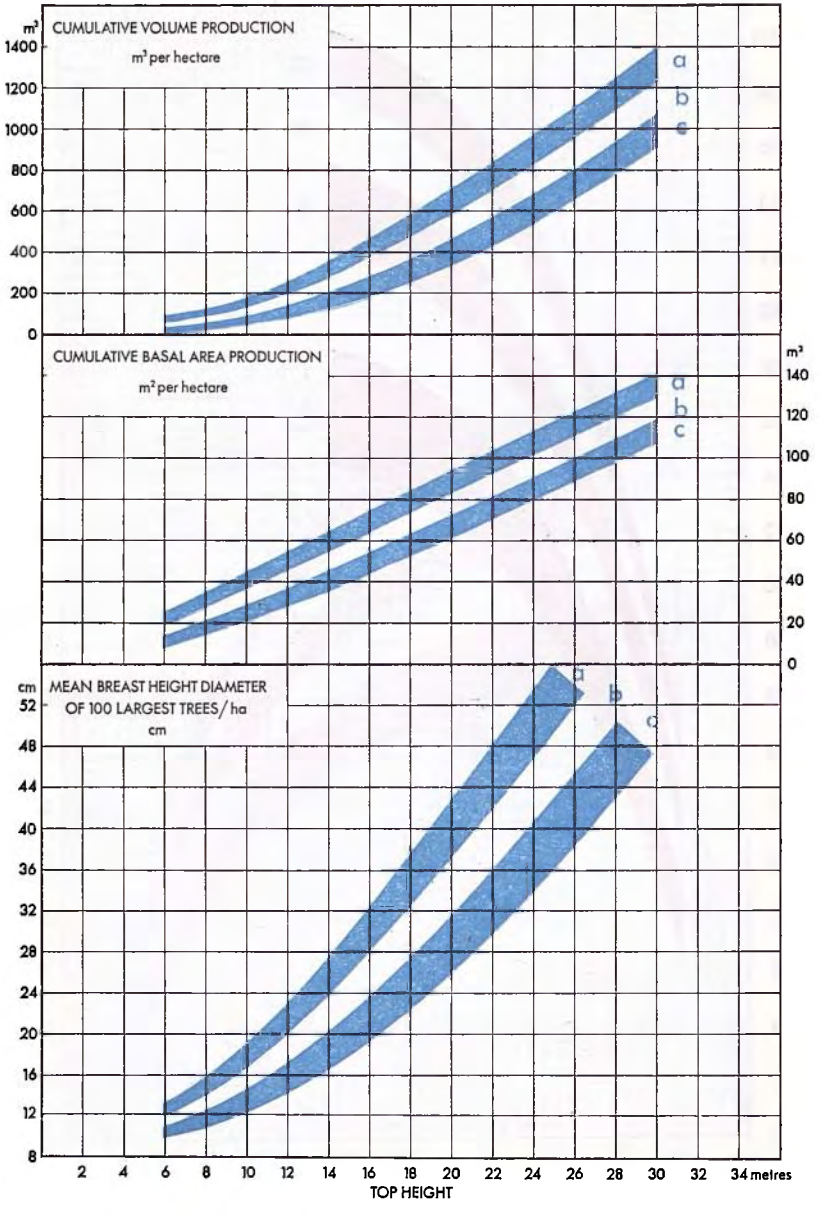
GENERAL YIELD CLASS CURVES



Graph 16 25

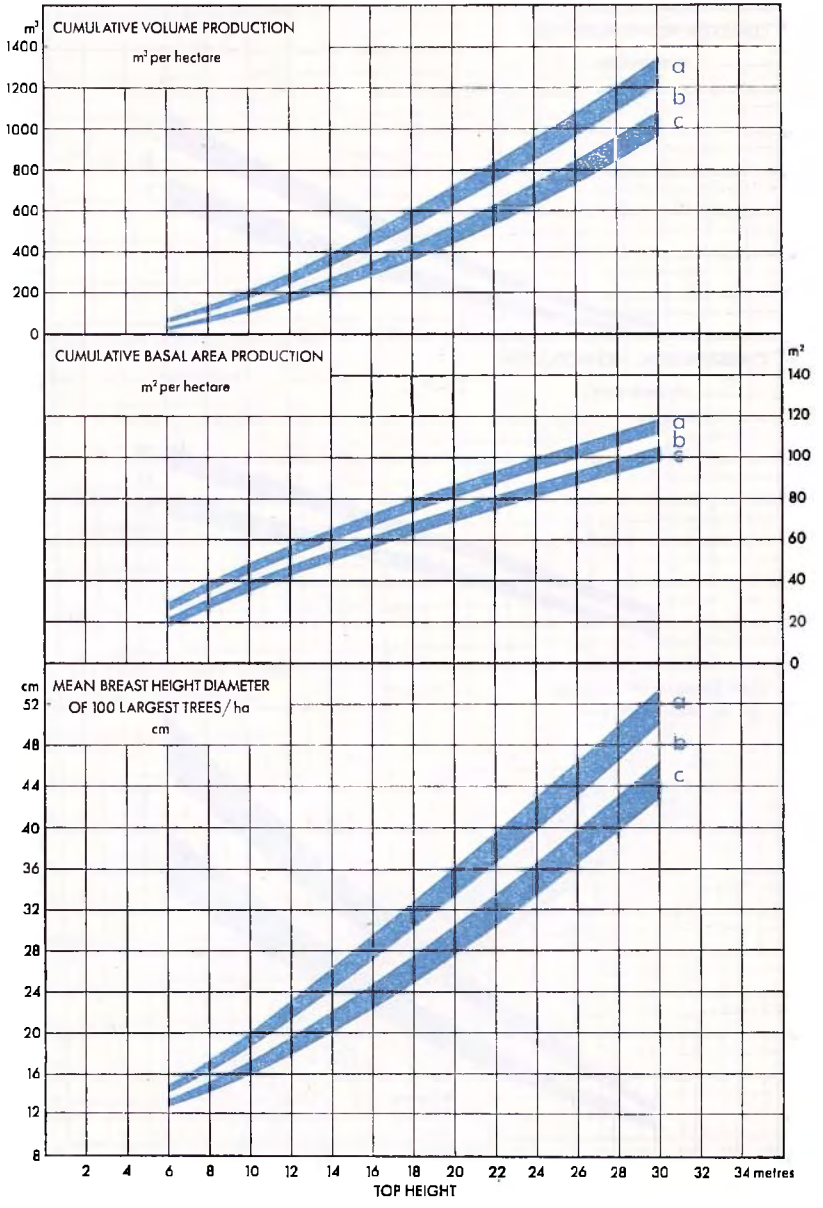
SCOTS PINE

PRODUCTION CLASS CURVES



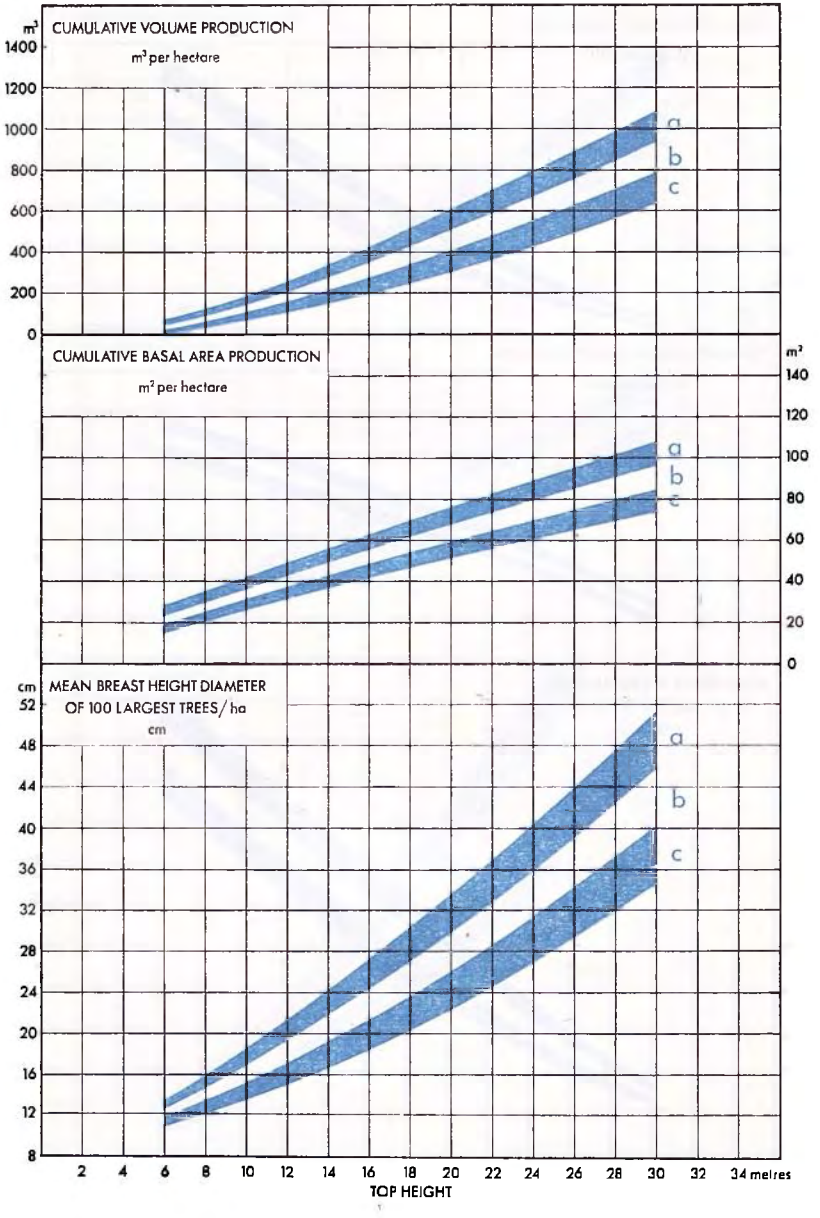
CORSICAN PINE

PRODUCTION CLASS CURVES



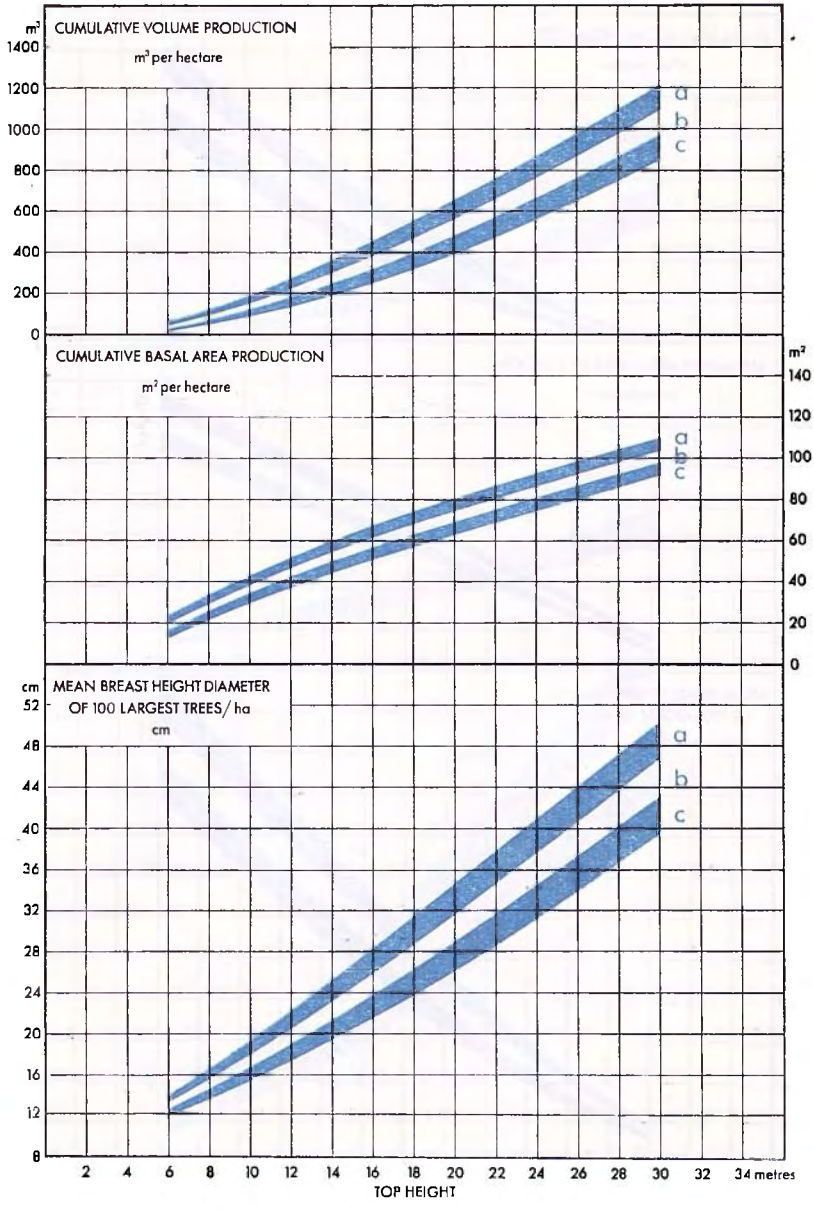
LODGEPOLE PINE

PRODUCTION CLASS CURVES



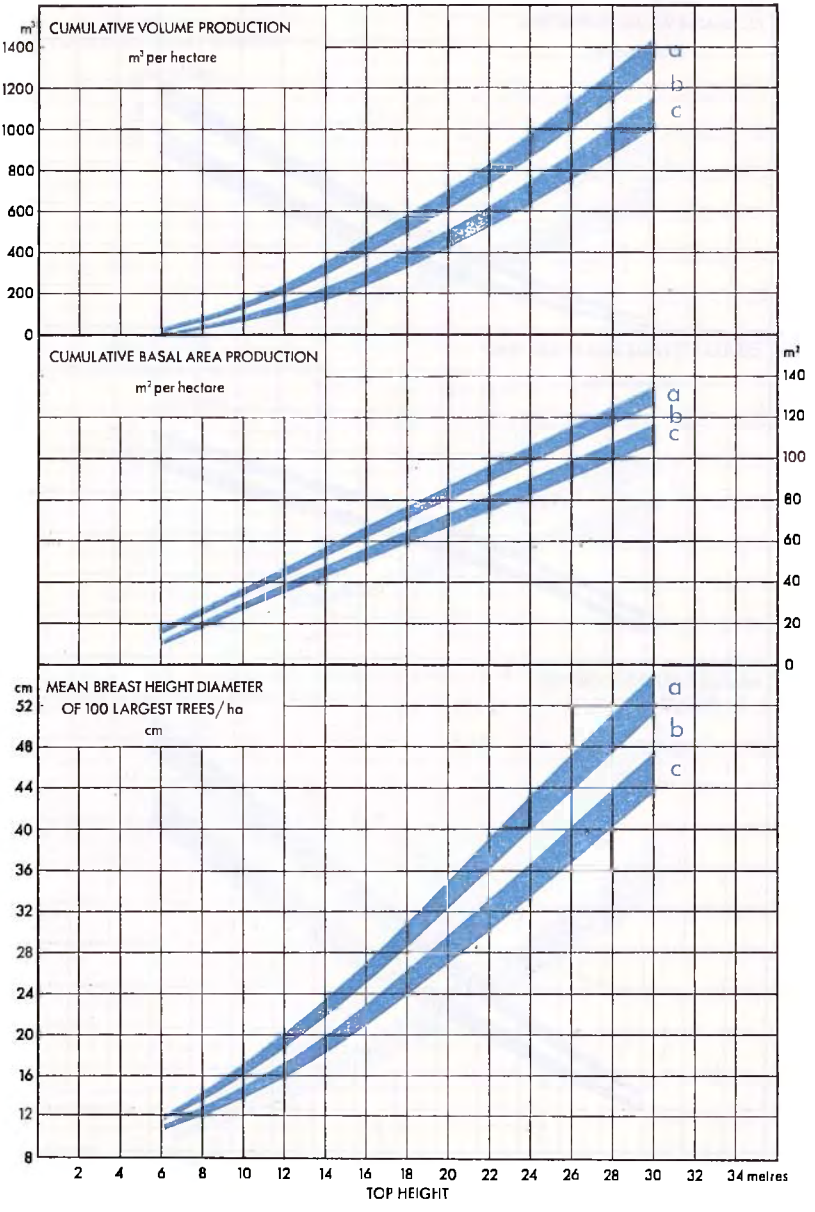
SITKA SPRUCE

PRODUCTION CLASS CURVES



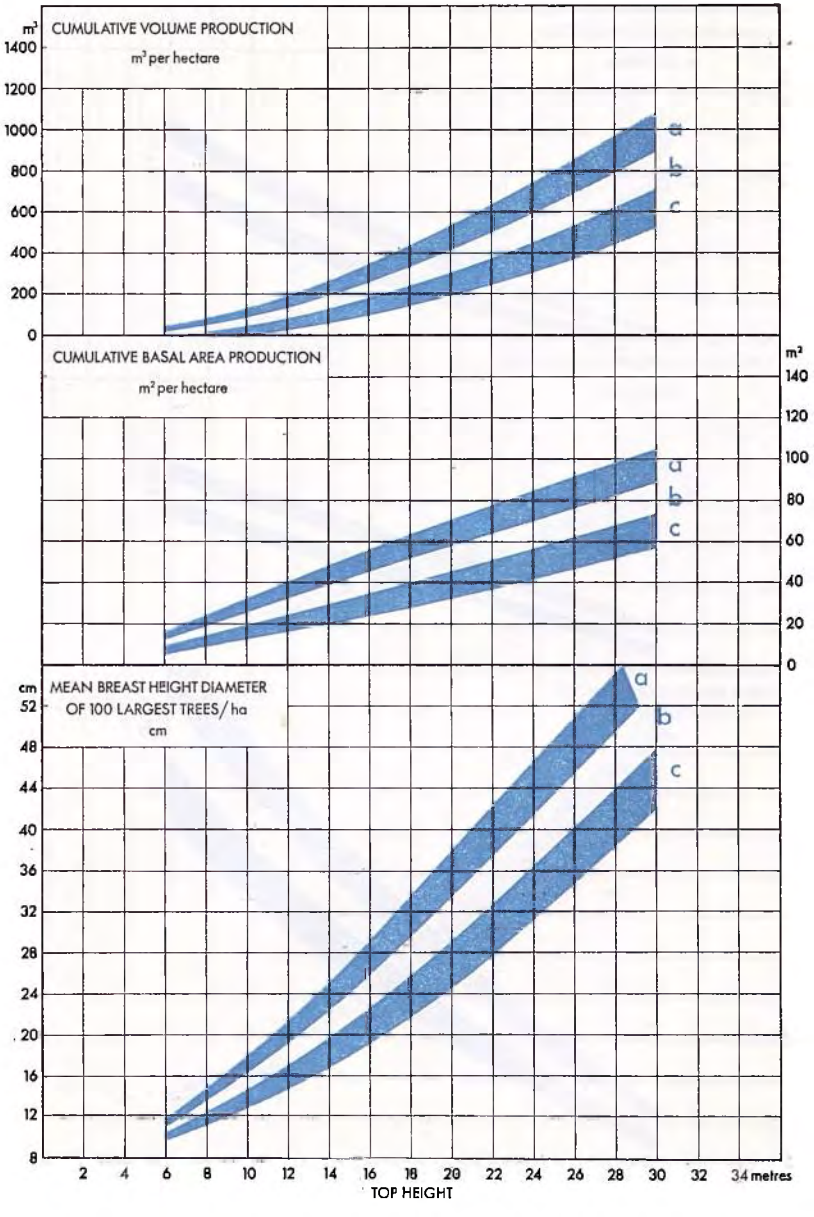
NORWAY SPRUCE

PRODUCTION CLASS CURVES



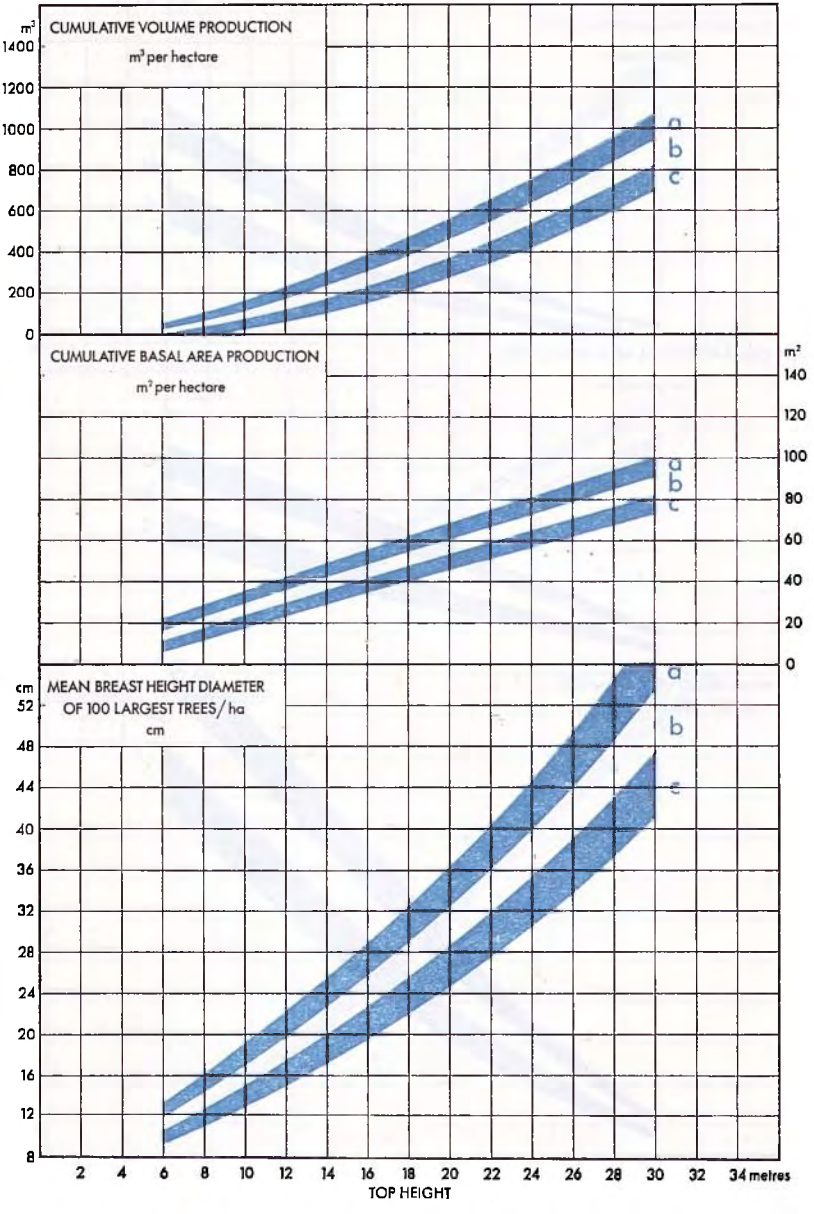
EUROPEAN LARCH

PRODUCTION CLASS CURVES



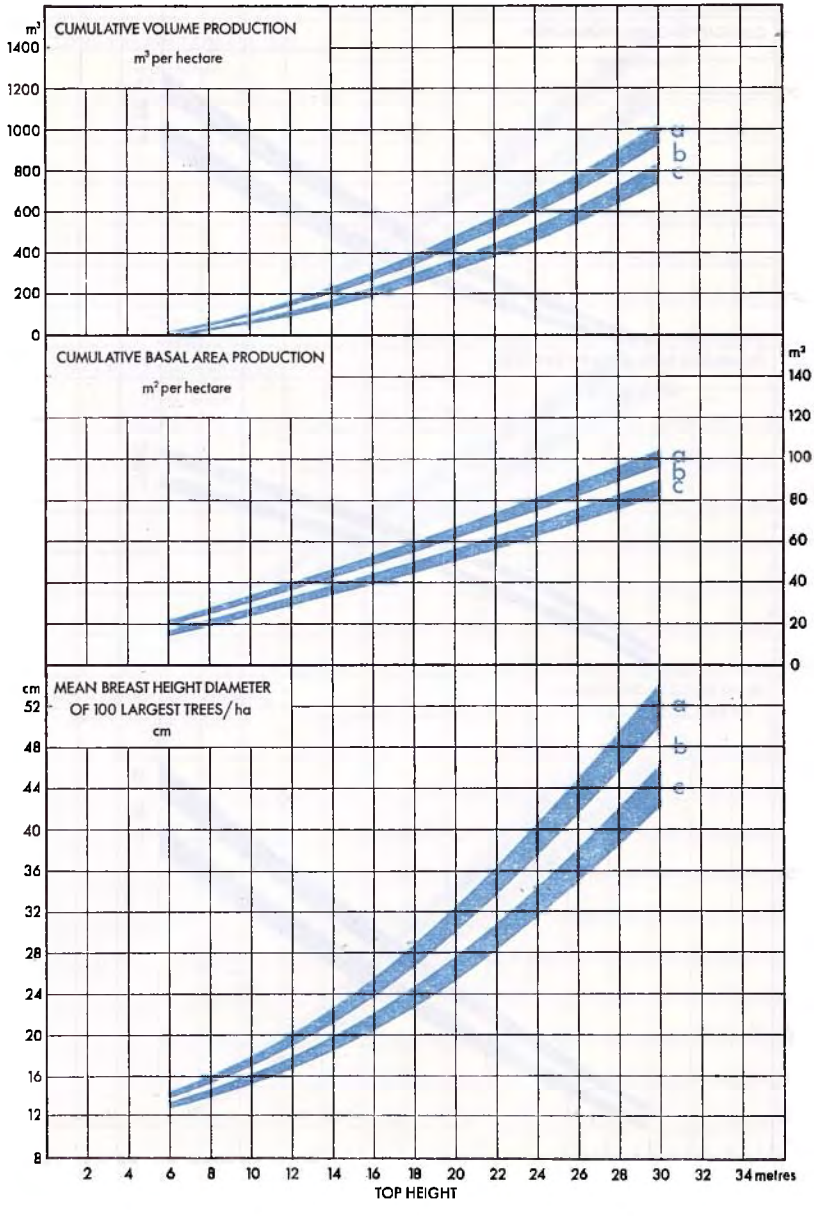
JAPANESE LARCH

PRODUCTION CLASS CURVES

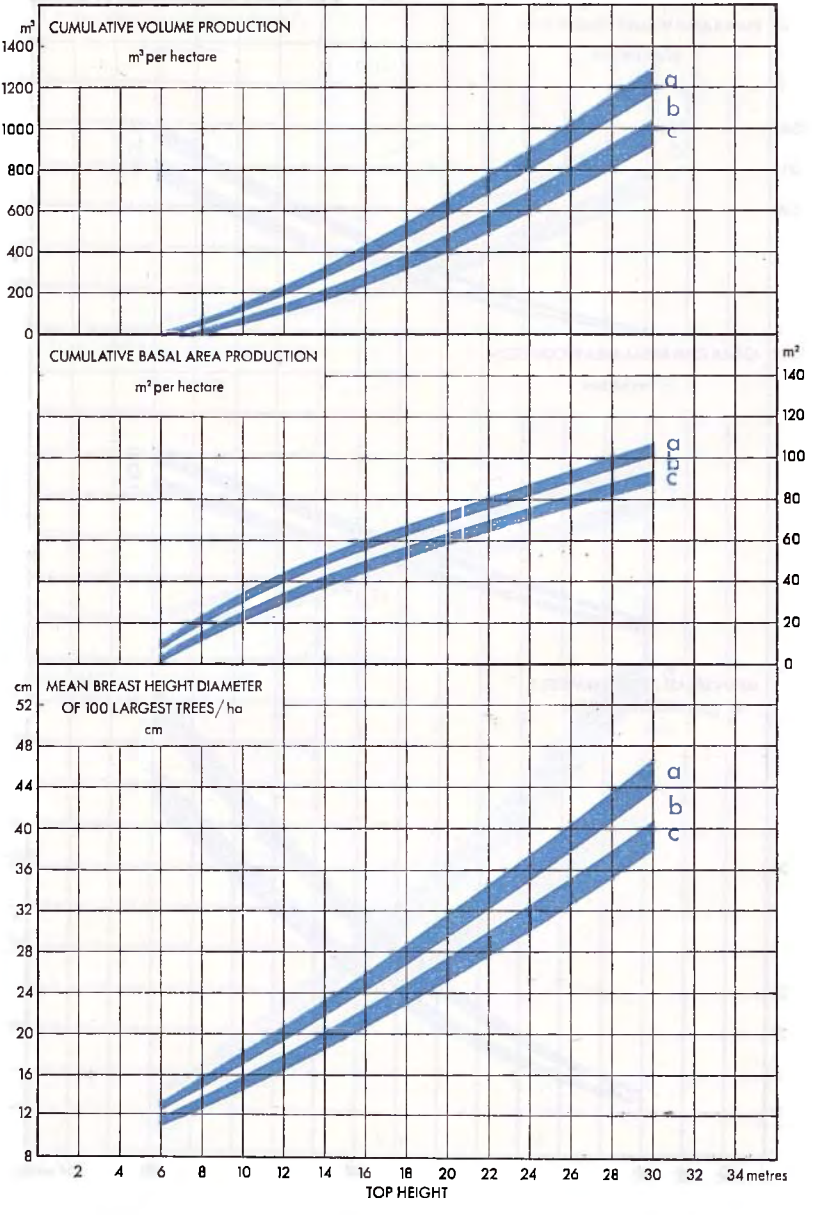


DOUGLAS FIR

PRODUCTION CLASS CURVES

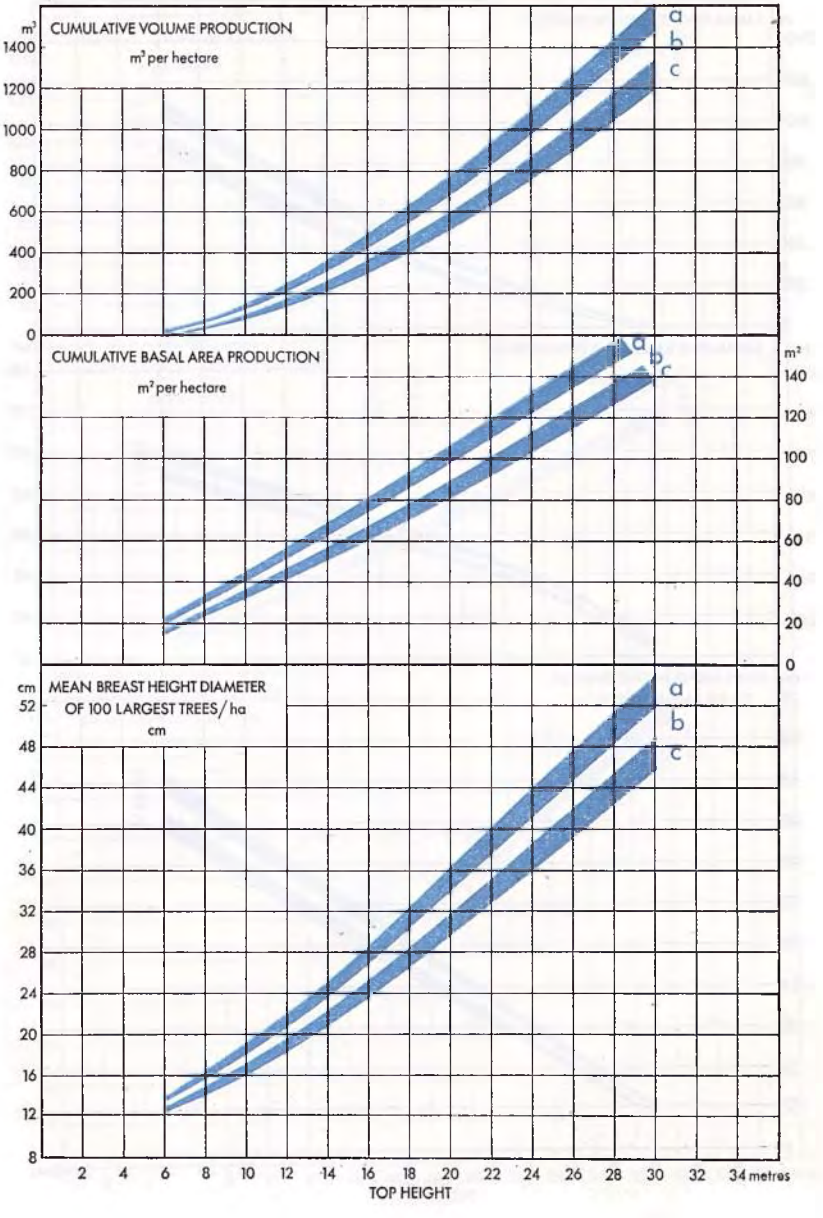


PRODUCTION CLASS CURVES



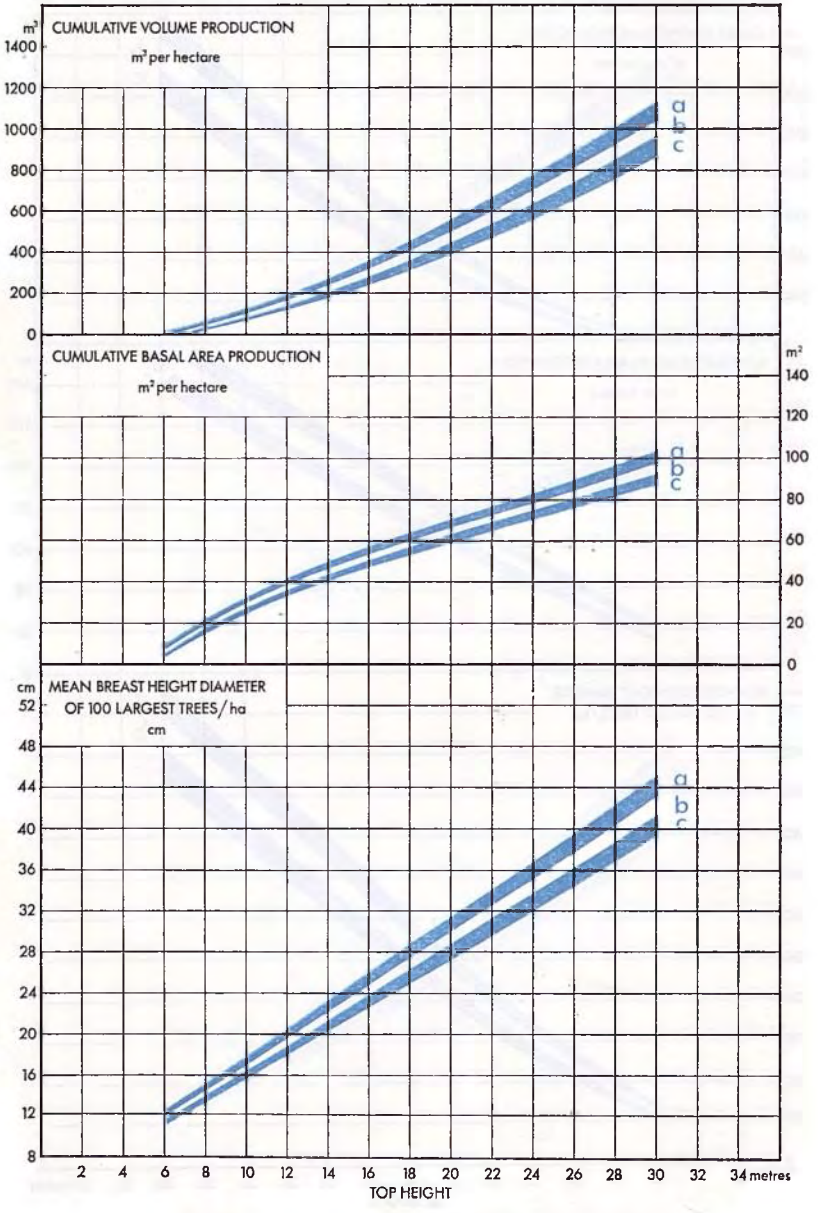
RED CEDAR

PRODUCTION CLASS CURVES



GRAND FIR

PRODUCTION CLASS CURVES



NOBLE FIR

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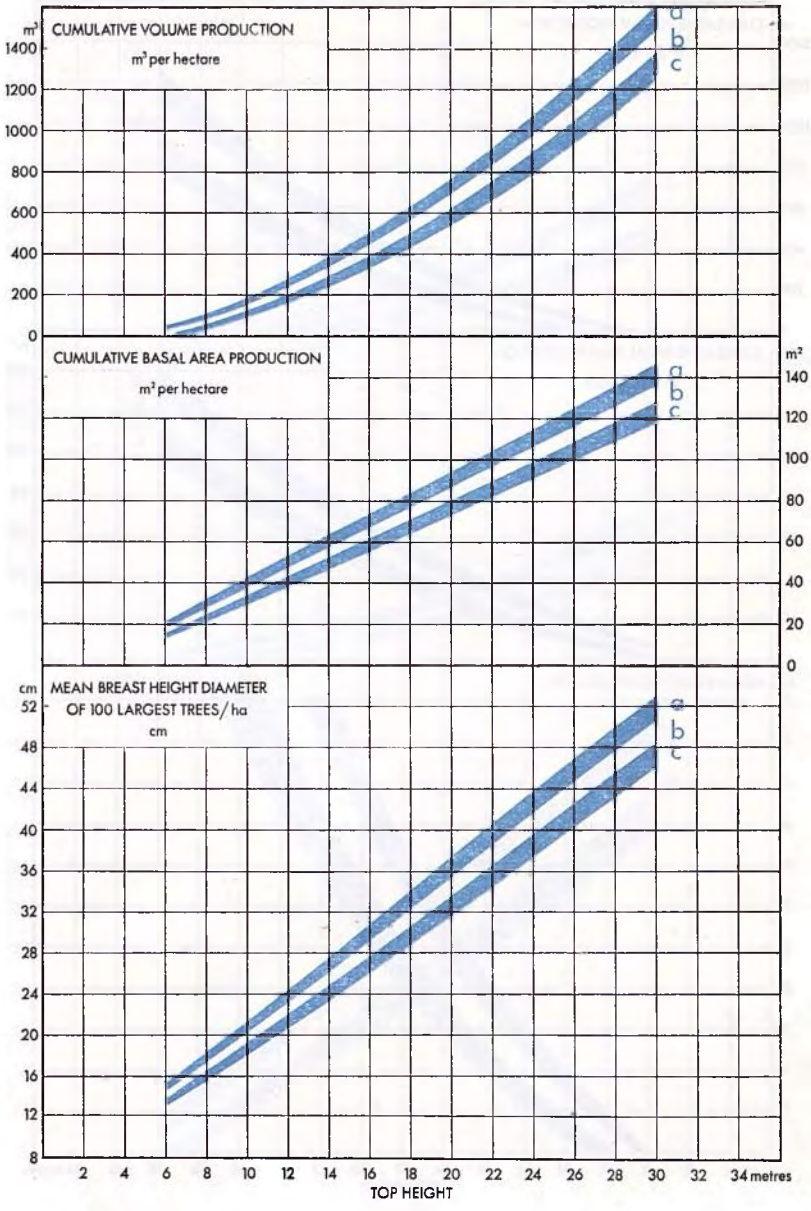
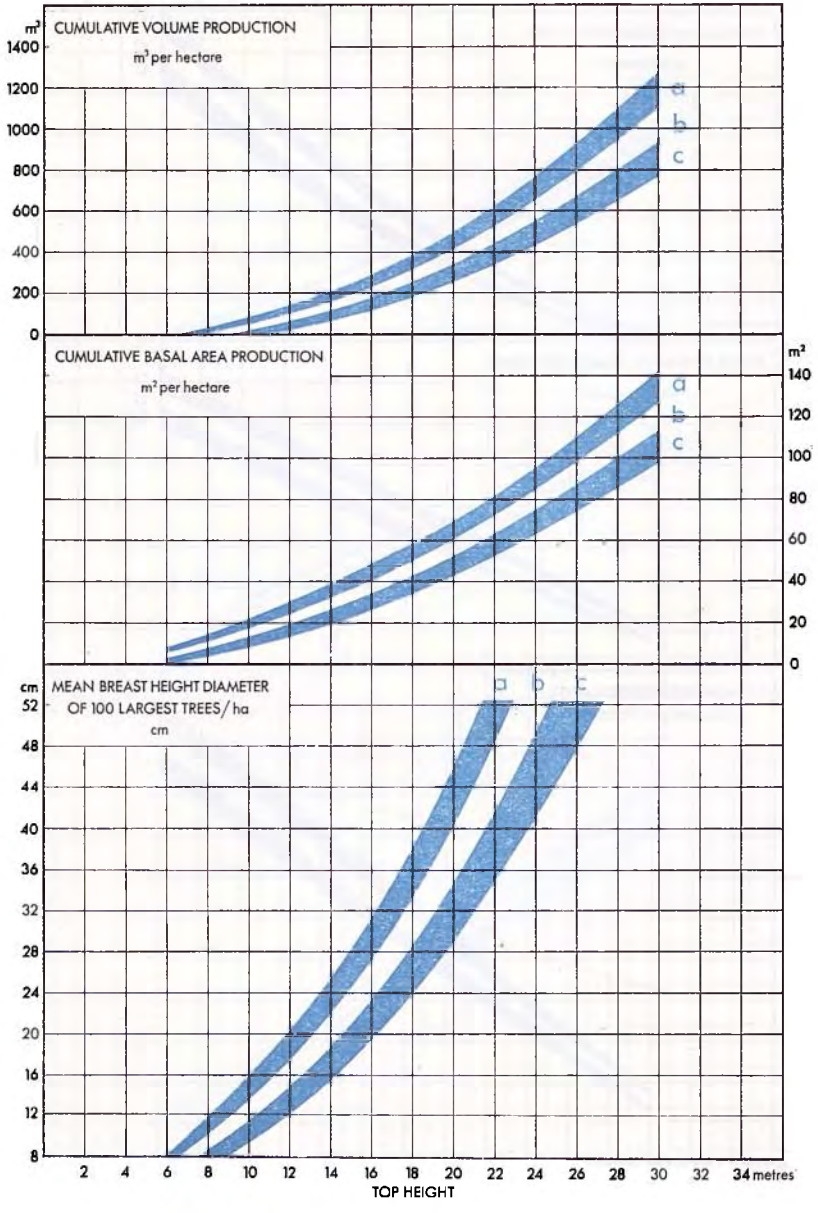


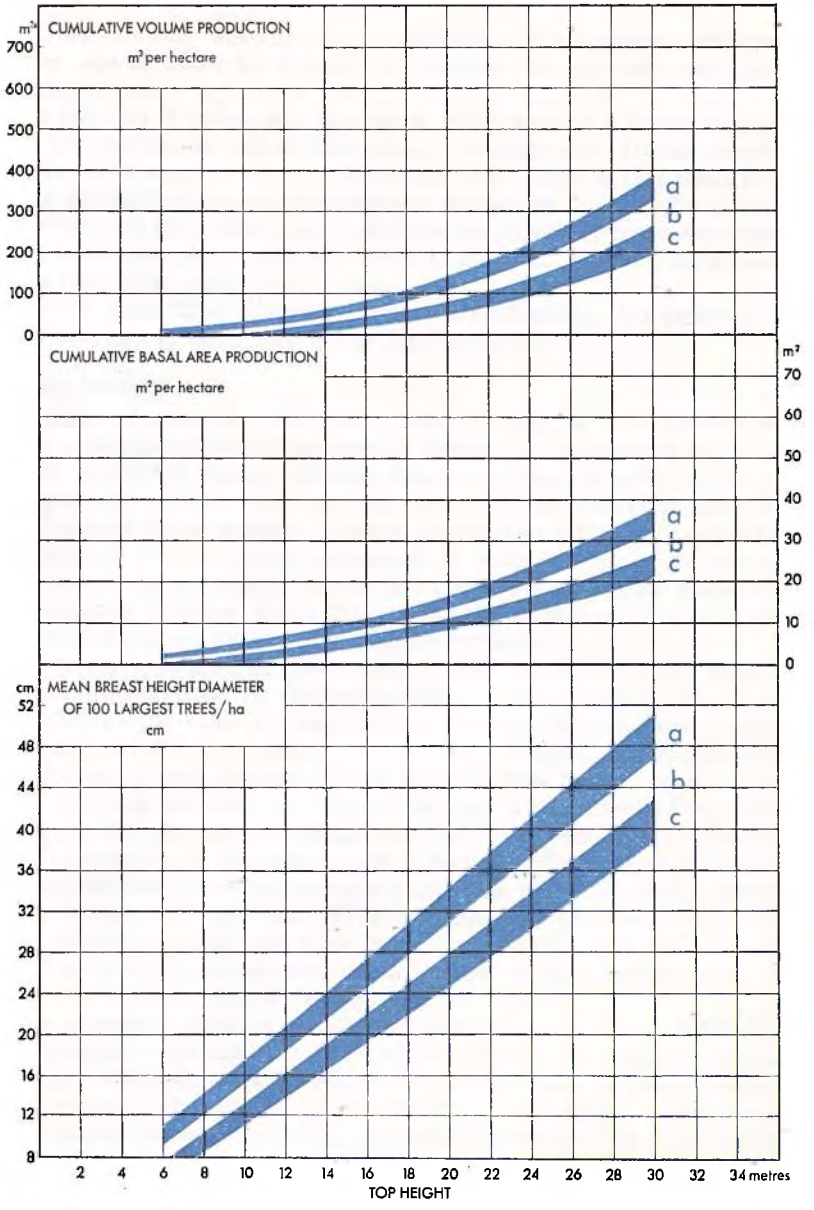
SYCAMORE ASH & BIRCH

PRODUCTION CLASS CURVES



POPLAR

PRODUCTION CLASS CURVES



PART II

THINNING CONTROL

THINNING POLICY

There are basically three factors in thinning which together constitute a *thinning regime*. These are *intensity* of thinning, thinning *cycle*, and *type* of thinning.

The intensity of thinning is the rate at which volume is removed from a stand in thinnings, i.e. the periodic annual thinning yield. Thinning cycle is the interval in years between successive thinnings. Thinning type refers to the type or dominance class of trees which are removed in thinning. For example a 'low' thinning is the term used to describe that in which trees predominantly of the lower canopy are removed, whilst in a 'crown' thinning the accent is on the removal of upper canopy trees.

Each of these three factors can influence profitability, but probably the most important in this respect is the thinning intensity.

Thinning Intensity

One important aspect of varying the intensity of thinning is its effect on total volume production. Over a wide range of thinning intensities total production remains unaffected. Higher thinning intensities have the effect of creating more growing space for the maincrop trees which are able to respond to a greater degree, but as intensity increases the situation ultimately arises where the maincrop cannot respond sufficiently to make full use of the growing space created by thinnings and the result is a loss in volume production. The maximum intensity which can be maintained without loss of volume production is termed the *marginal* thinning intensity.

The greater responses of the maincrop trees induced by higher thinning intensities are reflected in greater increases in mean diameter. In normal circumstances the value per unit volume increases as the mean diameter increases. In addition the greater thinning yields resulting from higher intensities provide greater revenues. Taken together these features tend to make higher thinning intensities more profitable, but a maximum occurs where these gains are offset by lost revenue resulting from losses in volume production. The intensity of maximum profit is normally slightly greater than the marginal thinning intensity, using the criterion of profitability employed by the Forestry Commission. However, since the difference between the two is relatively minor and since maximum volume production is considered a desirable management objective, the marginal thinning intensity has been adopted in these Forest Management Tables.

In an analysis of thinning experiments carried out prior to the publication of the original (Imperial) Forest Management Tables, the marginal intensity was shown to be reasonably close to an intensity which in terms of annual rate of volume removal is 70% of the maximum mean annual increment, i.e. 70% of the yield class. Thus the annual thinning yield of a stand of Yield Class 10 thinned at this intensity will be 7 cubic metres per hectare. This analysis further indicated that sample plots which had been thinned to various grades, C, C/D, D, E or L/C, showed marked fluctuations in the intensity of thinning over their thinning life, but the average trend of these intensities tended towards a constant level of intensity. This feature has been formally adopted in the relevant tables.

It is important to note that the period over which the normal annual thinning yields apply is specified for each yield class and species. By adjusting the start and finish of the normal thinning period it has been possible to accommodate differences which exist between species in the relevant growth curves such that the annual thinning yield of 70% of maximum mean annual increment is applicable to all species and yield classes. The start of the normal thinning period is indicated on the General Yield Class curves in terms of top height (also tabulated by age on page 46) and ceases a few years before the age of maximum mean annual increment (page 194).

Thinning Cycle

The *thinning cycle* which is adopted has an influence on profitability in that the stumpage value of any single thinning depends in part on the scale of the operation. Long cycles entailing heavier single thinnings are thus usually more profitable, but may increase the risk of windblow and in extreme cases may result in a loss of volume production. The choice of thinning cycle will usually depend on local management considerations and on the yield class of the crop. In general higher yield classes will be associated with shorter thinning cycles. Table 1 (page 45) gives normal thinning yields for different yield classes and cycles. Recommended cycles are implied by the printing of yields in heavy type. Yields for cycles which are usually unacceptable for a given yield class are excluded from the table.

Thinning Type

The choice of *thinning type*, similarly rests to some extent with local management, the only proviso being that a sufficient number of dominant trees are retained to maintain the vigour of the crop. It has been necessary, however, to assume a specific type of thinning in deriving the values of certain parameters in the Thinning Control Tables (page 49), in the Production Forecast Tables (Part III, page 72) and in the Normal Yield Tables (Part IV, page 114). The type of thinning generally assumed is an intermediate type which, while concentrating on the removal of subordinate trees in the crop, also removes competing dominants where this is necessary to encourage the development of the better trees. In more tolerant or shade-bearing species a crown thinning has been assumed for the first thinnings. The parameters which are affected by these assumptions are further considered in the appropriate part of the text.

By virtue of the latitude given in choosing thinning type and cycle, forest managers are offered a variety of regimes rather than any single regime. Common to all these regimes are the features of regularity of yield over the thinning life of the crop, and the level of thinning intensity adopted. The benefits resulting from the regularity of thinning yields are in simplifying production forecasting and in the field of marketing generally. The advantages of adopting the marginal thinning intensity are, in normal circumstances, the provision of:

(i) maximum volume production,
(ii) maximum increment of the maincrop diameter (consistent with (i)),
(iii) near maximum profitability.

CONTROL

Thinning control is essential if the benefits described above are to be obtained. Control is exercised through the volume of thinnings removed. This approach is used in preference to controlling the level of the remaining growing stock for three main reasons. First, since the growing stock volume is some three to twenty times greater than that of the thinning yield, the effect of errors either in the assessment of the yield class or in the level of the growing stock have a much less serious effect if control is exercised through thinning yields rather than through the level of the growing stock. Secondly, control through thinnings discourages drastic reduction of the level of the growing stock of overstocked stands, which might in turn result in windblow, etc. Thirdly, since thinnings usually provide a large proportion of the total yield of a stand in the course of a normal rotation there are clearly many advantages to management in having a regular thinning yield.

Forestry Commission Booklet No. 32, *Thinning Control in British Woodlands (Metric)* (1971), provides a rather more comprehensive treatment of the practice of thinning control than is given here.

Thinning Yields

Once yield class has been established the *annual thinning yields* in cubic metres per hectare may be determined from the following table:

Yield Class	4	6	8	10	12	14	16	18	20	22	24	26	28	30
Annual Thinning Yields m^3/ha	2·8	4·2	5·6	7·0	8·4	9·8	11·2	12·6	14·0	15·4	16·8	18·2	19·6	21·0

The yield which is removed in one thinning will be the product of the annual thinning yield and the proposed cycle. Table 1 (page 45) gives appropriate yields for different yield classes and cycles.

These thinning yields apply over the *normal thinning period.* The start of this period is indicated on the General Yield Class curves in terms of top height and in Table 3 (page 46) in terms of age. Thinning normally ceases a few years before the age of maximum mean annual increment (see GYC curves or Table 74). Should it be considered desirable to thin outside the limits of the normal thinning period, then the annual thinning yields must be reduced. Appropriate yields for early thinnings are given in Table 2 on page 45. For crops which are retained and thinned at or beyond the age of maximum mean annual increment approximate thinning yields may be deduced from the Normal Yield Tables, bearing in mind that these give yields for five-year periods.

A stand may be judged as ready for thinning by visual inspection and by reference to the table of Before-thinning Basal Areas (page 47). Thinning will normally be deferred if the basal area of a stand is less than that specified in the table for a given top height. Basal area may be assessed with a relascope or by measuring the breast height diameter of all trees in several plots of 0·01 hectares and deriving the basal area per hectare from the table on page 200.

If, for local management reasons, it is considered necessary to thin an *understocked* stand, yields should be reduced. Where a stand is clearly *overstocked* the yield can if desired be raised by one year's cut and if need be this can be repeated in succeeding thinnings. This method of adjustment is preferable to achieving normality in one very heavy thinning.

Methods of Control

There are basically two *methods of controlling the intensity* of thinning in the forest. Both are applied at the time of marking.

The preferred method is to check at intervals the volume of thinnings marked. The procedure is for the marker to lay down plots from time to time while marking and check the volume per hectare of the trees marked in each plot. As he progresses he can adjust his marking so that the specified volume is marked. This is essentially a skill acquired with practice and the frequency of checking will consequently diminish. Plots should be of such a size as to include 5–10 marked trees. The breast height diameter of each tree is measured and its volume may be estimated either from the top height/volume table on page 48 or from a tariff table (appropriate tariff numbers are included in the Thinning Control Tables, pages 49–66). The volume per plot is then converted to volume per hectare in order to make a comparison with the target figure.

The alternative is to check the total basal area of marked trees against a target figure in the Thinning Control Tables which gives annual basal area yields for each species and yield class. The basal area to be removed will be the product of the annual basal area and the proposed cycle. The main advantage of the basal area method is that checks can be carried out with a relascope, thus dispensing with the need to girth individual trees or to lay out plots. Using the relascope method it is usually necessary to mark three 'sides' of the tree so that at least one mark is visible from the point of sampling.

An intermediate type of thinning has been assumed in deriving the tabulated basal areas and tariff numbers. Thinnings which remove a greater proportion of upper canopy trees will be associated with lower basal areas and higher tariff numbers. The reverse will be the case for thinnings removing less than the assumed proportions of upper canopy trees. The top height volume table is based on tariff tables and its accuracy is likewise dependent on the type of thinning used. Irrespective of the method of control used, it is, therefore, always useful to check the felled volumes against target figures and use the experience gained to modify specified basal areas, or tariff numbers in similar situations which might follow.

Since the volume measurement limit of older hardwoods (see Appendix I, page 196) is likely to differ from that of conifers of the same height, the top height/tariff relationship assumed in the top height/volume table is not strictly applicable to hardwoods beyond 30 cm breast height diameter. Tariff numbers in the hardwood Thinning Control tables have, however, been adjusted to accommodate the change in measurement limit.

Table 1

TABLE OF NORMAL THINNING YIELDS

(see text, pages 42, 43)

(Applicable to fully stocked crops of all species for the duration of their normal thinning life)

Yield Class	VOLUME PER NET HECTARE (cubic metres over bark to 7 cm top diameter or 7 cm dbh)							Yield Class
	THINNING CYCLES (Number of years before the *next* thinning, *not* since the last)							
	3	4	5	6	8	9	10	
2	4·2	5·6	7·0	8·4	11·2	12·6	**14**	2
4	8·4	11·2	14·0	16·8	**22·4**	**25·2**	**28**	4
6	12·6	16·8	21·0	**25·2**	**33·6**	**37·8**	**42**	6
8	16·8	22·4	**28·0**	**33·6**	**44·8**	**50·4**	56	8
10	21·0	28·0	**35·0**	**42·0**	**56·0**	63·0	70	10
12	25·2	**33·6**	**42·0**	**50·4**	67·2	75·6		12
14	29·4	**39·2**	**49·0**	**58·8**	78·4			14
16	33·6	**44·8**	**56·0**	67·2	89·6			16
18	**37·8**	**50·4**	**63·0**	75·6				18
20	**42·0**	**56·0**	70·0	84·0				20
22	**46·2**	**61·6**	77·0	92·4				22
24	**50·4**	**67·2**	84·0					24
26	**54·6**	72·8	91·0					26
28	**58·8**	78·4						28
30	**63·0**	84·0						30

Table 2

ANNUAL YIELDS FOR EARLY THINNINGS

(see text, page 43)

Volume per hectare (cubic metres over bark to 7 cm top diameter)

NUMBER OF YEARS BEFORE NORMAL TIME OF FIRST THINNING	YIELD CLASS													
	30	28	26	24	22	20	18	16	14	12	10	8	6	4
0	21·0	19·6	18·2	16·8	15·4	14·0	12·6	11·2	9·8	8·4	7·0	5·6	4·2	2·8
1	18·5	17·2	16·0	14·8	13·6	12·3	11·1	9·9	8·6	7·4	6·2	4·9	3·7	2·5
2	15·3	14·3	13·3	12·3	11·2	10·2	9·2	8·2	7·2	6·1	5·1	4·1	3·1	2·0
3	11·1	10·4	9·6	8·9	8·2	7·4	6·7	5·9	5·2	4·5	3·7	3·0	2·2	1·5

NOTE: The figures above are annual yields and must be multiplied by the thinning cycle to give the volume to be removed in a single thinning.

Table 3

AGES AT NORMAL TIME OF FIRST THINNING

(see text, pages 42, 43)

SPECIES	YIELD CLASS													
	30	28	26	24	22	20	18	16	14	12	10	8	6	4
Scots pine	—	—	—	—	—	—	—	—	21	23	25	29	33	40
Corsican pine	—	—	—	—	—	18	19	20	21	23	25	28	33	—
Lodgepole pine	—	—	—	—	—	—	—	—	19	21	23	26	31	40
Sitka spruce	—	—	—	18	18	19	20	21	22	24	26	29	33	—
Norway spruce	—	—	—	—	20	21	22	23	24	26	28	31	35	—
European larch	—	—	—	—	—	—	—	—	—	18	20	22	26	32
Japanese larch Hybrid larch	—	—	—	—	—	—	—	—	14	15	17	19	22	26
Douglas fir	—	—	—	16	17	17	18	19	21	23	25	—	—	—
Western hemlock	—	—	—	19	20	21	22	24	26	28	—	—	—	—
Western red cedar/ Lawson cypress	—	—	—	21	22	23	24	26	28	30	—	—	—	—
Grand fir	19	20	20	21	21	22	23	24	25	—	—	—	—	—
Noble fir	—	—	—	—	22	23	25	27	29	31	—	—	—	—
Oak	—	—	—	—	—	—	—	—	—	—	—	24	28	35
Beech	—	—	—	—	—	—	—	—	—	—	26	29	32	37
Sycamore/ Ash/Birch	—	—	—	—	—	—	—	—	—	14	15	17	20	24
Poplar	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 4

BEFORE-THINNING BASAL AREAS FOR FULLY-STOCKED STANDS

(see text, page 43)

Basal areas in square metres per hectare

SPECIES	TOP HEIGHT (METRES)										
	10	12	14	16	18	20	22	24	26	28	30
Scots pine	26	26	27	30	32	35	38	40	43	46	—
Corsican pine	34	34	33	33	33	34	35	36	37	39	—
Lodgepole pine	33	31	31	30	30	31	31	32	33	34	—
Sitka spruce	33	34	34	35	35	36	37	38	39	40	42
Norway spruce	33	33	34	35	36	38	40	42	44	46	49
European larch	23	22	22	22	23	24	25	27	28	30	—
Japanese and Hybrid larch	22	22	23	23	24	24	25	27	28	29	—
Douglas fir	28	28	28	29	30	31	32	34	35	37	40
Western hemlock	32	34	35	36	36	36	37	38	38	39	40
Red cedar	—	49	50	51	53	55	57	60	63	66	70
Grand fir	—	39	39	39	39	39	39	40	41	43	45
Noble fir	—	45	46	46	47	48	49	51	52	54	—
Oak	24	23	23	23	23	24	24	25	26	—	—
Beech	20	20	22	23	25	27	29	31	33	35	37
Sycamore, Ash, Birch	16	15	17	19	22	26	30	34	—	—	—

NOTE: Stands with a yield class which is relatively high for the species, or which are thinned on a long cycle, ought to have basal areas which are up to 10% greater than those quoted in the table.

Top height volume table for thinnings

BH DIAM cm	VOLUMES IN CUBIC METRES TO 7 CENTIMETRES TOP DIAMETER — TOP HEIGHT IN METRES																BH DIAM cm
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
10	0·028	0·029	0·031	0·032	0·034	0·035	0·037	0·038	0·040	0·041	0·042	0·044	0·045	0·047	0·048	0·050	10
11	0·037	0·039	0·042	0·044	0·046	0·048	0·050	0·052	0·054	0·056	0·058	0·060	0·062	0·064	0·066	0·068	11
12	0·048	0·050	0·053	0·056	0·059	0·061	0·064	0·067	0·069	0·072	0·075	0·077	0·080	0·083	0·085	0·088	12
13	0·059	0·062	0·066	0·069	0·073	0·076	0·079	0·083	0·086	0·090	0·093	0·096	0·100	0·103	0·107	0·110	13
14	0·071	0·075	0·079	0·084	0·088	0·092	0·096	0·100	0·104	0·109	0·113	0·117	0·121	0·125	0·129	0·133	14
15	0·084	0·089	0·094	0·099	0·104	0·109	0·114	0·119	0·124	0·129	0·134	0·139	0·144	0·149	0·154	0·159	15
16	0·098	0·104	0·110	0·116	0·122	0·127	0·133	0·139	0·145	0·151	0·157	0·163	0·168	0·174	0·180	0·186	16
17	0·113	0·120	0·127	0·133	0·140	0·147	0·154	0·160	0·167	0·174	0·181	0·188	0·194	0·201	0·208	0·215	17
18	0·129	0·137	0·144	0·152	0·160	0·168	0·175	0·183	0·191	0·199	0·206	0·214	0·222	0·230	0·238	0·245	18
19	0·145	0·154	0·163	0·172	0·181	0·189	0·198	0·207	0·216	0·225	0·234	0·242	0·251	0·260	0·269	0·278	19
20	0·163	0·173	0·183	0·193	0·203	0·213	0·222	0·232	0·242	0·252	0·262	0·272	0·282	0·292	0·302	0·312	20
21	0·18	0·19	0·20	0·21	0·23	0·24	0·25	0·26	0·27	0·28	0·29	0·30	0·31	0·33	0·34	0·35	21
22	0·20	0·21	0·23	0·24	0·25	0·26	0·27	0·29	0·30	0·31	0·32	0·34	0·35	0·36	0·37	0·39	22
23	0·22	0·23	0·25	0·26	0·28	0·29	0·30	0·32	0·33	0·34	0·36	0·37	0·38	0·40	0·41	0·42	23
24	0·24	0·26	0·27	0·29	0·30	0·32	0·33	0·35	0·36	0·38	0·39	0·41	0·42	0·44	0·45	0·47	24
25	0·26	0·28	0·30	0·31	0·33	0·35	0·36	0·38	0·39	0·41	0·43	0·44	0·46	0·48	0·49	0·51	25
26	0·29	0·30	0·32	0·34	0·36	0·38	0·39	0·41	0·43	0·45	0·46	0·48	0·50	0·52	0·54	0·55	26
27	0·31	0·33	0·35	0·37	0·39	0·41	0·43	0·45	0·46	0·48	0·50	0·52	0·54	0·56	0·58	0·60	27
28	0·34	0·36	0·38	0·40	0·42	0·44	0·46	0·48	0·50	0·52	0·54	0·56	0·58	0·61	0·63	0·65	28
29	0·36	0·38	0·41	0·43	0·45	0·47	0·50	0·52	0·54	0·56	0·59	0·61	0·63	0·65	0·67	0·70	29
30	0·39	0·41	0·44	0·46	0·48	0·51	0·53	0·56	0·58	0·60	0·63	0·65	0·68	0·70	0·72	0·75	30
31	0·42	0·44	0·47	0·49	0·52	0·54	0·57	0·60	0·62	0·65	0·67	0·70	0·72	0·75	0·78	0·80	31
32	0·44	0·47	0·50	0·53	0·55	0·58	0·61	0·64	0·66	0·69	0·72	0·75	0·77	0·80	0·83	0·86	32
33	0·47	0·50	0·53	0·56	0·59	0·62	0·65	0·68	0·71	0·74	0·77	0·80	0·83	0·85	0·88	0·91	33
34	0·50	0·53	0·57	0·60	0·63	0·66	0·69	0·72	0·75	0·78	0·82	0·85	0·88	0·91	0·94	0·97	34
35	0·53	0·57	0·60	0·63	0·67	0·70	0·73	0·77	0·80	0·83	0·87	0·90	0·93	0·97	1·00	1·03	35
36	0·57	0·60	0·64	0·67	0·71	0·74	0·78	0·81	0·85	0·88	0·92	0·95	0·99	1·02	1·06	1·09	36
37	0·60	0·64	0·67	0·71	0·75	0·79	0·82	0·86	0·90	0·93	0·97	1·01	1·05	1·08	1·12	1·16	37
38	0·63	0·67	0·71	0·75	0·79	0·83	0·87	0·91	0·95	0·99	1·03	1·07	1·11	1·15	1·18	1·22	38
39	0·67	0·71	0·75	0·79	0·83	0·88	0·92	0·96	1·00	1·04	1·08	1·12	1·17	1·21	1·25	1·29	39
40	0·70	0·75	0·79	0·83	0·88	0·92	0·97	1·01	1·05	1·10	1·14	1·18	1·23	1·27	1·32	1·36	40
Approx Tariff No.	18	19	20	22	23	24	25	26	27	28	30	31	32	33	34	35	Approx Tariff No.

THINNING CONTROL

SP 14 BASAL AREAS AND TARIFF NUMBERS **SP 4**

Scots Pine

Age	YIELD CLASS 14		YIELD CLASS 12		YIELD CLASS 10		Age
	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	
20	2.33	20	1.44	18			20
25	1.97	22	1.90	20	2.02	19	25
30	1.43	24	1.42	22	1.45	21	30
35	1.22	26	1.15	24	1.13	22	35
40	1.12	27	1.03	26	0.96	24	40
45	1.06	29	0.96	27	0.88	25	45
50	1.03	30	0.92	29	0.83	27	50
55	0.93	32	0.87	30	0.79	28	55
60	0.83	33	0.83	31	0.76	29	60
65	0.74	34	0.71	32	0.69	30	65
70	0.65	35	0.63	33	0.63	31	70
75	0.57	36	0.55	34	0.53	32	75
80			0.48	35	0.45	32	80
85					0.40	33	85

	YIELD CLASS 8		YIELD CLASS 6		YIELD CLASS 4		
30	1.64	19	0.92	17			30
35	1.22	21	1.53	18			35
40	0.97	22	1.12	20	1.08	17	40
45	0.83	23	0.85	21	0.93	19	45
50	0.76	25	0.72	22	0.68	20	50
55	0.71	26	0.64	23	0.57	21	55
60	0.67	27	0.59	24	0.51	21	60
65	0.64	28	0.55	25	0.47	22	65
70	0.59	29	0.52	26	0.44	23	70
75	0.51	29	0.50	27	0.41	24	75
80	0.43	30	0.42	27	0.37	24	80
85	0.37	31	0.35	28	0.33	25	85
90			0.30	28	0.25	25	90
95					0.19	25	95
100					0.13	26	100

THINNING CONTROL

CP 20 BASAL AREAS AND TARIFF NUMBERS **CP 6**

Corsican Pine

Age	YIELD CLASS 20		YIELD CLASS 18		YIELD CLASS 16		YIELD CLASS 14		Age
	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	
15	2.34	17							15
20	2.88	21	2.87	20	2.81	19	2.48	18	20
25	2.09	26	2.07	24	1.97	23	1.97	21	25
30	1.57	30	1.53	28	1.49	26	1.48	24	30
35	1.30	33	1.25	31	1.22	30	1.19	27	35
40	1.14	36	1.09	34	1.05	32	1.01	30	40
45	0.97	39	0.96	37	0.91	35	0.90	32	45
50	0.81	42	0.79	40	0.77	37	0.76	35	50
55	0.66	44	0.64	42	0.63	39	0.61	36	55
60	0.55	46	0.53	43	0.52	41	0.50	38	60
65			0.45	45	0.44	42	0.43	40	65

	YIELD CLASS 12		YIELD CLASS 10		YIELD CLASS 8		YIELD CLASS 6		
20	1.52	17							20
25	1.98	20	1.99	18	1.07	16			25
30	1.49	23	1.48	21	1.48	18	0.81	16	30
35	1.18	25	1.19	23	1.19	21	1.20	18	35
40	0.99	28	0.97	25	0.98	23	0.98	19	40
45	0.87	30	0.84	27	0.83	24	0.83	21	45
50	0.75	32	0.75	29	0.73	26	0.73	22	50
55	0.60	34	0.60	31	0.63	28	0.65	24	55
60	0.50	35	0.48	32	0.49	29	0.54	25	60
65	0.42	37	0.41	34	0.41	30	0.42	26	65
70	0.37	38	0.36	35	0.36	31	0.35	27	70
75					0.33	32	0.32	28	75
80							0.29	28	80

THINNING CONTROL

LP 14 BASAL AREAS AND TARIFF NUMBERS **LP 4**

Lodgepole Pine

Age	YIELD CLASS 14		YIELD CLASS 12		YIELD CLASS 10		Age
	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	
20	2.41	20	2.15	19	1.31	18	20
25	1.58	23	1.59	22	1.65	20	25
30	1.28	26	1.21	24	1.25	23	30
35	1.13	29	1.05	27	1.01	25	35
40	1.00	31	0.93	29	0.89	26	40
45	0.91	33	0.84	30	0.80	28	45
50	0.84	34	0.79	32	0.73	29	50
55	0.73	36	0.68	33	0.64	31	55
60	0.66	37	0.60	35	0.55	32	60
65	0.60	39	0.54	36	0.50	33	65
70					0.47	34	70

	YIELD CLASS 8		YIELD CLASS 6		YIELD CLASS 4		
25	1.53	19					25
30	1.36	21	1.15	19			30
35	1.04	22	1.09	20			35
40	0.87	24	0.85	22	0.84	19	40
45	0.74	25	0.73	23	0.69	20	45
50	0.68	27	0.65	24	0.58	21	50
55	0.62	28	0.56	25	0.51	22	55
60	0.51	29	0.53	26	0.46	22	60
65	0.47	30	0.42	27	0.41	23	65
70	0.43	31	0.38	28	0.32	24	70
75	0.41	32	0.36	28	0.30	24	75
80			0.34	29	0.28	25	80

THINNING CONTROL

SS 24 BASAL AREAS AND TARIFF NUMBERS **SS 16**

Sitka Spruce

Age	YIELD CLASS 24		YIELD CLASS 22		YIELD CLASS 20		Age
	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	
15	2.40	18	2.40	18			15
20	3.02	23	3.06	22	3.04	21	20
25	2.16	28	2.15	26	2.09	25	25
30	1.76	32	1.68	31	1.63	29	30
35	1.53	36	1.47	34	1.43	32	35
40	1.33	39	1.31	38	1.27	36	40
45	1.07	42	1.06	40	1.07	38	45
50	0.86	45	0.86	43	0.85	41	50
55	0.70	47	0.70	45	0.69	43	55
60			0.59	46	0.59	44	60

	YIELD CLASS 18		YIELD CLASS 16			
20	3.06	20	2.70	18		20
25	2.07	23	2.06	22		25
30	1.60	27	1.56	25		30
35	1.36	31	1.29	28		35
40	1.22	34	1.18	31		40
45	1.08	36	1.06	34		45
50	0.85	39	0.85	36		50
55	0.69	40	0.68	38		55
60	0.58	42	0.57	40		60
65			0.49	41		65

THINNING CONTROL

SS 14 BASAL AREAS AND TARIFF NUMBERS **SS 6**

Sitka Spruce

Age	YIELD CLASS 14		YIELD CLASS 12		YIELD CLASS 10		Age
	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	
20	2.22	17					20
25	2.09	20	2.18	19	1.90	17	25
30	1.57	23	1.61	22	1.63	20	30
35	1.27	26	1.28	24	1.28	22	35
40	1.10	29	1.08	27	1.08	25	40
45	1.00	32	0.95	29	0.93	27	45
50	0.84	34	0.84	31	0.82	29	50
55	0.67	36	0.66	33	0.65	30	55
60	0.55	37	0.54	35	0.53	32	60
65	0.48	38	0.46	36	0.44	33	65
70			0.39	37	0.38	34	70

	YIELD CLASS 8		YIELD CLASS 6			
30	1.60	18	0.79	16		30
35	1.33	20	1.32	18		35
40	1.09	22	1.11	20		40
45	0.93	24	0.94	21		45
50	0.81	26	0.81	23		50
55	0.64	27	0.69	24		55
60	0.52	29	0.55	25		60
65	0.44	30	0.44	26		65
70	0.38	31	0.38	27		70
75	0.33	31	0.33	28		75

THINNING CONTROL

NS 22 BASAL AREAS AND TARIFF NUMBERS **NS 12**

Norway Spruce

Age	YIELD CLASS 22		YIELD CLASS 20		YIELD CLASS 18		Age
	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	
20	3.64	22	3.14	21	2.62	20	20
25	2.23	25	2.28	24	2.35	23	25
30	1.79	28	1.79	27	1.78	26	30
35	1.58	31	1.53	30	1.51	29	35
40	1.47	34	1.43	32	1.33	31	40
45	1.38	36	1.32	34	1.22	33	45
50	1.30	38	1.24	36	1.16	35	50
55	1.23	40	1.17	38	1.11	36	55
60	1.08	41	1.05	39	1.01	38	60
65	0.90	43	0.88	41	0.84	39	65
70	0.79	44	0.77	42	0.73	40	70
75	0.73	45	0.69	43	0.68	41	75

Age	YIELD CLASS 16		YIELD CLASS 14		YIELD CLASS 12		Age
20	1.87	20					20
25	2.44	22	2.47	21	2.14	20	25
30	1.75	25	1.75	24	1.77	22	30
35	1.47	27	1.43	26	1.41	24	35
40	1.27	29	1.23	28	1.20	26	40
45	1.19	31	1.08	30	1.06	28	45
50	1.09	33	1.04	31	0.94	30	50
55	1.04	35	0.96	33	0.91	31	55
60	0.96	36	0.91	34	0.83	32	60
65	0.80	37	0.76	35	0.73	33	65
70	0.71	38	0.65	36	0.61	34	70
75	0.65	39	0.61	37	0.55	35	75
80	0.59	40	0.57	38	0.54	36	80

THINNING CONTROL

NS 10 BASAL AREAS AND TARIFF NUMBERS **NS 6**

Norway Spruce

Age	YIELD CLASS 10		YIELD CLASS 8		YIELD CLASS 6		Age
	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	
25	1.27	19					25
30	1.80	21	1.53	20			30
35	1.38	23	1.37	21	1.35	19	35
40	1.16	25	1.09	23	0.98	21	40
45	1.02	26	0.96	24	0.83	22	45
50	0.92	28	0.87	25	0.77	23	50
55	0.82	29	0.79	27	0.71	24	55
60	0.74	30	0.71	28	0.66	25	60
65	0.67	31	0.65	29	0.60	26	65
70	0.55	32	0.53	30	0.51	27	70
75	0.50	33	0.47	30	0.42	28	75
80	0.48	34	0.42	31	0.37	28	80
85			0.39	32	0.33	29	85
90			0.35	32	0.29	30	90

THINNING CONTROL

EL 12 BASAL AREAS AND TARIFF NUMBERS **EL 4**

European Larch

Age	YIELD CLASS 12		YIELD CLASS 10		YIELD CLASS 8		Age
	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	
15	1.35	19					15
20	1.69	22	1.69	21	1.27	18	20
25	1.13	26	1.13	24	1.23	21	25
30	0.95	29	0.89	27	0.88	24	30
35	0.86	32	0.79	29	0.74	26	35
40	0.76	34	0.72	32	0.66	28	40
45	0.64	36	0.61	33	0.61	30	45
50	0.55	38	0.50	35	0.48	32	50
55	0.48	40	0.43	37	0.39	33	55
60			0.38	38	0.34	34	60

	YIELD CLASS 6		YIELD CLASS 4			
25	1.13	19				25
30	0.96	21	0.69	18		30
35	0.73	23	0.76	20		35
40	0.62	25	0.58	21		40
45	0.55	27	0.49	23		45
50	0.50	28	0.44	24		50
55	0.36	29	0.37	25		55
60	0.29	30	0.26	26		60
65	0.24	31	0.19	27		65
70			0.16	27		70

THINNING CONTROL

JL 14 **HL 14**

BASAL AREAS AND TARIFF NUMBERS

JL 4 **HL 4**

Japanese Larch and Hybrid Larch

Age	YIELD CLASS 14		YIELD CLASS 12		YIELD CLASS 10		Age
	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	
15	2.30	21	2.31	19	1.72	18	15
20	1.45	25	1.46	23	1.51	21	20
25	1.17	28	1.12	27	1.11	24	25
30	1.03	32	0.98	30	0.93	27	30
35	0.92	34	0.87	32	0.82	30	35
40	0.74	37	0.72	34	0.70	32	40
45	0.63	39	0.59	36	0.57	33	45
50	0.56	40	0.51	38	0.47	35	50
55					0.42	36	55

	YIELD CLASS 8		YIELD CLASS 6		YIELD CLASS 4		
20	1.56	19	1.18	17			20
25	1.12	22	1.17	20	0.99	17	25
30	0.88	25	0.86	22	0.85	19	30
35	0.76	27	0.71	24	0.64	20	35
40	0.68	29	0.62	25	0.55	22	40
45	0.54	30	0.54	27	0.50	23	45
50	0.44	32	0.40	28	0.38	24	50
55	0.37	33	0.31	29	0.25	25	55
60			0.27	30	0.19	26	60
65					0.16	26	65

THINNING CONTROL

DF 24 BASAL AREAS AND TARIFF NUMBERS **DF 10**

Douglas Fir

Age	YIELD CLASS 24		YIELD CLASS 22		YIELD CLASS 20		YIELD CLASS 18		Age
	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	
15	3.52	20	2.86	20	2.59	19	2.05	18	15
20	2.34	25	2.30	24	2.36	23	2.49	22	20
25	1.87	29	1.82	28	1.78	27	1.69	26	25
30	1.67	33	1.60	32	1.52	31	1.43	29	30
35	1.49	37	1.42	35	1.37	34	1.31	32	35
40	1.33	39	1.28	38	1.24	36	1.19	35	40
45	1.24	41	1.21	40	1.12	39	1.08	37	45
50	0.91	43	0.91	42	0.93	40	0.87	39	50
55	0.79	45	0.74	43	0.73	42	0.72	40	55
60	0.68	46	0.66	45	0.63	43	0.62	42	60
65							0.55	43	65

	YIELD CLASS 16		YIELD CLASS 14		YIELD CLASS 12		YIELD CLASS 10		
20	2.56	21	2.25	20	1.38	18			20
25	1.67	24	1.65	23	1.81	21	1.81	20	25
30	1.35	28	1.28	26	1.25	24	1 25	22	30
35	1 24	31	1.17	29	1.08	27	0.99	25	35
40	1.12	33	1.07	31	0.99	29	0.88	27	40
45	1.03	35	0.97	33	0.91	31	0.82	29	45
50	0.88	37	0.88	35	0.84	33	0.77	30	50
55	0.71	38	0.71	36	0.70	34	0.69	32	55
60	0.61	40	0.59	38	0.58	35	0.57	33	60
65	0.53	41	0.50	39	0.50	36	0.47	34	65
70			0.45	40	0.44	37	0.42	35	70
75							0.37	36	75

THINNING CONTROL

WH 24 BASAL AREAS AND TARIFF NUMBERS **WH 12**

Western Hemlock

Age	YIELD CLASS 24		YIELD CLASS 22		YIELD CLASS 20		YIELD CLASS 18		Age
	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	
20	2.86	24	2.85	23	2.57	21	2.20	20	20
25	2.00	29	2.06	27	2.12	26	2.17	24	25
30	1.60	34	1.61	32	1.64	30	1.65	28	30
35	1.38	38	1.35	36	1.33	33	1.33	31	35
40	1.24	41	1.18	39	1.17	37	1.15	35	40
45	1.11	44	1.07	42	1.06	40	1.03	37	45
50	0.96	47	0.96	45	0.96	42	0.93	40	50
55	0.86	49	0.84	47	0.83	45	0.83	42	55
60					0.74	47	0.73	44	60
65							0.66	46	65

	YIELD CLASS 16		YIELD CLASS 14		YIELD CLASS 12			
25	2.22	22	2.03	20	1.31	18		25
30	1.67	26	1.69	23	1.71	21		30
35	1.34	29	1.35	27	1.36	24		35
40	1.14	32	1.13	30	1.12	27		40
45	0.99	35	0.98	32	0.95	30		45
50	0.89	37	0.86	35	0.82	32		50
55	0.82	40	0.79	37	0.74	34		55
60	0.72	42	0.71	39	0.68	36		60
65	0.65	44	0.63	41	0.61	37		65
70	0.59	45	0.58	42	0.55	39		70
75			0.52	44	0.50	41		75
80					0.46	42		80

THINNING CONTROL

RC 24
LC 24

BASAL AREAS AND TARIFF NUMBERS

RC 12
LC 12

Western Red Cedar and Lawson Cypress

Age	YIELD CLASS 24		YIELD CLASS 22		YIELD CLASS 20		YIELD CLASS 18		Age
	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	
20	3.48	21	2.83	20	2.05	19			20
25	2.66	24	2.82	23	2.83	22	2.85	21	25
30	2.18	27	2.12	26	2.08	25	2.09	24	30
35	1.94	30	1.88	29	1.79	27	1.72	26	35
40	1.81	32	1.76	31	1.64	29	1.56	28	40
45	1.71	34	1.63	33	1.54	31	1.45	30	45
50	1.53	36	1.51	34	1.45	33	1.35	32	50
55	1.31	38	1.28	36	1.25	35	1.23	33	55
60	1.17	39	1.13	38	1.09	36	1.05	34	60
65					0.99	37	0.94	36	65

	YIELD CLASS 16		YIELD CLASS 14		YIELD CLASS 12			
25	2.48	20	1.46	19				25
30	2.10	23	2.11	21	2.12	20		30
35	1.67	25	1.65	23	1.64	22		35
40	1.46	27	1.39	25	1.38	24		40
45	1.37	28	1.27	27	1.20	25		45
50	1.28	30	1.20	28	1.10	27		50
55	1.20	31	1.15	30	1.03	28		55
60	1.04	33	0.97	31	0.99	29		60
65	0.90	34	0.83	32	0.77	30		65
70	0.81	35	0.75	33	0.68	31		70
75					0.62	32		75

THINNING CONTROL

NF 22 BASAL AREAS AND TARIFF NUMBERS **NF 12**

Noble Fir

Age	YIELD CLASS 22		YIELD CLASS 20		YIELD CLASS 18		Age
	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	
20	2.60	20	1.85	20			20
25	2.63	24	2.61	23	2.56	22	25
30	2.10	27	2.13	26	2.01	25	30
35	1.76	30	1.70	29	1.68	27	35
40	1.55	33	1.51	31	1.45	30	40
45	1.38	35	1.35	33	1.32	32	45
50	1.28	37	1.22	35	1.20	34	50
55	1.15	38	1.11	37	1.09	35	55
60	1.00	40	0.94	38	0.88	37	60
65	0.92	42	0.85	40	0.79	38	65
70	0.85	43	0.80	41	0.74	39	70
75	0.80	44	0.76	42	0.70	40	75
80					0.67	42	80

	YIELD CLASS 16		YIELD CLASS 14		YIELD CLASS 12		
25	1.83	21					25
30	1.98	24	1.96	22	1.65	21	30
35	1.67	26	1.66	24	1.64	23	35
40	1.43	28	1.40	27	1.37	25	40
45	1.27	30	1.21	28	1.18	27	45
50	1.16	32	1.10	30	1.04	28	50
55	1.06	33	1.03	32	0.95	30	55
60	0.89	35	0.90	33	0.90	31	60
65	0.76	36	0.74	34	0.73	32	65
70	0.70	37	0.67	35	0.64	33	70
75	0.66	38	0.61	36	0.57	34	75
80	0.63	39	0.57	37	0.53	35	80

THINNING CONTROL

GF 30 BASAL AREAS AND TARIFF NUMBERS **GF 20**

Grand Fir

Age	YIELD CLASS 30		YIELD CLASS 28		YIELD CLASS 26		Age
	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	
20	3.53	25	3.44	24	3.41	23	20
25	2.56	30	2.48	29	2.44	28	25
30	1.98	36	1.95	35	1.92	33	30
35	1.62	40	1.58	39	1.55	38	35
40	1.37	44	1.33	43	1.29	41	40
45	1.07	48	1.02	46	0.98	45	45
50	0.89	50	0.86	49	0.82	47	50
55	0.78	53	0.74	51	0.70	49	55
60	0.67	55	0.64	53	0.62	51	60

Age	YIELD CLASS 24		YIELD CLASS 22		YIELD CLASS 20		Age
20	2.94	22	2.93	21	2.37	20	20
25	2.40	27	2.37	26	2.34	25	25
30	1.89	32	1.87	30	1.85	29	30
35	1.53	36	1.52	34	1.51	33	35
40	1.27	40	1.26	38	1.25	36	40
45	0.95	43	0.92	41	0.89	39	45
50	0.79	45	0.76	43	0.72	41	50
55	0.66	47	0.63	45	0.60	43	55
60	0.57	49	0.55	47	0.53	45	60
65			0.48	48	0.46	46	65

THINNING CONTROL

GF 18 BASAL AREAS AND TARIFF NUMBERS **GF 14**

Grand Fir

Age	YIELD CLASS 18		YIELD CLASS 16		YIELD CLASS 14		Age
	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	
20	1.68	19					20
25	2.27	24	2.19	22	2.09	21	25
30	1.82	28	1.76	26	1.63	25	30
35	1.50	31	1.45	30	1.37	28	35
40	1.25	34	1.23	32	1.18	31	40
45	0.93	37	0.96	35	0.97	33	45
50	0.71	39	0.71	37	0.73	35	50
55	0.58	41	0.56	39	0.54	37	55
60	0.50	43	0.47	41	0.45	39	60
65	0.42	44	0.39	42	0.37	40	65
70					0.30	41	70

THINNING CONTROL

OAK 8 BASAL AREAS AND TARIFF NUMBERS **OAK 4**

Oak

Age	YIELD CLASS 8		YIELD CLASS 6		YIELD CLASS 4		Age
	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	
25	1.44	22					25
30	1.19	24	1.09	22			30
35	0.98	26	0.93	23	0.85	20	35
40	0.84	28	0.80	25	0.75	22	40
45	0.72	29	0.69	26	0.66	23	45
50	0.65	31	0.62	27	0.59	24	50
55	0.60	32	0.57	28	0.53	25	55
60	0.55	33	0.53	30	0.50	26	60
65	0.52	34	0.49	30	0.47	26	65
70	0.50	35	0.46	31	0.43	27	70
75	0.48	36	0.42	32	0.41	28	75
80	0.47	37	0.41	33	0.38	28	80
85	0.46	38	0.40	33	0.35	28	85
90	0.45	38	0.39	34	0.33	29	90
95	0.44	39	0.38	34	0.32	29	95
100	0.42	39	0.36	35	0.32	29	100
105	0.40	40	0.34	35	0.31	30	105
110	0.38	40	0.32	35	0.29	30	110
115			0.29	35	0.27	30	115
120			0.27	36	0.25	30	120
125					0.23	30	125
130					0.21	30	130

THINNING CONTROL

BE 10 BASAL AREAS AND TARIFF NUMBERS **BE 4**

Beech

Age	YIELD CLASS 10		YIELD CLASS 8		Age
	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	
25	1.43	23			25
30	1.28	25	1.21	23	30
35	1.07	28	1.05	25	35
40	0.93	30	0.92	27	40
45	0.82	32	0.81	29	45
50	0.75	34	0.73	30	50
55	0.71	35	0.68	31	55
60	0.67	37	0.63	33	60
65	0.64	38	0.60	34	65
70	0.62	39	0.58	35	70
75	0.60	40	0.55	36	75
80	0.58	41	0.54	36	80
85	0.54	42	0.52	37	85
90	0.51	42	0.49	38	90
95			0.46	38	95

	YIELD CLASS 6		YIELD CLASS 4		
30	0.83	19			30
35	1.03	21	0.67	17	35
40	0.89	23	0.87	19	40
45	0.78	24	0.75	20	45
50	0.70	26	0.65	21	50
55	0.64	27	0.59	22	55
60	0.59	28	0.53	23	60
65	0.55	29	0.49	24	65
70	0.52	30	0.46	25	70
75	0.50	31	0.43	26	75
80	0.48	31	0.41	26	80
85	0.47	32	0.40	27	85
90	0.46	33	0.39	27	90
95	0.43	33	0.38	28	95
100	0.40	34	0.37	28	100
105	0.38	34	0.36	29	105
110			0.34	29	110
115			0.31	29	115
120			0.29	29	120

THINNING CONTROL

SAB 12 BASAL AREAS AND TARIFF NUMBERS **SAB 12**

Sycamore, Ash, Birch

Age	YIELD CLASS 12		YIELD CLASS 10		YIELD CLASS 8		Age
	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	Annual Basal Area per ha m^2	Tariff Number	
15	2.02	21	1.96	20	1.55	18	15
20	1.42	24	1.34	23	1.30	21	20
25	1.17	27	1.12	26	0.97	24	25
30	1.04	29	0.99	28	0.88	26	30
35	0.98	31	0.92	30	0.82	28	35
40	0.94	33	0.85	31	0.75	29	40
45	0.65	34	0.56	32	0.55	30	45
50	0.50	35	0.43	33	0.40	31	50
55					0.32	31	55

Age	YIELD CLASS 6		YIELD CLASS 4				Age
20	1.28	19					20
25	0.91	22	0.80	19			25
30	0.78	24	0.68	21			30
35	0.70	25	0.59	23			35
40	0.63	27	0.50	24			40
45	0.51	28	0.45	25			45
50	0.34	28	0.33	25			50
55	0.29	29	0.25	26			55
60			0.20	26			60

PART III

PRODUCTION FORECASTING

The reliability of forecasts of future yields depends upon:

(i) The accuracy of the growth predictions.
(ii) The thinning and felling policy being carried out as planned.
(iii) The accuracy of growing stock data.

The yield class system of classifying growth provides a good means of predicting growth, and thinning control provides a means of ensuring that thinning yields are related to the assumptions made in forecasting.

Information on Growing Stock

In the Forestry Commission, growing stock surveys are carried out in all forests at approximately ten-year intervals by teams of specialist surveyors. Essentially the information which is produced is:

The gross area of each sub-compartment.
The age of the component species in the sub-compartment.
The yield class of each species in the sub-compartment.
The state of the crop, i.e. whether checked, overstocked, understocked, etc.

An area analysis of the growing stock, as is shown in Fig. 5 (page 69), is then prepared from the survey data. This is then used in conjunction with the *Production Forecast Tables* to produce either short- or long-term forecasts of volume production together with a distribution of volume by size classes. The compilation of this area analysis of growing stock is largely self-explanatory for pure even-aged crops. Mixtures and two-storied crops are most conveniently dealt with by separating the component species or storeys and deriving an effective gross area of each based on the proportion of the canopy it occupies. The effective area of each is entered against the appropriate yield class of that component. Alternatively where no differentiation of species is required, a mixture may be recorded as such and its gross area entered against the *average* yield class of the crop. In this case however a distribution of volume by top diameter classes is less easily obtained.

Basis of Tables

The Forecast Tables are divided into *Thinning Forecast Tables* and *Felling Forecast Tables*. Both are used with gross areas which includes unproductive area such as roads, rides, etc. Compared with the yields expected from fully stocked and fully productive areas such as are given in the Thinning Control Tables, the Thinning Forecast Tables show yields 15% less, partly to allow for the unproductive components of gross areas, and partly as a general allowance for sub-normal stocking. This means, for example, that the annual yields in the Thinning Forecast Tables are equivalent to 60% of the yield class value rather than 70% as in the case of Thinning Control Tables. Note that although these are *annual* yields they are tabulated at five-year intervals. The Felling Forecast yields are not annual yields but simply average standing volumes, reduced by 15% as explained above. Owing to the fact that control is exercised through the thinnings rather than the main crop, the felling yields may need adjustment to allow for abnormal levels of stocking which may occur. The felling yields in the Forecast Tables represent the *average* standing volume (defined

as the after-thinning volume plus half the volume removed in thinning on a five-year cycle) rather than the before-thinning volume. This provides an underestimate which is a useful safety factor but it may be prudent in certain circumstances to make actual assessments of standing volumes scheduled for felling because of the uncertainties inherent in predicting felling yields, particularly where the thinning history is known to be markedly different from the regime assumed in the tables.

Assortments

Volume yields are expressed in terms of three different top diameter limits namely 7 cm, 18 cm, and 24 cm over bark. Note that the volume to 18 cm top diameter includes the volume to 24 cm top diameter. Likewise the volume to 7 cm top diameter includes the volumes to 18 cm and 24 cm top diameter.

Mean diameters at breast height are included in the tables and refer to stands where it is assumed that the thinning treatment accords with that in the Thinning Control section. Where in practice the mean breast height diameter differs from that given, the volume breakdown in the Forecast Tables will not be appropriate. In the case of thinnings, corrected yields can be obtained from Tables 51 and 52 (pages 104, 105), entering by the appropriate mean breast height diameter. For fellings use Table 53 (page 106), which gives percentage volumes for a given breast height diameter. This table may be used for either fellings or thinnings for top diameter limits other than 18 cm, and 24 cm, but is not reliable for hardwoods beyond a mean breast height diameter of 30 cm.

Occasionally, estimates of *underbark volume* are required, e.g. for sawlogs. Tables 54 and 55 (pages 108, 109) give approximate underbark volumes to different underbark top diameters, as percentages of overbark volumes for a given mean diameter at breast height. Each table applies to a group of species which have similar bark thicknesses in relation to diameter.

Standard Forecasts

In the Forestry Commission, *standard forecasts* are prepared by computer from the field survey data described previously. These forecasts may then be modified by local staff to accommodate constraints that are of local origin. Whilst it is possible to compute standard forecasts by hand, using the detailed procedure employed by the computer, it is laborious and for that reason is not described here. An example of a simplified forecasting system is shown on page 70 employing the basic growing stock data tabulated on page 69.

Stand and Stock Tables

Tables 56 and 57 (pages 110, 111) are, respectively, stand and stock tables. The stand table gives average distributions of numbers of trees in different breast height diameter classes for a given mean diameter. The stock table gives the proportion of volume which can be ascribed to these classes, again from the given mean diameter. This information may be useful for short-term forecasting and in allocating produce between markets. It should be noted that these distributions are based on an assumed intermediate type of thinning and will be less appropriate for stands where this assumption is invalid.

AREA ANALYSIS OF GROWING STOCK AS AT ...OCTOBER...69.....

Forest ..... EXAMPLE .....

SPECIES	P. YEAR CLASS	AREAS IN HECTARES BY METRIC YIELD CLASSES													TOTAL AREA (ha)	WEIGHTED AVERAGE YIELD CLASS	REMARKS
		24	22	20	18	16	14	12	10	8	6	4	2	CHECK			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
SP	61-70								10·0					2·0	12·0	10	
	51-60								7·5						7·5	10	
	41-50							7·0	15·5	6·5					29·0	10	
	31-40								1·0	2·5	0·5				4·0	8	
	21-30							2·0	4·0	1·5					7·5	10	
	11-20							4·0			3·0				7·0	10	
	01-10										2·5				2·5	6	
	TOTALS							13·0	38·0	10·5	6·0				69·5	10	
NS	61-70						10·5							4·0	14·5	14	
	41-50				2·0		8·5		7·0	9·0		1·5		3·0	31·0	11	
	31-40					1·0	15·0								16·0	14	
	01-10					3·0									3·0	16	
	TOTALS				2·0	4·0	34·0		7·0	9·0		1·5		7·0	64·5	14	
Be	61-70											14·0			14·0	4	
	51-60											10·5			10·5	4	
	21-30										4·0	12·0			16·0	4	
	01-10											3·5			3·5	4	
	1831-1900											1·5			1·5	4	
	TOTALS										4·0	41·5			45·5	4	

Signature .....

Date of Compilation 12/1969 .....

Figure 5

FORECAST OF YIELDS FROM THINNINGS AND FELLINGS

Species: SCOTS PINE Forest: EXAMPLE

PART A — AREAS of various categories by year of forecast

P. Year Class	Total Area (ha)	Age of First Thinning or Felling	1970 Ave. Age	1970 Check	1970 Non-thin	1970 Thinning	1970 Felled	1975 Ave. Age	1975 Check	1975 Non-thin	1975 Thinning	1975 Felled	1980 Ave. Age	1980 Check	1980 Non-thin	1980 Thinning	1980 Felled
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
61-70	12·0	25	5	2·0	10·0			10	2·0	10·0			15		12·0		
51-60	7·5	25	15		7·5			20		7·5			25		2·5	5·0	
41-50	29·0	25	25		14·5	14·5		30		2·0	27·0		35			29·0	
31-40	4·0	29	35			4·0		40			4·0		45			4·0	
21-30	7·5		45			7·5		50			7·5		55			7·5	
11-20	7·0	65	55			7·0		60			7·0		65		(0·5)	6·5	
01-10	2·5	70	65			2·5		70		(0·5)	2·0		75				2·5
Pre-1900																	
TOTALS	69·5																

PART B — Conversion of areas into VOLUME YIELDS by year of forecast (cubic metres)

P. Year Class (29)	Mid. Av. Yield Class (30)	1970 Av. Age	1970 Areas (ha)	1970 Volume by Top Diams. 7 cm	1970 18 cm	1970 24 cm	1975 Av. Age	1975 Areas (ha)	1975 Volume by Top Diams. 7 cm	1975 18 cm	1975 24 cm	1980 Av. Age	1980 Areas (ha)	1980 Volume by Top Diams. 7 cm	1980 18 cm	1980 24 cm
THINNING YIELD		(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)	(41)	(42)	(43)	(44)	(45)
61-70	10	5					10					15				
51-60	10	15					20					25	5·0	30·0		
41-50	10	27	14·5	87·0			30	27·0	162·0			35	29·0	174·0	8·7	
31-40	8	35	4·0	19·2			40	4·0	19·2	0·8		45	4·0	19·2	2·0	
21-30	10	45	7·5	45·0	15·8	1·5	50	7·5	45·0	24·8	6·0	55	7·5	45·0	31·5	12·0
11-20	10	55	7·0	42·0	29·4	11·2	60	7·0	42·0	33·6	18·2	65	6·5	39·0	33·2	22·1
01-10	6	65	2·5	9·0	2·5	0·2	70	2·0	7·2	3·0	0·4					
Pre-1900																
THINNING TOTAL				202·2	47·7	12·9			275·4	62·2	24·6			307·2	75·4	34·1
FELLING YIELDS							70	0·5	102·5	65·0	20·0	65	0·5	147·5	135·0	102·5
TOTAL ANNUAL YIELD				202·2	47·7	12·9			377·9	127·2	44·6			454·7	210·4	136·5

PRODUCTION FORECASTING—EXAMPLE

1. An example of production forecasting is shown on the opposite page. This is a very much simplified version of the procedure used by the Forestry Commission and it is intended primarily to illustrate the basic steps required in producing a forecast. In the private sector, this elementary procedure may be modified according to the needs of management and the kind of information on growing stock which is available.

2. There are basically two stages in producing a forecast. The first is to assess the areas which will be in the thinning stage or will be felled in the year for which the forecast is made (Part A of the form shown opposite). The second stage (Part B) is the conversion of these areas into volume yields using the Production Forecast Tables.

3. The basic information for this forecast is taken from the growing stock data of an imaginary forest tabulated on page 69. The forecast has been prepared for one species only (Scots pine) and the total area of this species classified by planting year is entered in column 2 of the form opposite. The weighted average yield class of each planting year class is entered in column 30. From this information the total annual yield for each forecast year is worked out and shown on the bottom line in three size categories, ie to top diameter limits of 7 cm, 18 cm and 24 cm.

4. More detailed information on the forecasting procedure is given below.

PART A

Col 1. The planting year classes are shown as ten-year classes, but any suitable interval may be used. (Five-year classes are used in the FC's computed forecasts.)

Col 2. The areas in each class are taken directly from the growing stock area analysis on page 69, column 16.

Col 3. The time of first thinning is derived from Table 3 (page 46) using the weighted average yield class given in column 17 of the growing stock area analysis. First thinning will be delayed in understocked stands. For older crops the felling age is shown in this column.

Cols 4, 9, 14. In the example the average age for each of the forecast years is based on the assumption that the mean P year within each class accords with the mid point of the class. If it is known that within a class the mean P year is towards the beginning or end of the period, the average age should be calculated on that basis.

Cols 5, 10, 15. The entry in column 5 is taken from the growing stock area analysis. Entries in subsequent 'check' columns must be estimated from experience of the rate of recovery from check.

Cols 6, 11, 16. Crops in the non-thin category are those not yet in the thinning stage but which are not checked. For example, in 1970 the average age of crops in the 41–50 P year class is 25 years. Assuming that half the class are less than 25 years and half are above this age then only half of the area will have reached the age of first thinning which is also 25 years. Thus 14·5 ha are shown as in the non-thin category out of a total of 29 ha. Figures which are encircled refer to areas which will be felled in the year of forecast. Crops of thinning age which are understocked are also entered as non-thin areas.

Cols 7, 12, 17. The areas in this column are those remaining after deducting from the totals in column 2, the areas of check, and non-thin areas. In the case of cols 12 and 17, the areas felled in the previous five-year period must also be deducted.

Cols 13, 18. The entries in this column are the areas felled in the previous five-year period, plus any areas felled in earlier periods covered by the forecast. For example, column 18 shows that 2·5 ha have been felled, all in the period 1975–79.

PART B

Col 30. The weighted average yield classes taken from column 17 of the growing stock area analysis (page 69) are entered here against the respective P-year classes.

Cols 31, 36, 41. Average age here refers only to areas in the thinning stage and those areas to be felled.

Cols 32, 37, 42. The areas in the thinning stage are transferred from the appropriate colums in Part A (7, 12, 17). The areas to be felled in the year of forecast is entered at the bottom of the column.

Cols 33–35, 38–40, 43–45. The yields entered in these columns are derived from the Production Forecast Tables. For example, in 1970 the annual thinning yields expected from one hectare of SP of YC 10 and age 45 (P-year class 21–30) are seen from the table on page 72 to be 6·0, 2·1 and 0·2 cubic metres to top diameters of 7 cm, 18 cm and 24 cm respectively. For 7·5 ha the appropriate yields are 45·0, 15·8, and 1·5 cubic metres respectively for these top diameter limits. In the case of felling yields in the absence of actual field estimates of standing volumes, the Felling Forecast Tables are used. Note that the volumes to 7 cm top diameter include volumes to 18 cm and 24 cm top diameter.

N.B. Clearly not all stands classed as being in the thinning stage will actually be thinned in the year of forecast. Even if it were known precisely which stands were to be thinned in the forecast year (which is uncommon), it is simpler to assume an average annual thinning yield from all areas in the thinning stage than to attempt to forecast the total yield from those stands being thinned.

PRODUCTION FORECAST TABLE

SP 14 **SP 4**

Scots Pine

ANNUAL THINNING YIELDS

Age	Mean Breast Height Diam cm	Volume to Over Bark Top Diameters of 7cm m^3	18cm m^3	24cm m^3	Mean Breast Height Diam cm	Volume to Over Bark Top Diameters of 7cm m^3	18cm m^3	24cm m^3	Age
	YIELD CLASS 14				YIELD CLASS 12				
20	10	8.4	0.0	0.0					20
25	12	8.4	0.1	0.0	11	7.2	0.0	0.0	25
30	15	8.4	0.9	0.0	13	7.2	0.3	0.0	30
35	19	8.4	2.8	0.3	16	7.2	1.1	0.0	35
40	23	8.4	5.1	1.4	20	7.2	2.8	0.4	40
45	27	8.4	6.5	3.2	23	7.2	4.4	1.3	45
50	31	8.4	7.2	4.9	27	7.2	5.5	2.7	50
55	35	8.4	7.7	6.0	30	7.2	6.1	3.9	55
60	38	8.4	7.9	6.7	33	7.2	6.5	4.9	60
65	41	8.4	8.0	7.2	36	7.2	6.7	5.5	65
70					39	7.2	6.8	5.9	70
	YIELD CLASS 10				YIELD CLASS 8				
25	9	6.0	0.0	0.0					25
30	11	6.0	0.0	0.0	9	4.8	0.0	0.0	30
35	14	6.0	0.3	0.0	11	4.8	0.0	0.0	35
40	16	6.0	0.9	0.0	13	4.8	0.2	0.0	40
45	19	6.0	2.1	0.2	15	4.8	0.5	0.0	45
50	22	6.0	3.3	0.8	17	4.8	1.0	0.0	50
55	25	6.0	4.2	1.6	20	4.8	1.9	0.3	55
60	28	6.0	4.8	2.6	22	4.8	2.6	0.6	60
65	31	6.0	5.1	3.4	24	4.8	3.2	1.1	65
70	33	6.0	5.4	4.0	26	4.8	3.6	1.7	70
75	35	6.0	5.5	4.4	28	4.8	3.9	2.2	75
	YIELD CLASS 6				YIELD CLASS 4				
35	9	3.6	0.0	0.0					35
40	10	3.6	0.0	0.0	8	2.4	0.0	0.0	40
45	12	3.6	0.0	0.0	9	2.4	0.0	0.0	45
50	13	3.6	0.1	0.0	10	2.4	0.0	0.0	50
55	15	3.6	0.3	0.0	12	2.4	0.0	0.0	55
60	17	3.6	0.6	0.0	13	2.4	0.1	0.0	60
65	18	3.6	1.0	0.1	14	2.4	0.1	0.0	65
70	20	3.6	1.5	0.2	15	2.4	0.2	0.0	70
75	22	3.6	1.9	0.4	16	2.4	0.3	0.0	75
80	23	3.6	2.2	0.6	17	2.4	0.5	0.0	80
85					18	2.4	0.7	0.1	85
90					19	2.4	0.9	0.1	90

PRODUCTION FORECAST TABLE

SP 14 **Scots Pine** **SP 4**

FELLING YIELDS

Age	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Age
	YIELD CLASS 14				YIELD CLASS 12				YIELD CLASS 10				
	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	
20	11	95	0	0	10	75	0	0					20
25	14	125	10	0	12	105	0	0	10	80	0	0	25
30	18	160	45	5	16	130	15	0	13	105	5	0	30
35	22	195	110	30	19	160	60	5	16	130	20	0	35
40	26	235	175	80	23	195	120	35	19	160	60	5	40
45	30	270	230	150	27	235	175	85	23	190	110	30	45
50	34	305	280	215	30	265	225	145	26	220	160	65	50
55	37	340	315	265	33	295	265	200	28	250	200	115	55
60	41	370	350	315	36	325	300	245	31	275	240	165	60
65	44	400	385	350	39	345	325	285	34	295	270	205	65
70	47	425	410	385	41	370	350	315	36	315	295	240	70
75	49	445	435	410	44	390	375	345	38	335	315	270	75
80	52	470	460	435	46	410	400	370	40	350	335	290	80
85	54	490	480	455	48	430	415	390	41	365	350	315	85
90	56	505	495	475	49	445	430	410	43	380	365	330	90
95	58	520	510	490	51	455	445	420	44	390	375	345	95
100	59	530	520	500	52	465	455	435	45	400	385	360	100
	YIELD CLASS 8				YIELD CLASS 6				YIELD CLASS 4				
25	9	60	0	0									25
30	10	80	0	0	9	55	0	0					30
35	13	100	5	0	10	70	0	0					35
40	15	125	15	0	12	90	0	0	8	50	0	0	40
45	18	150	40	5	14	110	5	0	10	60	0	0	45
50	21	175	80	15	16	130	15	0	12	75	0	0	50
55	23	200	120	35	18	150	35	0	13	95	5	0	55
60	25	225	160	65	20	170	65	10	15	110	10	0	60
65	28	245	195	105	22	190	100	20	16	125	20	0	65
70	30	265	220	140	23	205	130	40	18	140	35	0	70
75	32	280	245	170	25	220	155	60	19	155	55	5	75
80	33	295	265	200	26	235	175	85	20	165	75	10	80
85	35	305	280	220	28	245	195	105	22	175	90	20	85
90	36	315	290	235	29	255	205	120	22	180	105	25	90
95	37	325	305	255	30	260	220	140	23	190	115	35	95
100	38	335	315	265	30	270	230	150	24	195	125	40	100

PRODUCTION FORECAST TABLE

CP 20 **Corsican Pine** **CP 6**

ANNUAL THINNING YIELDS

Age	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Age
	YIELD CLASS 20				YIELD CLASS 18				YIELD CLASS 16				
	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	
20	13	12.0	0.4	0.0	12	10.8	0.2	0.0	11	9.6	0.0	0.0	20
25	17	12.0	2.0	0.0	16	10.8	1.3	0.0	14	9.6	0.7	0.0	25
30	21	12.0	5.5	1.0	19	10.8	3.8	0.5	18	9.6	2.2	0.1	30
35	25	12.0	8.3	3.1	23	10.8	6.5	1.8	21	9.6	4.6	0.9	35
40	29	12.0	9.8	5.8	26	10.8	8.2	3.8	24	9.6	6.4	2.2	40
45	33	12.0	10.7	7.9	30	10.8	9.1	5.9	27	9.6	7.5	3.8	45
50	36	12.0	11.1	9.1	33	10.8	9.7	7.3	30	9.6	8.2	5.3	50
55	39	12.0	11.3	9.9	36	10.8	10.0	8.2	33	9.6	8.6	6.4	55
	YIELD CLASS 14				YIELD CLASS 12				YIELD CLASS 10				
20	10	8.4	0.0	0.0									20
25	13	8.4	0.2	0.0	12	7.2	0.0	0.0	10	6.0	0.0	0.0	25
30	16	8.4	1.0	0.0	14	7.2	0.4	0.0	12	6.0	0.1	0.0	30
35	19	8.4	2.6	0.3	17	7.2	1.2	0.0	14	6.0	0.4	0.0	35
40	22	8.4	4.4	1.0	19	7.2	2.4	0.3	16	6.0	0.9	0.0	40
45	24	8.4	5.7	2.0	21	7.2	3.7	0.8	18	6.0	1.7	0.1	45
50	27	8.4	6.5	3.2	24	7.2	4.7	1.5	20	6.0	2.6	0.4	50
55	29	8.4	7.0	4.3	26	7.2	5.3	2.3	22	6.0	3.4	0.8	55
60	32	8.4	7.3	5.2	28	7.2	5.7	3.1	24	6.0	4.0	1.3	60
	YIELD CLASS 8				YIELD CLASS 6								
30	11	4.8	0.0	0.0									30
35	12	4.8	0.1	0.0	10	3.6	0.0	0.0					35
40	14	4.8	0.3	0.0	11	3.6	0.0	0.0					40
45	16	4.8	0.6	0.0	13	3.6	0.1	0.0					45
50	17	4.8	1.0	0.0	14	3.6	0.2	0.0					50
55	19	4.8	1.6	0.2	15	3.6	0.4	0.0					55
60	20	4.8	2.1	0.4	17	3.6	0.6	0.0					60
65	22	4.8	2.6	0.6	18	3.6	0.8	0.0					65
70					19	3.6	1.1	0.1					70

PRODUCTION FORECAST TABLE

CP 20 — Corsican Pine — CP 6

FELLING YIELDS

Age	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Age
		YIELD CLASS 20				YIELD CLASS 18				YIELD CLASS 16			
	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	
15	12	100	0	0	11	90	0	0	11	75	0	0	15
20	16	160	20	0	15	145	15	0	14	130	5	0	20
25	20	210	85	15	19	190	60	5	17	170	35	0	25
30	24	260	175	60	23	235	140	40	21	210	105	20	30
35	28	315	255	145	27	285	215	105	25	255	175	65	35
40	32	370	325	235	30	335	280	180	28	300	235	130	40
45	36	415	380	305	33	375	335	255	31	335	290	195	45
50	39	455	430	370	36	410	380	310	34	370	330	255	50
55	41	495	475	425	39	445	420	365	36	400	370	300	55
60	44	535	515	475	41	485	460	410	38	435	405	350	60
65	46	575	555	520	43	520	500	455	40	465	440	390	65
70	48	610	590	555	45	550	530	495	42	495	470	425	70
75	50	635	620	590	47	575	560	520	43	515	495	455	75
80	52	660	650	615	48	600	580	545	45	535	515	475	80
		YIELD CLASS 14				YIELD CLASS 12				YIELD CLASS 10			
20	13	110	0	0	11	95	0	0	10	75	0	0	20
25	16	150	20	0	14	130	10	0	12	115	0	0	25
30	19	185	65	5	17	165	30	0	15	140	10	0	30
35	22	225	125	30	20	200	80	10	17	170	35	0	35
40	25	265	185	75	23	230	135	35	20	195	75	10	40
45	28	295	240	130	25	260	185	70	22	225	120	25	45
50	31	325	280	185	27	290	225	115	24	245	160	55	50
55	33	355	315	235	29	315	260	160	26	270	195	85	55
60	35	385	350	275	31	340	295	205	28	290	230	120	60
65	36	410	380	315	33	365	325	240	29	315	260	155	65
70	38	435	410	350	34	385	350	275	30	330	280	185	70
75	39	455	430	375	36	400	370	300	32	345	300	210	75
80	41	470	450	400	37	415	385	320	33	360	320	235	80
		YIELD CLASS 8				YIELD CLASS 6							
25	11	90	0	0									25
30	13	115	5	0	11	85	0	0					30
35	15	140	15	0	12	110	0	0					35
40	17	165	30	0	14	125	5	0					40
45	19	185	60	5	16	145	15	0					45
50	21	205	95	20	17	165	35	0					50
55	23	225	130	35	19	180	55	5					55
60	24	245	160	55	20	195	80	10					60
65	25	260	190	80	21	210	105	20					65
70	27	280	210	100	22	225	125	30					70
75	28	290	230	120	23	230	140	40					75
80	29	300	245	140	24	240	155	50					80

PRODUCTION FORECAST TABLE

LP 14 **LP 4**

Lodgepole Pine

ANNUAL THINNING YIELDS

Age	YIELD CLASS 14				YIELD CLASS 12				Age
	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	
	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	
20	11	8.4	0.0	0.0	10	7.2	0.0	0.0	20
25	14	8.4	0.6	0.0	12	7.2	0.1	0.0	25
30	18	8.4	2.0	0.1	15	7.2	0.7	0.0	30
35	21	8.4	3.9	0.7	18	7.2	1.7	0.1	35
40	24	8.4	5.4	1.8	20	7.2	3.1	0.5	40
45	27	8.4	6.5	3.2	23	7.2	4.3	1.1	45
50	30	8.4	7.1	4.6	25	7.2	5.1	2.1	50
55	33	8.4	7.5	5.6	28	7.2	5.7	3.1	55
	YIELD CLASS 10				YIELD CLASS 8				
25	11	6.0	0.0	0.0	9	4.8	0.0	0.0	25
30	13	6.0	0.2	0.0	11	4.8	0.0	0.0	30
35	15	6.0	0.6	0.0	13	4.8	0.1	0.0	35
40	17	6.0	1.2	0.0	14	4.8	0.3	0.0	40
45	19	6.0	2.2	0.3	16	4.8	0.7	0.0	45
50	21	6.0	3.1	0.7	18	4.8	1.1	0.1	50
55	23	6.0	3.8	1.2	19	4.8	1.7	0.2	55
60	26	6.0	4.3	1.8	21	4.8	2.3	0.4	60
65					22	4.8	2.7	0.7	65
	YIELD CLASS 6				YIELD CLASS 4				
30	9	3.6	0.0	0.0					30
35	11	3.6	0.0	0.0					35
40	12	3.6	0.0	0.0	9	2.4	0.0	0.0	40
45	13	3.6	0.1	0.0	10	2.4	0.0	0.0	45
50	14	3.6	0.3	0.0	11	2.4	0.0	0.0	50
55	16	3.6	0.4	0.0	12	2.4	0.0	0.0	55
60	17	3.6	0.6	0.0	13	2.4	0.1	0.0	60
65	18	3.6	0.9	0.1	14	2.4	0.1	0.0	65
70	19	3.6	1.2	0.1	15	2.4	0.2	0.0	70
75					15	2.4	0.2	0.0	75
80					16	2.4	0.3	0.0	80

PRODUCTION FORECAST TABLE

LP 14 Lodgepole Pine LP 4

FELLING YIELDS

Age	YIELD CLASS 14				YIELD CLASS 12				YIELD CLASS 10				Age
	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	
	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	
15	11	65	0	0									15
20	14	105	5	0	12	95	0	0	11	75	0	0	20
25	17	155	35	0	15	135	15	0	13	115	5	0	25
30	21	200	95	20	18	175	45	5	16	145	20	0	30
35	24	235	155	50	21	210	95	20	18	175	45	5	35
40	27	265	205	105	23	235	145	45	20	205	90	15	40
45	30	290	245	155	26	260	190	85	23	225	130	35	45
50	33	315	280	205	28	280	225	130	25	245	170	60	50
55	35	335	305	245	31	300	255	170	27	260	200	95	55
60	38	355	335	285	33	320	285	210	29	280	225	130	60
65	41	375	360	320	35	335	310	245	30	295	250	165	65
70	43	400	385	350	37	355	330	280	32	310	275	200	70
75	46	415	405	375	39	375	355	310	34	325	295	230	75
80	48	435	425	395	41	390	370	335	36	340	315	255	80
	YIELD CLASS 8				YIELD CLASS 6				YIELD CLASS 4				
25	11	95	0	0									25
30	13	120	5	0	11	95	0	0					30
35	15	145	15	0	13	115	5	0	10	75	0	0	35
40	17	170	35	0	14	135	10	0	11	95	0	0	40
45	19	190	65	10	16	150	20	0	13	105	0	0	45
50	21	205	100	20	17	165	35	0	14	120	5	0	50
55	23	220	130	35	19	180	55	5	15	130	10	0	55
60	24	235	155	55	20	190	75	10	16	140	15	0	60
65	26	250	180	75	21	205	100	20	17	150	25	0	65
70	27	265	205	100	22	215	120	30	18	160	35	0	70
75	28	275	225	125	23	225	140	40	18	170	50	5	75
80	30	290	245	155	24	235	160	55	19	180	60	5	80

PRODUCTION FORECAST TABLE

SS 24 **Sitka Spruce** **SS 16**

ANNUAL THINNING YIELDS

Age	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Age
	YIELD CLASS 24				YIELD CLASS 22				
	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	
20	14	14.4	0.7	0.0	13	13.2	0.5	0.0	20
25	17	14.4	2.5	0.0	16	13.2	1.5	0.0	25
30	21	14.4	7.2	1.4	20	13.2	4.9	0.7	30
35	26	14.4	10.5	4.5	24	13.2	8.5	2.7	35
40	30	14.4	12.2	7.8	28	13.2	10.5	5.6	40
45	34	14.4	13.1	10.1	32	13.2	11.5	8.1	45
50					35	13.2	12.1	9.7	50
	YIELD CLASS 20				YIELD CLASS 18				
20	13	12.0	0.4	0.0	13	10.8	0.3	0.0	20
25	15	12.0	1.0	0.0	14	10.8	0.6	0.0	25
30	18	12.0	3.2	0.2	17	10.8	1.7	0.0	30
35	22	12.0	6.6	1.5	20	10.8	4.4	0.6	35
40	26	12.0	8.7	3.8	23	10.8	6.7	2.0	40
45	29	12.0	10.0	6.1	27	10.8	8.2	3.9	45
50	33	12.0	10.6	7.8	30	10.8	9.1	5.7	50
	YIELD CLASS 16								
20	13	9.6	0.2	0.0					20
25	13	9.6	0.4	0.0					25
30	15	9.6	0.9	0.0					30
35	18	9.6	2.4	0.2					35
40	21	9.6	4.7	0.9					40
45	24	9.6	6.3	2.1					45
50	27	9.6	7.3	3.6					50
55	29	9.6	8.0	4.9					55

PRODUCTION FORECAST TABLE

SS 24 — Sitka Spruce — SS 16

FELLING YIELDS

Age	YIELD CLASS 24				YIELD CLASS 22				YIELD CLASS 20				Age
	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	
	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	
15	12	100	0	0	11	85	0	0	11	75	0	0	15
20	16	170	20	0	14	150	10	0	14	130	5	0	20
25	20	240	110	20	19	210	70	5	18	185	40	0	25
30	25	320	230	95	24	285	180	55	22	250	140	35	30
35	30	390	330	215	28	355	285	155	26	315	235	110	35
40	35	450	410	320	32	410	365	265	30	375	320	210	40
45	39	500	470	405	36	460	425	350	34	420	380	295	45
50	42	540	520	470	40	500	475	415	37	460	430	360	50
55	45	580	560	520	43	540	515	470	40	500	475	420	55
60	48	615	600	565	45	575	555	515	43	530	510	465	60
65	51	645	630	595	48	600	585	550	45	560	540	500	65
70	53	670	655	625	50	625	610	575	47	580	565	525	70
75	55	690	680	650	52	645	635	600	49	600	585	550	75
80	56	710	695	665	53	665	650	620	50	620	605	570	80

Age	YIELD CLASS 18				YIELD CLASS 16								Age
15	10	65	0	0									15
20	12	115	0	0	11	90	0	0					20
25	16	160	20	0	14	135	10	0					25
30	20	215	90	15	18	185	50	5					30
35	24	280	185	60	22	240	130	30					35
40	28	335	265	145	25	295	210	85					40
45	31	380	330	230	29	340	275	160					45
50	34	420	380	300	31	380	330	230					50
55	37	455	425	355	34	410	375	290					55
60	40	485	460	405	36	440	410	335					60
65	42	510	490	440	38	465	440	375					65
70	43	535	510	470	40	490	465	410					70
75	45	555	535	495	41	505	485	435					75
80	47	570	550	515	43	520	500	455					80

PRODUCTION FORECAST TABLE

SS 14 **Sitka Spruce** **SS 6**

ANNUAL THINNING YIELDS

Age	Mean Breast Height Diam cm	Volume to Over Bark Top Diameters of 7cm m^3	18cm m^3	24cm m^3	Mean Breast Height Diam cm	Volume to Over Bark Top Diameters of 7cm m^3	18cm m^3	24cm m^3	Age
	YIELD CLASS 14				YIELD CLASS 12				
20	12	8.4	0.2	0.0					20
25	13	8.4	0.2	0.0	13	7.2	0.2	0.0	25
30	14	8.4	0.5	0.0	13	7.2	0.3	0.0	30
35	16	8.4	1.1	0.0	15	7.2	0.6	0.0	35
40	19	8.4	2.5	0.2	17	7.2	1.2	0.0	40
45	21	8.4	4.2	0.9	19	7.2	2.3	0.2	45
50	24	8.4	5.4	1.7	21	7.2	3.5	0.7	50
55	26	8.4	6.2	2.8	23	7.2	4.3	1.2	55
60					25	7.2	5.0	1.9	60
	YIELD CLASS 10				YIELD CLASS 8				
25	13	6.0	0.1	0.0					25
30	13	6.0	0.2	0.0	13	4.8	0.1	0.0	30
35	14	6.0	0.3	0.0	13	4.8	0.1	0.0	35
40	15	6.0	0.5	0.0	13	4.8	0.2	0.0	40
45	16	6.0	0.9	0.0	14	4.8	0.3	0.0	45
50	18	6.0	1.5	0.1	15	4.8	0.5	0.0	50
55	20	6.0	2.3	0.3	17	4.8	0.8	0.0	55
60	21	6.0	2.9	0.6	18	4.8	1.2	0.1	60
65					19	4.8	1.6	0.2	65
	YIELD CLASS 6								
35	12	3.6	0.1	0.0					35
40	13	3.6	0.1	0.0					40
45	13	3.6	0.1	0.0					45
50	14	3.6	0.2	0.0					50
55	14	3.6	0.3	0.0					55
60	15	3.6	0.3	0.0					60
65	16	3.6	0.5	0.0					65

PRODUCTION FORECAST TABLE

SS 14 **Sitka Spruce** **SS 6**

FELLING YIELDS

Age	YIELD CLASS 14				YIELD CLASS 12				YIELD CLASS 10				Age
	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	
	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	
20	11	75	0	0	10	60	0	0					20
25	13	115	5	0	12	95	0	0	11	75	0	0	25
30	16	155	20	0	14	130	10	0	13	105	5	0	30
35	19	205	75	10	17	175	35	0	15	140	15	0	35
40	23	255	150	40	20	215	90	15	17	180	35	0	40
45	26	295	215	90	23	255	155	40	20	215	85	10	45
50	28	335	270	150	25	290	210	85	22	245	135	30	50
55	31	365	315	210	27	320	255	130	24	275	175	55	55
60	33	395	350	260	29	350	290	175	25	300	215	90	60
65	35	420	380	300	31	370	320	215	27	320	245	120	65
70	36	440	405	335	32	390	345	250	28	340	270	150	70
75	38	460	430	360	34	405	365	280	29	355	295	180	75
80	39	475	445	385	35	420	385	305	30	370	310	205	80
	YIELD CLASS 8				YIELD CLASS 6								
25	10	60	0	0									25
30	11	85	0	0	10	60	0	0					30
35	13	110	5	0	11	85	0	0					35
40	15	145	10	0	13	110	0	0					40
45	17	175	30	0	14	135	5	0					45
50	19	205	60	5	15	160	15	0					50
55	20	225	95	15	17	180	30	0					55
60	22	250	130	30	18	200	50	5					60
65	23	270	160	45	19	215	70	5					65
70	24	285	185	65	20	225	90	15					70
75	25	295	210	80	21	235	105	20					75
80	26	310	225	100	21	240	125	25					80

PRODUCTION FORECAST TABLE

NS 22 **NS 6**

Norway Spruce

ANNUAL THINNING YIELDS

Age	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Age
		YIELD CLASS 22				YIELD CLASS 20				YIELD CLASS 18			
	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	
20	11	13.2	0.0	0.0	11	12.0	0.0	0.0	11	10.8	0.0	0.0	20
25	14	13.2	0.8	0.0	13	12.0	0.5	0.0	13	10.8	0.2	0.0	25
30	18	13.2	3.2	0.2	17	12.0	1.9	0.0	15	10.8	1.0	0.0	30
35	23	13.2	7.7	2.1	21	12.0	5.4	1.0	18	10.8	3.0	0.3	35
40	28	13.2	10.5	5.7	25	12.0	8.5	3.4	22	10.8	6.0	1.5	40
45	33	13.2	11.8	8.8	30	12.0	10.1	6.3	26	10.8	8.1	3.7	45
50	38	13.2	12.3	10.4	34	12.0	10.9	8.4	30	10.8	9.2	6.0	50
55	42	13.2	12.6	11.4	38	12.0	11.3	9.6	34	10.8	9.8	7.6	55
60	46	13.2	12.8	11.9	42	12.0	11.5	10.4	38	10.8	10.1	8.6	60
65	50	13.2	12.9	12.2	46	12.0	11.6	10.8	41	10.8	10.3	9.2	65
		YIELD CLASS 16				YIELD CLASS 14				YIELD CLASS 12			
25	12	9.6	0.1	0.0	11	8.4	0.0	0.0	11	7.2	0.0	0.0	25
30	14	9.6	0.5	0.0	13	8.4	0.2	0.0	12	7.2	0.1	0.0	30
35	16	9.6	1.5	0.0	15	8.4	0.7	0.0	13	7.2	0.3	0.0	35
40	20	9.6	3.6	0.5	17	8.4	1.6	0.0	15	7.2	0.7	0.0	40
45	23	9.6	5.8	1.7	20	8.4	3.4	0.5	17	7.2	1.6	0.1	45
50	27	9.6	7.3	3.5	23	8.4	5.1	1.4	20	7.2	2.9	0.4	50
55	30	9.6	8.1	5.2	26	8.4	6.2	2.8	22	7.2	4.1	1.0	55
60	33	9.6	8.6	6.5	29	8.4	6.9	4.1	25	7.2	5.0	1.9	60
65	36	9.6	8.9	7.3	32	8.4	7.4	5.2	27	7.2	5.6	2.9	65
70	39	9.6	9.1	7.9	34	8.4	7.6	6.0	30	7.2	6.0	3.8	70
75									32	7.2	6.3	4.5	75
		YIELD CLASS 10				YIELD CLASS 8				YIELD CLASS 6			
30	11	6.0	0.0	0.0	11	4.8	0.0	0.0					30
35	12	6.0	0.1	0.0	12	4.8	0.0	0.0	11	3.6	0.0	0.0	35
40	13	6.0	0.3	0.0	12	4.8	0.1	0.0	11	3.6	0.0	0.0	40
45	15	6.0	0.5	0.0	13	4.8	0.2	0.0	12	3.6	0.0	0.0	45
50	17	6.0	1.0	0.0	14	4.8	0.3	0.0	13	3.6	0.1	0.0	50
55	19	6.0	1.8	0.2	16	4.8	0.6	0.0	13	3.6	0.1	0.0	55
60	21	6.0	2.8	0.5	17	4.8	0.9	0.0	14	3.6	0.2	0.0	60
65	23	6.0	3.5	0.9	19	4.8	1.4	0.1	15	3.6	0.4	0.0	65
70	25	6.0	4.1	1.5	20	4.8	2.0	0.3	16	3.6	0.5	0.0	70
75	26	6.0	4.5	2.1	21	4.8	2.5	0.5	17	3.6	0.7	0.0	75
80	28	6.0	4.8	2.7	23	4.8	2.9	0.8	18	3.6	1.0	0.1	80
85					24	4.8	3.2	1.1	19	3.6	1.2	0.1	85
90									20	3.6	1.5	0.2	90

PRODUCTION FORECAST TABLE

NS 22 **Norway Spruce** **NS 6**

FELLING YIELDS

Age	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Age
	YIELD CLASS 22				YIELD CLASS 20				YIELD CLASS 18				
	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	
15	9	60	0	0									15
20	12	110	0	0	11	100	0	0	10	85	0	0	20
25	16	160	25	0	15	150	15	0	14	130	5	0	25
30	21	230	115	25	20	205	85	10	18	185	45	5	30
35	27	300	225	105	24	270	185	65	22	245	135	30	35
40	31	365	320	220	29	335	275	160	26	300	220	100	40
45	36	425	395	320	33	390	350	260	30	350	295	190	45
50	40	480	455	400	37	440	410	345	33	400	360	275	50
55	44	525	505	465	41	485	460	410	37	440	410	340	55
60	48	565	550	515	44	520	500	465	40	475	450	400	60
65	52	600	590	560	48	555	540	505	43	510	490	445	65
70	56	635	625	595	51	590	575	545	46	540	525	490	70
75	59	665	655	630	54	620	610	580	49	570	555	525	75
80	62	695	685	660	57	650	640	610	52	600	585	555	80
	YIELD CLASS 16				YIELD CLASS 14				YIELD CLASS 12				
20	10	70	0	0	9	55	0	0					20
25	13	115	0	0	11	100	0	0	10	80	0	0	25
30	16	165	20	0	14	140	10	0	13	120	5	0	30
35	20	215	85	10	17	185	40	0	15	155	15	0	35
40	23	265	165	50	21	230	105	20	18	195	55	5	40
45	27	315	240	120	24	275	175	55	21	235	115	20	45
50	30	360	305	195	27	315	240	115	24	270	175	55	50
55	33	400	355	270	30	350	295	185	26	305	225	105	55
60	36	430	400	330	32	380	335	245	29	335	270	155	60
65	39	460	435	380	35	410	375	295	31	360	310	210	65
70	42	490	470	420	37	440	410	345	33	385	345	255	70
75	44	520	500	460	39	465	440	385	35	410	375	300	75
80	46	545	530	495	41	490	470	420	37	435	405	335	80
	YIELD CLASS 10				YIELD CLASS 8				YIELD CLASS 6				
25	9	60	0	0									25
30	11	95	0	0	10	70	0	0					30
35	13	125	5	0	11	95	0	0	9	65	0	0	35
40	16	160	20	0	13	125	5	0	11	85	0	0	40
45	18	195	45	5	15	150	15	0	12	105	0	0	45
50	20	225	95	15	17	180	35	0	14	125	5	0	50
55	22	255	145	35	19	205	65	5	15	145	15	0	55
60	24	280	190	70	21	230	105	20	17	165	30	0	60
65	26	305	230	110	22	250	140	35	18	185	50	5	65
70	28	330	265	150	24	270	175	60	19	205	75	10	70
75	30	355	300	190	25	290	210	85	21	220	100	20	75
80	32	375	330	230	27	310	240	115	22	240	130	30	80
85					28	330	260	145	23	255	150	40	85
90					29	340	280	170	24	270	175	60	90

PRODUCTION FORECAST TABLE

EL 12 **European Larch** **EL 4**

ANNUAL THINNING YIELDS

Age	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Age
		YIELD CLASS 12				YIELD CLASS 10			
	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	
20	13	7.2	0.2	0.0	11	6.0	0.0	0.0	20
25	17	7.2	1.5	0.0	15	6.0	0.5	0.0	25
30	21	7.2	3.6	0.8	18	6.0	1.7	0.1	30
35	25	7.2	5.1	2.1	22	6.0	3.2	0.7	35
40	29	7.2	5.9	3.5	25	6.0	4.2	1.6	40
45	32	7.2	6.4	4.7	28	6.0	4.8	2.6	45
50					31	6.0	5.1	3.4	50
		YIELD CLASS 8				YIELD CLASS 6			
20	9	4.8	0.0	0.0					20
25	12	4.8	0.1	0.0	9	3.6	0.0	0.0	25
30	15	4.8	0.5	0.0	12	3.6	0.0	0.0	30
35	18	4.8	1.3	0.1	14	3.6	0.2	0.0	35
40	21	4.8	2.3	0.4	16	3.6	0.6	0.0	40
45	23	4.8	3.0	0.9	18	3.6	1.1	0.1	45
50	26	4.8	3.5	1.5	20	3.6	1.6	0.3	50
55					22	3.6	2.0	0.5	55
		YIELD CLASS 4							
30	9	2.4	0.0	0.0					30
35	11	2.4	0.0	0.0					35
40	12	2.4	0.0	0.0					40
45	14	2.4	0.1	0.0					45
50	16	2.4	0.3	0.0					50
55	17	2.4	0.4	0.0					55
60	18	2.4	0.6	0.0					60

PRODUCTION FORECAST TABLE

EL 12 European Larch EL 4

FELLING YIELDS

Age	YIELD CLASS 12				YIELD CLASS 10				YIELD CLASS 8				Age
	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	
	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	
15	12	65	0	0	11	50	0	0					15
20	16	100	15	0	14	85	5	0	12	60	0	0	20
25	20	135	60	10	18	110	25	0	15	90	10	0	25
30	24	170	115	40	21	140	75	15	18	115	30	5	30
35	28	200	160	90	25	170	120	45	21	140	70	15	35
40	32	230	200	140	28	195	155	85	24	165	105	35	40
45	35	250	230	185	31	215	185	125	26	180	135	65	45
50	38	270	255	220	33	235	210	160	29	200	160	95	50
55	41	290	275	250	36	255	235	190	31	215	185	120	55
60	43	310	295	270	38	270	250	215	32	225	200	145	60
65	46	320	310	290	40	280	265	235	34	240	215	165	65
70	48	335	325	305	41	295	280	250	35	250	230	180	70
75	49	345	335	315	43	305	290	265	36	255	240	195	75
80	51	350	345	325	44	310	300	275	37	265	245	205	80
85	52	360	350	335	45	315	305	285	38	270	250	215	85
90	53	365	360	340	46	320	310	290	39	275	255	220	90
95	54	370	365	345	47	325	320	295	39	275	260	230	95
100	55	375	365	350	48	330	320	300	40	280	265	230	100

Age	YIELD CLASS 6				YIELD CLASS 4				Age
	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	
	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	
25	12	65	0	0					25
30	15	85	10	0	12	55	0	0	30
35	17	110	25	0	14	70	5	0	35
40	20	130	50	5	15	90	10	0	40
45	22	145	75	15	17	105	20	0	45
50	23	160	100	30	19	115	35	5	50
55	25	170	120	50	20	125	55	10	55
60	26	185	140	65	21	135	65	15	60
65	28	195	155	80	22	145	80	20	65
70	29	200	165	95	23	150	90	25	70
75	29	210	175	105	23	155	100	30	75
80	30	215	180	115	24	160	105	35	80
85	31	220	185	125	24	160	110	40	85
90	31	220	190	130	25	165	110	40	90
95	31	225	195	135	25	165	115	45	95
100	32	225	200	140	25	165	115	45	100

PRODUCTION FORECAST TABLE

JL 14 **HL 14**

Japanese Larch and Hybrid Larch

JL 4 **HL 4**

ANNUAL THINNING YIELDS

Age	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Age
	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	
	YIELD CLASS 14				YIELD CLASS 12				
15	12	8.4	0.0	0.0	10	7.2	0.0	0.0	15
20	16	8.4	1.3	0.0	14	7.2	0.5	0.0	20
25	21	8.4	3.9	0.7	18	7.2	2.1	0.2	25
30	25	8.4	5.8	2.2	22	7.2	4.0	0.9	30
35	29	8.4	6.9	4.0	25	7.2	5.1	2.1	35
40	32	8.4	7.4	5.4	28	7.2	5.8	3.4	40
	YIELD CLASS 10				YIELD CLASS 8				
15	9	6.0	0.0	0.0					15
20	13	6.0	0.1	0.0	10	4.8	0.0	0.0	20
25	16	6.0	0.8	0.0	13	4.8	0.2	0.0	25
30	19	6.0	2.1	0.3	16	4.8	0.7	0.0	30
35	22	6.0	3.4	0.8	19	4.8	1.4	0.1	35
40	25	6.0	4.2	1.6	21	4.8	2.3	0.4	40
45	27	6.0	4.7	2.4	23	4.8	2.8	0.8	45
	YIELD CLASS 6				YIELD CLASS 4				
20	8	3.6	0.0	0.0					20
25	11	3.6	0.0	0.0	8	2.4	0.0	0.0	25
30	13	3.6	0.1	0.0	10	2.4	0.0	0.0	30
35	16	3.6	0.4	0.0	12	2.4	0.0	0.0	35
40	17	3.6	0.8	0.0	14	2.4	0.1	0.0	40
45	19	3.6	1.2	0.1	15	2.4	0.2	0.0	45
50	20	3.6	1.6	0.3	16	2.4	0.3	0.0	50
55					17	2.4	0.5	0.0	55

PRODUCTION FORECAST TABLE

JL 14
HL 14

Japanese Larch and Hybrid Larch

JL 4
HL 4

FELLING YIELDS

Age	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Age
		YIELD CLASS 14				YIELD CLASS 12				YIELD CLASS 10			
	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	
10	10	40	0	0									10
15	14	80	5	0	12	65	0	0	11	50	0	0	15
20	18	115	30	5	16	100	15	0	15	85	5	0	20
25	23	155	90	25	20	135	60	10	18	115	30	0	25
30	27	190	145	70	24	165	110	35	21	145	70	15	30
35	30	220	185	120	27	195	150	75	24	165	110	35	35
40	34	245	220	170	30	215	180	115	27	185	140	70	40
45	37	265	250	210	33	235	210	155	29	205	170	100	45
50	40	285	275	240	36	255	235	190	31	220	190	130	50
55	43	305	295	270	38	275	255	220	33	235	210	160	55
60	46	325	315	290	40	290	275	245	35	250	230	180	60
65	48	340	330	310	43	305	290	265	37	260	245	200	65
70	51	355	345	325	45	315	305	280	38	275	255	220	70
75	53	365	355	340	46	325	315	295	40	285	270	235	75
80	55	375	365	350	48	335	325	305	41	290	275	250	80
		YIELD CLASS 8				YIELD CLASS 6				YIELD CLASS 4			
15	9	35	0	0									15
20	12	65	0	0	10	45	0	0					20
25	15	90	10	0	13	70	0	0	10	40	0	0	25
30	18	120	30	0	15	90	10	0	12	60	0	0	30
35	20	140	65	10	18	110	25	0	14	75	5	0	35
40	23	160	90	25	19	125	45	5	16	90	10	0	40
45	25	170	120	45	21	140	65	10	17	100	20	0	45
50	26	185	140	65	22	150	85	20	18	110	30	0	50
55	28	200	160	85	24	160	105	30	19	115	40	5	55
60	29	210	175	110	25	170	120	45	20	120	55	10	60
65	31	225	190	130	26	180	135	60	21	140	65	10	65
70	32	230	205	145	27	190	145	70	21	145	75	15	70
75	33	240	215	160	28	195	155	80	22	150	80	20	75
80	34	245	225	175	28	200	165	90	22	155	90	25	80

PRODUCTION FORECAST TABLE

DF 24 — Douglas Fir — DF 10

ANNUAL THINNING YIELDS

Age	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Age
	YIELD CLASS 24				YIELD CLASS 22				YIELD CLASS 20				
	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	
15	12	14.4	0.1	0.0	11	13.2	0.0	0.0	11	12.0	0.0	0.0	15
20	15	14.4	1.3	0.0	14	13.2	0.8	0.0	13	12.0	0.5	0.0	20
25	21	14.4	6.6	1.2	19	13.2	4.4	0.5	17	12.0	2.5	0.1	25
30	28	14.4	11.5	6.3	26	13.2	9.5	4.0	23	12.0	7.2	2.0	30
35	35	14.4	13.2	10.6	32	13.2	11.7	8.5	29	12.0	9.9	6.0	35
40	42	14.4	13.8	12.4	39	13.2	12.4	10.7	35	12.0	11.0	8.7	40
45	47	14.4	14.0	13.1	44	13.2	12.7	11.7	40	12.0	11.4	10.1	45
50	53	14.4	14.1	13.4	49	13.2	12.9	12.1	45	12.0	11.6	10.7	50
	YIELD CLASS 18				YIELD CLASS 16				YIELD CLASS 14				
20	12	10.8	0.2	0.0	12	9.6	0.1	0.0	11	8.4	0.0	0.0	20
25	16	10.8	1.3	0.0	14	9.6	0.6	0.0	13	8.4	0.3	0.0	25
30	20	10.8	4.7	0.8	18	9.6	2.4	0.2	16	8.4	1.1	0.0	30
35	26	10.8	7.9	3.4	22	9.6	5.4	1.4	19	8.4	3.1	0.4	35
40	31	10.8	9.4	6.4	27	9.6	7.5	3.8	23	8.4	5.3	1.6	40
45	36	10.8	10.0	8.2	32	9.6	8.4	6.0	28	8.4	6.6	3.5	45
50	40	10.8	10.3	9.1	36	9.6	8.9	7.2	31	8.4	7.3	5.1	50
55	44	10.8	10.4	9.6	39	9.6	9.1	8.0	35	8.4	7.7	6.1	55
60									38	8.4	7.9	6.7	60
	YIELD CLASS 12				YIELD CLASS 10								
25	12	7.2	0.1	0.0	11	6.0	0.0	0.0					25
30	14	7.2	0.4	0.0	12	6.0	0.1	0.0					30
35	17	7.2	1.2	0.0	14	6.0	0.4	0.0					35
40	20	7.2	2.8	0.4	17	6.0	1.0	0.0					40
45	23	7.2	4.4	1.3	19	6.0	2.2	0.3					45
50	27	7.2	5.5	2.6	22	6.0	3.3	0.8					50
55	30	7.2	6.1	3.8	25	6.0	4.2	1.6					55
60	33	7.2	6.4	4.7	28	6.0	4.7	2.5					60
65					30	6.0	5.1	3.2					65

PRODUCTION FORECAST TABLE

DF 24 **Douglas Fir** **DF 10**

FELLING YIELDS

Age	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Age
		YIELD CLASS 24				YIELD CLASS 22				YIELD CLASS 20			
	cm	3 m	3 m	3 m	cm	3 m	3 m	3 m	cm	3 m	3 m	3 m	
15	13	105	5	0	12	95	0	0	11	80	0	0	15
20	18	160	45	5	17	150	25	0	16	135	15	0	20
25	25	225	160	65	23	210	130	40	21	190	95	20	25
30	32	300	265	195	30	275	235	155	28	250	200	105	30
35	39	365	345	300	37	335	310	260	34	310	280	215	35
40	45	425	410	380	42	390	375	340	39	360	340	295	40
45	50	470	460	435	47	435	420	395	44	400	385	350	45
50	55	515	505	485	52	475	465	440	48	440	425	400	50
55	59	560	555	530	56	520	510	485	52	475	465	445	55
60	63	605	595	575	60	560	550	530	55	515	505	485	60
65	67	645	635	615	63	595	585	565	59	550	540	520	65
70	70	680	670	650	66	630	620	600	61	580	570	550	70
75	73	710	705	685	69	660	650	630	64	605	595	575	75
80	76	735	725	705	72	680	670	650	66	625	615	600	80
		YIELD CLASS 18				YIELD CLASS 16				YIELD CLASS 14			
15	11	70	0	0	10	60	0	0					15
20	14	120	10	0	13	110	5	0	12	90	0	0	20
25	19	170	60	5	17	150	30	0	15	130	15	0	25
30	25	225	160	60	22	200	110	25	19	175	65	10	30
35	31	280	240	160	27	250	195	100	24	220	145	45	35
40	35	325	300	240	32	295	255	185	28	260	210	120	40
45	40	365	345	305	36	330	305	250	32	295	260	190	45
50	44	400	385	355	40	365	345	300	36	325	300	245	50
55	48	435	425	395	43	395	380	345	39	350	330	290	55
60	51	470	460	435	46	425	410	380	42	380	365	325	60
65	54	500	490	470	49	455	440	415	44	405	390	360	65
70	56	525	520	495	51	480	470	445	46	430	415	385	70
75	59	550	540	520	53	500	490	465	48	445	435	410	75
80	61	570	560	540	55	515	505	485	50	460	450	425	80
		YIELD CLASS 12				YIELD CLASS 10							
20	11	70	0	0	10	50	0	0					20
25	14	110	5	0	12	90	0	0					25
30	17	150	25	0	14	120	10	0					30
35	20	190	85	15	17	155	30	0					35
40	24	225	150	55	20	190	85	15					40
45	28	260	205	115	24	220	140	45					45
50	31	285	250	170	27	245	190	95					50
55	34	310	285	220	30	270	225	140					55
60	37	335	310	260	32	290	255	185					60
65	39	360	340	295	34	310	280	220					65
70	41	380	360	320	36	325	300	250					70
75	43	395	380	345	38	340	320	270					75
80	44	405	390	360	39	350	330	290					80

PRODUCTION FORECAST TABLE

WH 24 **Western Hemlock** **WH 12**

ANNUAL THINNING YIELDS

Age	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Age
	YIELD CLASS 24				YIELD CLASS 22				YIELD CLASS 20				
	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	
20	12	14.4	0.1	0.0	11	13.2	0.0	0.0	11	12.0	0.0	0.0	20
25	15	14.4	1.3	0.0	14	13.2	0.7	0.0	13	12.0	0.3	0.0	25
30	19	14.4	4.5	0.5	17	13.2	2.6	0.1	16	12.0	1.4	0.0	30
35	23	14.4	8.5	2.3	21	13.2	6.1	1.1	19	12.0	3.9	0.4	35
40	27	14.4	10.9	5.2	24	13.2	8.8	3.1	22	12.0	6.7	1.6	40
45	30	14.4	12.2	7.9	28	13.2	10.5	5.6	25	12.0	8.6	3.5	45
50	33	14.4	12.9	9.8	31	13.2	11.4	7.7	28	12.0	9.7	5.5	50
55	36	14.4	13.4	11.0	34	13.2	11.9	9.2	31	12.0	10.4	7.2	55
60									34	12.0	10.8	8.3	60
	YIELD CLASS 18				YIELD CLASS 16								
20	10	10.8	0.0	0.0									20
25	12	10.8	0.1	0.0	11	9.6	0.0	0.0					25
30	14	10.8	0.7	0.0	13	9.6	0.3	0.0					30
35	17	10.8	2.1	0.0	15	9.6	1.0	0.0					35
40	20	10.8	4.4	0.7	18	9.6	2.3	0.1					40
45	23	10.8	6.5	1.8	20	9.6	4.2	0.7					45
50	26	10.8	7.9	3.4	23	9.6	5.8	1.6					50
55	28	10.8	8.8	5.0	25	9.6	6.9	2.9					55
60	31	10.8	9.3	6.4	28	9.6	7.6	4.1					60
65	33	10.8	9.7	7.3	30	9.6	8.1	5.2					65
70					32	9.6	8.5	6.1					70
	YIELD CLASS 14				YIELD CLASS 12								
25	11	8.4	0.0	0.0									25
30	12	8.4	0.1	0.0	11	7.2	0.0	0.0					30
35	14	8.4	0.4	0.0	12	7.2	0.1	0.0					35
40	16	8.4	1.1	0.0	14	7.2	0.4	0.0					40
45	18	8.4	2.2	0.2	16	7.2	0.9	0.0					45
50	20	8.4	3.6	0.6	18	7.2	1.8	0.1					50
55	23	8.4	4.9	1.3	20	7.2	2.9	0.4					55
60	25	8.4	5.8	2.2	22	7.2	3.8	0.9					60
65	27	8.4	6.4	3.1	24	7.2	4.6	1.4					65
70	29	8.4	6.9	4.0	25	7.2	5.2	2.1					70
75	31	8.4	7.2	4.8	27	7.2	5.6	2.8					75
80					29	7.2	5.9	3.5					80

PRODUCTION FORECAST TABLE

WH 24 — Western Hemlock — WH 12

FELLING YIELDS

Age	YIELD CLASS 24				YIELD CLASS 22				YIELD CLASS 20				Age
	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	
	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	
15	11	100	0	0	10	85	0	0					15
20	14	175	10	0	13	155	5	0	12	130	0	0	20
25	18	245	70	5	17	220	40	0	15	195	20	0	25
30	23	320	185	50	21	290	135	25	19	260	90	10	30
35	26	390	290	135	24	355	240	85	23	320	185	50	35
40	30	450	375	235	28	410	325	175	26	375	275	120	40
45	33	495	445	330	31	460	395	265	29	425	345	200	45
50	36	540	500	410	34	500	450	345	31	465	405	280	50
55	39	580	545	475	37	540	500	415	34	500	450	350	55
60	42	615	590	530	39	575	545	475	36	535	495	410	60
65	45	650	625	580	42	610	580	525	39	565	535	460	65
70	47	680	660	620	44	640	615	565	41	595	570	510	70
75	50	715	695	660	47	670	650	605	43	625	600	550	75
80	52	740	725	690	49	700	680	640	45	655	630	585	80
	YIELD CLASS 18				YIELD CLASS 16				YIELD CLASS 14				
20	11	105	0	0	10	80	0	0					20
25	14	165	10	0	12	135	0	0	11	105	0	0	25
30	17	225	50	0	15	190	20	0	14	150	5	0	30
35	21	285	130	25	19	245	75	5	17	200	35	0	35
40	24	335	220	70	22	295	155	35	19	255	90	10	40
45	27	385	290	140	24	345	230	80	22	295	160	35	45
50	29	420	350	210	27	380	290	140	24	335	225	75	50
55	32	455	400	280	29	415	340	205	26	370	275	125	55
60	34	490	445	340	31	445	385	265	28	395	320	180	60
65	36	520	480	395	33	475	425	315	30	425	360	235	65
70	38	550	515	440	35	500	460	365	32	450	395	280	70
75	40	580	550	485	37	530	495	410	34	475	430	325	75
80	42	605	580	520	39	555	520	450	35	500	460	365	80
					YIELD CLASS 12								
25					9	65	0	0					25
30					12	110	0	0					30
35					14	155	10	0					35
40					17	205	40	0					40
45					19	245	90	10					45
50					22	280	150	35					50
55					24	315	205	65					55
60					26	345	250	105					60
65					27	370	290	150					65
70					29	395	325	195					70
75					31	415	355	240					75
80					32	440	385	280					80

PRODUCTION FORECAST TABLE

RC 24
LC 24

Western Red Cedar and Lawson Cypress

ANNUAL THINNING YIELDS

RC 12
LC 12

Age	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Age
		YIELD CLASS 24				YIELD CLASS 22				YIELD CLASS 20			
	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	
20	14	14.4	0.7	0.0	13	13.2	0.5	0.0					20
25	16	14.4	1.9	0.0	15	13.2	1.2	0.0	14	12.0	0.8	0.0	25
30	19	14.4	4.9	0.6	18	13.2	3.1	0.2	16	12.0	1.8	0.0	30
35	23	14.4	8.7	2.4	21	13.2	6.3	1.2	19	12.0	4.1	0.5	35
40	27	14.4	11.1	5.5	24	13.2	8.9	3.2	22	12.0	6.7	1.6	40
45	31	14.4	12.4	8.4	28	13.2	10.6	5.8	25	12.0	8.6	3.5	45
50	35	14.4	13.1	10.3	32	13.2	11.5	8.1	29	12.0	9.8	5.7	50
55	38	14.4	13.5	11.6	35	13.2	12.1	9.6	32	12.0	10.5	7.4	55
60	41	14.4	13.7	12.3	38	13.2	12.4	10.6	35	12.0	10.9	8.6	60
65									37	12.0	11.2	9.4	65
		YIELD CLASS 18				YIELD CLASS 16							
25	14	10.8	0.5	0.0	13	9.6	0.4	0.0					25
30	15	10.8	1.1	0.0	15	9.6	0.7	0.0					30
35	17	10.8	2.3	0.1	16	9.6	1.5	0.0					35
40	20	10.8	4.5	0.7	19	9.6	2.9	0.3					40
45	23	10.8	6.5	1.8	21	9.6	4.6	0.9					45
50	26	10.8	7.9	3.4	24	9.6	6.1	1.9					50
55	29	10.8	8.8	5.0	26	9.6	7.1	3.1					55
60	31	10.8	9.4	6.5	28	9.6	7.8	4.4					60
65	34	10.8	9.7	7.5	31	9.6	8.2	5.5					65
70					33	9.6	8.5	6.3					70
		YIELD CLASS 14				YIELD CLASS 12							
30	14	8.4	0.4	0.0	13	7.2	0.3	0.0					30
35	15	8.4	0.8	0.0	14	7.2	0.5	0.0					35
40	17	8.4	1.5	0.0	16	7.2	0.8	0.0					40
45	19	8.4	2.7	0.3	17	7.2	1.4	0.0					45
50	21	8.4	4.0	0.7	19	7.2	2.2	0.2					50
55	23	8.4	5.1	1.4	20	7.2	3.2	0.5					55
60	25	8.4	5.9	2.3	22	7.2	4.0	1.0					60
65	27	8.4	6.5	3.3	24	7.2	4.7	1.5					65
70	29	8.4	6.9	4.1	25	7.2	5.2	2.1					70

PRODUCTION FORECAST TABLE

RC 24
LC 24

Western Red Cedar and Lawson Cypress

FELLING YIELDS

RC 12
LC 12

Age	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Age
	cm	m^3	m^3	m^3	
YIELD CLASS 24					
20	14	165	10	0	20
25	18	240	60	5	25
30	22	315	175	45	30
35	26	390	295	140	35
40	30	455	385	255	40
45	34	510	460	355	45
50	37	560	520	440	50
55	40	605	575	510	55
60	43	650	625	570	60
65	46	695	670	625	65
70	48	730	710	670	70
75	51	765	750	710	75
80	53	795	780	740	80
YIELD CLASS 22					
20	14	145	5	0	20
25	17	220	40	0	25
30	20	290	130	20	30
35	24	360	240	85	35
40	28	420	335	185	40
45	31	475	410	285	45
50	35	520	475	375	50
55	37	565	530	445	55
60	40	605	575	510	60
65	43	645	620	565	65
70	45	685	660	610	70
75	47	715	695	650	75
80	49	745	725	685	80
YIELD CLASS 20					
20	13	130	5	0	20
25	16	200	25	0	25
30	19	260	80	10	30
35	22	325	180	45	35
40	26	385	280	120	40
45	29	435	360	210	45
50	32	480	425	300	50
55	35	525	475	375	55
60	37	565	525	440	60
65	40	600	570	500	65
70	42	635	610	545	70
75	44	665	640	590	75
80	46	695	670	625	80
YIELD CLASS 18					
20	12	110	0	0	20
25	14	180	15	0	25
30	17	235	45	0	30
35	20	295	125	20	35
40	23	345	215	65	40
45	26	395	300	140	45
50	29	440	365	220	50
55	32	480	420	300	55
60	34	515	470	365	60
65	36	555	515	425	65
70	38	585	550	475	70
75	40	615	585	520	75
80	42	640	615	555	80
YIELD CLASS 16					
20					20
25	14	155	10	0	25
30	16	205	30	0	30
35	19	260	85	10	35
40	22	310	160	35	40
45	24	360	240	85	45
50	27	400	310	155	50
55	29	435	365	225	55
60	32	470	410	290	60
65	34	500	455	345	65
70	36	535	490	400	70
75	37	560	525	445	75
80	39	585	555	480	80
YIELD CLASS 14					
20					20
25	13	125	5	0	25
30	15	180	15	0	30
35	17	225	40	0	35
40	19	275	100	15	40
45	22	315	170	40	45
50	24	355	235	80	50
55	27	390	295	140	55
60	29	420	345	200	60
65	31	450	385	255	65
70	32	480	425	310	70
75	34	510	460	355	75
80	35	535	490	395	80
YIELD CLASS 12					
25					25
30	14	150	5	0	30
35	16	190	20	0	35
40	18	235	55	5	40
45	20	275	105	15	45
50	22	310	165	35	50
55	24	345	220	70	55
60	26	370	270	115	60
65	27	400	315	165	65
70	29	425	350	210	70
75	30	450	385	255	75
80	32	475	415	295	80

PRODUCTION FORECAST TABLE

GF 30 **Grand Fir** **GF 14**

ANNUAL THINNING YIELDS

Age	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Age
		YIELD CLASS 30				YIELD CLASS 28				YIELD CLASS 26			
	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	
20	15	18.0	1.4	0.0	14	16.8	1.0	0.0	14	15.6	0.8	0.0	20
25	19	18.0	6.3	0.8	18	16.8	4.9	0.4	18	15.6	3.6	0.2	25
30	24	18.0	12.1	4.2	23	16.8	10.4	3.0	22	15.6	8.6	2.0	30
35	30	18.0	15.0	9.4	28	16.8	13.5	7.5	27	15.6	11.9	5.7	35
40	35	18.0	16.4	13.0	33	16.8	15.0	11.2	31	15.6	13.5	9.3	40
45	40	18.0	17.1	15.0	38	16.8	15.7	13.3	35	15.6	14.3	11.6	45
50	44	18.0	17.4	16.0	42	16.8	16.1	14.5	39	15.6	14.8	12.9	50
		YIELD CLASS 24				YIELD CLASS 22				YIELD CLASS 20			
20	13	14.4	0.6	0.0	13	13.2	0.4	0.0	13	12.0	0.2	0.0	20
25	17	14.4	2.6	0.0	16	13.2	1.8	0.0	15	12.0	1.3	0.0	25
30	21	14.4	6.8	1.3	20	13.2	5.1	0.7	18	12.0	3.5	0.3	30
35	25	14.4	10.1	4.0	23	13.2	8.2	2.5	22	12.0	6.4	1.5	35
40	29	14.4	11.9	7.2	27	13.2	10.2	5.1	25	12.0	8.5	3.3	40
45	33	14.4	12.9	9.6	31	13.2	11.3	7.5	28	12.0	9.7	5.4	45
50	37	14.4	13.4	11.1	34	13.2	11.9	9.1	31	12.0	10.4	7.1	50
55					37	13.2	12.3	10.2	34	12.0	10.8	8.3	55
		YIELD CLASS 18				YIELD CLASS 16				YIELD CLASS 14			
25	15	10.8	0.8	0.0	14	9.6	0.5	0.0	13	8.4	0.2	0.0	25
30	17	10.8	2.3	0.1	16	9.6	1.4	0.0	15	8.4	0.9	0.0	30
35	20	10.8	4.7	0.8	19	9.6	3.1	0.3	18	8.4	1.9	0.1	35
40	23	10.8	6.7	2.0	22	9.6	5.0	1.1	20	8.4	3.5	0.5	40
45	26	10.8	8.0	3.6	24	9.6	6.4	2.2	22	8.4	4.8	1.3	45
50	29	10.8	8.8	5.1	26	9.6	7.2	3.4	25	8.4	5.8	2.1	50
55	31	10.8	9.3	6.4	29	9.6	7.8	4.5	27	8.4	6.4	3.0	55
60									28	8.4	6.8	3.8	60

PRODUCTION FORECAST TABLE

GF 30 — Grand Fir — GF 14

FELLING YIELDS

Age	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Age
	cm	m^3	m^3	m^3	
YIELD CLASS 30					
15	12	90	0	0	15
20	16	175	25	0	20
25	22	270	145	35	25
30	28	380	300	160	30
35	33	480	430	325	35
40	38	565	535	460	40
45	43	645	620	565	45
50	47	720	700	655	50
55	51	790	770	730	55
60	54	845	830	790	60
65	57	895	880	845	65
70	60	935	920	885	70
75	62	960	945	915	75
80	63	980	965	930	80
YIELD CLASS 28					
12	80	0	0		
15	165	20	0	15	150	15	0	20
21	250	120	25	20	230	95	15	25
27	350	265	125	25	325	230	90	30
32	450	395	280	30	415	355	230	35
37	530	495	410	35	495	455	360	40
41	605	575	520	39	565	535	465	45
45	675	655	605	43	630	605	550	50
49	740	720	680	46	690	670	620	55
52	795	775	735	49	740	720	680	60
55	840	820	785	52	780	765	725	65
57	875	860	825	54	815	800	760	70
59	900	885	850	55	840	825	790	75
60	915	905	870	57	855	840	805	80
YIELD CLASS 24					
20	14	135	10	0	14	120	5	0	13	105	5	0	20
25	19	210	70	10	18	195	50	5	17	175	30	0	25
30	24	300	195	65	22	275	155	40	21	250	120	25	30
35	29	385	315	180	27	355	270	130	25	325	225	85	35
40	33	460	410	305	31	425	365	245	29	385	315	185	40
45	37	525	490	405	34	485	440	345	32	445	390	280	45
50	40	585	555	495	38	540	505	430	35	495	455	365	50
55	43	640	615	565	40	595	565	500	38	545	510	435	55
60	46	690	670	625	43	640	615	560	40	585	555	490	60
65	48	730	710	670	45	675	650	605	42	620	595	535	65
70	50	760	740	700	47	705	680	635	43	645	620	570	70
75	52	785	765	725	48	725	705	665	45	670	645	595	75
80	53	795	780	745	49	740	720	680	46	680	660	610	80
YIELD CLASS 18					
20	12	90	0	0	11	75	0	0	11	60	0	0	20
25	16	155	20	0	15	140	10	0	14	115	5	0	25
30	20	225	85	10	18	195	50	5	17	165	30	0	30
35	23	290	180	50	21	255	130	30	20	220	90	15	35
40	27	350	265	130	25	315	215	80	23	270	165	45	40
45	30	405	340	215	28	360	285	150	26	320	230	100	45
50	32	450	400	295	30	405	345	225	28	360	290	160	50
55	35	495	455	360	32	445	395	290	30	395	335	220	55
60	37	535	500	415	34	480	440	340	32	425	375	270	60
65	39	565	535	460	36	510	475	385	33	455	410	310	65
70	40	590	560	495	37	535	500	420	35	475	435	345	70
75	41	610	580	525	38	555	520	450	36	490	455	370	75
80	42	620	595	540	39	565	535	465	36	500	465	385	80

PRODUCTION FORECAST TABLE

NF 22 **Noble Fir** **NF 12**

ANNUAL THINNING YIELDS

Age	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Age
	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	
	YIELD CLASS 22				YIELD CLASS 20				
20	12	13.2	0.2	0.0					20
25	15	13.2	1.0	0.0	14	12.0	0.6	0.0	25
30	18	13.2	2.9	0.1	16	12.0	1.7	0.0	30
35	20	13.2	5.9	1.0	19	12.0	3.9	0.4	35
40	24	13.2	8.4	2.6	22	12.0	6.3	1.4	40
45	27	13.2	10.1	4.9	24	12.0	8.1	2.9	45
50	30	13.2	11.1	7.1	27	12.0	9.4	4.8	50
55	33	13.2	11.8	8.8	30	12.0	10.2	6.6	55
60	36	13.2	12.2	9.9	33	12.0	10.7	7.9	60
65	39	13.2	12.4	10.7	35	12.0	11.0	8.9	65
	YIELD CLASS 18				YIELD CLASS 16				
25	13	10.8	0.3	0.0	13	9.6	0.3	0.0	25
30	15	10.8	1.0	0.0	14	9.6	0.7	0.0	30
35	17	10.8	2.2	0.1	16	9.6	1.5	0.0	35
40	20	10.8	4.2	0.6	19	9.6	2.8	0.3	40
45	22	10.8	6.0	1.5	21	9.6	4.4	0.8	45
50	25	10.8	7.4	2.8	23	9.6	5.7	1.6	50
55	27	10.8	8.4	4.3	25	9.6	6.8	2.6	55
60	30	10.8	9.0	5.6	27	9.6	7.5	3.8	60
65	32	10.8	9.5	6.8	29	9.6	8.0	4.8	65
70	34	10.8	9.8	7.6	31	9.6	8.3	5.7	70
	YIELD CLASS 14				YIELD CLASS 12				
30	13	8.4	0.3	0.0	13	7.2	0.2	0.0	30
35	15	8.4	0.8	0.0	14	7.2	0.5	0.0	35
40	17	8.4	1.5	0.0	16	7.2	0.9	0.0	40
45	19	8.4	2.6	0.3	17	7.2	1.5	0.0	45
50	21	8.4	3.8	0.7	19	7.2	2.3	0.2	50
55	22	8.4	4.8	1.2	20	7.2	3.2	0.5	55
60	24	8.4	5.6	1.9	22	7.2	4.0	0.9	60
65	26	8.4	6.2	2.8	23	7.2	4.5	1.4	65
70	28	8.4	6.6	3.5	25	7.2	5.0	1.9	70
75					26	7.2	5.4	2.5	75

PRODUCTION FORECAST TABLE

NF 22 **Noble Fir** **NF 12**

FELLING YIELDS

Age	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Age
		YIELD CLASS 22				YIELD CLASS 20				YIELD CLASS 18			
	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	
20	13	140	5	0	12	125	0	0	12	105	0	0	20
25	16	220	30	0	15	200	20	0	14	160	10	0	25
30	20	285	115	15	18	260	70	5	17	235	40	0	30
35	23	350	215	65	21	320	165	35	20	290	110	15	35
40	27	410	310	150	24	380	255	90	22	345	195	50	40
45	30	465	390	245	27	430	335	175	25	395	275	105	45
50	33	515	460	340	30	475	405	260	28	435	345	185	50
55	36	560	515	415	33	515	460	340	30	475	400	260	55
60	38	600	565	485	35	555	510	410	32	510	455	330	60
65	41	640	610	545	38	595	560	475	35	550	500	395	65
70	43	680	655	600	40	635	600	530	37	585	545	450	70
75	46	720	695	645	42	665	635	575	39	615	580	500	75
80	48	750	725	680	44	695	665	615	40	640	610	540	80
		YIELD CLASS 16				YIELD CLASS 14				YIELD CLASS 12			
25	14	155	5	0	13	130	5	0					25
30	16	210	25	0	14	185	15	0	14	160	10	0	30
35	18	260	75	5	17	230	40	0	15	200	20	0	35
40	21	310	150	30	19	275	90	10	18	240	55	5	40
45	23	355	225	70	21	315	155	30	19	275	100	15	45
50	26	395	290	125	23	355	220	65	21	310	160	35	50
55	28	430	345	190	25	390	275	110	23	345	210	60	55
60	30	465	395	255	27	420	325	165	25	370	260	100	60
65	32	500	440	320	29	450	370	220	26	400	300	140	65
70	34	535	485	375	31	480	410	275	28	425	340	185	70
75	36	560	515	420	32	505	443	320	29	450	370	225	75
80	37	585	550	460	34	530	475	365	31	470	405	270	80

PRODUCTION FORECAST TABLE

OAK 8 **Oak** **OAK 4**

ANNUAL THINNING YIELDS

Age	YIELD CLASS 8				YIELD CLASS 6				Age
	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	
	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	
25	7	4.8	0.0	0.0					25
30	9	4.8	0.0	0.0	8	3.6	0.0	0.0	30
35	12	4.8	0.0	0.0	10	3.6	0.0	0.0	35
40	14	4.8	0.3	0.0	11	3.6	0.0	0.0	40
45	17	4.8	0.8	0.0	13	3.6	0.2	0.0	45
50	19	4.8	1.7	0.2	15	3.6	0.4	0.0	50
55	22	4.8	2.6	0.6	18	3.6	0.8	0.0	55
60	25	4.8	3.3	1.2	20	3.6	1.4	0.2	60
65	27	4.8	3.7	1.9	22	3.6	1.9	0.4	65
70	30	4.8	4.0	2.5	24	3.6	2.4	0.8	70
75	32	4.8	4.2	3.1	26	3.6	2.7	1.2	75
80	35	4.8	4.4	3.5	28	3.6	2.9	1.6	80
85	38	4.8	4.5	3.8	30	3.6	3.1	2.0	85
90	41	4.8	4.6	4.1	32	3.6	3.2	2.3	90
95	44	4.8	4.6	4.2	35	3.6	3.3	2.6	95
100					37	3.6	3.3	2.8	100
105					39	3.6	3.4	2.9	105
	YIELD CLASS 4								
35	8	2.4	0.0	0.0					35
40	9	2.4	0.0	0.0					40
45	10	2.4	0.0	0.0					45
50	12	2.4	0.0	0.0					50
55	14	2.4	0.1	0.0					55
60	15	2.4	0.2	0.0					60
65	17	2.4	0.4	0.0					65
70	18	2.4	0.7	0.1					70
75	20	2.4	1.0	0.1					75
80	22	2.4	1.3	0.3					80
85	23	2.4	1.5	0.4					85
90	25	2.4	1.7	0.6					90
95	26	2.4	1.8	0.8					95
100	28	2.4	1.9	1.0					100
105	29	2.4	2.0	1.2					105
110	31	2.4	2.1	1.4					110
115	32	2.4	2.1	1.5					115

PRODUCTION FORECAST TABLE

OAK 8 — Oak — OAK 4

FELLING YIELDS

Age	YIELD CLASS 8				YIELD CLASS 6				YIELD CLASS 4				Age
	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	
	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	
20	7	60	0	0									20
25	10	75	0	0	9	55	0	0					25
30	12	90	0	0	11	75	0	0					30
35	15	115	15	0	13	90	5	0	10	60	0	0	35
40	19	135	45	5	15	105	10	0	12	75	0	0	40
45	22	160	85	20	18	125	30	0	14	85	5	0	45
50	25	185	130	50	20	145	65	10	16	95	15	0	50
55	28	205	165	90	23	160	95	25	18	110	30	0	55
60	31	220	190	130	25	175	125	50	20	120	50	5	60
65	34	235	210	160	28	185	150	80	22	130	70	15	65
70	37	245	225	190	30	195	165	110	24	140	90	30	70
75	39	255	240	210	33	205	185	135	26	150	110	45	75
80	42	260	250	225	35	215	195	155	28	155	125	65	80
85	45	265	255	235	37	220	205	170	29	165	135	85	85
90	47	270	260	245	39	225	210	185	31	170	145	100	90
95	50	270	265	250	42	230	220	195	33	175	155	115	95
100	52	270	265	255	44	230	220	205	35	175	160	125	100
105	55	270	265	255	46	230	225	210	36	180	165	135	105
110	57	270	265	255	47	235	225	215	38	180	170	145	110
115	59	270	265	255	49	235	230	215	39	180	170	150	115
120	61	270	265	255	51	235	230	215	41	180	175	155	120
125	63	270	265	255	52	235	230	220	42	180	175	160	125
130	65	265	260	255	54	235	230	220	43	180	175	160	130
135	66	265	260	255	55	235	230	220	44	180	175	160	135
140	68	265	260	250	57	235	230	220	46	180	175	165	140
145	70	260	260	250	58	235	230	220	47	180	175	165	145
150	71	260	255	250	59	235	230	220	47	180	175	165	150

PRODUCTION FORECAST TABLE

BE 10 **Beech** **BE 4**

ANNUAL THINNING YIELDS

Age	YIELD CLASS 10				YIELD CLASS 8				Age
	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	
	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	
25	8	6.0	0.0	0.0					25
30	9	6.0	0.0	0.0	8	4.8	0.0	0.0	30
35	11	6.0	0.0	0.0	9	4.8	0.0	0.0	35
40	13	6.0	0.2	0.0	10	4.8	0.0	0.0	40
45	15	6.0	0.7	0.0	12	4.8	0.1	0.0	45
50	18	6.0	1.7	0.1	14	4.8	0.3	0.0	50
55	21	6.0	3.1	0.6	17	4.8	0.8	0.0	55
60	25	6.0	4.1	1.5	19	4.8	1.7	0.2	60
65	28	6.0	4.8	2.5	22	4.8	2.6	0.6	65
70	31	6.0	5.2	3.5	25	4.8	3.3	1.2	70
75	34	6.0	5.4	4.2	27	4.8	3.8	1.9	75
80	37	6.0	5.6	4.7	30	4.8	4.1	2.6	80
85					33	4.8	4.3	3.1	85

	YIELD CLASS 6				YIELD CLASS 4				
30	7	3.6	0.0	0.0					30
35	7	3.6	0.0	0.0	7	2.4	0.0	0.0	35
40	9	3.6	0.0	0.0	7	2.4	0.0	0.0	40
45	10	3.6	0.0	0.0	8	2.4	0.0	0.0	45
50	12	3.6	0.0	0.0	9	2.4	0.0	0.0	50
55	13	3.6	0.1	0.0	10	2.4	0.0	0.0	55
60	15	3.6	0.4	0.0	11	2.4	0.0	0.0	60
65	17	3.6	0.7	0.0	13	2.4	0.1	0.0	65
70	20	3.6	1.3	0.2	14	2.4	0.2	0.0	70
75	22	3.6	1.9	0.4	16	2.4	0.3	0.0	75
80	24	3.6	2.4	0.8	18	2.4	0.5	0.0	80
85	26	3.6	2.7	1.2	19	2.4	0.9	0.1	85
90	29	3.6	2.9	1.7	21	2.4	1.2	0.2	90
95	31	3.6	3.1	2.1	23	2.4	1.5	0.4	95
100					25	2.4	1.7	0.7	100
105					27	2.4	1.9	0.9	105
110					29	2.4	2.0	1.2	110

PRODUCTION FORECAST TABLE

BE 10 **BE 4**

Beech

FELLING YIELDS

Age	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Age
	cm	m^3	m^3	m^3	
YIELD CLASS 10					
25	10	85	0	0	25
30	12	110	0	0	30
35	15	135	10	0	35
40	18	160	45	5	40
45	22	190	100	20	45
50	25	220	155	60	50
55	29	245	200	115	55
60	32	270	240	170	60
65	35	295	270	215	65
70	39	315	295	255	70
75	42	330	315	285	75
80	45	345	335	310	80
85	48	360	350	330	85
90	51	370	360	345	90
95	54	380	375	355	95
100	57	390	385	370	100
105	60	400	395	380	105
110	63	410	400	385	110
115	65	415	410	395	115
120	68	420	415	400	120
125	70	425	420	410	125
130	73	430	425	410	130
135	75	430	425	415	135
140	78	435	430	420	140
145	80	435	0	0	145
150	83	435	0	0	150
YIELD CLASS 8					
	8	60	0	0	
	10	85	0	0	
	12	105	0	0	
	15	125	10	0	
	17	150	30	0	
	20	170	75	10	
	23	195	120	35	
	26	215	160	75	
	29	240	195	120	
	32	255	225	165	
	35	275	250	200	
	38	285	270	230	
	40	300	285	250	
	43	310	295	270	
	46	320	310	285	
	48	330	320	300	
	51	340	330	315	
	53	345	340	320	
	55	355	345	330	
	57	360	350	340	
	60	360	355	345	
	62	365	360	345	
	64	370	365	350	
	66	370	365	355	
	68	375	370	355	
	70	370	365	355	
YIELD CLASS 6					
30	8	55	0	0	30
35	10	75	0	0	35
40	12	90	0	0	40
45	14	105	5	0	45
50	16	120	15	0	50
55	19	140	45	5	55
60	21	160	80	15	60
65	24	175	115	35	65
70	26	190	145	70	70
75	29	205	170	100	75
80	31	220	190	135	80
85	34	230	210	160	85
90	36	245	225	185	90
95	39	250	235	205	95
100	41	260	250	220	100
105	43	270	260	235	105
110	45	275	265	245	110
115	47	280	275	255	115
120	49	285	280	265	120
125	51	290	285	270	125
130	53	295	290	275	130
135	55	300	290	280	135
140	57	300	295	285	140
145	59	300	295	285	145
150	61	300	295	285	150
YIELD CLASS 4					
	7	40	0	0	
	8	50	0	0	
	10	60	0	0	
	12	75	0	0	
	14	85	5	0	
	16	100	10	0	
	18	110	25	0	
	20	125	50	10	
	22	135	75	20	
	24	150	100	35	
	26	160	120	55	
	28	170	135	80	
	31	175	150	100	
	33	185	160	120	
	35	190	170	135	
	37	195	180	150	
	38	200	185	160	
	40	205	195	170	
	42	210	200	180	
	44	210	205	185	
	45	215	205	190	
	47	215	210	195	
	49	215	210	200	
	50	215	210	200	

PRODUCTION FORECAST TABLE

SAB 12 **Sycamore, Ash, Birch** **SAB 4**

ANNUAL THINNING YIELDS

Age	Mean Breast Height Diam cm	Volume to Over Bark Top Diameters of 7cm m^3	18cm m^3	24cm m^3	Mean Breast Height Diam cm	Volume to Over Bark Top Diameters of 7cm m^3	18cm m^3	24cm m^3	Age
	YIELD CLASS 12				YIELD CLASS 10				
15	11	7.2	0.0	0.0	9	6.0	0.0	0.0	15
20	16	7.2	0.9	0.0	13	6.0	0.2	0.0	20
25	22	7.2	4.0	1.0	18	6.0	1.5	0.1	25
30	29	7.2	6.0	3.7	24	6.0	3.9	1.2	30
35	36	7.2	6.6	5.4	29	6.0	5.0	3.0	35
40	41	7.2	6.9	6.1	34	6.0	5.4	4.2	40
	YIELD CLASS 8				YIELD CLASS 6				
15	8	4.8	0.0	0.0					15
20	11	4.8	0.0	0.0	8	3.6	0.0	0.0	20
25	15	4.8	0.4	0.0	11	3.6	0.0	0.0	25
30	19	4.8	1.5	0.2	14	3.6	0.2	0.0	30
35	23	4.8	3.0	0.9	17	3.6	0.6	0.0	35
40	27	4.8	3.8	1.9	20	3.6	1.4	0.2	40
45	31	4.8	4.1	2.8	22	3.6	2.1	0.5	45
	YIELD CLASS 4								
25	9	2.4	0.0	0.0					25
30	10	2.4	0.0	0.0					30
35	12	2.4	0.0	0.0					35
40	14	2.4	0.1	0.0					40
45	15	2.4	0.3	0.0					45
50	17	2.4	0.4	0.0					50

PRODUCTION FORECAST TABLE

SAB 12 — Sycamore, Ash, Birch — SAB 4

FELLING YIELDS

Age	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Mean Breast Height Diam	Volume to Over Bark Top Diameters of 7cm	18cm	24cm	Age
	YIELD CLASS 12				YIELD CLASS 10				YIELD CLASS 8				
	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	cm	m^3	m^3	m^3	
10	7	15	0	0									10
15	12	55	0	0	10	40	0	0	9	25	0	0	15
20	18	85	25	0	15	70	5	0	13	55	0	0	20
25	25	120	85	35	21	105	45	10	17	85	15	0	25
30	31	155	135	95	26	135	100	50	22	115	60	15	30
35	37	185	175	145	32	160	140	100	26	135	100	45	35
40	42	205	200	180	36	180	165	135	30	150	125	80	40
45	47	225	220	205	40	195	185	165	33	165	150	110	45
50	50	250	245	230	43	215	205	190	36	180	165	135	50
55	54	270	260	250	46	230	225	210	38	190	180	155	55
60	56	285	280	265	49	245	235	225	40	205	195	170	60
65	59	295	290	280	50	255	250	235	42	210	205	185	65
70	60	305	300	290	52	265	255	245	43	220	210	195	70
75	62	315	310	295	53	270	265	250	45	225	220	200	75
80	64	320	315	305	55	275	270	260	46	230	225	205	80
	YIELD CLASS 6				YIELD CLASS 4								
15	7	10	0	0									15
20	9	40	0	0	7	15	0	0					20
25	13	65	0	0	10	40	0	0					25
30	16	90	10	0	12	60	0	0					30
35	19	105	35	5	14	75	5	0					35
40	22	120	70	15	16	85	15	0					40
45	25	130	95	35	18	95	25	0					45
50	27	145	110	60	20	105	40	5					50
55	29	155	125	80	21	110	55	10					55
60	31	160	140	95	23	115	70	20					60
65	32	170	150	110	24	120	80	25					65
70	33	175	155	120	25	125	85	30					70
75	35	180	165	130	25	130	95	40					75
80	35	185	170	135	26	135	100	45					80

TABLE OF ANNUAL THINNING YIELDS TO 18 cm TOP DIAMETER

YIELD CLASS	30	28	26	24	22	20	18	16	14	12	10	8	6	4
Constant Annual Thinning Yield	18.0	16.8	15.6	14.4	13.2	12.0	10.8	9.6	8.4	7.2	6.0	4.8	3.6	2.4
Mean dbh cm	Volume in m^3 to 18 cm Top Diameter O.B.													
12	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
14	1.0	1.0	0.9	0.8	0.8	0.7	0.6	0.6	0.5	0.4	0.3	0.3	0.2	0.1
16	2.4	2.3	2.1	1.9	1.8	1.6	1.4	1.3	1.1	1.0	0.8	0.6	0.5	0.3
18	4.6	4.3	4.0	3.7	3.4	3.1	2.8	2.4	2.1	1.8	1.5	1.2	0.9	0.6
20	7.4	6.9	6.4	5.9	5.4	4.9	4.4	4.0	3.5	3.0	2.5	2.0	1.5	1.0
22	9.9	9.2	8.6	7.9	7.2	6.6	5.9	5.3	4.6	4.0	3.3	2.6	2.0	1.3
24	11.8	11.1	10.3	9.5	8.7	7.9	7.1	6.3	5.5	4.7	3.9	3.2	2.4	1.6
26	13.3	12.4	11.5	10.6	9.8	8.9	8.0	7.1	6.2	5.3	4.4	3.5	2.7	1.8
28	14.4	13.5	12.5	11.5	10.6	9.6	8.7	7.7	6.7	5.8	4.8	3.8	2.9	1.9
30	15.2	14.2	13.2	12.2	11.2	10.1	9.1	8.1	7.1	6.1	5.1	4.1	3.0	2.0
32	15.8	14.8	13.7	12.7	11.6	10.6	9.5	8.4	7.4	6.3	5.3	4.2	3.2	2.1
34	16.3	15.2	14.1	13.0	12.0	10.9	9.8	8.7	7.6	6.5	5.4	4.3	3.3	2.2
36	16.7	15.5	14.4	13.3	12.2	11.1	10.0	8.9	7.8	6.7	5.6	4.4	3.3	2.2
38	16.9	15.8	14.6	13.5	12.4	11.3	10.1	9.0	7.9	6.8	5.6	4.5	3.4	2.3
40	17.1	15.9	14.8	13.7	12.5	11.4	10.2	9.1	8.0	6.8	5.7	4.6	3.4	2.3
42	17.2	16.1	14.9	13.8	12 6	11.5	10.3	9.2	8.0	6.9	5.7	4.6	3.4	2.3
44	17.3	16.2	15.0	13.9	12.7	11.6	10.4	9.2	8.1	6.9	5.8	4.6	3.5	2.3
46	17.4	16.3	15.1	13.9	12.8	11.6	10.5	9.3	8.1	7.0	5.8	4.6	3.5	2.3
48	17.5	16.3	15.2	14.0	12.8	11.7	10.5	9.3	8.2	7.0	5.8	4.7	3.5	2.3
50	17.6	16.4	15.2	14.1	12.9	11.7	10.5	9.4	8.2	7.0	5.9	4.7	3.5	2.3

TABLE OF ANNUAL THINNING YIELDS TO 24 cm TOP DIAMETER

YIELD CLASS	30	28	26	24	22	20	18	16	14	12	10	8	6	4
Constant Annual Thinning Yield	18.0	16.8	15.6	14.4	13.2	12.0	10.8	9.6	8.4	7.2	6.0	4.8	3.6	2.4
Mean dbh cm	Volume in m^3 to 24 cm Top Diameter O.B.													
18	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.0
20	1.1	1.0	1.0	0.9	0.8	0.7	0.7	0.6	0.5	0.4	0.4	0.3	0.2	0.1
22	2.3	2.2	2.0	1.9	1.7	1.5	1.4	1.2	1.1	0.9	0.8	0.6	0.5	0.3
24	3.9	3.7	3.4	3.2	2.9	2.6	2.4	2.1	1.8	1.6	1.3	1.1	0.8	0.5
26	5.9	5.5	5.1	4.7	4.3	3.9	3.6	3.2	2.8	2.4	2.0	1.6	1.2	0.8
28	7.9	7.4	6.9	6.3	5.8	5.3	4.8	4.2	3.7	3.2	2.6	2.1	1.6	1.1
30	9.8	9.1	8.5	7.8	7.2	6.5	5.9	5.2	4.6	3.9	3.3	2.6	2.0	1.3
32	11.4	10.6	9.9	9.1	8.3	7.6	6.8	6.1	5.3	4.6	3.8	3.0	2.3	1.5
34	12.6	11.8	10.9	10.1	9.3	8.4	7.6	6.7	5.9	5.0	4.2	3.4	2.5	1.7
36	13.6	12.7	11.8	10.9	10.0	9.1	8.2	7.3	6.4	5.5	4.5	3.6	2.7	1.8
38	14.4	13.5	12.5	11.5	10.6	9.6	8.7	7.7	6.7	5.8	4.8	3.8	2.9	1.9
40	15.1	14.1	13.1	12.1	11.0	10.0	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0
42	15.6	14.5	13.5	12.4	11.4	10.4	9.3	8.3	7.3	6.2	5.2	4.1	3.1	2.1
44	15.9	14.9	13.8	12.8	11.7	10.6	9.6	8.5	7.4	6.4	5.3	4.3	3.2	2.1
46	16.2	15.1	14.1	13.0	11.9	10.8	9.7	8.6	7.6	6.5	5.4	4.3	3.2	2.2
48	16.4	15.3	14.2	13.1	12.1	11.0	9.9	8.8	7.7	6.6	5.5	4.4	3.3	2.2
50	16.6	15.5	14.4	13.3	12.2	11.1	10.0	8.9	7.7	6.6	5.5	4.4	3.3	2.2

STAND ASSORTMENT TABLE FOR CONIFERS AND SMALL HARDWOODS

Minimum Length 3 metres

Volume to tip and various top diameters **overbark** as a percentage of the **overbark** volume to 7cm top diameter

Mean dbh cm	* To Tip	† 7	To Top Diameters **ob** (centimetres) Minimum length 3 metres. 8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	Mean dbh cm
			PERCENTAGE OF VOLUME																	
7	175.0	100	20.7	7.7	1.8															7
8	155.3	100	35.3	12.8	4.6	0.1														8
9	148.0	100	62.7	20.9	8.4	2.1														9
10	127.5	100	74.9	33.3	13.9	4.8	0.5													10
11	120.1	100	81.2	48.1	21.1	8.4	2.8													11
12	115.5	100	85.3	63.8	30.0	13.6	5.6	0.8												12
13	112.3	100	88.3	72.2	40.8	20.2	8.8	3.1												13
14	109.9	100	90.6	77.7	51.2	28.2	13.2	5.8	1.2											14
15	108.0	100	92.5	81.7	60.9	37.2	18.4	9.1	3.3											15
16	107.7	100	94.0	84.8	68.7	46.6	25.3	13.4	5.9	1.8										16
17	105.5	100	95.2	87.4	74.1	55.1	34.4	18.7	9.0	3.7	0.3									17
18	104.7	100	96.0	89.7	78.3	62.2	43.6	25.5	12.9	6.2	1.8									18
19	104.0	100	96.8	91.3	81.5	67.9	51.5	33.4	17.9	9.3	3.7	0.5								19
20	103.5	100	97.3	92.9	84.3	72.7	58.3	41.2	24.0	13.1	6.2	2.0								20
21	103.0	100	97.8	94.1	86.7	76.8	63.9	48.5	31.2	17.4	9.3	4.0	0.8							21
22	102.7	100	98.2	95.2	88.7	80.2	69.0	54.9	38.5	22.4	12.9	6.3	2.4							22
23	102.4	100	98.6	96.0	90.4	83.1	73.3	60.5	45.4	27.9	17.0	9.2	4.3	0.9						23
24	102.1	100	98.8	96.7	91.9	85.5	77.0	65.8	51.7	34.4	21.9	12.7	6.5	1.3	0.1					24
25	101.9	100	99.0	97.2	93.1	87.7	80.2	70.2	57.2	41.5	27.2	16.4	9.1	4.1	1.1					25
26	101.8	100	99.2	97.5	94.1	89.4	82.9	73.9	62.1	48.2	32.9	20.5	12.0	6.2	2.4	0.2				26
27	101.6	100	99.3	97.8	95.0	91.0	85.3	77.3	66.5	53.8	38.6	25.1	15.4	8.7	4.0	1.1				27
28	101.5	100	99.4	98.1	95.7	92.2	87.2	80.1	70.4	58.7	44.0	30.0	19.5	11.6	6.0	2.3	0.5			28
29	101.4	100	99.4	98.3	96.2	93.3	88.8	82.5	73.9	63.0	49.3	35.6	23.9	14.9	8.3	3.9	1.7			29
30	101.3	100	99.5	98.5	96.6	94.2	90.2	84.5	76.9	66.8	54.3	41.1	28.8	18.6	11.1	6.0	3.1	0.6		30

31	101.2	100	99.5	98.7	97.0	94.8	91.4	86.4	79.4	70.2	58.9	46.4	33.9	22.8	14.5	8.6	4.8	1.8		31
32	101.1	100	99.6	98.8	97.4	95.4	92.4	88.0	81.7	73.2	63.2	51.5	39.0	27.3	18.4	11.7	6.8	3.2	1.0	32
33	101.0	100	99.6	98.9	97.6	95.8	93.2	89.4	83.7	76.0	66.9	55.9	43.9	31.9	22.4	15.0	9.2	5.0	2.1	33
34	100.9	100	99.6	98.9	97.8	96.2	93.9	90.6	85.5	78.6	70.1	59.9	48.5	36.7	26.7	18.6	12.0	7.1	3.4	34
35	100.8	100	99.7	99.0	98.0	96.5	94.5	91.6	87.1	80.8	73.0	63.7	52.9	41.5	31.3	22.5	15.2	9.5	5.1	35
36	100.7	100	99.7	99.1	98.2	96.8	95.0	92.5	88.4	82.8	75.7	67.1	56.9	46.0	35.6	26.7	18.7	12.2	7.0	36
37	100.6	100	99.7	99.2	98.4	97.1	95.5	93.2	89.6	84.6	78.0	70.1	60.7	50.2	40.0	30.8	22.4	15.2	9.3	37
38	100.6	100	99.7	99.2	98.5	97.3	95.9	93.8	90.6	86.2	80.1	72.8	64.1	54.3	44.2	34.8	26.2	18.4	12.0	38
39	100.5	100	99.7	99.3	98.6	97.5	96.2	94.4	91.5	87.6	82.0	75.2	67.1	58.0	48.3	38.7	30.1	21.8	15.1	39
40	100.5	100	99.7	99.3	98.7	97.7	96.6	94.9	92.3	88.7	83.7	77.5	69.9	61.4	52.1	42.6	33.8	25.2	18.3	40
41	100.4	100	99.7	99.4	98.8	97.9	96.9	95.3	92.9	89.7	85.1	79.4	72.4	64.4	55.7	46.3	37.3	28.7	21.4	41
42	100.4	100	99.7	99.4	98.9	98.1	97.2	95.7	93.5	90.6	86.4	81.2	74.7	67.2	59.0	49.8	40.8	31.9	24.4	42
43	100.4	100	99.7	99.4	99.0	98.3	97.4	96.0	94.0	91.3	87.6	82.7	76.7	69.7	61.9	53.0	44.1	35.0	27.2	43
44	100.3	100	99.8	99.5	99.1	98.4	97.6	96.3	94.4	92.0	88.6	84.1	78.5	71.9	64.4	56.0	47.3	38.0	30.0	44
45	100.3	100	99.8	99.5	99.2	98.6	97.8	96.6	94.8	92.6	89.4	85.3	80.0	73.9	66.6	58.8	50.2	40.8	32.7	45
46	100.3	100	99.8	99.5	99.2	98.7	98.0	96.8	95.2	93.1	90.1	86.4	81.4	75.6	68.6	61.1	52.8	43.5	35.2	46
47	100.3	100	99.8	99.5	99.3	98.8	98.1	97.0	95.5	93.5	90.7	87.2	82.6	77.1	70.4	63.3	55.1	45.9	37.5	47
48	100.3	100	99.8	99.5	99.3	98.9	98.2	97.2	95.8	93.9	91.3	87.9	83.6	78.4	72.2	65.2	57.0	48.1	39.6	48
49	100.3	100	99.8	99.6	99.4	99.0	98.3	97.4	96.1	94.3	91.8	88.6	84.4	79.5	73.6	66.9	58.8	50.0	41.5	49
50	100.2	100	99.8	99.6	99.4	99.0	98.4	97.6	96.4	94.6	92.2	89.2	85.2	80.5	74.9	68.4	60.4	51.8	43.3	50
51	100.2	100	99.8	99.6	99.4	99.1	98.5	97.7	96.6	94.9	92.6	89.7	85.9	81.4	75.9	69.7	61.9	53.4	44.9	51
52	100.2	100	99.8	99.6	99.4	99.1	98.5	97.8	96.8	95.2	92.9	90.1	86.5	82.1	76.9	70.8	63.2	54.8	46.3	52
53	100.2	100	99.8	99.6	99.5	99.1	98.6	97.9	97.0	95.4	93.2	90.5	87.0	82.8	77.8	71.8	64.3	56.2	47.6	53
54	100.2	100	99.8	99.6	99.5	99.1	98.6	98.0	97.1	95.6	93.5	90.8	87.5	83.4	78.5	72.7	65.4	57.4	48.8	54
55	100.2	100	99.8	99.6	99.5	99.1	98.7	98.1	92.2	95.8	93.8	91.1	87.9	83.9	79.1	73.5	66.3	58.4	50.0	55
56	100.2	100	99.8	99.6	99.5	99.2	98.7	98.2	97.3	96.0	94.0	91.4	88.3	84.4	79.7	74.2	67.2	59.4	51.1	56
57	100.2	100	99.9	99.7	99.5	99.2	98.8	98.2	97.4	96.2	94.2	91.7	88.6	84.8	80.3	74.9	68.0	60.3	52.1	57
58	100.2	100	99.9	99.7	99.5	99.2	98.8	98.3	97.5	96.3	94.4	91.9	89.9	85.2	80.8	75.5	68.7	61.1	53.0	58
59	100.2	100	99.9	99.7	99.5	99.2	98.9	98.3	97.6	96.4	94.6	92.1	89.2	85.5	81.2	76.0	69.3	61.9	53.9	59
60	100.2	100	99.9	99.7	99.6	99.2	98.9	98.4	97.6	96.5	94.8	92.3	89.5	85.8	81.6	76.4	69.9	62.6	54.7	60

*No minimum length has been used in calculating the To Tip percentages.

† The volume to 7 cm top diameter assumes a conventional minimum length of 1.3 m.

UNDERBARK STAND ASSORTMENT TABLE FOR PINES, LARCHES AND DOUGLAS FIR

Volumes to various top diameters **underbark** as a percentage of the volume **overbark** measured to 7 cm top diameter (conventional minimum length of 1.3 m)

Mean dbh cm	To top diameters **u b** (centimetres) minimum length 3 metres																	Mean dbh cm
	7	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	
	PERCENTAGE OF VOLUME																		
10	52	47	19	2															10
11	64	59	30	6	1														11
12	73	68	42	13	3														12
13	78	74	53	21	7	2													13
14	81	78	61	31	13	4	1												14
15	83	80	67	41	20	8	2												15
16	83	81	72	50	28	13	5	1											16
17	84	82	74	57	37	20	8	2											17
18	84	82	76	63	45	27	13	4	1										18
19	84	82	78	67	52	35	19	7	2	1									19
20	84	83	79	71	58	42	26	11	4	1									20
21	84	83	80	73	62	48	32	16	7	3									21
22	84	83	80	75	66	53	39	21	11	5	1								22
23	84	83	81	76	69	58	44	27	15	8	3	1							23
24	84	83	81	77	71	62	49	33	20	11	4	2							24
25	84	84	82	78	73	65	54	38	25	15	7	3	1						25
26	84	84	82	79	75	67	57	43	30	19	10	5	2						26
27	85	84	82	80	76	69	61	48	35	24	13	7	3	1					27
28	85	84	83	80	77	71	63	52	40	28	17	10	4	2	1				28
29	85	84	83	81	78	73	66	55	44	33	21	13	7	3	1				29
30	85	84	83	81	78	74	68	58	48	37	25	16	9	5	3	1			30
31	85	84	83	82	79	75	69	61	51	41	29	20	12	7	4	1			31
32	85	84	83	82	80	76	71	63	54	44	32	24	15	9	6	2	1		32
33	85	84	83	82	80	77	72	65	57	47	36	27	18	12	7	4	2	1	33
34	85	84	84	82	81	78	73	67	59	50	39	31	21	15	10	5	3	1	34
35	85	84	84	83	81	78	74	68	61	53	43	34	24	17	12	7	4	2	35
36	85	84	84	83	81	79	75	70	63	55	46	37	27	20	14	9	6	3	36
37	85	84	84	83	82	79	76	71	65	57	48	40	30	23	17	11	7	4	37
38	85	84	84	83	82	80	77	72	66	59	51	43	33	26	19	13	9	6	38
39	85	84	84	83	82	80	77	73	68	61	53	45	36	29	22	15	11	7	39
40	85	84	84	83	82	81	78	74	69	63	55	47	39	31	24	18	13	9	40
41	85	84	84	84	83	81	78	75	70	64	57	50	41	34	27	20	15	11	41
42	85	84	84	84	83	81	79	76	72	66	59	52	43	36	29	22	17	12	42
43	85	84	84	84	83	82	80	76	73	67	61	54	46	39	32	25	19	14	43
44	85	85	84	84	83	82	80	77	74	69	62	56	48	41	34	27	21	16	44
45	85	85	84	84	83	82	80	78	74	70	64	57	50	43	36	29	23	18	45
46	85	85	84	84	83	82	81	78	75	71	65	59	52	45	38	31	25	20	46
47	85	85	84	84	83	82	81	79	76	72	66	60	53	47	40	33	27	22	47
48	85	85	84	84	84	83	81	79	76	73	67	62	55	49	42	35	29	24	48
49	85	85	84	84	84	83	82	80	77	73	68	63	57	50	44	37	31	26	49
50	85	85	84	84	84	83	82	80	77	74	70	64	58	52	46	39	33	27	50

UNDERBARK STAND ASSORTMENT TABLE FOR SPRUCES AND OTHER CONIFERS

Volumes to various top diameters **underbark** as a percentage of the volume **overbark** measured to 7 cm top diameter (conventional minimum length of 1.3 m)

Mean dbh cm	To top diameters **u b** (centimetres) minimum length 3 metres																	Mean dbh cm
	7	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	
	PERCENTAGE OF VOLUME																		
10	72	67	32	6															10
11	81	77	45	12	3														11
12	86	82	57	21	6														12
13	88	85	67	32	12	2													13
14	89	86	73	43	20	5	1												14
15	89	87	77	53	29	9	3												15
16	89	88	81	61	38	15	6	1											16
17	90	88	82	68	47	22	10	3	1										17
18	90	89	84	73	55	31	16	6	2										18
19	90	89	85	76	61	39	22	10	4	1									19
20	90	89	86	79	66	47	30	16	7	2									20
21	90	89	87	81	71	54	37	22	11	4	1								21
22	90	90	87	82	74	60	44	28	16	6	2	1							22
23	90	90	88	83	77	65	50	35	21	9	4	2							23
24	90	90	88	85	79	69	56	41	27	14	7	3	1						24
25	90	90	89	85	80	72	61	47	33	18	10	5	2	1					25
26	90	90	89	86	82	74	65	52	38	23	14	8	4	2					26
27	90	90	89	87	83	77	68	56	43	28	18	11	6	3	1				27
28	90	90	89	87	84	79	71	60	48	34	23	14	8	4	2				28
29	90	90	90	88	85	80	73	64	53	39	27	18	11	7	3	1			29
30	90	90	90	88	86	82	75	67	56	43	32	22	15	9	4	2	1		30
31	91	90	90	89	86	83	77	69	60	48	37	27	18	12	6	3	1		31
32	91	91	90	89	87	84	79	72	63	51	41	31	22	15	8	5	2	1	32
33	91	91	90	89	87	84	80	73	66	55	45	35	26	18	11	7	4	1	33
34	91	91	90	89	88	85	81	75	68	58	48	39	30	22	14	9	5	2	34
35	91	91	90	90	88	86	82	77	70	61	52	42	33	25	17	11	7	4	35
36	91	91	90	90	88	86	83	78	72	63	55	46	37	28	20	14	9	5	36
37	91	91	91	90	89	87	84	79	73	66	57	49	40	32	23	16	11	7	37
38	91	91	91	90	89	87	84	80	75	68	60	51	43	35	26	19	14	9	38
39	91	91	91	90	89	87	85	81	76	69	62	54	46	38	29	22	16	11	39
40	91	91	91	90	89	88	85	82	77	71	64	56	48	40	32	25	19	13	40
41	91	91	91	90	89	88	86	83	78	72	66	58	51	43	34	27	21	15	41
42	91	91	91	90	90	88	86	83	79	74	67	60	53	46	37	30	24	17	42
43	91	91	91	91	90	89	87	84	81	75	70	63	56	48	40	33	26	20	43
44	91	91	91	91	90	89	87	85	81	77	71	65	58	51	42	35	29	22	44
45	91	91	91	91	90	89	87	85	82	78	72	66	60	53	45	38	31	24	45
46	91	91	91	91	90	89	88	86	83	79	74	68	61	55	47	40	33	27	46
47	91	91	91	91	90	90	88	86	83	80	75	69	63	57	49	42	36	29	47
48	91	91	91	91	90	90	88	86	84	81	76	71	65	58	51	44	38	31	48
49	91	91	91	91	91	90	89	87	84	81	77	72	66	60	53	46	40	33	49
50	92	92	91	91	91	90	89	87	85	82	78	73	68	62	55	48	42	35	50

STAND TABLE FOR CONIFERS

The table gives the percentage distribution of numbers of trees by diameter classes for given mean breast height diameters

Mean dbh cm	Breast Height Diameter Class in Centimetres[1]																Mean dbh cm
	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	
	PERCENTAGE																
10	19	71	10														10
11	8	73	19														11
12	3	66	29	2													12
13	1	53	42	4													13
14		39	53	8													14
15		26	60	14													15
16		16	61	21	2												16
17		9	57	30	4												17
18		5	50	38	7												18
19		2	41	45	11	1											19
20		1	31	50	16	2											20
21			23	51	22	4											21
22			16	48	29	7											22
23			11	43	34	10	2										23
24			7	38	38	14	3										24
25			5	32	40	18	5										25
26			3	27	40	22	7	1									26
27			2	22	39	26	9	2									27
28			2	17	37	29	12	3									28
29			1	14	34	31	15	5									29
30				11	31	32	18	7	1								30
31				9	27	32	21	9	2								31
32				7	24	31	23	11	4								32
33				6	21	30	24	13	5	1							33
34				4	18	29	25	15	7	2							34
35				4	15	27	26	17	8	3							35
36				3	13	25	26	18	10	5							36
37				1	12	23	25	20	12	6	1						37
38					11	21	25	20	13	7	3						38
39					9	19	25	21	14	8	4						39
40					8	18	23	21	15	9	5	1					40
41					6	16	22	22	16	10	6	2					41
42					5	15	21	21	17	11	7	3					42
43					4	13	20	21	17	12	8	5					43
44					3	12	19	20	18	13	9	5	1				44
45					2	11	17	20	18	14	9	6	3				45
46						11	17	19	18	14	10	7	4				46
47						10	15	18	18	15	11	7	5	1			47
48						8	15	18	18	15	11	8	5	2			48
49						7	14	17	17	15	12	9	6	3			49
50						6	13	16	17	15	12	9	7	5			50

[1]NOTE: The diameters given for the breast height diameter classes are the central values for each class. Thus the 10 cm diameter class includes dbh 8-12 cm inclusive; 15 cm - 13-17 cm; 20 cm - 18-22 cm, etc. The lowest class of 5 cm, includes all trees with dbh of 7 cm and less.

STOCK TABLE FOR CONIFERS

The table gives the percentage distribution of volume by diameter classes for given mean breast height diameters

Mean dbh cm	Breast Height Diameter Class in Centimetros[1]															Mean dbh cm
	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	
	PERCENTAGE															
10	81	19														10
11	67	33														11
12	51	46	3													12
13	35	57	8													13
14	22	63	15													14
15	12	62	26													15
16	6	56	35	3												16
17	3	46	43	8												17
18	1	35	50	14												18
19		26	52	20	2											19
20		17	52	27	4											20
21		11	47	34	8											21
22		7	41	39	13											22
23		4	34	43	17	2										23
24		3	27	43	22	5										24
25		2	21	41	27	9										25
26		1	16	39	31	12	1									26
27			12	35	34	16	3									27
28			9	31	35	19	6									28
29			7	26	35	22	10									29
30			5	22	34	25	12	2								30
31			4	19	31	27	14	5								31
32			3	15	30	28	17	7								32
33			2	13	27	29	19	9	1							33
34			2	11	24	28	21	11	3							34
35			1	9	22	27	22	13	6							35
36			1	7	19	26	23	15	9							36
37				7	17	25	24	16	9	2						37
38				6	15	23	23	18	11	4						38
39				5	13	22	23	18	12	7						39
40				4	12	20	23	19	13	8	1					40
41				4	11	18	22	19	14	9	3					41
42				3	9	17	21	20	15	10	5					42
43				2	9	16	19	19	16	11	8					43
44				1	8	15	19	19	16	12	8	2				44
45				1	7	13	18	19	16	13	9	4				45
46					7	12	17	18	17	13	10	6				46
47					6	12	16	18	16	14	10	7	1			47
48					5	11	15	17	16	14	11	8	3			48
49					4	10	15	17	16	14	11	8	5			49
50					4	9	14	16	16	14	11	9	7			50

[1]NOTE: The diameters given for the breast height diameter classes are the central values for each class. Thus the 15 cm diameter class includes dbh 13-17 cm inclusive; 20 cm - 18-22 cm, etc. The lowest class of 10 cm, includes all trees with dbh of 12 cm to 7 cm inclusive.

PART IV

YIELD TABLES

The main function of Yield Tables is to provide models of stand growth and yield, which can be used as a basis for planning decisions, usually by means of economic analysis.

In constructing a yield table, one particular treatment regime has to be assumed. Any deviation in practice from this regime either in terms of intensity, cycle, or type of thinning, or in initial spacing, will produce a different set of stand characteristics. For this reason, there is relatively little to be gained by comparing the characteristics of *individual* stands, which will almost inevitably vary in one respect or another from the assumed treatment, with those of a yield table. On a statistical basis, however, the average characteristics of a large number of stands may be expected to agree more closely with those of the yield table. In general, yield table stand characteristics will agree more closely with those of younger stands than with the characteristics of older stands where differences in treatment will have had more time to take effect. Clearly, no single treatment regime will be optimal in every situation. Factors such as markets, labour availability, methods of extraction, etc., will influence to some extent the choice of regime. For example, in certain cases a non-thinning regime may be optimal. In others, delayed thinning may be desirable, and so on. To accommodate the many alternatives available would require a multitude of yield tables, and it would be impracticable to consider reproducing these alternatives here.

Normal Yield Tables

In the majority of situations, given that maximum volume production is an objective, the thinning regime depicted by the *Normal Yield Tables* will not be far removed from the optimum. Note, however, that in order to enable direct comparisons at certain points in time between species or yield classes, a thinning cycle of 5 years has been used throughout. In practice the cycle will generally be reflected by the yield class of the crop, longer cycles being associated with lower yield classes. The effect on crop characteristics of moderate changes in cycle are negligible. It should be noted that thinning is shown to start at ages which are multiples of 5 years, i.e. 20, 25, 30, etc., and consequently these are frequently different from the ages of first thinning recommended in Part II. In these cases, however, the actual thinning yields have been appropriately adjusted. The thinning *intensity* adopted is that described in Part II, i.e. the marginal thinning intensity. The *type* of thinning assumed is that described previously as an intermediate type, though a crown thinning has been adopted for first thinnings in the more tolerant or shade-bearing species.

The Normal Yield Tables refer to fully-stocked stands, i.e. the stocking at which near maximum volume growth per hectare is maintained. The tables have been constructed using the average top height/volume production relationship (Production Class 'b'). Where the Production Class of stands being considered is other than 'b', the table corresponding to the Local Yield Class should be used, bearing in mind that the values given for top height and to a lesser extent breast height diameter and basal areas, *for a given age* will not accurately reflect the true situation.

All the yield tables, with the exception of those for Oak and Beech, are

constructed on a 'master table' basis. The master table is a single table for each species and relates all the crop characteristics to top height irrespective of the rate of height growth (i.e. yield class). The tables for the individual yield classes are then derived from the master table by means of the appropriate top height/age relationship. This method of construction is only practicable so long as height growth remains vigorous, since the relationships for the individual yield classes begin to diverge from the master table relationship as height growth diminishes but diameter growth continues. This problem is avoided in most species by stopping the table before the critical point is reached: but in the Oak and Beech tables, which are extended to 150 years, separate relationships have been assumed for each yield class. The main crop characteristics in the master tables were constructed in terms of the average growing stock (i.e. the growing stock after thinning, plus half the thinning yield) rather than the after-thinning values.

Age of Maximum Mean Annual Volume Increment (Table 74, p. 194)

Using the criterion of maximum profit used by the Forestry Commission, the optimum felling age usually occurs shortly before the age of maximum mean annual increment. The difference between the two is small with crops where the maximum mean annual increment occurs relatively early but increases as the age of maximum mean annual increment increases (or, with lower yield classes). Determination of felling age will normally be a matter for detailed economic analysis when the decision becomes critical.

Mean Breast Height Diameter at Age of Maximum Mean Annual Volume Increment (Table 75, p. 195)

The table of diameter at breast height at age of maximum mean annual increment is designed to provide comparative information on final crop characteristics. The differences between yield classes of the same species are noteworthy in that they demonstrate the difficulty of defining rotation age in terms of a single final crop characteristic such as breast height diameter, without transgressing economic considerations.

Scots Pine

Normal Yield Table: Yield Class 14

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	m^2					cm	m^3				m^2	m^3	m^2	m^3	m^3	
15	4230	8.3	8.6	24.7	64	0	0	0	0.0	0.000	0	0	0	24.7	64	2.09	11.2	4.3	15
20	2120	10.9	10.9	19.7	92	0	0	2110	9.7	0.018	37	0	0	35.3	130	2.10	14.5	6.5	20
25	1275	13.2	14.2	20.3	123	8	0	845	12.2	0.058	49	1	0	45.7	209	2.04	16.8	8.4	25
30	890	15.3	18.2	23.2	162	44	4	385	15.4	0.127	49	5	0	55.7	297	1.93	18.2	9.9	30
35	675	17.3	22.3	26.4	206	117	29	215	19.0	0.229	49	17	2	65.0	390	1.79	18.8	11.2	35
40	540	19.1	26.3	29.4	251	188	87	135	23.0	0.364	49	30	8	73.6	485	1.64	18.8	12.1	40
45	447	20.8	30.1	31.9	296	251	162	93	27.0	0.532	49	38	19	81.4	578	1.50	18.4	12.8	45
50	378	22.4	33.8	33.9	337	305	234	69	30.9	0.713	49	42	29	88.6	668	1.37	17.7	13.4	50
55	328	23.8	37.3	35.8	376	351	296	50	34.6	0.957	47	43	34	95.1	755	1.25	16.7	13.7	55
60	291	25.1	40.6	37.7	414	393	350	37	38.1	1.196	43	41	35	101.1	835	1.14	15.5	13.9	60
65	263	26.3	43.7	39.5	449	431	396	28	41.4	1.449	40	38	34	106.6	910	1.04	14.3	14.0	65
70	241	27.3	46.6	41.1	481	466	435	22	44.4	1.716	36	35	32	111.5	978	0.94	13.0	14.0	70
75	224	28.2	49.3	42.8	510	497	469	17	47.2	2.012	33	32	30	116.0	1040	0.85	11.8	13.9	75
80	211	28.9	51.7	44.3	537	525	498	13	49.8	2.266	29	28	27	120.0	1096	0.76	10.6	13.7	80
85	200	29.6	53.9	45.6	561	550	525	11	52.1	2.443	26	25	24	123.6	1146	0.67	9.4	13.5	85
90	191	30.2	55.8	46.8	582	571	547	9	54.1	2.714	23	22	21	126.7	1190	0.57	8.1	13.2	90
95	184	30.7	57.5	47.8	599	589	565	7	55.8	2.985	20	19	19	129.3	1227	0.49	6.9	12.9	95
100	178	31.1	59.0	48.7	615	604	581	6	57.4	3.208	17	17	16	131.6	1259	0.42	5.7	12.6	100

Yield Class 12

15	4329	7.3	7.9	21.2	46	0	0	0	0.0	0.000	0	0	0	21.2	46	1.72	8.3	3.1	15
20	2782	9.7	9.7	20.5	78	0	0	1547	8.9	0.012	18	0	0	30.1	96	1.82	11.4	4.8	20
25	1603	11.9	12.3	19.1	100	2	0	1179	10.7	0.036	42	0	0	39.4	160	1.85	13.7	6.4	25
30	1095	13.9	15.7	21.2	131	16	0	508	13.3	0.083	42	2	0	48.6	234	1.80	15.4	7.8	30
35	823	15.7	19.4	24.2	170	61	8	272	16.4	0.154	42	6	0	57.4	314	1.70	16.4	9.0	35
40	654	17.4	23.1	27.3	211	128	36	169	19.7	0.250	42	16	2	65.6	397	1.58	16.7	9.9	40
45	541	19.1	26.6	30.1	253	192	92	113	23.2	0.369	42	26	8	73.2	481	1.45	16.5	10.7	45
50	459	20.6	30.0	32.4	292	247	158	82	26.7	0.511	42	32	16	80.1	562	1.31	15.9	11.2	50
55	398	21.9	33.1	34.3	328	293	220	61	30.1	0.690	42	36	23	86.3	640	1.18	15.0	11.6	55
60	350	23.1	36.1	35.7	360	333	273	48	33.2	0.835	40	36	27	91.9	712	1.06	13.9	11.9	60
65	315	24.2	38.8	37.2	390	367	318	35	36.1	1.055	37	34	28	97.0	779	0.96	12.8	12.0	65
70	288	25.2	41.3	38.6	418	399	357	27	38.8	1.244	33	31	27	101.5	840	0.87	11.8	12.0	70
75	267	26.0	43.7	40.0	445	426	393	21	41.3	1.437	30	28	25	105.7	896	0.79	10.8	12.0	75
80	250	26.8	45.8	41.3	470	455	423	17	43.6	1.624	26	25	23	109.4	948	0.70	9.8	11.8	80
85	237	27.5	47.8	42.5	493	479	450	13	45.6	1.825	23	22	21	112.7	994	0.60	8.5	11.7	85
90	226	28.1	49.4	43.4	512	499	471	11	47.4	1.942	20	19	18	115.4	1032	0.50	7.0	11.5	90
95	218	28.5	50.8	44.2	526	514	487	8	48.8	2.150	17	17	16	117.7	1064	0.45	6.2	11.2	95
100	211	28.9	52.2	45.2	542	530	504	7	50.2	2.339	15	14	13	119.9	1095	0.38	5.2	10.9	100

Yield Class 10

15	4446	6.1	7.1	17.7	30	0	0	0	0.0	0.000	0	0	0	17.7	30	1.26	5.2	2.0	15
20	4224	8.3	8.6	24.6	64	0	0	222	0.0	0.000	0	0	0	24.6	64	1.48	8.2	3.2	20
25	2214	10.3	10.4	18.7	79	0	0	2010	9.4	0.016	33	0	0	32.6	112	1.63	10.7	4.5	25
30	1455	12.2	13.0	19.4	103	3	0	759	11.3	0.046	35	0	0	40.9	171	1.66	12.5	5.7	30
35	1071	13.9	16.1	21.9	134	19	0	384	13.7	0.091	35	2	0	49.1	237	1.59	13.6	6.8	35
40	843	15.6	19.4	24.8	169	61	8	228	16.4	0.153	35	5	0	56.8	307	1.48	14.2	7.7	40
45	691	17.1	22.5	27.5	206	119	31	152	19.2	0.230	35	12	1	63.9	379	1.37	14.3	8.4	45
50	584	18.5	25.6	29.9	242	175	73	107	22.1	0.325	35	19	5	70.5	450	1.26	14.0	9.0	50
55	504	19.8	28.4	32.0	275	223	127	80	25.0	0.436	35	25	10	76.5	518	1.14	13.4	9.4	55
60	443	20.9	31.1	33.6	306	264	181	61	27.9	0.566	35	28	15	81.9	583	1.03	12.6	9.7	60
65	396	22.0	33.6	35.0	333	300	229	47	30.5	0.706	33	28	19	86.8	644	0.92	11.6	9.9	65
70	359	22.9	35.8	36.2	358	331	270	37	33.0	0.814	30	27	20	91.1	699	0.81	10.5	10.0	70
75	331	23.7	37.9	37.3	381	357	304	28	35.1	0.982	27	24	20	94.8	749	0.71	9.4	10.0	75
80	310	24.4	39.7	38.3	402	381	334	21	37.1	1.129	24	22	18	98.1	793	0.62	8.3	9.9	80
85	293	25.1	41.3	39.2	420	401	359	17	38.8	1.220	21	19	17	101.0	832	0.54	7.4	9.8	85
90	279	25.6	42.7	40.1	437	419	382	14	40.3	1.328	17	17	15	103.5	867	0.46	6.4	9.6	90
95	269	26.1	44.0	40.8	452	435	401	10	41.6	1.485	15	14	13	105.6	896	0.40	5.5	9.4	95
100	261	26.4	45.1	41.6	465	449	416	8	42.7	1.558	12	12	10	107.5	921	0.34	4.6	9.2	100

Table 58 (contd)

Table 58 (contd)

Scots Pine (Continued)

Yield Class 8

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
		m	cm	2 m	7 cm	18 cm	24 cm		cm	3 m	7 cm	18 cm	24 cm	2 m	3 m	2 m	3 m	3 m	
20	4386	6.7	7.6	19.9	39	0	0	0	0.0	0.000	0	0	0	19.9	39	1.15	5.1	1.9	20
25	3605	8.5	8.8	21.8	64	0	0	781	8.5	0.009	7	0	0	26.2	71	1.34	7.7	2.9	25
30	2194	10.3	10.5	18.9	79	0	0	1411	9.5	0.020	28	0	0	33.3	115	1.43	9.5	3.8	30
35	1549	12.0	12.8	19.9	103	3	0	645	11.1	0.043	28	0	0	40.5	166	1.41	10.7	4.7	35
40	1189	13.5	15.3	22.0	131	14	0	360	13.1	0.078	28	1	0	47.4	222	1.35	11.5	5.6	40
45	960	14.9	18.0	24.3	161	41	3	229	15.2	0.122	28	3	0	54.0	280	1.25	11.7	6.2	45
50	802	16.3	20.6	26.6	192	87	15	158	17.4	0.176	28	6	0	60.0	339	1.16	11.6	6.8	50
55	686	17.5	23.0	28.6	221	134	38	116	19.7	0.241	28	11	2	65.5	396	1.07	11.4	7.2	55
60	599	18.5	25.4	30.4	249	179	74	87	22.0	0.320	28	15	4	70.7	452	0.98	10.9	7.5	60
65	531	19.5	27.7	31.9	274	217	116	68	24.3	0.409	28	19	7	75.3	505	0.89	10.3	7.8	65
70	478	20.4	29.7	33.2	296	249	157	53	26.5	0.507	27	21	10	79.6	555	0.79	9.4	7.9	70
75	439	21.2	31.6	34.3	317	277	195	39	28.4	0.602	24	19	11	83.2	600	0.68	8.4	8.0	75
80	408	21.9	33.2	35.3	335	300	226	31	30.2	0.706	21	18	12	86.4	639	0.57	7.3	8.0	80
85	382	22.5	34.6	35.8	351	320	252	26	31.6	0.700	18	16	11	88.9	672	0.47	6.3	7.9	85
90	364	23.0	35.7	36.5	365	336	273	18	32.9	0.839	15	13	10	91.1	701	0.41	5.5	7.8	90
95	350	23.4	36.8	37.2	378	352	293	14	34.0	0.906	13	11	9	93.0	727	0.36	4.8	7.7	95
100	340	23.7	37.7	37.9	390	365	309	10	34.9	1.010	10	9	7	94.7	749	0.31	4.0	7.5	100

Yield Class 6

25	4393	6.7	7.8	21.2	41	0	0	0	0.0	0.000	0	0	0	21.2	41	0.94	4.5	1.6	25
30	3830	8.2	8.7	23.0	61	0	0	563	8.5	0.013	7	0	0	26.2	68	1.06	6.2	2.3	30
35	2494	9.8	10.0	19.6	74	0	0	1336	9.2	0.016	21	0	0	31.8	103	1.13	7.5	2.9	35
40	1834	11.2	11.7	19.8	94	1	0	660	10.4	0.032	21	0	0	37.5	143	1.15	8.5	3.6	40
45	1446	12.5	13.7	21.3	117	6	0	388	11.8	0.054	21	0	0	43.2	187	1.12	9.0	4.2	45
50	1191	13.8	15.7	23.2	142	17	0	255	13.4	0.082	21	1	0	48.7	233	1.05	9.2	4.7	50
55	1010	14.9	17.8	25.0	167	40	2	181	15.0	0.116	21	2	0	53.8	279	0.98	9.1	5.1	55
60	875	15.9	19.7	26.8	191	75	11	135	16.7	0.156	21	4	0	58.5	324	0.90	8.9	5.4	60
65	771	16.9	21.6	28.3	213	112	25	104	18.4	0.203	21	6	1	62.8	367	0.82	8.5	5.7	65
70	689	17.7	23.4	29.6	233	146	44	82	20.1	0.254	21	9	1	66.7	408	0.74	7.9	5.8	70
75	622	18.4	25.0	30.6	250	176	69	67	21.6	0.312	21	11	2	70.2	446	0.65	7.1	5.9	75
80	572	19.0	26.5	31.5	265	200	95	50	23.1	0.368	19	11	3	73.2	480	0.55	6.3	6.0	80
85	535	19.6	27.7	32.3	279	221	119	37	24.4	0.418	16	11	4	75.7	509	0.46	5.5	6.0	85
90	506	20.1	28.8	32.9	291	238	140	29	25.5	0.450	13	9	4	77.8	534	0.39	4.7	5.9	90
95	485	20.5	29.7	33.5	302	253	159	21	26.4	0.505	10	8	4	79.6	556	0.32	4.0	5.9	95
100	471	20.8	30.4	34.2	312	266	176	14	27.2	0.558	8	6	3	81.1	574	0.28	3.3	5.7	100

Yield Class 4

30	4467	5.9	6.5	14.6	23	0	0	0	0.0	0.000	0	0	0	14.6	23	0.77	2.8	0.8	30
35	4325	7.3	7.5	18.9	42	0	0	142	0.0	0.000	0	0	0	18.9	42	0.90	4.2	1.2	35
40	2897	8.6	8.4	16.2	51	0	0	1428	8.1	0.010	14	0	0	23.6	65	0.98	5.2	1.6	40
45	2179	9.8	9.9	16.7	66	0	0	718	9.1	0.020	14	0	0	28.7	94	1.02	6.1	2.1	45
50	1768	11.0	11.5	18.4	83	0	0	411	10.2	0.034	14	0	0	33.8	125	1.01	6.6	2.5	50
55	1496	12.0	13.2	20.5	103	4	0	272	11.5	0.052	14	0	0	38.8	159	0.94	6.8	2.9	55
60	1297	12.9	14.9	22.5	123	11	0	199	12.7	0.070	14	0	0	43.2	193	0.85	6.7	3.2	60
65	1142	13.8	16.4	24.1	142	22	0	155	13.9	0.090	14	1	0	47.2	226	0.75	6.4	3.5	65
70	1019	14.6	17.8	25.4	159	39	2	123	15.1	0.113	14	1	0	50.7	257	0.66	6.0	3.7	70
75	920	15.3	19.1	26.5	174	60	7	99	16.2	0.141	14	2	0	53.9	286	0.60	5.5	3.8	75
80	841	15.8	20.4	27.5	186	82	14	79	17.3	0.176	14	3	0	56.8	312	0.53	5.1	3.9	80
85	780	16.3	21.5	28.3	197	102	22	61	18.3	0.214	13	4	0	59.1	336	0.44	4.5	4.0	85
90	737	16.7	22.4	29.0	207	119	30	43	19.3	0.251	11	4	0	61.2	357	0.37	3.9	4.0	90
95	708	17.1	23.2	29.8	217	133	39	29	20.1	0.280	8	3	1	62.9	375	0.31	3.3	4.0	95
100	689	17.3	23.8	30.6	226	146	47	19	20.6	0.296	6	3	0	64.3	390	0.26	2.6	3.9	100

Table 58 (contd)

Corsican Pine

Normal Yield Table: Yield Class 20

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	m^2					cm	m^3				m^2	m^3	m^2	m^3	m^3	
15	2593	9.2	12.0	29.2	108	1	0	1127	9.8	0.019	21	0	0	37.7	129	3.08	22.2	8.6	15
20	1339	12.5	16.0	26.9	156	21	0	1254	13.0	0.056	70	2	0	52.1	247	2.51	24.3	12.3	20
25	860	15.7	20.0	27.1	211	88	13	479	16.7	0.146	70	12	0	62.8	372	2.01	25.8	14.9	25
30	625	18.6	24.2	28.7	274	182	62	235	20.6	0.298	70	32	6	72.2	505	1.79	26.7	16.8	30
35	490	21.3	28.2	30.7	338	273	153	135	24.8	0.522	70	49	18	80.7	639	1.60	26.4	18.3	35
40	402	23.6	32.1	32.5	397	350	252	88	28.8	0.798	70	57	34	88.2	768	1.40	25.0	19.2	40
45	344	25.7	35.5	34.1	454	418	338	58	32.7	1.109	64	57	42	94.6	889	1.20	23.0	19.7	45
50	304	27.6	38.6	35.6	507	478	412	40	36.1	1.432	56	52	43	100.2	999	1.05	21.1	20.0	50
55	276	29.2	41.4	37.2	560	534	479	28	39.3	1.782	48	46	40	105.1	1099	0.94	19.3	20.0	55
60	256	30.6	44.0	38.9	611	588	541	20	42.2	2.133	42	40	36	109.5	1192	0.85	17.7	19.9	60
65	240	31.9	46.3	40.6	658	637	594	16	44.8	2.441	37	36	33	113.5	1276	0.75	16.0	19.6	65
70	227	33.0	48.5	41.9	699	680	640	13	47.2	2.787	34	33	31	117.1	1351	0.66	14.3	19.3	70
75	216	33.9	50.3	43.0	734	716	677	11	49.3	3.105	33	32	30	120.1	1419	0.59	12.9	18.9	75
80	206	34.8	52.1	44.0	763	747	709	10	51.3	3.484	32	31	29	123.0	1480	0.52	11.4	18.5	80

Yield Class 18

15	2939	8.6	11.3	29.6	96	0	0	781	9.2	0.018	14	0	0	34.6	110	2.88	19.2	7.4	15
20	1506	11.6	15.1	27.0	140	13	0	1433	12.3	0.044	63	1	0	49.2	217	2.48	22.0	10.8	20
25	964	14.6	18.9	27.0	191	62	7	542	15.6	0.116	63	7	0	59.6	330	1.95	23.4	13.2	25
30	700	17.4	22.8	28.4	248	146	40	264	19.2	0.239	63	22	3	68.7	451	1.72	24.2	15.0	30
35	548	19.9	26.5	30.3	306	232	110	152	23.0	0.416	63	38	11	76.8	572	1.52	23.9	16.4	35
40	449	22.1	30.1	32.0	361	305	197	99	26.5	0.636	63	48	22	83.9	689	1.31	22.6	17.2	40
45	381	24.1	33.3	33.2	409	367	278	68	30.1	0.893	60	51	33	90.0	798	1.12	20.9	17.7	45
50	335	25.9	36.2	34.5	456	422	347	46	33.3	1.173	53	47	36	95.1	898	0.98	19.2	18.0	50
55	304	27.4	38.8	35.9	503	474	410	31	36.3	1.468	45	42	35	99.7	990	0.89	17.7	18.0	55
60	281	28.8	41.2	37.5	549	524	469	23	39.0	1.739	39	36	32	104.0	1075	0.81	16.3	17.9	60
65	264	30.0	43.4	39.1	593	570	522	17	41.5	2.067	34	33	29	107.8	1153	0.72	14.8	17.7	65
70	250	31.0	45.3	40.4	631	610	566	14	43.6	2.227	31	30	28	111.2	1222	0.62	13.1	17.5	70
75	238	31.9	47.0	41.3	663	643	601	12	45.5	2.534	30	29	27	114.0	1284	0.55	11.7	17.1	75
80	228	32.7	48.5	42.0	689	670	630	10	47.1	2.679	29	28	27	116.6	1339	0.48	10.3	16.7	80

Yield Class 16

15	3530	7.9	10.5	30.7	88	0	0	190	8.6	0.024	4	0	0	31.8	93	2.74	16.2	6.2	15
20	1747	10.8	13.9	26.5	124	7	0	1783	11.3	0.031	56	0	0	45.4	184	2.38	19.4	9.2	20
25	1109	13.5	17.4	26.5	169	37	2	638	14.3	0.088	56	4	0	55.7	286	1.90	20.9	11.4	25
30	801	16.1	21.0	27.8	221	107	21	308	17.5	0.182	56	13	1	64.4	393	1.65	21.7	13.1	30
35	623	18.5	24.5	29.4	274	186	67	178	20.9	0.317	56	27	5	72.2	502	1.45	21.5	14.3	35
40	510	20.6	27.8	31.0	323	257	139	113	24.3	0.495	56	37	13	78.9	608	1.26	20.4	15.2	40
45	432	22.5	30.8	32.3	367	316	214	78	27.3	0.694	54	42	22	84.8	706	1.09	18.9	15.7	45
50	379	24.1	33.5	33.4	409	368	280	53	30.3	0.914	49	42	27	89.8	797	0.94	17.4	15.9	50
55	342	25.6	35.9	34.7	450	416	340	37	33.0	1.132	42	37	28	94.2	880	0.83	16.1	16.0	55
60	316	26.9	38.1	36.0	492	462	395	26	35.4	1.359	36	33	26	98.2	957	0.75	14.9	16.0	60
65	297	28.0	40.1	37.4	532	505	446	19	37.7	1.568	31	29	25	101.7	1028	0.67	13.5	15.8	65
70	280	29.1	41.8	38.4	566	542	488	17	39.6	1.752	29	27	24	104.8	1092	0.56	11.8	15.6	70
75	266	29.9	43.3	39.2	593	570	521	14	41.3	2.015	28	26	24	107.4	1146	0.50	10.4	15.3	75
80	254	30.7	44.7	39.8	616	594	549	12	42.9	2.153	27	26	23	109.8	1196	0.44	9.2	14.9	80

Table 59 (contd)

Corsican Pine (Continued)

Normal Yield Table: Yield Class 14

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	2 m					cm	3 m				2 m	3 m	2 m	3 m	3 m	
15	3955	7.2	9.6	28.9	75	0	0	0	0.0	0.000	0	0	0	28.9	75	2.56	13.4	5.0	15
20	2151	9.8	12.6	26.6	110	2	0	1804	10.2	0.023	42	0	0	41.4	152	2.26	16.6	7.6	20
25	1339	12.4	15.8	26.1	150	19	0	812	12.9	0.060	49	1	0	51.4	241	1.85	18.4	9.6	25
30	957	14.8	19.0	27.2	195	65	7	382	15.7	0.128	49	6	0	59.9	335	1.57	19.0	11.2	30
35	740	17.0	22.2	28.6	241	135	33	217	18.6	0.226	49	15	1	67.2	430	1.38	18.8	12.3	35
40	602	18.9	25.2	30.0	285	202	80	138	21.6	0.354	49	26	6	73.6	523	1.21	18.2	13.1	40
45	507	20.7	28.0	31.1	325	260	142	95	24.4	0.512	49	33	12	79.3	612	1.05	17.1	13.6	45
50	441	22.2	30.5	32.2	362	310	205	66	26.9	0.675	45	35	17	84.2	694	0.91	15.8	13.9	50
55	396	23.6	32.7	33.4	400	356	263	45	29.4	0.847	38	32	20	88.4	770	0.78	14.4	14.0	55
60	365	24.9	34.7	34.5	435	397	314	31	31.6	1.019	33	28	20	92.0	838	0.68	13.1	14.0	60
65	340	25.9	36.5	35.6	469	435	360	25	33.6	1.187	29	26	20	95.2	900	0.60	11.8	13.8	65
70	321	26.9	38.0	36.5	498	467	399	19	35.4	1.347	26	24	20	98.0	956	0.53	10.6	13.7	70
75	304	27.7	39.4	37.1	523	494	432	17	36.9	1.473	25	23	19	100.5	1005	0.47	9.4	13.4	75
80	290	28.4	40.7	37.7	543	517	459	14	38.4	1.704	24	23	20	102.8	1050	0.40	8.2	13.1	80

Yield Class 12

15	4046	6.4	8.8	24.8	57	0	0	0	0.0	0.000	0	0	0	24.8	57	2.40	11.1	3.8	15
20	2762	8.8	11.4	28.4	99	0	0	1284	9.3	0.018	23	0	0	37.1	122	2.22	14.2	6.1	20
25	1678	11.2	14.3	26.8	134	9	0	1084	11.6	0.039	42	0	0	47.0	199	1.80	15.8	7.9	25
30	1184	13.4	17.1	27.3	173	34	1	494	14.0	0.085	42	2	0	55.1	280	1.50	16.4	9.3	30
35	908	15.4	19.9	28.3	213	86	13	276	16.5	0.152	42	7	0	62.0	362	1.30	16.3	10.3	35
40	734	17.2	22.6	29.4	252	146	38	174	19.0	0.240	42	14	2	68.1	442	1.14	15.8	11.1	40
45	614	18.8	25.1	30.4	287	202	79	120	21.5	0.350	42	22	5	73.4	519	0.99	15.0	11.5	45
50	530	20.3	27.4	31.2	319	250	130	84	23.8	0.476	40	26	8	78.0	592	0.86	14.0	11.8	50
55	474	21.6	29.4	32.2	351	293	181	56	26.0	0.603	34	25	11	82.0	658	0.75	12.9	12.0	55
60	433	22.7	31.2	33.2	383	333	230	41	27.7	0.722	30	23	13	85.5	720	0.66	11.8	12.0	60
65	403	23.8	32.9	34.3	414	369	275	30	29.6	0.858	26	22	14	88.6	776	0.58	10.7	11.9	65
70	379	24.7	34.3	35.1	440	400	313	24	31.2	0.967	24	20	14	91.4	826	0.49	9.4	11.8	70
75	358	25.4	35.5	35.5	461	424	343	21	32.6	1.062	22	20	15	93.5	870	0.43	8.2	11.6	75
80	341	26.1	36.7	36.1	478	445	370	17	33.9	1.247	22	20	15	95.7	909	0.38	7.2	11.4	80

Yield Class 10

15	4143	5.7	7.8	19.9	39	0	0	0	0.0	0.000	0	0	0	19.9	39	2.22	8.9	2.6	15
20	3896	7.8	10.0	30.7	88	0	0	247	8.2	0.011	3	0	0	32.0	91	2.15	11.5	4.6	20
25	2249	9.9	12.4	27.0	116	2	0	1647	10.0	0.021	35	0	0	41.4	154	1.72	13.0	6.1	25
30	1547	11.9	14.8	26.8	148	13	0	702	12.1	0.050	35	0	0	49.2	221	1.44	13.7	7.4	30
35	1170	13.7	17.3	27.5	182	38	1	377	14.2	0.093	35	2	0	55.8	290	1.23	13.7	8.3	35
40	936	15.3	19.6	28.3	215	82	11	234	16.3	0.150	35	5	0	61.5	358	1.07	13.3	8.9	40
45	776	16.8	21.8	29.0	245	132	30	160	18.3	0.220	35	10	1	66.5	423	0.94	12.8	9.4	45
50	661	18.2	23.9	29.7	273	178	59	115	20.4	0.305	35	15	3	70.9	485	0.83	12.2	9.7	50
55	584	19.4	25.9	30.6	301	221	97	77	22.3	0.402	31	17	4	74.8	545	0.74	11.5	9.9	55
60	532	20.5	27.6	31.7	330	260	137	52	24.0	0.491	26	17	6	78.3	600	0.64	10.4	10.0	60
65	492	21.5	29.0	32.6	356	294	176	40	25.6	0.575	23	17	7	81.2	649	0.54	9.2	10.0	65
70	460	22.3	30.3	33.3	378	322	211	32	26.8	0.660	21	16	8	83.7	692	0.46	8.2	9.9	70
75	433	23.0	31.5	33.8	397	346	242	27	28.1	0.754	20	16	9	85.8	730	0.41	7.2	9.7	75
80	411	23.6	32.6	34.2	411	365	268	22	29.2	0.857	19	16	10	87.8	764	0.35	6.2	9.5	80

Table 59 (contd)

Corsican Pine (Continued)

Normal Yield Table: Yield Class 8

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	m^2					cm	m^3				m^2	m^3	m^2	m^3	m^3	
15	4248	4.8	6.4	13.9	22	0	0	0	0.0	0.000	0	0	0	13.9	22	2.04	6.6	1.5	15
20	4021	6.6	9.1	25.9	62	0	0	227	0.0	0.000	0	0	0	25.9	62	2.12	8.9	3.1	20
25	3124	8.5	11.0	29.5	98	0	0	897	9.0	0.014	13	0	0	35.1	110	1.66	10.3	4.4	25
30	2079	10.3	13.0	27.7	123	4	0	1045	10.6	0.027	28	0	0	42.5	164	1.37	10.9	5.5	30
35	1545	11.9	15.1	27.6	150	14	0	534	12.3	0.053	28	0	0	48.8	219	1.17	11.0	6.3	35
40	1225	13.3	17.1	28.2	177	34	1	320	14.0	0.088	28	2	0	54.2	274	1.02	10.9	6.9	40
45	1012	14.7	19.0	28.8	203	68	8	213	15.7	0.131	28	3	0	59.0	328	0.90	10.7	7.3	45
50	859	15.9	20.9	29.3	228	108	20	153	17.4	0.182	28	6	0	63.2	381	0.79	10.3	7.6	50
55	748	17.0	22.5	29.9	251	145	38	111	19.0	0.239	27	9	1	66.9	431	0.70	9.7	7.8	55
60	674	18.1	24.1	30.7	275	182	62	74	20.5	0.300	22	10	2	70.2	477	0.62	9.0	8.0	60
65	620	18.9	25.5	31.6	298	214	89	54	21.8	0.366	20	11	2	73.1	520	0.53	8.0	8.0	65
70	577	19.7	26.7	32.2	317	242	116	43	23.0	0.425	18	11	3	75.5	558	0.44	7.0	8.0	70
75	541	20.4	27.6	32.4	332	262	140	36	24.1	0.474	17	11	4	77.4	590	0.37	6.0	7.9	75
80	512	20.9	28.6	32.8	343	280	161	29	25.0	0.557	17	12	5	79.2	618	0.32	5.2	7.7	80

Yield Class 6

20	4185	5.3	7.4	17.9	33	0	0	0	0.0	0.000	0	0	0	17.9	33	1.82	6.3	1.6	20
25	3995	6.9	9.3	27.2	67	0	0	190	0.0	0.000	0	0	0	27.2	67	1.62	7.3	2.7	25
30	3324	8.3	10.7	30.1	97	0	0	671	8.8	0.013	8	0	0	34.1	105	1.33	7.9	3.5	30
35	2368	9.7	12.4	28.4	116	2	0	956	10.1	0.022	21	0	0	40.1	146	1.13	8.3	4.2	35
40	1837	11.0	14.0	28.4	138	8	0	531	11.4	0.040	21	0	0	45.4	188	1.00	8.6	4.7	40
45	1500	12.1	15.7	28.9	160	19	0	337	12.8	0.062	21	1	0	50.3	231	0.88	8.6	5.1	45
50	1266	13.2	17.2	29.5	181	37	1	234	14.1	0.090	21	1	0	54.5	274	0.77	8.4	5.5	50
55	1092	14.2	18.7	30.0	201	62	6	174	15.4	0.120	21	2	0	58.2	315	0.68	8.0	5.7	55
60	967	15.2	20.0	30.5	221	91	14	125	16.6	0.153	19	3	0	61.5	353	0.60	7.5	5.9	60
65	875	16.0	21.2	31.0	239	120	24	92	17.7	0.188	17	4	0	64.2	389	0.51	6.7	6.0	65
70	804	16.7	22.3	31.3	254	143	36	71	18.7	0.222	16	5	0	66.5	420	0.42	5.6	6.0	70
75	745	17.3	23.1	31.3	264	161	46	59	19.5	0.253	15	6	1	68.2	445	0.35	4.9	5.9	75
80	700	17.7	24.0	31.5	273	179	59	45	20.3	0.318	14	6	1	70.0	468	0.30	4.2	5.9	80

Table 59 (contd)

Lodgepole Pine

Normal Yield Table: Yield Class 14

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
		m	cm	m^2	7 cm	18 cm	24 cm		cm	m^3	7 cm	18 cm	24 cm	m^2	m^3	m^2	m^3	m^3	
15	2732	8.3	10.6	24.0	69	0	0	799	8.5	0.017	14	0	0	28.5	83	1.78	14.0	5.5	15
20	1485	11.6	13.7	21.8	102	5	0	1247	11.1	0.039	49	0	0	38.4	164	2.04	18.6	8.2	20
25	1036	14.9	17.5	24.8	157	34	2	449	14.5	0.109	49	4	0	48.9	269	1.87	20.7	10.8	25
30	777	17.8	20.9	26.7	210	101	19	259	17.7	0.189	49	11	1	57.2	371	1.50	19.4	12.4	30
35	612	20.3	24.1	27.8	253	167	56	165	20.8	0.295	49	23	4	63.8	463	1.26	17.6	13.2	35
40	501	22.5	27.0	28.7	288	223	111	111	23.8	0.438	49	32	10	69.7	547	1.14	16.3	13.7	40
45	421	24.5	29.9	29.6	318	268	171	80	26.9	0.610	49	38	19	75.2	626	1.05	15.4	13.9	45
50	362	26.3	32.7	30.4	345	307	227	59	30.0	0.795	47	40	26	80.3	700	0.97	14.4	14.0	50
55	319	28.0	35.4	31.4	372	342	275	43	33.0	0.986	42	38	28	84.9	769	0.90	13.4	14.0	55
60	286	29.6	38.0	32.5	399	374	319	33	36.1	1.203	39	36	29	89.3	834	0.88	12.9	13.9	60
65	262	31.1	40.6	34.0	426	405	360	24	39.3	1.463	36	34	30	93.7	898	0.86	12.5	13.8	65
70	242	32.4	43.2	35.5	453	435	397	20	42.4	1.707	34	33	30	98.1	959	0.83	11.6	13.7	70
75	225	33.8	45.5	36.6	474	458	426	17	45.4	1.864	33	32	30	102.0	1013	0.80	10.9	13.5	75
80	211	35.0	47.9	37.9	496	482	453	14	48.5	2.160	32	32	30	106.1	1068	0.77	10.5	13.3	80

Note: For 'coastal varieties' it will often be more appropriate to use the yield table for one Yield Class above that indicated by the Height/Age curve. i.e. Production Class 'a'.

Yield Class 12

15	3672	7.4	9.4	25.2	62	0	0	0	0.0	0.000	0	0	0	25.2	62	1.66	12.0	4.1	15
20	2023	10.3	12.0	22.8	94	1	0	1649	9.7	0.023	38	0	0	35.0	131	1.91	15.6	6.6	20
25	1360	13.3	15.0	24.2	138	13	0	663	12.3	0.063	42	1	0	44.3	218	1.69	17.4	8.7	25
30	1001	16.0	18.0	25.5	184	47	3	359	15.0	0.117	42	4	0	51.9	306	1.40	16.9	10.2	30
35	785	18.3	20.8	26.6	223	104	19	216	17.6	0.195	42	10	1	58.3	387	1.19	15.7	11.1	35
40	639	20.3	23.4	27.4	256	160	48	146	20.2	0.289	42	18	3	63.8	462	1.05	14.5	11.6	40
45	535	22.1	25.9	28.2	284	209	92	104	22.7	0.405	42	25	7	68.8	532	0.95	13.6	11.8	45
50	456	23.8	28.3	28.7	308	249	141	79	25.3	0.534	42	30	12	73.3	598	0.87	12.8	12.0	50
55	400	25.4	30.6	29.5	333	285	190	56	27.8	0.674	38	30	16	77.4	660	0.81	12.1	12.0	55
60	358	26.8	32.9	30.4	357	319	237	42	30.3	0.826	34	29	19	81.4	719	0.77	11.4	12.0	60
65	326	28.2	35.1	31.5	381	349	279	32	32.8	1.003	32	29	21	85.1	774	0.75	10.9	11.9	65
70	299	29.4	37.2	32.6	403	376	317	27	35.3	1.169	31	28	23	88.8	827	0.71	10.4	11.8	70
75	276	30.6	39.3	33.6	424	401	350	23	37.8	1.338	30	28	24	92.3	878	0.70	10.0	11.7	75
80	257	31.7	41.5	34.8	444	424	380	19	40.4	1.596	29	28	25	95.8	927	0.68	9.4	11.6	80

Yield Class 10

15	3754	6.3	8.4	20.7	41	0	0	0	0.0	0.000	0	0	0	20.7	41	1.52	10.0	2.8	15
20	2733	9.0	10.7	24.6	83	0	0	1021	8.7	0.014	15	0	0	30.6	98	1.83	12.6	4.9	20
25	1768	11.6	13.2	24.3	117	4	0	965	10.8	0.036	35	0	0	39.0	167	1.56	14.3	6.7	25
30	1294	14.0	15.7	25.2	155	19	0	474	13.0	0.074	35	1	0	46.2	240	1.33	14.4	8.0	30
35	1013	16.1	18.2	26.2	191	51	4	281	15.2	0.125	35	3	0	52.3	311	1.14	13.6	8.9	35
40	823	18.0	20.4	27.0	222	99	17	190	17.3	0.184	35	7	0	57.6	376	0.98	12.7	9.4	40
45	688	19.6	22.6	27.6	247	144	38	135	19.4	0.260	35	13	2	62.1	437	0.86	11.8	9.7	45
50	587	21.1	24.7	28.0	270	185	69	101	21.5	0.348	35	18	4	66.2	494	0.78	11.2	9.9	50
55	512	22.5	26.6	28.6	291	221	106	75	23.5	0.443	33	21	6	70.0	549	0.72	10.6	10.0	55
60	458	23.8	28.6	29.3	313	255	147	54	25.5	0.549	30	21	9	73.4	600	0.67	10.0	10.0	60
65	415	25.0	30.4	30.0	333	284	186	43	27.4	0.651	28	22	11	76.7	648	0.63	9.4	10.0	65
70	380	26.2	32.1	30.8	352	311	224	35	29.4	0.768	27	22	14	79.8	694	0.61	9.1	9.9	70
75	350	27.3	33.9	31.5	372	336	259	30	31.4	0.887	26	23	16	82.8	739	0.59	8.7	9.9	75
80	325	28.3	35.6	32.4	388	358	290	25	33.3	1.054	26	23	17	85.7	781	0.57	8.2	9.8	80

Table 60 (contd)

Lodgepole Pine (Continued)

Yield Class 8

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam. Tree	Mean Vol. per	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	2 m					cm	3 m				2 m	3 m	2 m	3 m	3 m	
20	3660	7.5	9.5	25.9	65	0	0	0	0.0	0.000	0	0	0	25.9	65	1.67	9.8	3.3	20
25	2515	9.8	11.5	26.0	99	0	0	1145	9.3	0.018	20	0	0	33.7	119	1.44	11.2	4.8	25
30	1797	12.0	13.5	25.7	129	6	0	718	11.0	0.039	28	0	0	40.3	177	1.21	11.6	5.9	30
35	1388	13.9	15.5	26.1	159	18	0	409	12.7	0.068	28	1	0	45.8	235	1.04	11.3	6.7	35
40	1121	15.5	17.4	26.5	186	39	2	267	14.4	0.105	28	2	0	50.7	290	0.91	10.7	7.3	40
45	938	17.0	19.2	27.1	210	73	9	183	16.1	0.154	28	4	0	54.9	342	0.79	10.0	7.6	45
50	799	18.3	20.9	27.4	230	109	21	139	17.7	0.202	28	7	0	58.6	390	0.71	9.4	7.8	50
55	692	19.6	22.5	27.6	247	143	37	107	19.3	0.263	28	10	1	62.0	436	0.65	8.9	7.9	55
60	617	20.7	24.1	28.1	266	176	60	75	20.9	0.328	25	12	2	65.1	479	0.60	8.5	8.0	60
65	558	21.8	25.6	28.7	284	206	87	59	22.4	0.394	23	13	3	68.0	520	0.55	8.0	8.0	65
70	510	22.8	27.0	29.2	301	233	116	48	23.9	0.461	22	14	5	70.6	559	0.51	7.5	8.0	70
75	469	23.7	28.3	29.6	316	255	145	41	25.3	0.526	21	15	6	73.0	595	0.49	7.2	7.9	75
80	435	24.6	29.7	30.1	330	277	175	34	26.7	0.625	21	16	8	75.5	631	0.47	6.9	7.9	80

Yield Class 6

20	3785	6.0	8.0	19.2	35	0	0	0	0.0	0.000	0	0	0	19.2	35	1.50	7.2	1.8	20
25	3625	7.9	9.8	27.1	74	0	0	160	0.0	0.000	0	0	0	27.1	74	1.40	8.2	2.9	25
30	2624	9.8	11.4	26.5	102	0	0	1001	9.2	0.015	15	0	0	33.2	117	1.13	8.8	3.9	30
35	1997	11.5	12.9	26.3	125	4	0	627	10.5	0.034	21	0	0	38.4	161	0.97	8.8	4.6	35
40	1610	12.9	14.5	26.5	148	11	0	387	11.9	0.054	21	0	0	42.9	205	0.84	8.5	5.1	40
45	1341	14.2	15.9	26.7	168	22	0	269	13.1	0.079	21	1	0	46.7	246	0.72	8.0	5.5	45
50	1142	15.4	17.3	26.9	185	39	1	199	14.4	0.106	21	1	0	50.1	284	0.64	7.5	5.7	50
55	994	16.5	18.6	27.1	201	61	6	148	15.6	0.143	21	2	0	53.1	321	0.58	7.1	5.8	55
60	874	17.4	19.9	27.2	214	87	13	120	16.8	0.175	21	4	0	55.8	356	0.53	6.8	5.9	60
65	790	18.3	21.1	27.6	230	113	22	84	17.9	0.212	18	4	0	58.4	389	0.49	6.5	6.0	65
70	723	19.2	22.2	28.1	244	137	34	67	19.0	0.251	17	6	1	60.7	420	0.44	6.1	6.0	70
75	666	20.0	23.3	28.4	257	160	47	57	20.1	0.287	16	7	1	62.8	449	0.40	5.8	6.0	75
80	617	20.8	24.3	28.6	269	181	63	49	21.1	0.329	16	8	2	64.8	477	0.38	5.5	6.0	80

Yield Class 4

30	3670	7.4	8.9	22.7	56	0	0	0	0.0	0.000	0	0	0	22.7	56	1.09	6.0	1.9	30
35	3147	8.8	10.1	25.3	86	0	0	523	8.2	0.002	1	0	0	28.1	87	0.94	6.2	2.5	35
40	2485	10.1	11.4	25.3	103	0	0	662	9.2	0.021	14	0	0	32.5	118	0.81	6.1	3.0	40
45	2062	11.2	12.6	25.5	119	2	0	423	10.2	0.033	14	0	0	36.2	148	0.69	5.8	3.3	45
50	1765	12.2	13.7	25.9	133	6	0	297	11.1	0.047	14	0	0	39.4	177	0.60	5.5	3.5	50
55	1543	13.0	14.7	26.2	146	12	0	222	12.0	0.063	14	0	0	42.2	203	0.54	5.2	3.7	55
60	1367	13.8	15.7	26.4	158	19	0	176	12.9	0.080	14	0	0	44.7	229	0.48	5.0	3.8	60
65	1227	14.6	16.6	26.6	168	28	0	140	13.7	0.096	13	1	0	47.0	253	0.44	4.9	3.9	65
70	1130	15.2	17.5	27.2	181	40	2	97	14.5	0.112	11	1	0	49.2	277	0.40	4.7	4.0	70
75	1048	15.9	18.3	27.7	194	54	5	82	15.3	0.127	11	1	0	51.2	300	0.36	4.4	4.0	75
80	980	16.5	19.1	28.0	205	70	8	68	16.0	0.150	10	1	0	52.9	321	0.31	4.1	4.0	80

Sitka Spruce

Normal Yield Table: Yield Class 24

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	m^2					cm	m^3				m^2	m^3	m^2	m^3	m^3	
10	3342	5.9	7.7	15.4	32	0	0	0	0.0	0.000	0	0	0	15.4	32	5.20	16.8	3.2	10
15	2510	9.9	11.5	26.3	96	0	0	832	12.6	0.047	39	1	0	36.6	135	3.76	24.8	9.0	15
20	1365	14.1	15.5	25.8	157	18	0	1145	13.6	0.073	84	4	0	52.9	279	3.01	31.4	14.0	20
25	875	18.2	20.5	28.8	242	108	18	490	16.8	0.171	84	15	0	66.7	448	2.55	34.5	17.9	25
30	625	22.0	25.4	31.7	333	239	99	250	21.2	0.337	84	42	8	78.5	624	2.18	34.4	20.8	30
35	477	25.3	30.2	34.1	417	354	230	148	25.7	0.570	84	61	26	88.5	791	1.85	32.1	22.6	35
40	383	28.2	34.6	36.0	487	444	350	94	30.0	0.879	82	70	45	97.0	944	1.57	28.8	23.6	40
45	324	30.6	38.6	37.9	549	517	446	59	34.1	1.238	72	66	51	104.2	1079	1.35	25.4	24.0	45
50	285	32.7	42.2	39.9	606	580	525	39	37.8	1.635	63	59	50	110.5	1198	1.17	22.4	24.0	50
55	258	34.4	45.4	41.8	656	635	589	27	41.2	2.057	54	52	46	115.9	1302	1.01	19.7	23.7	55
60	238	36.0	48.2	43.5	701	682	641	20	44.3	2.469	47	46	42	120.6	1395	0.86	17.2	23.2	60
65	223	37.3	50.6	44.9	739	722	683	15	47.0	2.877	42	41	38	124.5	1475	0.74	14.9	22.7	65
70	211	38.5	52.7	46.0	770	754	717	12	49.4	3.231	38	37	35	127.9	1544	0.64	13.0	22.1	70
75	201	39.5	54.6	47.2	797	782	747	10	51.5	3.696	34	33	32	131.0	1605	0.56	11.4	21.4	75
80	193	40.3	56.3	48.1	818	804	770	8	53.4	4.160	31	31	29	133.5	1657	0.49	9.6	20.7	80

Yield Class 22

10	3357	5.6	6.7	11.9	23	0	0	0	0.0	0.000	0	0	0	11.9	23	4.90	14.3	2.3	10
15	2811	9.2	11.0	26.8	88	0	0	546	12.6	0.048	26	1	0	33.7	115	3.73	21.8	7.6	15
20	1548	13.0	14.4	25.1	137	10	0	1263	13.2	0.061	77	3	0	49.2	241	2.86	27.7	12.0	20
25	984	16.9	18.9	27.5	211	68	7	564	15.6	0.137	77	9	0	62.3	391	2.47	31.2	15.6	25
30	703	20.5	23.6	30.7	295	187	58	281	19.5	0.274	77	29	4	73.9	552	2.15	32.0	18.4	30
35	536	23.7	28.1	33.2	376	303	168	167	23.7	0.461	77	49	16	83.8	711	1.83	30.5	20.3	35
40	427	26.6	32.3	35.1	445	394	287	109	27.7	0.712	77	61	33	92.2	857	1.55	27.6	21.4	40
45	359	29.0	36.2	36.9	506	468	385	68	31.6	1.016	69	60	42	99.3	986	1.32	24.3	21.9	45
50	314	31.0	39.6	38.7	560	530	465	45	35.0	1.336	59	54	43	105.3	1100	1.13	21.4	22.0	50
55	283	32.7	42.6	40.5	609	584	531	31	38.2	1.693	51	48	41	110.6	1200	0.98	18.8	21.8	55
60	261	34.2	45.3	42.1	652	630	584	22	41.1	2.032	45	43	38	115.2	1288	0.84	16.5	21.5	60
65	243	35.5	47.7	43.4	689	669	628	18	43.7	2.375	40	38	35	119.0	1364	0.71	14.3	21.0	65
70	229	36.6	49.7	44.4	719	702	662	14	45.9	2.618	36	34	32	122.2	1431	0.62	12.5	20.4	70
75	218	37.6	51.5	45.4	745	729	691	11	47.9	3.067	32	31	29	125.2	1489	0.54	10.9	19.9	75
80	209	38.4	53.1	46.2	766	750	714	9	49.7	3.384	29	28	27	127.6	1539	0.47	9.2	19.2	80

Yield Class 20

15	3089	8.5	10.9	28.8	81	0	0	122	13.2	0.109	13	0	0	30.5	94	3.14	18.9	6.3	15
20	1737	12.0	13.6	25.2	119	6	0	1352	13.1	0.052	70	2	0	45.2	202	2.74	24.1	10.1	20
25	1108	15.5	17.6	27.0	182	42	2	629	14.8	0.111	70	6	0	57.9	335	2.40	28.1	13.4	25
30	791	19.0	22.0	30.2	259	143	34	317	18.1	0.221	70	18	1	69.2	483	2.11	29.6	16.1	30
35	603	22.1	26.3	32.8	337	253	117	188	22.0	0.371	70	38	9	78.9	631	1.80	28.6	18.0	35
40	480	24.9	30.3	34.7	405	345	226	123	25.7	0.572	70	51	22	87.2	769	1.52	26.1	19.2	40
45	400	27.2	34.0	36.2	463	419	324	80	29.3	0.822	66	54	33	94.1	892	1.28	23.1	19.8	45
50	348	29.2	37.2	37.9	515	481	404	52	32.5	1.094	56	50	37	100.0	1000	1.11	20.4	20.0	50
55	313	30.9	40.1	39.6	562	534	471	35	35.5	1.394	49	45	36	105.1	1095	0.96	18.0	19.9	55
60	287	32.3	42.7	41.1	603	579	526	26	38.2	1.656	42	40	34	109.6	1179	0.81	15.7	19.7	60
65	267	33.6	44.9	42.2	638	617	570	20	40.5	1.904	38	36	32	113.3	1252	0.68	13.5	19.3	65
70	251	34.7	46.8	43.2	668	647	605	16	42.6	2.169	33	32	29	116.4	1314	0.61	11.9	18.8	70
75	239	35.6	48.6	44.3	693	675	635	12	44.5	2.595	30	29	27	119.3	1370	0.52	10.4	18.3	75
80	228	36.4	50.0	44.9	714	697	658	11	46.1	2.651	27	26	25	121.6	1418	0.45	8.7	17.7	80

Table 61 (contd)

Sitka Spruce (Continued)

Yield Class 18

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	m^2					cm	m^3				m^2	m^3	m^2	m^3	m^3	
15	3237	7.7	10.2	24.5	74	0	0	32	12.0	0.040	1	0	0	26.9	75	2.87	14.7	5.0	15
20	1994	10.9	12.5	24.3	101	2	0	1243	12.8	0.051	63	2	0	40.7	166	2.61	20.7	8.3	20
25	1285	14.2	16.0	25.8	154	20	0	709	14.0	0.089	63	4	0	53.0	281	2.34	24.9	11.3	25
30	913	17.4	20.1	28.9	224	93	14	372	16.5	0.169	63	10	0	64.1	414	2.07	26.9	13.8	30
35	695	20.4	24.1	31.7	297	196	66	218	19.9	0.289	63	26	4	73.7	550	1.76	26.5	15.7	35
40	553	23.1	27.8	33.6	362	288	156	142	23.4	0.441	63	39	12	81.7	678	1.48	24.5	17.0	40
45	456	25.4	31.3	35.0	416	361	250	97	26.6	0.638	62	47	23	88.5	794	1.26	22.0	17.7	45
50	394	27.4	34.4	36.6	467	425	332	62	29.7	0.861	53	44	28	94.4	898	1.09	19.5	18.0	50
55	352	29.0	37.2	38.3	513	479	402	42	32.5	1.104	46	41	30	99.5	989	0.93	17.1	18.0	55
60	321	30.4	39.6	39.6	553	523	459	31	34.9	1.321	40	37	29	103.7	1069	0.77	14.7	17.8	60
65	297	31.7	41.7	40.5	585	559	503	24	37.1	1.520	35	33	27	107.1	1136	0.63	12.5	17.5	65
70	279	32.7	43.5	41.3	611	587	538	18	39.0	1.768	31	30	26	110.1	1194	0.59	11.2	17.1	70
75	265	33.5	45.2	42.6	637	616	571	14	40.8	2.121	28	27	24	113.1	1248	0.52	9.9	16.6	75
80	253	34.3	46.6	43.2	656	636	594	12	42.3	2.180	26	24	22	115.3	1292	0.43	8.2	16.2	80

Yield Class 16

15	3301	6.9	9.5	23.2	57	0	0	0	0.0	0.000	0	0	0	23.2	57	2.73	11.1	3.8	15
20	2292	9.8	11.4	23.6	86	0	0	1009	12.6	0.046	46	1	0	36.1	132	2.47	17.3	6.6	20
25	1504	12.8	14.4	24.4	128	9	0	788	13.3	0.071	56	2	0	47.8	230	2.27	21.5	9.2	25
30	1071	15.8	18.1	27.5	189	50	4	433	15.1	0.129	56	5	0	58.8	347	2.05	24.0	11.6	30
35	817	18.7	21.9	30.7	256	138	32	254	17.9	0.220	56	14	1	68.3	470	1.75	24.3	13.4	35
40	649	21.3	25.4	32.8	319	228	93	168	21.1	0.332	56	27	5	76.3	589	1.46	22.9	14.7	40
45	532	23.5	28.6	34.1	372	303	175	117	24.0	0.479	56	37	12	82.9	698	1.23	20.6	15.5	45
50	457	25.4	31.4	35.5	420	366	255	75	26.8	0.652	49	38	18	88.6	795	1.05	18.2	15.9	50
55	407	27.0	34.0	37.0	463	419	325	50	29.3	0.832	42	35	21	93.5	880	0.91	16.1	16.0	55
60	371	28.4	36.3	38.3	501	464	382	36	31.5	1.006	37	32	22	97.7	955	0.77	14.0	15.9	60
65	343	29.5	38.2	39.4	533	501	430	28	33.5	1.174	32	29	22	101.2	1020	0.64	12.1	15.7	65
70	321	30.5	40.0	40.2	560	531	468	22	35.3	1.350	30	27	22	104.1	1076	0.56	10.5	15.4	70
75	304	31.4	41.5	41.0	583	557	500	17	36.8	1.527	26	24	20	106.8	1125	0.48	9.1	15.0	75
80	289	32.1	42.8	41.6	602	577	525	15	38.2	1.662	24	22	19	109.0	1167	0.41	7.6	14.6	80

Yield Class 14

15	3331	6.2	8.3	18.0	39	0	0	0	0.0	0.000	0	0	0	18.0	39	2.62	8.6	2.6	15
20	2681	8.8	10.6	23.7	75	0	0	650	12.5	0.044	28	1	0	31.7	103	2.52	14.8	5.1	20
25	1809	11.5	13.0	23.9	109	3	0	872	12.8	0.056	49	1	0	43.2	187	2.17	18.3	7.5	25
30	1299	14.3	16.1	26.3	159	22	0	510	14.0	0.096	49	3	0	53.4	285	1.93	20.6	9.5	30
35	982	16.9	19.4	29.0	217	79	10	317	16.0	0.155	49	7	0	62.5	392	1.68	21.3	11.2	35
40	780	19.3	22.6	31.2	274	159	42	202	18.6	0.242	49	15	1	70.2	499	1.43	20.7	12.5	40
45	639	21.5	25.6	32.8	325	235	99	141	21.3	0.347	49	25	5	76.8	599	1.22	19.1	13.3	45
50	545	23.4	28.3	34.2	371	300	169	94	23.8	0.475	45	29	9	82.4	689	1.04	17.1	13.8	50
55	483	24.9	30.7	35.6	413	354	237	62	26.0	0.607	38	28	13	87.2	769	0.88	14.9	14.0	55
60	438	26.2	32.7	36.9	448	399	296	45	28.0	0.744	33	27	15	91.2	838	0.73	12.8	14.0	60
65	404	27.3	34.5	37.8	478	436	342	34	29.8	0.854	29	25	15	94.4	897	0.61	11.1	13.8	65
70	377	28.3	36.1	38.6	503	466	382	27	31.3	0.992	26	23	16	97.2	948	0.54	9.9	13.5	70
75	356	29.1	37.5	39.4	527	493	417	21	32.8	1.125	23	21	15	99.8	995	0.47	8.7	13.3	75
80	339	29.8	38.7	40.0	545	514	444	17	34.0	1.241	22	20	15	102.0	1035	0.39	7.0	12.9	80

Table 61 (contd)

Sitka Spruce (Continued)

Normal Yield Table: Yield Class 12

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	2 m					cm	3 m				2 m	3 m	2 m	3 m	3 m	
20	3079	7.7	10.2	25.0	64	0	0	131	13.0	0.087	11	0	0	26.8	75	2.34	11.8	3.7	20
25	2149	10.2	12.0	24.2	91	1	0	930	12.8	0.045	42	1	0	38.0	144	2.12	15.3	5.8	25
30	1584	12.7	14.5	26.1	133	10	0	565	13.5	0.074	42	2	0	47.9	228	1.86	17.5	7.6	30
35	1206	15.1	17.3	28.3	182	38	1	378	14.7	0.111	42	3	0	56.6	320	1.62	18.5	9.1	35
40	956	17.4	20.1	30.5	234	99	16	250	16.6	0.168	42	7	0	64.1	413	1.39	18.3	10.3	40
45	785	19.4	22.8	32.1	281	167	46	171	18.8	0.245	42	13	1	70.5	503	1.18	17.2	11.2	45
50	664	21.2	25.3	33.3	323	230	93	121	21.0	0.333	40	20	4	76.0	585	1.00	15.5	11.7	50
55	585	22.7	27.4	34.6	361	284	148	79	23.0	0.428	34	21	6	80.5	657	0.84	13.6	11.9	55
60	529	23.9	29.3	35.7	395	328	201	56	24.7	0.521	29	20	8	84.3	720	0.70	11.7	12.0	60
65	487	25.0	30.9	36.6	423	365	248	42	26.3	0.615	26	19	9	87.5	774	0.59	10.2	11.9	65
70	455	25.9	32.4	37.4	447	396	289	32	27.6	0.709	23	18	10	90.3	821	0.52	9.0	11.7	70
75	429	26.7	33.6	38.1	469	423	323	26	28.9	0.793	21	17	10	92.7	864	0.45	7.9	11.5	75
80	407	27.3	34.7	38.6	486	444	351	22	30.0	0.871	20	17	11	94.7	901	0.38	6.4	11.3	80

Yield Class 10

20	3312	6.6	8.9	20.5	48	0	0	0	0.0	0.000	0	0	0	20.5	48	2.27	9.1	2.4	20
25	2643	8.9	10.7	23.8	75	0	0	669	12.6	0.045	30	1	0	32.2	105	2.13	12.5	4.2	25
30	2013	11.1	12.7	25.4	109	3	0	630	12.8	0.056	35	1	0	41.9	174	1.81	14.5	5.8	30
35	1566	13.2	14.9	27.4	150	13	0	447	13.5	0.078	35	2	0	50.2	250	1.57	15.5	7.1	35
40	1245	15.3	17.3	29.3	194	40	1	321	14.6	0.109	35	3	0	57.5	329	1.36	15.7	8.2	40
45	1021	17.1	19.6	30.9	236	91	13	224	16.2	0.156	35	5	0	63.8	406	1.15	15.0	9.0	45
50	859	18.8	21.8	32.1	274	147	33	162	17.9	0.216	35	9	1	69.1	479	0.96	13.7	9.6	50
55	751	20.2	23.7	33.2	309	198	63	108	19.6	0.274	30	11	2	73.4	543	0.79	12.1	9.9	55
60	675	21.5	25.4	34.1	340	243	99	76	21.1	0.333	25	12	2	77.0	600	0.66	10.6	10.0	60
65	619	22.5	26.8	34.9	366	281	137	56	22.4	0.399	22	13	3	80.1	649	0.57	9.2	10.0	65
70	577	23.3	28.1	35.7	389	312	173	42	23.6	0.466	20	13	4	82.7	691	0.49	8.0	9.9	70
75	542	24.1	29.2	36.3	408	338	205	35	24.7	0.527	19	13	5	85.0	729	0.43	7.1	9.7	75
80	513	24.7	30.2	36.8	424	360	234	29	25.6	0.585	18	13	5	87.0	762	0.37	5.8	9.5	80

Yield Class 8

25	3073	7.5	10.0	24.3	64	0	0	204	11.9	0.038	8	0	0	26.6	72	1.76	8.6	2.9	25
30	2538	9.4	11.3	25.6	86	0	0	535	12.9	0.052	28	1	0	35.0	122	1.62	11.0	4.1	30
35	2039	11.3	12.9	26.8	118	3	0	499	13.0	0.056	28	1	0	42.8	182	1.48	12.4	5.2	35
40	1655	13.2	14.8	28.4	154	13	0	384	13.4	0.073	28	1	0	49.8	246	1.31	13.0	6.2	40
45	1363	14.9	16.7	29.8	191	32	0	292	14.3	0.096	28	2	0	55.9	311	1.12	12.6	6.9	45
50	1145	16.4	18.5	30.9	224	67	6	218	15.4	0.129	28	3	0	61.0	372	0.94	11.7	7.4	50
55	996	17.7	20.2	32.0	255	109	17	149	16.5	0.170	25	4	0	65.3	428	0.79	10.6	7.8	55
60	892	18.8	21.7	32.9	282	149	33	104	17.8	0.209	22	5	0	68.9	477	0.65	9.3	8.0	60
65	814	19.8	22.9	33.6	306	184	51	78	18.9	0.243	19	6	1	71.8	520	0.53	8.0	8.0	65
70	753	20.6	24.0	34.1	326	215	72	61	19.9	0.283	17	7	1	74.2	557	0.46	6.9	8.0	70
75	705	21.2	25.0	34.7	342	240	93	48	20.8	0.338	16	8	1	76.4	589	0.39	6.2	7.9	75
80	663	21.9	25.9	34.9	355	261	115	42	21.6	0.365	16	8	2	78.2	618	0.33	5.1	7.7	80

Sitka Spruce (Continued)

Normal Yield Table: Yield Class 6

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	2 m					cm	3 m				2 m	3 m	2 m	3 m	3 m	
25	3335	6.1	8.5	18.9	40	0	0	0	0.0	0.000	0	0	0	18.9	40	1.64	6.2	1.6	25
30	3134	7.7	10.0	24.8	68	0	0	201	12.0	0.040	8	0	0	27.0	76	1.53	7.9	2.5	30
35	2662	9.4	11.2	26.2	90	0	0	472	12.4	0.045	21	0	0	34.2	119	1.37	9.2	3.4	35
40	2218	11.0	12.5	27.2	118	2	0	444	12.6	0.047	21	0	0	40.8	168	1.25	10.1	4.2	40
45	1876	12.5	13.9	28.5	148	8	0	342	13.1	0.061	21	1	0	46.7	219	1.10	10.2	4.9	45
50	1601	13.8	15.3	29.5	177	18	0	275	13.7	0.076	21	1	0	51.8	269	0.93	9.6	5.4	50
55	1391	15.0	16.7	30.3	202	35	0	210	14.4	0.098	21	1	0	56.0	315	0.77	8.6	5.7	55
60	1237	16.0	17.9	31.0	224	56	4	154	15.0	0.119	18	2	0	59.4	355	0.62	7.6	5.9	60
65	1123	16.8	18.9	31.6	242	79	9	114	15.8	0.144	17	2	0	62.2	390	0.51	6.5	6.0	65
70	1033	17.5	19.8	31.9	257	102	15	90	16.4	0.169	15	2	0	64.5	419	0.41	5.6	6.0	70
75	960	18.1	20.6	32.1	268	122	22	73	17.5	0.194	14	3	0	66.3	445	0.35	4.9	5.9	75
80	900	18.7	21.4	32.3	278	142	30	60	17.9	0.223	13	3	0	68.0	468	0.29	4.2	5.9	80

Normal Yield Tables continued overleaf

Norway Spruce

Normal Yield Table: Yield Class 22

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	m^2					cm	m^3				m^2	m^3	m^2	m^3	m^3	
10	3840	5.8	7.1	15.2	22	0	0	0	0.0	0.000	0	0	0	15.2	22	1.58	6.2	2.2	10
15	3806	8.7	9.2	25.1	69	0	0	34	10.9	0.090	3	0	0	25.4	72	2.56	15.0	4.8	15
20	1866	11.8	11.8	20.4	93	1	0	1940	11.5	0.040	77	0	0	40.7	173	3.01	23.7	8.6	20
25	1144	15.1	16.3	24.0	152	23	0	722	14.0	0.107	77	5	0	55.5	309	2.81	29.1	12.4	25
30	786	18.3	21.4	28.4	230	118	25	358	17.8	0.215	77	19	1	68.8	464	2.54	31.4	15.5	30
35	590	21.2	26.5	32.6	312	236	112	196	22.7	0.393	77	45	12	80.9	623	2.30	31.6	17.8	35
40	470	23.7	31.3	36.2	392	340	236	120	27.9	0.641	77	61	33	91.8	780	2.09	30.5	19.5	40
45	388	26.0	35.9	39.2	463	428	349	82	32.8	0.945	77	69	51	101.8	928	1.90	28.8	20.6	45
50	329	28.1	40.2	41.7	525	499	441	59	37.5	1.307	77	72	61	110.8	1067	1.73	26.9	21.3	50
55	284	29.9	44.3	43.9	578	557	514	45	42.0	1.734	77	74	67	119.1	1197	1.60	25.1	21.8	55
60	252	31.5	48.3	46.2	627	610	573	32	46.3	2.250	72	70	65	126.8	1318	1.48	23.3	22.0	60
65	229	33.0	52.1	48.8	675	661	628	23	50.3	2.771	63	61	58	133.9	1429	1.35	21.3	22.0	65
70	212	34.3	55.5	51.2	720	707	676	17	54.0	3.260	56	55	53	140.3	1530	1.20	19.1	21.9	70
75	197	35.6	58.6	53.1	757	745	716	15	57.2	3.683	52	51	49	145.9	1620	1.12	17.7	21.6	75
80	186	36.7	61.6	55.5	794	781	754	11	60.4	4.455	50	49	47	151.5	1707	1.01	16.0	21.3	80

Yield Class 20

15	3678	8.0	8.9	22.7	58	0	0	0	0.0	0.000	0	0	0	22.7	58	2.38	13.2	3.8	15
20	2130	11.1	11.3	21.3	85	0	0	1548	11.5	0.039	61	0	0	37.3	146	2.90	21.2	7.3	20
25	1329	14.2	15.3	24.4	139	14	0	801	13.5	0.087	70	3	0	51.8	269	2.72	26.4	10.8	25
30	913	17.2	19.9	28.2	209	84	12	416	16.5	0.168	70	11	0	64.6	410	2.42	28.6	13.7	30
35	684	19.9	24.4	32.0	284	192	69	229	20.6	0.305	70	32	6	76.0	555	2.17	28.8	15.9	35
40	540	22.4	28.8	35.2	357	293	172	144	25.1	0.484	70	49	20	86.3	698	1.98	28.0	17.4	40
45	445	24.5	33.0	38.0	424	379	283	95	29.7	0.735	70	59	37	95.7	835	1.80	26.7	18.5	45
50	376	26.5	37.0	40.4	483	450	376	69	34.0	1.026	70	63	49	104.3	964	1.63	25.0	19.3	50
55	324	28.3	40.7	42.3	534	508	452	52	38.1	1.365	70	66	56	112.1	1085	1.49	23.3	19.7	55
60	286	29.8	44.4	44.1	579	558	515	38	42.0	1.755	67	64	57	119.2	1196	1.37	21.6	19.9	60
65	259	31.3	47.8	46.3	624	607	569	27	45.7	2.167	58	56	52	125.8	1300	1.27	20.0	20.0	65
70	238	32.5	51.0	48.6	668	652	618	21	49.1	2.599	53	51	48	131.9	1396	1.16	18.4	19.9	70
75	222	33.7	54.0	50.7	707	692	661	16	52.3	3.050	49	48	45	137.4	1484	1.06	16.8	19.8	75
80	209	34.7	56.6	52.5	741	728	697	13	55.1	3.355	46	45	43	142.5	1564	0.97	15.3	19.6	80

Yield Class 18

15	3727	7.4	8.1	19.4	43	0	0	0	0.0	0.000	0	0	0	19.4	43	2.19	11.4	2.9	15
20	2527	10.2	10.5	21.9	77	0	0	1200	11.2	0.035	42	0	0	33.7	120	2.82	18.6	6.0	20
25	1590	13.2	13.9	24.0	124	7	0	937	12.6	0.067	63	1	0	47.6	229	2.62	23.5	9.2	25
30	1091	16.0	17.9	27.4	187	46	3	499	15.1	0.126	63	6	0	59.9	355	2.30	25.6	11.8	30
35	805	18.6	22.0	30.6	254	140	33	286	18.3	0.220	63	18	2	70.7	485	2.06	26.0	13.9	35
40	639	21.0	26.0	34.0	320	237	106	166	22.1	0.380	63	35	9	80.4	614	1.86	25.4	15.4	40
45	519	23.0	29.8	36.3	382	322	204	120	26.3	0.525	63	47	22	89.3	739	1.69	24.4	16.4	45
50	438	24.9	33.5	38.5	438	394	299	81	30.3	0.779	63	54	35	97.3	858	1.53	23.0	17.2	50
55	376	26.6	36.9	40.3	486	452	378	62	34.0	1.031	63	57	44	104.6	969	1.40	21.5	17.6	55
60	330	28.1	40.2	41.9	528	502	444	46	37.6	1.341	61	57	48	111.3	1073	1.29	20.0	17.9	60
65	298	29.4	43.3	43.9	572	549	503	32	40.9	1.666	53	51	45	117.5	1169	1.19	18.6	18.0	65
70	273	30.7	46.3	46.0	613	594	553	25	44.1	2.029	48	47	43	123.2	1259	1.08	17.0	18.0	70
75	253	31.8	49.0	47.6	649	632	595	20	47.0	2.291	45	44	41	128.3	1339	0.99	15.7	17.9	75
80	237	32.8	51.5	49.4	682	667	633	16	49.7	2.696	43	42	39	133.1	1415	0.92	14.5	17.7	80

Table 62 (contd)

Norway Spruce (Continued)

Yield Class 16

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	m^2					cm	m^3				m^2	m^3	m^2	m^3	m^3	
15	3778	6.7	7.2	15.5	29	0	0	0	0.0	0.000	0	0	0	15.5	29	1.99	9.5	2.0	15
20	2992	9.4	9.7	22.1	69	0	0	786	11.0	0.031	25	0	0	29.6	94	2.76	16.0	4.7	20
25	1902	12.2	12.5	23.4	109	2	0	1090	11.9	0.051	56	0	0	43.1	190	2.54	20.7	7.6	25
30	1318	14.9	16.0	26.5	165	22	0	584	13.8	0.096	56	3	0	54.9	301	2.23	22.9	10.0	30
35	969	17.3	19.7	29.6	226	88	12	349	16.4	0.160	56	9	0	65.3	418	1.97	23.3	12.0	35
40	758	19.5	23.4	32.5	286	178	54	211	19.6	0.265	56	21	3	74.6	535	1.76	22.9	13.4	40
45	616	21.5	26.8	34.9	343	263	129	142	23.1	0.394	56	34	10	82.9	647	1.58	22.0	14.4	45
50	518	23.2	30.1	36.9	394	334	216	98	26.7	0.573	56	43	21	90.4	755	1.43	20.9	15.1	50
55	444	24.9	33.2	38.6	440	394	297	74	30.0	0.765	56	47	30	97.3	856	1.31	19.6	15.6	55
60	388	26.3	36.2	40.0	479	444	365	56	33.2	0.996	55	50	37	103.5	951	1.19	18.2	15.8	60
65	349	27.6	39.0	41.7	518	489	425	39	36.3	1.244	48	45	37	109.2	1038	1.09	16.9	16.0	65
70	319	28.7	41.6	43.3	556	531	477	30	39.1	1.473	44	41	36	114.4	1120	1.00	15.8	16.0	70
75	295	29.8	44.0	44.9	592	570	524	24	41.7	1.698	40	39	35	119.2	1196	0.92	14.7	15.9	75
80	275	30.8	46.3	46.4	623	604	563	20	44.2	1.990	39	37	34	123.7	1266	0.86	13.6	15.8	80

Yield Class 14

15	3832	6.0	7.0	14.9	23	0	0	0	0.0	0.000	0	0	0	14.9	23	1.78	7.5	1.5	15
20	3608	8.5	9.0	23.2	62	0	0	224	10.9	0.035	8	0	0	25.3	70	2.32	12.8	3.5	20
25	2305	11.2	11.2	22.9	94	0	0	1303	11.3	0.038	49	0	0	38.1	151	2.41	17.7	6.0	25
30	1614	13.7	14.2	25.4	141	9	0	691	12.7	0.071	49	1	0	49.4	247	2.10	19.8	8.2	30
35	1187	15.9	17.3	28.0	193	40	2	427	14.6	0.115	49	4	0	59.1	348	1.85	20.4	9.9	35
40	919	18.0	20.6	30.6	246	112	20	268	17.1	0.183	49	9	0	67.9	450	1.67	20.3	11.3	40
45	747	19.8	23.8	33.1	298	192	62	172	20.0	0.285	49	20	3	75.8	551	1.50	19.7	12.2	45
50	622	21.5	26.8	35.0	345	264	129	125	23.0	0.393	49	30	8	82.9	647	1.34	18.8	12.9	50
55	532	23.0	29.6	36.5	387	324	202	90	26.1	0.546	49	36	16	89.2	738	1.21	17.6	13.4	55
60	463	24.4	32.2	37.8	423	374	271	69	29.0	0.713	49	40	24	95.0	823	1.12	16.6	13.7	60
65	414	25.6	34.8	39.4	460	421	333	49	31.7	0.903	44	38	27	100.4	904	1.05	15.6	13.9	65
70	378	26.7	37.2	41.2	497	464	390	36	34.3	1.103	39	35	27	105.4	979	0.94	14.4	14.0	70
75	349	27.7	39.4	42.5	530	501	438	29	36.7	1.251	36	33	28	109.8	1048	0.84	13.3	14.0	75
80	324	28.6	41.4	43.7	559	534	479	25	38.9	1.436	35	33	28	113.8	1112	0.80	12.5	13.9	80

Yield Class 12

20	3708	7.6	8.4	20.8	49	0	0	0	0.0	0.000	0	0	0	20.8	49	2.14	10.4	2.4	20
25	2733	10.1	10.4	23.1	79	0	0	975	11.2	0.035	34	0	0	32.8	114	2.28	14.6	4.6	25
30	1961	12.4	12.8	25.1	118	3	0	772	12.1	0.055	42	0	0	43.6	195	2.01	16.8	6.5	30
35	1467	14.5	15.4	27.4	163	18	0	494	13.5	0.085	42	2	0	52.9	282	1.75	17.5	8.0	35
40	1138	16.4	18.2	29.6	209	56	5	329	15.3	0.126	42	4	0	61.1	370	1.55	17.5	9.2	40
45	917	18.1	21.0	31.6	254	123	23	221	17.4	0.190	42	9	0	68.5	457	1.40	17.2	10.1	45
50	765	19.6	23.6	33.6	297	190	60	152	19.8	0.276	42	17	2	75.1	541	1.26	16.6	10.8	50
55	650	21.1	26.2	35.0	336	251	114	115	22.4	0.363	42	24	6	81.1	623	1.13	15.7	11.3	55
60	565	22.4	28.6	36.2	370	302	174	85	24.9	0.492	42	29	11	86.4	699	1.03	14.7	11.6	60
65	503	23.5	30.8	37.5	403	346	234	62	27.4	0.625	39	30	16	91.4	770	0.95	13.8	11.8	65
70	458	24.5	32.9	39.0	436	389	290	45	29.6	0.762	34	28	18	95.9	836	0.89	13.1	11.9	70
75	423	25.5	34.9	40.6	468	429	341	35	31.8	0.906	31	27	19	100.2	900	0.79	12.1	12.0	75
80	393	26.4	36.7	41.5	496	461	383	30	33.7	0.997	30	27	21	103.9	957	0.74	11.3	12.0	80

Norway Spruce (Continued)

Yield Class 10

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	m^2					cm	m^3				m^2	m^3	m^2	m^3	m^3	
20	3782	6.6	7.1	14.9	28	0	0	0	0.0	0.000	0	0	0	14.9	28	1.98	8.4	1.4	20
25	3403	8.9	9.4	23.6	67	0	0	379	11.1	0.035	13	0	0	27.3	80	2.24	11.7	3.2	25
30	2482	11.0	11.2	24.2	96	0	0	921	11.4	0.038	35	0	0	37.3	144	1.88	13.6	4.8	30
35	1897	12.9	13.3	26.2	132	5	0	585	12.3	0.060	35	0	0	46.1	216	1.66	14.6	6.2	35
40	1491	14.6	15.5	28.2	172	19	0	406	13.5	0.086	35	2	0	53.9	290	1.47	14.9	7.3	40
45	1202	16.2	17.8	30.0	211	51	3	289	15.0	0.121	35	3	0	60.8	364	1.30	14.6	8.1	45
50	993	17.7	20.1	31.5	248	104	16	209	16.7	0.168	35	6	0	66.9	436	1.16	14.2	8.7	50
55	841	19.0	22.3	32.9	282	160	40	152	18.6	0.231	35	11	1	72.4	506	1.05	13.6	9.2	55
60	730	20.2	24.4	34.2	314	212	76	111	20.6	0.317	35	16	3	77.4	572	0.96	12.9	9.5	60
65	642	21.3	26.4	35.2	343	259	121	88	22.6	0.375	33	19	5	82.0	635	0.88	12.1	9.8	65
70	584	22.2	28.3	36.7	374	302	170	58	24.6	0.485	28	19	7	86.2	693	0.80	11.4	9.9	70
75	539	23.1	30.0	38.0	403	340	218	45	26.5	0.573	26	19	9	90.0	748	0.74	10.7	10.0	75
80	500	24.0	31.6	39.2	430	375	264	39	28.2	0.650	25	20	11	93.5	800	0.86	10.0	10.0	80

Yield Class 8

25	3710	7.6	8.5	21.0	49	0	0	0	0.0	0.000	0	0	0	21.0	49	1.82	8.4	2.0	25
30	3048	9.5	9.9	23.5	73	0	0	662	11.2	0.035	23	0	0	30.0	96	1.71	10.2	3.2	30
35	2395	11.2	11.5	24.8	100	0	0	653	11.6	0.043	28	0	0	38.1	151	1.55	11.5	4.3	35
40	1937	12.8	13.2	26.7	132	5	0	458	12.3	0.061	28	0	0	45.5	211	1.39	12.0	5.3	40
45	1591	14.2	15.1	28.5	164	16	0	346	13.3	0.081	28	1	0	52.0	271	1.23	12.1	6.0	45
50	1325	15.5	16.9	29.9	196	36	1	266	14.4	0.105	28	2	0	57.8	331	1.08	11.8	6.6	50
55	1120	16.7	18.8	31.0	226	71	7	205	15.7	0.137	28	3	0	62.9	389	0.97	11.4	7.1	55
60	965	17.9	20.6	32.0	254	115	20	155	17.1	0.180	28	5	0	67.5	445	0 88	10.9	7.4	60
65	846	18.9	22.3	33.0	279	158	39	119	18.6	0.235	28	8	1	71.7	498	0.81	10.3	7.7	65
70	769	19.8	23.9	34.4	306	200	65	77	20.1	0.295	23	10	1	75.6	548	0.74	9.7	7.8	70
75	711	20.6	25.3	35.9	330	238	97	58	21.4	0.355	21	11	2	79.1	595	0.68	9.2	7.9	75
80	654	21.4	26.7	36.7	357	273	133	57	22.9	0.346	20	12	3	82.4	640	0.59	8.6	8.0	80
85	611	22.0	27.9	37.4	376	301	164	43	24.2	0.446	20	13	5	85.1	679	0.55	7.9	8.0	85
90	582	22.4	29.1	38.6	389	321	193	29	25.4	0.649	19	14	6	87.8	710	0.51	7.3	7.9	90

Yield Class 6

30	3694	7.8	8.2	19.4	47	0	0	0	0.0	0.000	0	0	0	19.4	47	1.55	6.7	1.6	30
35	2993	9.3	9.4	20.7	65	0	0	701	10.7	0.027	19	0	0	27.0	84	1.47	8.0	2.4	35
40	2497	10.7	10.8	22.8	87	0	0	496	11.2	0.042	21	0	0	34.0	127	1.35	8.9	3.2	40
45	2121	11.9	12.3	25.1	112	2	0	376	11.9	0.056	21	0	0	40.4	173	1.20	9.3	3.9	45
50	1812	13.1	13.7	26.8	138	7	0	309	12.6	0.068	21	0	0	46.0	220	1.05	9.3	4.4	50
55	1556	14.2	15.2	28.1	163	16	0	256	13.3	0.082	21	1	0	50.9	266	0.92	9.1	4.8	55
60	1349	15.2	16.6	29.2	186	31	0	207	14.2	0.101	21	1	0	55.2	311	0.83	8.8	5.2	60
65	1183	16.2	18.0	30.1	208	53	4	166	15.1	0.126	21	2	0	59.2	353	0.76	8.5	5.4	65
70	1059	17.0	19.4	31.3	230	84	11	124	16.2	0.158	20	3	0	62.9	395	0.71	8.1	5.6	70
75	973	17.7	20.7	32.6	253	117	21	86	17.2	0.185	16	3	0	66.2	434	0.64	7.6	5.8	75
80	903	18.4	21.8	33.8	275	148	34	70	18.2	0.209	15	4	0	69.2	471	0.53	7.1	5.9	80
85	846	19.1	22.8	34.5	295	175	48	57	19.0	0.250	14	5	1	71.5	503	0.50	6.5	5.9	85
90	791	19.7	23.9	35.4	312	203	66	55	20.0	0.256	14	6	1	74.2	536	0.44	6.0	6.0	90

European Larch

Normal Yield Table: Yield Class 12

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	2 m					cm	3 m				2 m	3 m	2 m	3 m	3 m	
10	2825	7.7	8.8	17.3	27	0	0	0	0.0	0.000	0	0	0	17.3	27	1.79	9.4	2.7	10
15	1438	11.0	12.2	16.8	68	1	0	1387	9.3	0.013	18	0	0	26.3	85	1.71	13.1	5.7	15
20	810	13.9	16.1	16.4	98	14	0	628	13.1	0.067	42	1	0	34.4	158	1.56	15.4	7.9	20
25	567	16.5	20.3	18.3	138	60	10	243	17.2	0.173	42	8	0	42.0	239	1.42	16.4	9.6	25
30	434	18.9	24.4	20.3	179	121	43	133	21.3	0.316	42	21	4	48.6	322	1.25	16.2	10.7	30
35	348	21.0	28.2	21.8	215	174	98	86	25.2	0.491	42	30	12	54.4	401	1.09	15.2	11.5	35
40	290	22.8	31.8	23.1	248	218	155	58	29.0	0.699	40	33	20	59.5	474	0.95	13.9	11.8	40
45	251	24.4	35.1	24.3	278	255	204	39	32.4	0.930	36	32	23	63.9	540	0.84	12.5	12.0	45
50	223	25.7	38.2	25.5	304	286	245	28	35.6	1.170	32	30	24	67.9	599	0.75	11.2	12.0	50
55	202	26.9	40.9	26.6	328	313	279	21	38.6	1.418	29	27	24	71.4	652	0.66	10.0	11.8	55
60	186	27.9	43.5	27.6	349	336	307	16	41.3	1.669	26	25	22	74.5	699	0.59	8.9	11.6	60
65	174	28.7	45.7	28.4	367	355	330	12	43.7	1.858	24	23	21	77.3	741	0.52	7.8	11.4	65
70	164	29.5	47.5	29.1	382	371	348	10	45.8	2.019	21	21	19	79.7	777	0.45	6.9	11.1	70
75	156	30.1	49.2	29.7	395	385	363	8	47.7	2.195	19	19	17	81.8	809	0.40	6.0	10.8	75
80	149	30.7	50.7	30.1	406	397	375	7	49.4	2.370	17	17	16	83.6	837	0.35	5.3	10.5	80
85	143	31.2	52.1	30.5	415	406	386	6	50.9	2.633	16	15	15	85.3	862	0.31	4.7	10.1	85
90	139	31.6	53.3	31.0	423	414	395	4	52.3	2.840	14	14	13	86.8	884	0.28	4.2	9.8	90
95	135	31.9	54.3	31.2	430	421	402	4	53.4	2.723	13	13	12	88.1	904	0.25	3.6	9.5	95
100	131	32.3	55.2	31.3	435	426	408	4	54.3	2.533	11	11	11	89.2	920	0.22	3.3	9.2	100

Yield Class 10

10	2902	6.8	8.0	14.6	16	0	0	0	0.0	0.000	0	0	0	14.6	16	1.61	7.2	1.6	10
15	2005	9.8	10.8	18.3	58	0	0	897	8.0	0.002	2	0	0	22.8	60	1.55	10.2	4.0	15
20	1036	12.5	14.1	16.1	81	5	0	969	11.1	0.036	35	0	0	30.0	118	1.43	12.6	5.9	20
25	705	14.9	17.8	17.5	114	27	2	331	14.7	0.106	35	3	0	37.0	186	1.33	13.9	7.5	25
30	536	17.1	21.4	19.3	150	77	16	169	18.3	0.206	35	10	1	43.3	257	1.18	14.0	8.6	30
35	430	19.1	24.8	20.8	184	128	48	106	21.7	0.329	35	19	4	48.8	326	1.02	13.3	9.3	35
40	357	20.8	28.0	21.9	213	171	94	73	24.9	0.475	35	24	9	53.5	390	0.88	12.2	9.8	40
45	307	22.2	30.9	23.0	240	206	140	50	27.9	0.638	32	25	14	57.6	448	0.76	11.0	10.0	45
50	273	23.5	33.5	24.0	263	237	180	34	30.7	0.818	28	24	16	61.1	500	0.66	9.8	10.0	50
55	247	24.6	35.8	24.9	285	263	215	26	33.1	0.980	25	22	17	64.2	546	0.58	8.7	9.9	55
60	228	25.5	37.9	25.8	304	285	243	19	35.4	1.131	22	20	16	67.0	587	0.52	7.8	9.8	60
65	214	26.3	39.8	26.6	322	305	268	14	37.4	1.295	19	18	15	69.4	623	0.45	6.9	9.6	65
70	202	27.0	41.4	27.2	336	321	288	12	39.1	1.398	17	16	14	71.5	655	0.39	6.0	9.4	70
75	193	27.6	42.8	27.7	348	334	304	9	40.7	1.556	15	15	13	73.3	683	0.33	5.1	9.1	75
80	185	28.1	44.0	28.1	358	345	317	8	42.0	1.643	14	13	12	74.8	706	0.29	4.4	8.8	80
85	178	28.5	45.1	28.4	366	353	327	7	43.1	1.757	12	12	11	76.2	726	0.26	3.9	8.5	85
90	173	28.9	46.0	28.8	373	361	336	5	44.2	1.897	11	11	10	77.4	745	0.24	3.6	8.3	90
95	168	29.2	46.9	29.1	380	369	345	5	45.1	1.922	10	9	9	78.5	762	0.21	3.0	8.0	95
100	164	29.5	47.7	29.4	385	374	350	4	45.9	2.073	9	8	8	79.5	774	0.19	2.6	7.7	100

Yield Class 8

15	2761	8.4	9.2	18.3	36	0	0	0	0.0	0.000	0	0	0	18.3	36	1.44	7.6	2.4	15
20	1481	10.8	12.1	16.9	66	1	0	1280	9.2	0.011	15	0	0	25.4	80	1.35	9.8	4.0	20
25	953	13.0	15.2	17.2	91	9	0	528	12.2	0.053	28	0	0	31.9	134	1.23	11.2	5.3	25
30	710	15.0	18.3	18.7	121	34	3	243	15.2	0.115	28	3	0	37.7	192	1.10	11.6	6.4	30
35	567	16.8	21.3	20.1	151	76	16	143	18.1	0.195	28	7	1	42.9	250	0.96	11.3	7.1	35
40	470	18.4	24.0	21.2	178	117	39	97	20.8	0.288	28	13	2	47.3	305	0.82	10.5	7.6	40
45	400	19.8	26.5	22.0	200	151	71	70	23.3	0.396	28	17	5	51.1	355	0.70	9.5	7.9	45
50	354	21.0	28.7	22.8	221	181	105	46	25.6	0.504	24	17	7	54.3	400	0.60	8.4	8.0	50
55	322	22.0	30.6	23.6	241	206	137	32	27.6	0.608	20	16	8	57.1	439	0.52	7.4	8.0	55
60	298	22.8	32.2	24.3	258	228	165	24	29.3	0.702	17	14	9	59.5	474	0.44	6.5	7.9	60
65	279	23.6	33.7	24.9	273	246	189	19	30.9	0.792	15	13	9	61.5	504	0.38	5.6	7.8	65
70	265	24.2	35.0	25.4	286	262	209	14	32.2	0.893	13	12	9	63.2	530	0.32	4.9	7.6	70
75	253	24.7	36.1	25.9	296	274	225	12	33.4	0.983	12	11	8	64.7	552	0.28	4.2	7.4	75
80	243	25.1	37.0	26.2	305	284	238	10	34.4	1.010	11	10	7	66.0	571	0.23	3.5	7.1	80
85	235	25.5	37.8	26.4	311	292	248	8	35.3	1.119	9	9	7	67.1	587	0.20	3.0	6.9	85
90	229	25.8	38.5	26.7	317	299	257	6	36.0	1.174	8	7	6	68.0	601	0.17	2.6	6.7	90
95	223	26.1	39.1	26.9	322	304	265	6	36.7	1.211	7	6	5	68.8	613	0.15	2.2	6.5	95
100	219	26.3	39.6	27.0	326	309	271	4	37.2	1.302	6	5	4	69.5	623	0.13	1.9	6.2	100

Table 63 (contd)

European Larch (Continued)

Yield Class 6

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	2 m					cm	3 m				2 m	3 m	2 m	3 m	3 m	
20	2713	8.9	9.7	19.9	44	0	0	0	0.0	0.000	0	0	0	19.9	44	1.22	6.8	2.2	20
25	1485	10.9	12.3	17.8	69	1	0	1228	9.4	0.012	15	0	0	26.3	84	1.12	8.4	3.4	25
30	1052	12.7	14.9	18.3	92	8	0	433	11.8	0.049	21	0	0	31.6	128	1.00	9.0	4.3	30
35	822	14.3	17.3	19.4	117	24	1	230	14.2	0.091	21	1	0	36.4	174	0.88	9.0	5.0	35
40	675	15.8	19.6	20.3	140	53	7	147	16.4	0.143	21	3	0	40.4	218	0.76	8.6	5.5	40
45	573	17.1	21.6	21.1	161	85	19	102	18.5	0.204	21	6	1	43.9	260	0.65	7.9	5.8	45
50	497	18.1	23.5	21.5	177	112	34	76	20.3	0.271	21	9	1	46.9	297	0.55	7.1	5.9	50
55	450	19.1	25.1	22.3	194	137	54	47	22.0	0.336	16	9	2	49.4	330	0.46	6.2	6.0	55
60	417	19.8	26.5	22.9	209	158	74	33	23.4	0.393	13	8	2	51.5	358	0.39	5.3	6.0	60
65	393	20.4	27.6	23.5	222	176	93	24	24.5	0.446	11	8	3	53.3	382	0.32	4.5	5.9	65
70	373	21.0	28.6	23.9	233	190	110	20	25.5	0.483	10	7	3	54.8	403	0.27	3.8	5.8	70
75	358	21.4	29.4	24.3	242	202	124	15	26.4	0.531	9	6	3	56.0	420	0.22	3.2	5.6	75
80	345	21.8	30.1	24.5	249	211	136	13	27.1	0.574	7	6	3	56.9	435	0.18	2.6	5.4	80
85	335	22.1	30.6	24.7	254	218	145	10	27.7	0.587	6	5	3	57.8	446	0.15	2.1	5.3	85
90	327	22.3	31.1	24.8	258	223	153	8	28.1	0.624	5	4	2	58.4	456	0.12	1.7	5.1	90
95	321	22.5	31.5	25.0	261	228	159	6	28.5	0.683	4	3	2	59.0	463	0.10	1.4	4.9	95
100	316	22.6	31.7	25.0	264	231	164	5	28.8	0.660	3	3	2	59.4	469	0.08	1.2	4.7	100

Yield Class 4

25	2739	8.6	9.4	19.1	40	0	0	0	0.0	0.000	0	0	0	19.1	40	0.96	4.8	1.6	25
30	1684	10.2	11.5	17.5	60	0	0	1055	8.6	0.007	8	0	0	23.7	68	0.90	6.1	2.3	30
35	1248	11.7	13.6	18.0	78	4	0	436	10.6	0.032	14	0	0	28.0	100	0.82	6.5	2.9	35
40	1007	13.0	15.5	19.0	97	11	0	241	12.4	0.058	14	0	0	31.9	133	0.72	6.5	3.3	40
45	850	14.1	17.2	19.8	115	23	1	157	14.1	0.089	14	1	0	35.2	165	0.61	6.0	3.7	45
50	736	15.1	18.8	20.4	130	41	4	114	15.6	0.123	14	2	0	38.0	193	0.50	5.4	3.9	50
55	654	15.9	20.1	20.8	142	60	9	82	16.9	0.159	13	2	0	40.2	218	0.41	4.7	4.0	55
60	604	16.5	21.2	21.4	153	77	16	50	18.0	0.189	10	2	0	42.1	240	0.34	4.0	4.0	60
65	570	17.1	22.1	21.9	164	91	22	34	18.9	0.214	7	2	0	43.6	258	0.28	3.3	4.0	65
70	544	17.5	22.9	22.3	173	103	29	26	19.7	0.238	6	2	0	44.8	273	0.22	2.8	3.9	70
75	523	17.9	23.5	22.7	180	114	35	21	20.3	0.263	6	2	0	45.8	286	0.18	2.3	3.8	75
80	506	18.2	24.0	22.8	185	122	40	17	20.8	0.272	5	2	0	46.6	296	0.13	1.8	3.7	80
85	493	18.4	24.3	22.9	189	127	45	13	21.1	0.293	4	2	0	47.1	303	0.10	1.3	3.6	85
90	483	18.5	24.6	23.0	191	131	48	10	21.4	0.316	3	2	0	47.6	308	0.08	1.0	3.4	90
95	476	18.6	24.9	23.1	192	134	51	7	21.6	0.338	2	1	0	47.9	312	0.06	0.8	3.3	95
100	470	18.7	25.0	23.1	193	136	53	6	21.7	0.276	2	1	0	48.1	314	0.04	0.5	3.1	100

Table 63 (contd)

Japanese Larch and Hybrid Larch

Normal Yield Table: Yield Class 14

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	m^2					cm	m^3				m^2	m^3	m^2	m^3	m^3	
10	2308	8.0	9.7	17.1	43	0	0	657	7.7	0.012	8	0	0	20.1	51	2.32	12.9	5.1	10
15	999	11.4	13.6	14.5	69	3	0	1309	11.6	0.037	49	0	0	31.4	126	2.11	16.8	8.4	15
20	652	14.5	18.2	17.0	112	31	2	347	16.3	0.141	49	7	0	41.2	216	1.78	18.7	10.9	20
25	480	17.3	22.6	19.2	158	92	24	172	20.7	0.284	49	23	4	49.2	313	1.47	18.5	12.5	25
30	374	19.8	26.6	20.7	199	151	72	106	24.9	0.462	49	34	13	55.9	403	1.23	17.3	13.4	30
35	301	21.8	30.3	21.7	233	198	129	73	28.7	0.688	49	40	23	61.5	485	1.05	15.7	13.9	35
40	255	23.5	33.8	22.9	264	238	183	46	32.4	0.958	43	38	28	66.4	560	0.93	14.3	14.0	40
45	223	25.0	37.1	24.1	293	273	229	32	35.8	1.249	39	36	29	70.8	628	0.83	13.1	14.0	45
50	199	26.4	40.2	25.3	320	304	268	24	39.1	1.540	36	34	30	74.7	691	0.76	12.2	13.8	50
55	180	27.6	43.2	26.3	344	330	302	19	42.2	1.853	34	33	30	78.4	749	0.70	11.3	13.6	55
60	165	28.6	45.9	27.3	366	354	329	15	45.0	2.130	33	32	29	81.7	804	0.65	10.6	13.4	60
65	153	29.6	48.4	28.1	385	374	352	12	47.7	2.446	32	31	29	84.9	855	0.61	9.9	13.2	65
70	142	30.4	50.8	28.8	401	391	371	11	50.2	2.722	31	31	29	87.8	902	0.56	9.2	12.9	70
75	132	31.2	53.0	29.2	414	405	386	10	52.6	3.029	31	30	29	90.5	946	0.52	8.6	12.6	75
80	124	31.9	55.3	29.7	425	417	399	8	55.0	3.506	31	30	29	93.1	987	0.48	8.0	12.3	80

Yield Class 12

10	2869	7.2	8.7	17.0	36	0	0	0	0.0	0.000	0	0	0	17.0	36	2.23	10.1	3.6	10
15	1239	10.3	12.2	14.4	59	1	0	1630	10.2	0.024	39	0	0.	27.8	98	2.03	14.2	6.5	15
20	792	13.2	16.4	16.7	96	15	0	447	14.4	0.094	42	3	0	37.3	178	1.73	16.4	8.9	20
25	562	15.8	20.3	18.9	138	60	10	210	18.4	0.199	42	12	1	45.1	261	1.41	16.4	10.5	25
30	454	18.1	23.8	20.3	176	114	37	128	22.0	0.327	42	23	5	51.4	341	1.15	15.3	11.4	30
35	367	20.0	27.1	21.1	206	160	80	87	25.4	0.487	42	30	12	56.6	414	0.97	13.8	11.8	35
40	310	21.6	30.1	22.0	234	198	128	57	28.5	0.681	38	31	18	61.1	479	0.85	12.6	12.0	40
45	271	23.0	32.9	23.1	259	232	173	39	31.4	0.890	34	30	21	65.1	539	0.76	11.6	12.0	45
50	243	24.3	35.6	24.1	284	261	212	28	34.2	1.107	31	28	22	68.7	595	0.69	10.7	11.9	50
55	220	25.4	38.0	25.0	306	287	245	23	36.7	1.302	29	27	22	72.0	646	0.62	9.9	11.7	55
60	202	26.4	40.4	25.8	326	310	275	18	39.2	1.554	27	26	22	74.9	693	0.57	9.1	11.6	60
65	187	27.3	42.5	26.5	344	329	299	15	41.5	1.782	26	25	22	77.6	737	0.52	8.4	11.3	65
70	174	28.1	44.5	27.1	359	346	319	13	43.6	1.947	26	25	23	80.2	778	0.50	7.9	11.1	70
75	163	28.8	46.5	27.6	372	360	336	11	45.6	2.226	26	25	23	82.6	816	0.46	7.4	10.9	75
80	153	29.5	48.2	27.9	381	371	348	10	47.5	2.406	26	25	23	84.7	851	0.42	6.8	10.6	80

Yield Class 10

10	2951	6.3	7.6	13.4	23	0	0	0	0.0	0.000	0	0	0	13.4	23	2.14	7.3	2.3	10
15	1640	9.1	11.0	15.5	49	0	0	1311	9.0	0.017	22	0	0	23.8	71	1.95	11.4	4.7	15
20	995	11.7	14.6	16.6	80	6	0	645	12.5	0.054	35	1	0	32.8	136	1.66	13.7	6.8	20
25	723	14.2	18.1	18.5	116	30	2	272	16.1	0.129	35	5	0	40.3	208	1.35	14.1	8.3	25
30	564	16.3	21.2	19.9	150	75	15	159	19.3	0.220	35	12	2	46.4	277	1.11	13.4	9.2	30
35	459	18.1	24.0	20.8	179	118	40	105	22.2	0.332	35	20	5	51.4	341	0.92	12.2	9.7	35
40	387	19.6	26.6	21.5	203	155	74	72	24.9	0.460	33	23	9	55.6	398	0.78	10.9	10.0	40
45	339	20.9	29.0	22.3	226	186	111	48	27.3	0.600	29	23	12	59.2	450	0.68	9.8	10.0	45
50	304	22.0	31.1	23.1	247	214	146	35	29.5	0.735	26	21	13	62.3	496	0.59	8.9	9.9	50
55	277	23.0	33.1	23.8	266	238	178	27	31.6	0.888	24	21	15	65.1	539	0.53	8.2	9.8	55
60	255	23.9	34.9	24.4	283	259	205	22	33.5	1.018	22	20	15	67.6	578	0.48	7.6	9.6	60
65	237	24.7	36.6	24.9	298	277	230	18	35.3	1.179	21	19	16	69.9	615	0.45	7.1	9.5	65
70	221	25.5	38.3	25.4	312	293	251	16	37.0	1.336	21	19	16	72.1	649	0.42	6.6	9.3	70
75	207	26.1	39.8	25.8	323	306	269	14	38.7	1.504	21	19	17	74.1	680	0.38	6.1	9.1	75
80	195	26.7	41.2	26.0	331	316	283	12	40.1	1.602	21	19	17	75.9	709	0.35	5.6	8.9	80

Table 64 (contd)

Japanese Larch and Hybrid Larch (Continued)

Yield Class 8

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	m^2					cm	m^3				m^2	m^3	m^2	m^3	m^3	
10	3038	5.3	6.4	9.8	12	0	0	0	0.0	0.000	0	0	0	9.8	12	1.95	4.6	1.2	10
15	2571	7.8	9.3	17.3	41	0	0	467	7.3	0.011	5	0	0	19.2	46	1.78	8.5	3.1	15
20	1379	10.2	12.2	16.0	64	1	0	1192	10.2	0.024	28	0	0	27.7	97	1.57	10.9	4.8	20
25	971	12.4	15.2	17.6	94	9	0	408	13.2	0.069	28	1	0	34.9	155	1.32	11.8	6.2	25
30	753	14.4	18.0	19.2	125	32	2	218	16.1	0.128	28	4	0	40.9	214	1.08	11.4	7.1	30
35	613	16.0	20.5	20.2	151	68	12	140	18.6	0.199	28	8	1	45.7	268	0.87	10.3	7.7	35
40	513	17.4	22.6	20.7	172	101	27	100	20.8	0.280	28	13	2	49.6	317	0.72	9.2	7.9	40
45	448	18.6	24.6	21.2	191	130	48	65	22.8	0.368	24	14	4	52.8	360	0.61	8.2	8.0	45
50	402	19.6	26.3	21.9	209	157	73	46	24.6	0.455	21	14	5	55.6	399	0.53	7.5	8.0	50
55	367	20.5	27.9	22.5	226	180	98	35	26.3	0.541	19	14	6	58.1	434	0.47	6.8	7.9	55
60	340	21.3	29.4	23.1	242	201	124	27	27.8	0.633	17	13	7	60.3	467	0.41	6.2	7.8	60
65	317	22.0	30.7	23.5	255	219	147	23	29.2	0.711	16	13	8	62.2	496	0.37	5.6	7.6	65
70	297	22.7	32.0	23.8	266	234	167	20	30.4	0.809	16	13	9	64.0	523	0.34	5.2	7.5	70
75	280	23.3	33.2	24.2	276	247	186	17	31.7	0.911	15	13	10	65.7	548	0.31	4.8	7.3	75
80	264	23.8	34.2	24.3	282	256	200	16	32.8	0.981	15	14	10	67.1	570	0.29	4.4	7.1	80

Yield Class 6

15	2943	6.3	7.8	14.0	24	0	0	0	0.0	0.000	0	0	0	14.0	24	1.63	5.6	1.6	15
20	1992	8.5	10.3	16.7	47	0	0	951	8.3	0.014	13	0	0	21.9	60	1.47	8.0	3.0	20
25	1320	10.5	12.9	17.3	70	2	0	672	10.9	0.031	21	0	0	28.7	104	1.26	9.2	4.2	25
30	1012	12.3	15.4	18.7	96	10	0	308	13.3	0.068	21	1	0	34.5	151	1.04	9.1	5.0	30
35	824	13.8	17.5	19.8	119	26	1	188	15.5	0.112	21	2	0	39.1	195	0.83	8.4	5.6	35
40	693	15.0	19.3	20.4	137	50	6	131	17.4	0.160	21	4	0	42.7	234	0.66	7.4	5.9	40
45	599	16.1	20.9	20.6	152	73	14	94	19.0	0.211	20	7	1	45.7	269	0.54	6.6	6.0	45
50	538	17.0	22.3	21.1	167	95	24	61	20.4	0.264	16	7	1	48.2	300	0.47	6.0	6.0	50
55	496	17.8	23.6	21.8	182	116	37	42	21.8	0.318	13	7	2	50.4	329	0.43	5.5	6.0	55
60	465	18.5	24.8	22.5	197	136	52	31	23.0	0.370	12	7	2	52.4	355	0.37	4.9	5.9	60
65	438	19.1	25.8	22.9	209	153	66	27	24.0	0.404	11	7	2	54.1	378	0.31	4.3	5.8	65
70	415	19.6	26.7	23.2	218	166	80	23	24.9	0.447	11	7	3	55.5	398	0.28	3.9	5.7	70
75	394	20.1	27.5	23.4	226	178	94	21	25.8	0.486	11	8	3	56.9	417	0.25	3.6	5.6	75
80	375	20.5	28.2	23.5	233	188	105	19	26.5	0.542	10	8	4	58.0	433	0.23	3.2	5.4	80

Yield Class 4

20	2927	6.5	7.8	14.0	24	0	0	0	0.0	0.000	0	0	0	14.0	24	1.36	5.0	1.2	20
25	2045	8.3	9.9	15.7	43	0	0	882	7.9	0.012	10	0	0	20.1	53	1.21	6.4	2.1	25
30	1501	9.8	12.1	17.4	63	1	0	544	10.1	0.026	14	0	0	26.1	87	0.99	6.8	2.9	30
35	1218	11.1	14.1	19.0	82	5	0	283	12.0	0.050	14	0	0	31.0	121	0.78	6.4	3.4	35
40	1028	12.2	15.7	19.9	98	12	0	190	13.6	0.074	14	1	0	34.6	151	0.62	5.6	3.8	40
45	885	13.1	17.0	20.1	110	21	0	143	14.9	0.098	14	1	0	37.3	176	0.51	4.8	3.9	45
50	792	13.9	18.1	20.4	121	32	2	93	16.0	0.123	12	2	0	39.5	199	0.43	4.4	4.0	50
55	738	14.6	19.1	21.1	134	45	5	54	17.0	0.150	8	2	0	41.4	220	0.36	4.1	4.0	55
60	702	15.1	20.0	22.0	147	61	9	36	18.0	0.180	7	2	0	43.3	240	0.32	3.8	4.0	60
65	674	15.6	20.8	22.9	159	75	14	28	18.8	0.201	6	2	0	45.0	257	0.28	3.2	4.0	65
70	649	16.0	21.4	23.4	168	86	18	25	19.4	0.205	5	2	0	46.2	272	0.24	2.6	3.9	70
75	624	16.4	21.9	23.5	174	94	22	25	19.9	0.206	5	2	0	47.1	283	0.20	2.3	3.8	75
80	604	16.7	22.4	23.8	181	103	26	20	20.5	0.249	5	2	0	48.1	295	0.17	2.1	3.7	80

Table 64 (contd)

Douglas Fir

Normal Yield Table: Yield Class 24

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	m^2					cm	m^3				m^2	m^3	m^2	m^3	m^3	
10	3099	7.8	9.7	23.1	46	0	0	0	0.0	0.000	0	0	0	23.1	46	2.52	18.2	4.6	10
15	1435	12.5	12.8	18.5	93	2	0	1664	11.8	0.036	60	0	0	36.7	154	2.71	24.8	10.3	15
20	771	17.1	18.1	19.8	149	39	3	664	15.0	0.127	84	8	0	49.7	293	2.76	30.0	14.7	20
25	490	21.3	25.3	24.6	225	160	65	281	20.6	0.299	84	38	7	63.8	454	2.72	32.8	18.1	25
30	354	25.0	32.5	29.3	309	274	201	136	27.9	0.615	84	67	37	76.9	621	2.44	33.1	20.7	30
35	277	28.2	39.0	33.2	388	366	318	77	35.1	1.090	84	77	62	88.2	785	2.09	31.5	22.4	35
40	229	30.8	44.9	36.2	456	440	407	48	41.5	1.714	84	80	72	97.9	936	1.79	29.0	23.4	40
45	193	32.9	50.2	38.2	514	502	474	36	47.3	2.276	80	78	73	106.1	1074	1.54	26.4	23.9	45
50	172	34.7	55.1	40.9	574	563	539	21	52.7	3.129	65	64	61	113.3	1200	1.36	24.1	24.0	50
55	156	36.2	59.4	43.3	633	622	599	16	57.4	3.717	57	56	53	119.7	1315	1.20	22.1	23.9	55
60	144	37.6	63.4	45.5	688	677	654	12	61.8	4.456	51	50	48	125.3	1421	1.05	20.1	23.7	60
65	134	38.7	67.0	47.3	736	725	703	10	65.7	5.043	47	46	45	130.2	1516	0.95	18.3	23.3	65
70	126	39.7	70.4	49.0	778	767	746	8	69.3	5.933	45	44	43	134.7	1603	0.89	16.8	22.9	70
75	120	40.5	73.3	50.7	817	806	784	6	72.5	6.470	43	42	41	139.1	1684	0.80	15.1	22.5	75
80	114	41.2	75.7	51.5	845	835	812	6	75.1	6.738	41	41	39	142.7	1753	0.73	13.7	21.9	80

Yield Class 22

10	3129	7.4	9.3	21.2	37	0	0	0	0.0	0.000	0	0	0	21.2	37	2.36	16.0	3.7	10
15	1586	11.8	12.1	18.3	86	1	0	1543	11.4	0.031	48	0	0	34.1	134	2.51	22.4	8.9	15
20	852	16.2	16.9	19.1	136	24	0	734	14.1	0.105	77	5	0	46.4	261	2.54	27.5	13.0	20
25	543	20.3	23.4	23.4	206	129	39	309	19.0	0.249	77	26	3	59.6	408	2.48	30.2	16.3	25
30	388	23.9	30.4	28.1	283	241	158	155	25.6	0.496	77	56	23	72.2	562	2.35	30.6	18.7	30
35	302	27.0	36.6	31.8	357	332	275	86	32.4	0.890	77	68	50	83.0	713	2.01	29.2	20.4	35
40	248	29.5	42.2	34.6	421	403	365	54	38.6	1.403	77	72	63	92.3	854	1.72	27.0	21.3	40
45	209	31.7	47.2	36.5	474	460	430	39	44.1	1.912	76	73	67	100.2	982	1.49	24.6	21.8	45
50	185	33.4	51.7	38.9	529	517	491	24	49.0	2.585	62	61	57	107.1	1100	1.30	22.5	22.0	50
55	168	35.0	55.9	41.3	583	572	548	17	53.6	3.276	53	52	50	113.3	1207	1.15	20.6	22.0	55
60	155	36.3	59.7	43.4	634	623	600	13	57.8	3.802	48	47	45	118.6	1306	1.01	18.8	21.8	60
65	144	37.5	63.1	45.1	679	668	646	11	61.4	4.282	44	43	42	123.3	1395	0.90	17.1	21.5	65
70	135	38.4	66.2	46.6	719	708	686	9	64.8	5.000	42	41	40	127.6	1477	0.83	15.6	21.1	70
75	128	39.3	69.2	48.2	754	743	722	7	68.0	5.725	40	39	38	131.7	1551	0.76	14.0	20.7	75
80	122	39.9	71.6	49.2	782	771	750	6	70.6	6.097	38	37	36	135.2	1617	0.68	12.6	20.2	80

Yield Class 20

10	3164	6.8	8.7	18.9	27	0	0	0	0.0	0.000	0	0	0	18.9	27	2.16	13.8	2.7	10
15	1836	11.0	11.5	19.0	79	0	0	1328	11.1	0.026	34	0	0	32.0	114	2.31	20.1	7.6	15
20	984	15.2	15.5	18.6	124	14	0	852	13.3	0.082	70	3	0	43.3	228	2.42	24.9	11.4	20
25	629	19.1	21.3	22.5	188	95	20	355	17.3	0.197	70	15	1	55.6	362	2.43	27.6	14.5	25
30	445	22.6	27.7	26.9	259	206	110	184	22.9	0.380	70	42	12	67.6	503	2.25	28.0	16.8	30
35	343	25.6	33.6	30.5	328	295	226	102	29.2	0.682	70	58	35	78.0	642	1.92	26.8	18.3	35
40	279	28.1	38.9	33.1	387	365	316	64	34.9	1.082	70	64	51	86.9	771	1.64	24.8	19.3	40
45	235	30.2	43.6	35.1	435	419	384	44	40.1	1.577	70	66	59	94.4	890	1.42	22.8	19.8	45
50	206	32.0	47.9	37.1	486	472	443	29	44.8	2.003	59	57	52	101.1	999	1.26	21.0	20.0	50
55	187	33.5	51.8	39.4	536	524	497	19	49.1	2.622	51	49	46	107.0	1099	1.12	19.4	20.0	55
60	172	34.8	55.4	41.5	583	572	548	15	53.0	3.132	45	44	42	112.3	1192	0.98	17.6	19.9	60
65	160	35.9	58.6	43.1	625	614	591	12	56.5	3.569	41	41	39	116.8	1275	0.85	15.8	19.6	65
70	150	36.9	61.4	44.4	661	651	628	10	59.6	4.021	39	38	37	120.8	1350	0.78	14.5	19.3	70
75	142	37.8	64.1	45.8	694	684	661	8	62.6	4.714	36	36	35	124.6	1419	0.70	12.9	18.9	75
80	135	38.4	66.5	46.8	719	708	687	7	65.1	5.164	35	34	33	127.8	1479	0.63	11.5	18.5	80

Douglas Fir (Continued)

Yield Class 18

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	2 m					cm	3 m				2 m	3 m	2 m	3 m	3 m	
10	3203	6.2	8.5	18.1	20	0	0	0	0.0	0.000	0	0	0	18.1	20	1.92	11.6	2.0	10
15	2179	10.2	10.8	20.1	73	0	0	1024	10.9	0.020	21	0	0	29.6	94	2.12	17.5	6.2	15
20	1152	14.1	14.2	18.1	111	7	0	1027	12.4	0.061	63	1	0	40.1	195	2.24	22.3	9.7	20
25	743	17.8	19.2	21.5	169	59	7	409	15.7	0.154	63	8	0	51.4	316	2.27	24.9	12.6	25
30	523	21.2	25.0	25.7	234	164	64	220	20.4	0.286	63	28	5	62.8	444	2.14	25.4	14.8	30
35	398	24.1	30.5	29.1	297	254	168	125	25.8	0.502	63	46	20	72.8	569	1.84	24.3	16.3	35
40	321	26.5	35.4	31.6	351	323	260	77	31.2	0.809	63	55	38	81.2	687	1.57	22.7	17.2	40
45	269	28.6	39.8	33.5	397	376	331	52	36.0	1.189	63	58	48	88.5	796	1.37	21.0	17.7	45
50	236	30.3	43.9	35.6	442	426	391	33	40.4	1.637	56	53	47	94.9	897	1.22	19.5	17.9	50
55	211	31.8	47.6	37.6	488	474	445	25	44.5	1.971	48	46	42	100.7	990	1.08	17.9	18.0	55
60	194	33.1	50.9	39.5	532	519	492	17	48.1	2.462	42	41	38	105.7	1075	0.93	16.2	17.9	60
65	180	34.2	53.9	41.0	569	558	532	14	51.4	2.902	39	38	36	110.0	1152	0.80	14.5	17.7	65
70	169	35.2	56.5	42.3	602	591	567	11	54.2	3.257	36	35	33	113.7	1220	0.73	13.2	17.4	70
75	160	36.0	58.9	43.5	632	622	598	9	56.9	3.711	33	33	31	117.3	1284	0.65	11.8	17.1	75
80	151	36.7	61.2	44.4	654	644	621	9	59.3	4.297	32	31	30	120.2	1337	0.58	10.4	16.7	80

Yield Class 16

10	3243	5.6	8.1	16.5	12	0	0	0	0.0	0.000	0	0	0	16.5	12	1.64	9.4	1.2	10
15	2703	9.2	10.2	22.2	66	0	0	540	10.7	0.012	7	0	0	27.1	73	1.94	14.9	4.9	15
20	1401	12.9	12.8	18.2	99	3	0	1302	11.7	0.043	56	0	0	37.0	162	2.06	19.6	8.1	20
25	906	16.4	17.0	20.6	150	28	0	495	14.2	0.113	56	4	0	47.3	269	2.07	22.2	10.8	25
30	636	19.6	22.0	24.2	209	115	27	270	17.9	0.208	56	14	1	57.6	383	1.99	22.8	12.8	30
35	478	22.4	27.1	27.6	266	206	104	158	22.3	0.354	56	32	8	67.2	496	1.78	22.1	14.2	35
40	382	24.8	31.8	30.2	317	278	197	96	27.2	0.578	56	44	22	75.4	604	1.54	20.8	15.1	40
45	318	26.8	35.9	32.2	361	334	273	64	31.7	0.864	56	49	35	82.6	704	1.33	19.2	15.6	45
50	275	28.4	39.7	34.0	401	380	333	43	35.8	1.193	52	48	39	88.7	796	1.16	17.6	15.9	50
55	247	29.9	43.0	35.9	441	423	386	28	39.5	1.538	44	42	37	94.1	880	1.01	16.2	16.0	55
60	225	31.2	46.0	37.3	480	464	432	22	42.8	1.703	39	37	34	98.9	958	0.90	14.9	16.0	60
65	208	32.3	48.7	38.9	516	502	473	17	45.8	2.193	35	34	32	103.1	1029	0.79	13.6	15.8	65
70	195	33.3	51.3	40.2	547	535	507	13	48.5	2.571	32	32	30	106.7	1093	0.68	11.9	15.6	70
75	184	34.1	53.4	41.1	571	560	533	11	50.9	2.832	30	30	28	109.8	1147	0.60	10.4	15.3	75
80	175	34.8	55.4	42.0	592	581	556	9	53.0	3.225	29	28	27	112.7	1197	0.53	9.3	15.0	80

Yield Class 14

15	3078	8.2	10.0	24.2	52	0	0	0	0.0	0.000	0	0	0	24.2	52	1.75	12.4	3.5	15
20	1703	11.6	12.1	19.5	87	1	0	1375	11.5	0.030	41	0	0	33.7	128	1.87	16.8	6.4	20
25	1104	14.9	15.4	20.4	130	14	0	599	13.2	0.082	49	2	0	42.9	221	1.83	19.3	8.8	25
30	782	17.9	19.4	23.2	182	67	9	322	15.9	0.152	49	6	0	52.0	321	1.81	20.1	10.7	30
35	586	20.6	23.9	26.3	233	152	50	196	19.4	0.249	49	18	2	61.0	421	1.70	19.7	12.0	35
40	462	22.8	28.3	29.0	281	226	127	124	23.4	0.395	49	31	9	69.0	518	1.50	18.7	12.9	40
45	381	24.8	32.2	31.1	322	284	206	81	27.6	0.605	49	39	20	75.9	608	1.29	17.5	13.5	45
50	325	26.5	35.8	32.7	357	330	269	56	31.5	0.852	49	42	30	81.9	692	1.12	16.1	13.8	50
55	289	27.9	38.9	34.3	394	372	322	36	34.9	1.098	41	37	29	87.1	769	0.97	14.8	14.0	55
60	263	29.2	41.7	35.9	429	410	369	26	37.9	1.351	35	33	28	91.7	839	0.85	13.4	14.0	60
65	244	30.3	44.1	37.3	461	444	409	19	40.7	1.629	32	30	27	95.6	903	0.74	12.1	13.9	65
70	227	31.2	46.3	38.3	489	473	441	17	43.1	1.671	29	28	25	99.1	960	0.64	10.7	13.7	70
75	215	32.0	48.2	39.2	511	497	467	12	45.2	2.109	27	26	24	102.0	1010	0.56	9.4	13.5	75
80	204	32.6	49.9	39.9	529	516	487	11	46.9	2.301	26	25	24	104.7	1053	0.48	8.2	13.2	80

Table 65 (contd)

Douglas Fir (Continued)

Yield Class 12

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	m^2					cm	m^3				m^2	m^3	m^2	m^3	m^3	
15	3146	7.1	9.1	20.3	32	0	0	0	0.0	0.000	0	0	0	20.3	32	1.58	9.8	2.2	15
20	2176	10.2	11.0	20.5	75	0	0	970	11.0	0.021	20	0	0	29.7	95	1.69	14.1	4.7	20
25	1392	13.3	13.5	20.0	111	5	0	784	12.1	0.054	42	0	0	38.2	173	1.67	16.5	6.9	25
30	992	16.1	16.8	21.9	156	27	0	400	14.1	0.105	42	3	0	46.4	260	1.62	17.5	8.7	30
35	745	18.7	20.5	24.5	201	90	16	247	16.7	0.170	42	7	0	54.4	348	1.55	17.3	9.9	35
40	584	20.8	24.3	27.1	245	164	58	161	19.8	0.260	42	17	2	61.9	433	1.42	16.6	10.8	40
45	476	22.7	28.0	29.2	283	226	124	108	23.1	0.387	42	26	7	68.6	513	1.24	15.6	11.4	45
50	401	24.4	31.3	30.8	316	274	190	75	26.6	0.556	42	32	15	74.4	588	1.08	14.4	11.8	50
55	351	25.8	34.2	32.3	348	316	246	50	29.8	0.736	37	31	20	79.4	657	0.94	13.2	11.9	55
60	317	27.0	36.8	33.7	379	353	294	34	32.6	0.925	32	28	21	83.7	720	0.81	12.0	12.0	60
65	292	28.1	39.1	35.0	407	384	334	25	35.1	1.105	28	26	21	87.5	777	0.69	10.7	11.9	65
70	272	29.0	41.0	36.0	431	411	367	20	37.3	1.276	26	24	20	90.7	827	0.60	9.5	11.8	70
75	256	29.8	42.8	36.8	452	433	395	16	39.2	1.494	24	23	20	93.5	871	0.53	8.3	11.6	75
80	243	30.4	44.4	37.6	467	450	415	13	40.9	1.771	23	22	20	96.0	910	0.44	7.1	11.4	80

Yield Class 10

15	3217	6.0	8.2	17.1	17	0	0	0	0.0	0.000	0	0	0	17.1	17	1.42	7.2	1.1	15
20	2891	8.8	9.9	22.1	61	0	0	326	10.5	0.004	1	0	0	24.9	62	1.46	10.9	3.1	20
25	1767	11.7	11.7	19.0	89	0	0	1124	11.1	0.031	35	0	0	32.7	125	1.48	13.4	5.0	25
30	1248	14.3	14.2	19.8	125	8	0	519	12.4	0.067	35	1	0	39.7	196	1.41	14.5	6.5	30
35	941	16.7	17.2	21.9	164	33	1	307	14.3	0.114	35	2	0	46.8	270	1.39	14.9	7.7	35
40	739	18.8	20.5	24.4	203	91	16	202	16.7	0.174	35	6	0	53.7	345	1.34	14.6	8.6	40
45	601	20.6	23.8	26.8	240	156	50	138	19.3	0.253	35	13	2	60.1	417	1.21	13.9	9.3	45
50	502	22.2	26.9	28.6	272	210	104	99	22.1	0.351	35	19	5	65.8	483	1.05	12.8	9.7	50
55	432	23.6	29.7	29.9	300	251	158	70	24.9	0.471	33	23	9	70.6	544	0.89	11.6	9.9	55
60	385	24.9	32.1	31.1	326	288	208	47	27.5	0.594	29	22	12	74.7	600	0.76	10.5	10.0	60
65	351	25.9	34.3	32.3	351	319	249	34	29.9	0.740	25	21	13	78.2	649	0.66	9.4	10.0	65
70	326	26.8	36.1	33.3	373	345	283	25	31.9	0.869	23	20	14	81.3	694	0.56	8.2	9.9	70
75	305	27.5	37.7	34.0	389	364	309	21	33.6	1.019	21	19	15	83.8	731	0.48	7.1	9.8	75
80	288	28.1	39.1	34.6	402	380	330	17	35.2	1.172	20	19	15	86.1	764	0.40	6.0	9.6	80

Western Hemlock

Normal Yield Table: Yield Class 24

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	m^2					cm	m^3				m^2	m^3	m^2	m^3	m^3	
15	3129	10.8	10.5	27.3	106	0	0	701	10.5	0.034	24	0	0	33.4	129	3.12	26.7	8.6	15
20	1655	14.6	14.0	25.6	165	10	0	1474	12.0	0.057	84	1	0	48.4	272	2.80	31.1	13.6	20
25	1066	18.2	18.3	28.1	249	70	6	589	15.0	0.143	84	8	0	61.3	440	2.37	34.1	17.6	25
30	776	21.5	22.5	30.9	337	195	50	290	18.7	0.290	84	26	3	72.0	613	1.96	33.7	20.4	30
35	605	24.5	26.3	32.8	417	312	144	171	22.7	0.492	84	49	13	80.9	777	1.64	31.6	22.2	35
40	492	27.2	29.7	34.2	485	407	256	113	26.5	0.749	84	64	30	88.4	928	1.42	29.1	23.2	40
45	414	29.4	33.0	35.3	542	484	361	78	30.1	1.064	83	70	45	95.1	1068	1.28	27.0	23.7	45
50	359	31.5	36.1	36.6	594	550	451	55	33.4	1.412	77	70	53	101.2	1198	1.18	25.3	24.0	50
55	317	33.3	39.0	38.0	644	608	528	42	36.4	1.769	73	67	56	106.9	1320	1.07	23.7	24.0	55
60	284	35.0	41.9	39.2	690	660	595	33	39.2	2.137	69	65	56	111.9	1435	1.00	22.1	23.9	60
65	257	36.7	44.6	40.2	731	705	651	27	41.9	2.500	66	63	57	116.5	1541	0.95	21.1	23.7	65
70	235	38.2	47.2	41.2	770	747	699	22	44.9	2.962	63	61	56	121.0	1643	0.91	20.3	23.5	70
75	218	39.5	50.0	42.7	810	790	746	17	48.4	3.567	61	59	56	125.6	1744	0.87	19.5	23.2	75
80	203	40.9	52.3	43.6	844	825	784	15	52.4	3.973	60	58	55	129.7	1837	0.84	18.7	23.0	80

Yield Class 22

15	3713	10.0	9.8	28.0	95	0	0	117	10.3	0.046	5	0	0	29.0	101	3.10	23.4	6.7	15
20	1948	13.6	12.9	25.5	147	4	0	1765	11.4	0.044	77	0	0	44.3	229	2.81	28.0	11.5	20
25	1237	17.0	16.8	27.5	222	39	1	711	13.9	0.108	77	4	0	57.1	381	2.33	31.1	15.2	25
30	886	20.2	20.8	30.0	303	142	26	351	17.1	0.220	77	15	0	67.6	540	1.93	31.2	18.0	30
35	685	23.1	24.4	32.1	380	257	91	201	20.7	0.384	77	36	6	76.4	693	1.62	29.7	19.8	35
40	555	25.6	27.7	33.5	446	354	189	130	24.3	0.594	77	52	18	83.8	836	1.39	27.6	20.9	40
45	464	27.9	30.8	34.6	502	431	291	91	27.7	0.853	77	61	33	90.3	969	1.25	25.7	21.5	45
50	400	29.8	33.7	35.7	552	499	382	64	30.9	1.154	73	63	43	96.3	1093	1.14	24.1	21.9	50
55	353	31.7	36.5	37.0	600	558	462	47	33.9	1.469	69	62	48	101.8	1210	1.04	22.6	22.0	55
60	316	33.3	39.2	38.1	645	609	531	37	36.5	1.771	64	60	49	106.7	1319	0.96	21.0	22.0	60
65	286	34.9	41.7	39.1	685	655	589	30	39.0	2.086	61	57	50	111.1	1420	0.90	20.0	21.8	65
70	262	36.4	44.1	40.0	723	696	641	24	41.4	2.458	59	56	50	115.3	1516	0.85	19.1	21.7	70
75	242	37.7	46.6	41.3	761	738	689	20	44.1	2.878	57	55	50	119.6	1611	0.82	18.4	21.5	75
80	224	39.0	48.9	42.2	794	773	729	18	46.9	3.252	56	54	50	123.4	1699	0.77	17.6	21.2	80

Yield Class 20

15	3834	9.0	9.0	24.5	74	0	0	0	0.0	0.000	0	0	0	24.5	74	3.08	19.8	4.9	15
20	2304	12.4	11.9	25.5	126	1	0	1530	10.9	0.038	59	0	0	39.9	185	2.82	24.8	9.2	20
25	1453	15.7	15.4	27.2	192	21	0	851	12.9	0.082	70	2	0	52.6	321	2.34	28.3	12.9	25
30	1027	18.7	19.1	29.6	269	93	11	426	15.7	0.164	70	8	0	63.2	467	1.94	29.0	15.6	30
35	788	21.5	22.6	31.7	343	200	53	239	18.8	0.293	70	22	2	72.0	611	1.61	28.0	17.5	35
40	635	24.0	25.8	33.2	408	298	129	153	22.1	0.459	70	39	9	79.4	747	1.37	26.1	18.7	40
45	529	26.2	28.7	34.2	463	379	221	106	25.3	0.665	70	50	20	85.7	872	1.20	24.2	19.4	45
50	452	28.1	31.4	35.1	510	444	310	77	28.4	0.912	69	56	32	91.4	988	1.08	22.6	19.8	50
55	397	29.9	34.0	36.1	555	503	389	55	31.2	1.180	64	56	38	96.6	1097	0.99	21.2	20.0	55
60	355	31.5	36.5	37.1	597	555	459	42	33.8	1.452	60	54	42	101.3	1200	0.91	19.9	20.0	60
65	322	33.0	38.8	38.1	637	601	520	33	36.2	1.729	57	53	43	105.6	1297	0.86	18.8	19.9	65
70	295	34.4	41.1	39.0	674	643	575	27	38.4	2.011	54	51	44	109.7	1388	0.81	18.0	19.8	70
75	272	35.7	43.3	40.1	710	683	625	23	40.6	2.344	53	50	44	113.7	1477	0.76	17.3	19.7	75
80	252	37.0	45.5	41.0	743	718	666	20	42.8	2.633	52	50	45	117.4	1560	0.72	16.5	19.5	80

Western Hemlock (Continued)

Normal Yield Table: Yield Class 18

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	2 m					cm	3 m				2 m	3 m	2 m	3 m	3 m	
15	3878	8.1	7.9	19.0	48	0	0	0	0.0	0.000	0	0	0	19.0	48	3.04	16.0	3.2	15
20	2741	11.2	10.7	24.7	104	0	0	1137	10.4	0.032	37	0	0	34.5	141	2.83	21.2	7.0	20
25	1717	14.3	13.9	26.0	160	9	0	1024	12.0	0.062	63	0	0	47.3	260	2.36	25.2	10.4	25
30	1205	17.2	17.4	28.7	230	49	2	512	14.3	0.123	63	4	0	58.1	393	1.98	26.7	13.1	30
35	915	19.9	20.8	31.0	301	141	26	290	17.1	0.217	63	12	0	67.1	527	1.63	26.1	15.1	35
40	733	22.3	23.8	32.6	365	237	77	182	20.0	0.346	63	26	4	74.4	654	1.35	24.4	16.3	40
45	608	24.4	26.6	33.7	419	318	151	125	22.9	0.505	63	38	10	80.6	771	1.17	22.6	17.1	45
50	518	26.3	29.1	34.5	465	385	232	90	25.7	0.702	63	46	20	86.1	880	1.05	21.2	17.6	50
55	452	28.0	31.6	35.4	508	443	311	66	28.5	0.923	60	49	28	91.2	982	0.96	19.9	17.9	55
60	403	29.6	33.9	36.3	548	496	382	49	31.0	1.157	56	48	33	95.7	1079	0.89	18.7	18.0	60
65	365	31.0	36.0	37.1	586	542	444	38	33.3	1.382	53	47	36	99.9	1169	0.82	17.6	18.0	65
70	333	32.4	38.0	37.9	621	583	498	32	35.4	1.608	50	46	37	103.7	1255	0.77	16.8	17.9	70
75	308	33.6	40.2	39.0	656	623	551	25	37.5	1.928	48	45	38	107.5	1338	0.73	16.1	17.8	75
80	285	34.8	42.1	39.7	687	657	594	23	39.4	2.106	48	45	39	111.0	1416	0.68	15.4	17.7	80

Yield Class 16

15	3925	7.0	6.7	14.0	28	0	0	0	0.0	0.000	0	0	0	14.0	28	2.93	12.0	1.9	15
20	3399	10.0	9.6	24.6	86	0	0	526	10.1	0.028	15	0	0	28.9	101	2.76	17.5	5.0	20
25	2106	12.9	12.3	25.0	132	2	0	1293	11.1	0.043	56	0	0	41.7	202	2.38	22.1	8.1	25
30	1467	15.7	15.5	27.5	194	22	0	639	12.9	0.088	56	2	0	52.6	321	2.00	24.1	10.7	30
35	1097	18.2	18.6	29.8	261	79	8	370	15.2	0.151	56	6	0	61.6	443	1.64	24.0	12.7	35
40	869	20.6	21.5	31.6	322	166	36	228	17.7	0.247	56	13	1	69.0	560	1.35	22.7	14.0	40
45	716	22.6	24.1	32.8	375	249	85	153	20.3	0.368	56	24	4	75.2	670	1.16	21.2	14.9	45
50	608	24.5	26.6	33.8	421	320	153	108	22.9	0.519	56	34	9	80.6	772	1.04	19.8	15.4	50
55	527	26.1	28.9	34.6	460	379	225	81	25.5	0.696	56	40	17	85.5	867	0.94	18.5	15.8	55
60	469	27.6	31.0	35.5	498	431	294	58	27.8	0.876	52	41	22	90.0	957	0.85	17.3	15.9	60
65	423	28.9	33.0	36.2	534	477	357	46	30.0	1.055	48	41	26	93.9	1040	0.79	16.5	16.0	65
70	386	30.2	34.9	36.8	567	518	412	37	32.1	1.251	46	40	29	97.6	1119	0.73	15.8	16.0	70
75	356	31.5	36.8	37.7	601	559	465	30	34.1	1.483	45	40	31	101.2	1198	0.69	15.2	16.0	75
80	329	32.6	38.5	38.4	630	593	511	27	35.9	1.683	44	40	33	104.5	1270	0.65	14.3	15.9	80

Yield Class 14

20	3852	8.6	8.6	22.6	64	0	0	0	0.0	0.000	0	0	0	22.6	64	2.70	13.5	3.2	20
25	2556	11.3	10.9	23.8	101	0	0	1296	10.5	0.034	44	0	0	35.1	145	2.35	18.2	5.8	25
30	1787	13.9	13.7	26.3	153	8	0	769	11.9	0.064	49	0	0	46.2	246	2.04	21.1	8.2	30
35	1334	16.4	16.6	28.9	214	35	0	453	13.8	0.108	49	3	0	55.5	356	1.70	21.8	10.2	35
40	1046	18.6	19.4	30.8	273	99	13	288	15.9	0.170	49	6	0	63.1	464	1.38	20.9	11.6	40
45	856	20.6	21.9	32.1	325	176	40	190	18.1	0.258	49	13	1	69.4	565	1.15	19.5	12.6	45
50	723	22.4	24.2	33.1	370	246	84	133	20.3	0.367	49	21	3	74.7	659	1.01	18.1	13.2	50
55	625	24.0	26.3	34.0	408	306	141	98	22.5	0.497	49	28	7	79.4	746	0.90	17.0	13.6	55
60	552	25.4	28.3	34.7	444	359	202	73	24.7	0.635	47	32	12	83.7	829	0.81	16.0	13.8	60
65	497	26.7	30.1	35.4	478	405	263	55	26.8	0.776	43	33	16	87.5	906	0.75	15.1	13.9	65
70	453	28.0	31.8	36.0	510	448	318	44	28.7	0.919	41	33	19	91.0	979	0.70	14.4	14.0	70
75	418	29.1	33.5	36.9	541	487	371	35	30.5	1.122	40	34	22	94.5	1050	0.67	13.6	14.0	75
80	389	30.1	35.1	37.7	568	521	417	29	32.3	1.303	39	35	25	97.7	1116	0.62	13.1	13.9	80

Western Hemlock (Continued)

Normal Yield Table: Yield Class 12

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	m^2					cm	m^3				m^2	m^3	m^2	m^3	m^3	
20	3916	7.2	6.8	14.1	30	0	0	0	0.0	0.000	0	0	0	14.1	30	2.63	9.3	1.5	20
25	3077	9.7	9.2	20.3	69	0	0	839	9.8	0.024	20	0	0	26.7	89	2.41	14.3	3.6	25
30	2159	12.1	11.7	23.2	110	1	0	918	10.9	0.046	42	0	0	38.1	172	2.12	17.8	5.7	30
35	1624	14.5	14.4	26.5	163	12	0	535	12.4	0.079	42	1	0	47.8	267	1.76	19.2	7.6	35
40	1267	16.7	17.0	28.8	218	41	1	357	14.1	0.118	42	3	0	55.7	364	1.43	18.9	9.1	40
45	1026	18.6	19.4	30.4	267	98	13	241	15.9	0.174	42	5	0	62.1	456	1.18	17.8	10.1	45
50	862	20.3	21.6	31.7	311	164	36	164	17.8	0.255	42	10	1	67.5	541	1.02	16.6	10.8	50
55	742	21.8	23.7	32.8	350	225	72	120	19.8	0.352	42	17	2	72.3	622	0.91	15.6	11.3	55
60	651	23.2	25.7	33.7	383	278	119	91	21.8	0.458	42	22	5	76.6	697	0.80	14.6	11.6	60
65	582	24.4	27.4	34.4	415	325	169	69	23.6	0.560	39	25	8	80.3	768	0.73	13.7	11.8	65
70	528	25.6	29.0	34.9	445	367	219	54	25.4	0.671	37	26	11	83.5	834	0.67	13.0	11.9	70
75	485	26.7	30.6	35.6	474	405	270	43	27.1	0.819	35	27	14	86.8	898	0.62	12.5	12.0	75
80	450	27.7	32.1	36.4	499	440	317	35	28.8	0.980	35	28	17	89.9	958	0.59	11.9	12.0	80

Normal Yield Tables continued overleaf

Western Red Cedar and Lawson Cypress

Normal Yield Table: Yield Class 24

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	m^2					cm	m^3				m^2	m^3	m^2	m^3	m^3	
15	3465	9.0	11.6	36.6	96	0	0	0	0.0	0.000	0	0	0	36.6	96	3.46	24.6	6.4	15
20	2186	12.5	14.3	35.1	159	11	0	1279	13.6	0.057	72	3	0	53.8	232	3.40	30.1	11.6	20
25	1514	15.8	18.0	38.7	241	62	4	672	15.9	0.125	84	11	0	70.6	397	3.30	33.9	15.9	25
30	1145	18.7	22.2	44.3	331	185	45	369	19.1	0.227	84	29	3	86.8	571	3.15	34.4	19.0	30
35	905	21.3	26.4	49.7	417	314	148	240	22.9	0.350	84	50	14	102.1	741	2.86	33.1	21.2	35
40	746	23.5	30.3	53.9	493	420	275	159	26.9	0.527	84	65	32	115.4	901	2.51	31.0	22.5	40
45	632	25.5	33.9	57.2	558	505	390	114	30.8	0.734	84	72	49	127.2	1051	2.24	28.8	23.3	45
50	551	27.2	37.3	60.1	618	577	486	81	34.6	0.968	79	72	57	137.8	1189	2.02	26.9	23.8	50
55	494	28.9	40.3	63.1	678	644	571	57	38.1	1.218	70	66	56	147.3	1319	1.82	25.0	24.0	55
60	451	30.3	43.2	65.9	734	705	644	43	41.4	1.468	64	61	55	156.0	1439	1.66	23.1	24.0	60
65	417	31.7	45.7	68.5	786	760	706	34	44.4	1.718	60	57	53	163.9	1550	1.52	21.4	23.8	65
70	389	33.0	48.2	71.0	832	809	761	28	47.3	2.040	56	55	51	171.2	1653	1.42	19.9	23.6	70
75	366	34.1	50.5	73.5	875	854	808	23	50.1	2.414	54	52	49	178.1	1749	1.33	18.5	23.3	75
80	347	35.1	52.7	75.6	912	892	849	19	53.0	2.721	52	51	48	184.5	1838	1.24	17.0	23.0	80

Yield Class 22

15	3507	8.5	11.1	33.9	78	0	0	0	0.0	0.000	0	0	0	33.9	78	3.26	21.0	5.2	15
20	2527	11.8	13.5	36.4	149	7	0	980	13.3	0.050	49	2	0	49.9	197	3.20	26.8	9.9	20
25	1732	14.8	16.8	38.3	221	39	1	795	15.0	0.097	77	7	0	65.9	346	3.11	30.9	13.9	25
30	1306	17.6	20.5	43.0	303	135	23	426	17.7	0.181	77	18	1	81.0	506	2.93	31.7	16.9	30
35	1032	20.1	24.3	47.7	383	257	89	274	20.9	0.281	77	37	7	95.2	663	2.71	30.7	18.9	35
40	845	22.3	27.9	51.8	456	364	199	187	24.5	0.411	77	52	19	108.1	812	2.44	29.0	20.3	40
45	713	24.2	31.4	55.1	519	452	314	132	28.0	0.583	77	62	34	119.5	953	2.17	27.2	21.2	45
50	617	25.9	34.6	57.9	575	524	412	96	31.6	0.784	76	66	46	129.8	1084	1.95	25.4	21.7	50
55	550	27.4	37.5	60.7	631	590	498	67	34.9	0.990	66	61	48	139.1	1206	1.76	23.6	21.9	55
60	501	28.9	40.2	63.4	684	650	574	49	38.0	1.202	60	56	48	147.4	1320	1.59	21.9	22.0	60
65	462	30.2	42.6	65.8	734	703	639	39	40.8	1.400	56	53	47	155.0	1425	1.45	20.2	21.9	65
70	430	31.4	44.9	68.0	778	751	695	32	43.4	1.663	53	51	46	162.0	1522	1.35	18.7	21.7	70
75	404	32.4	47.1	70.3	818	794	742	26	46.0	1.949	50	48	45	168.4	1612	1.24	17.3	21.5	75
80	381	33.4	49.1	72.1	853	831	783	23	48.3	2.170	48	47	44	174.4	1695	1.16	15.9	21.2	80

Yield Class 20

15	3549	7.9	10.6	31.0	62	0	0	0	0.0	0.000	0	0	0	31.0	62	3.05	17.6	4.1	15
20	2958	11.0	12.8	38.1	138	4	0	591	13.0	0.044	26	1	0	45.9	164	2.97	23.4	8.2	20
25	1987	13.9	15.5	37.5	200	23	0	971	14.2	0.072	70	5	0	60.7	296	2.89	27.5	11.8	25
30	1492	16.5	18.8	41.2	273	86	9	495	16.3	0.142	70	11	0	74.8	439	2.73	28.8	14.6	30
35	1179	18.9	22.2	45.5	348	194	47	313	19.1	0.224	70	24	3	88.0	584	2.57	28.4	16.7	35
40	962	21.0	25.6	49.6	417	302	128	217	22.2	0.323	70	39	10	100.5	723	2.35	27.1	18.1	40
45	810	22.8	28.9	53.0	478	393	232	152	25.4	0.461	70	50	21	111.6	854	2.10	25.5	19.0	45
50	698	24.5	31.9	55.7	531	467	333	112	28.6	0.622	70	57	33	121.5	977	1.89	23.8	19.5	50
55	619	26.0	34.7	58.4	583	532	420	79	31.7	0.793	63	55	39	130.5	1092	1.70	22.2	19.9	55
60	561	27.4	37.2	61.0	634	592	497	58	34.6	0.964	56	51	40	138.5	1199	1.54	20.7	20.0	60
65	516	28.6	39.5	63.3	682	645	565	45	37.3	1.141	52	48	41	145.8	1299	1.40	19.1	20.0	65
70	480	29.8	41.7	65.4	724	692	623	36	39.7	1.332	49	46	41	152.5	1390	1.28	17.6	19.9	70
75	450	30.8	43.7	67.4	762	733	673	30	42.1	1.572	47	45	40	158.6	1474	1.17	16.2	19.7	75
80	424	31.7	45.5	69.0	795	768	713	26	44.2	1.741	45	43	40	164.2	1552	1.09	14.8	19.4	80

Western Red Cedar and Lawson Cypress (Continued)

Yield Class 18

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	m^2					cm	m^3				m^2	m^3	m^2	m^3	m^3	
15	3592	7.3	9.9	27.9	46	0	0	0	0.0	0.000	0	0	0	27.9	46	2.84	14,4	3.1	15
20	3505	10.2	12.2	40.7	129	2	0	87	12.7	0.058	5	0	0	41.8	134	2.78	20.3	6.7	20
25	2301	12.9	14.4	37.3	180	13	0	1204	13.5	0.052	63	3	0	55.6	249	2.69	24.3	9.9	25
30	1718	15.4	17.2	39.8	245	49	1	583	15.2	0.108	63	6	0	68.7	376	2.57	25.9	12.5	30
35	1358	17.7	20.2	43.5	313	133	21	360	17.4	0.175	63	14	1	81.0	507	2.40	25.8	14.5	35
40	1110	19.7	23.3	47.2	377	233	69	248	20.0	0.254	63	26	4	92.5	634	2.24	24.8	15.9	40
45	929	21.5	26.3	50.6	435	327	152	181	22.9	0.349	63	38	10	103.4	755	2.03	23.5	16.8	45
50	800	23.0	29.1	53.3	486	403	243	129	25.7	0.485	63	46	20	112.8	869	1.80	22.1	17.4	50
55	703	24.5	31.8	55.8	534	468	332	97	28.5	0.622	60	49	28	121.4	977	1.64	20.7	17.8	55
60	635	25.8	34.2	58.3	581	528	411	68	31.2	0.767	53	46	32	129.2	1077	1.49	19.4	17.9	60
65	583	27.0	36.4	60.7	626	581	480	52	33.7	0.907	48	43	33	136.3	1170	1.35	18.0	18.0	65
70	541	28.1	38.4	62.8	667	628	540	42	36.0	1.059	45	42	34	142.8	1256	1.22	16.5	17.9	70
75	506	29.0	40.3	64.6	703	668	592	35	38.2	1.222	43	40	35	148.6	1335	1.11	15.2	17.8	75
80	477	29.9	42.0	66.1	735	703	635	29	40.2	1.386	41	39	35	153.9	1408	1.03	13.7	17.6	80

Yield Class 16

15	3638	6.6	9.2	24.3	32	0	0	0	0.0	0.000	0	0	0	24.3	32	2.62	11.4	2.1	15
20	3443	9.3	11.7	37.2	103	1	0	195	0.0	0.000	0	0	0	37.2	103	2.57	16.9	5.2	20
25	2585	11.9	13.7	38.0	159	8	0	858	13.3	0.049	42	2	0	50.0	201	2.50	21.0	8.0	25
30	1925	14.3	16.1	39.2	216	30	0	660	14.6	0.085	56	4	0	62.2	314	2.39	23.0	10.5	30
35	1532	16.4	18.8	42.5	277	88	9	393	16.4	0.142	56	9	0	73.9	431	2.26	23.4	12.3	35
40	1262	18.3	21.6	46.2	338	176	39	270	18.6	0.208	56	17	2	84.8	548	2.11	22.9	13.7	40
45	1064	20.0	24.3	49.5	394	265	93	198	21.0	0.283	56	27	5	95.0	660	1.93	21.8	14.7	45
50	912	21.6	27.0	52.4	443	343	172	152	23.5	0.368	56	35	11	104.4	765	1.75	20.4	15.3	50
55	799	22.9	29.4	54.4	486	405	250	113	25.9	0.491	56	41	18	112.4	864	1.57	19.0	15.7	55
60	716	24.2	31.7	56.5	527	461	326	83	28.3	0.603	50	40	23	119.8	955	1.40	17.6	15.9	60
65	655	25.3	33.8	58.6	567	512	393	61	30.6	0.721	44	38	25	126.4	1040	1.28	16.5	16.0	65
70	607	26.3	35.7	60.7	606	559	453	48	32.8	0.851	41	37	27	132.5	1119	1.18	15.4	16.0	70
75	568	27.3	37.4	62.6	642	600	507	39	34.8	0.980	39	35	28	138.2	1194	1.06	14.1	15.9	75
80	535	28.1	39.0	63.9	671	634	551	33	36.6	1.091	37	34	29	143.1	1260	0.97	12.6	15.8	80

Yield Class 14

15	3686	6.0	8.2	19.5	18	0	0	0	0.0	0.000	0	0	0	19.5	18	2.40	8.6	1.2	15
20	3507	8.5	10.8	32.4	75	0	0	179	0.0	0.000	0	0	0	32.4	75	2.37	13.8	3.7	20
25	3058	10.9	12.6	38.4	138	3	0	449	12.8	0.040	18	0	0	44.2	156	2.33	17.8	6.2	25
30	2248	13.1	14.7	38.0	186	15	0	810	13.7	0.061	49	2	0	55.7	253	2.25	20.1	8.4	30
35	1789	15.1	17.0	40.6	241	45	1	459	15.1	0.107	49	5	0	66.7	357	2.11	20.9	10.2	35
40	1478	16.9	19.4	43.8	297	109	14	311	16.9	0.158	49	9	0	76.8	462	1.94	20.5	11.5	40
45	1249	18.6	21.8	46.7	348	187	43	229	18.8	0.214	49	15	2	86.1	562	1.79	19.6	12.5	45
50	1073	20.0	24.2	49.3	394	263	90	176	20.8	0.279	49	23	4	94.7	657	1.63	18.6	13.1	50
55	936	21.3	26.5	51.7	435	329	156	137	23.0	0.355	49	30	8	102.7	747	1.48	17.4	13.6	55
60	838	22.5	28.6	53.8	474	386	223	98	25.1	0.456	45	32	12	109.7	831	1.33	16.2	13.9	60
65	766	23.6	30.5	56.0	512	438	290	72	27.1	0.543	39	30	15	116.1	908	1.20	14.9	14.0	65
70	709	24.5	32.2	57.9	548	484	351	57	28.9	0.627	36	29	17	121.7	980	1.09	13.9	14.0	70
75	663	25.4	33.9	59.6	581	526	405	46	30.7	0.722	34	29	19	126.9	1047	1.01	12.9	14.0	75
80	625	26.2	35.3	61.4	611	561	452	38	32.4	0.850	32	29	21	131.8	1109	0.92	11.5	13.9	80

Table 67 (contd)

Western Red Cedar and Lawson Cypress (Continued)

Normal Yield Table: Yield Class 12

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	m^2					cm	m^3				m^2	m^3	m^2	m^3	m^3	
20	3575	7.5	10.0	27.9	50	0	0	0	0.0	0.000	0	0	0	27.9	50	2.17	10.9	2.5	20
25	3416	9.7	12.0	38.8	115	1	0	159	0.0	0.000	0	0	0	38.8	115	2.16	14.6	4.6	25
30	2646	11.8	13.6	38.7	158	8	0	770	13.4	0.050	38	2	0	49.5	196	2.06	17.1	6.5	30
35	2093	13.7	15.6	39.8	205	24	0	553	14.3	0.076	42	3	0	59.4	286	1.92	18.1	8.2	35
40	1730	15.5	17.6	42.1	255	58	3	363	15.6	0.116	42	5	0	68.7	377	1.78	18.1	9.4	40
45	1468	17.0	19.7	44.6	303	117	16	262	17.1	0.160	42	8	0	77.2	467	1.64	17.5	10.4	45
50	1268	18.4	21.7	47.0	346	184	41	200	18.7	0.211	42	13	1	85.0	552	1.51	16.6	11.0	50
55	1111	19.6	23.7	49.1	384	247	79	157	20.4	0.267	42	19	3	92.3	632	1.40	15.5	11.5	55
60	984	20.7	25.7	50.9	416	302	129	127	22.2	0.329	42	23	6	99.0	706	1.26	14.4	11.8	60
65	898	21.7	27.5	53.3	452	356	186	86	23.9	0.387	33	22	7	105.3	776	1.14	13.4	11.9	65
70	836	22.6	29.0	55.2	487	401	240	62	25.5	0.479	30	21	9	110.4	840	1.04	12.2	12.0	70
75	782	23.5	30.4	56.8	517	441	290	54	27.0	0.519	28	22	11	115.0	898	0.92	11.3	12.0	75
80	738	24.2	31.8	58.5	544	477	338	44	28.4	0.619	27	22	13	119.5	953	0.87	10.4	11.9	80

Normal Yield Tables continued overleaf

Grand Fir

Normal Yield Table: Yield Class 30

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	2 m					cm	3 m				2 m	3 m	2 m	3 m	3 m	
15	2445	10.3	12.2	28.6	100	1	0	275	11.9	0.046	13	0	0	31.7	113	3.38	26.0	7.5	15
20	1200	15.2	16.2	24.7	155	22	0	1245	14.7	0.084	105	8	0	48.8	273	3.38	37.7	13.7	20
25	760	20.2	21.9	28.6	267	145	33	440	19.2	0.239	105	37	5	65.5	490	3.10	44.8	19.6	25
30	545	24.8	27.8	33.0	393	313	168	215	24.3	0.493	105	71	25	79.9	721	2.67	45.5	24.0	30
35	431	28.9	33.3	37.6	511	459	347	114	29.5	0.923	105	88	55	92.2	944	2.32	42.8	27.0	35
40	358	32.3	38.5	41.6	616	580	499	73	34.7	1.386	100	91	72	103.1	1149	2.07	39.0	28.7	40
45	314	35.2	43.2	46.0	719	690	631	44	39.7	1.917	83	78	69	112.9	1334	1.85	35.1	29.6	45
50	285	37.7	47.4	50.3	813	790	740	29	44.4	2.465	71	68	63	121.6	1499	1.64	31.1	30.0	50
55	264	39.7	51.1	54.1	897	876	831	21	48.7	2.962	62	61	57	129.3	1645	1.45	27.2	29.9	55
60	247	41.4	54.4	57.5	968	949	906	17	52.6	3.584	55	54	51	136.0	1771	1.27	23.6	29.5	60
65	235	42.8	57.3	60.5	1028	1009	969	12	56.1	4.151	49	49	46	142.0	1880	1.10	20.2	28.9	65
70	225	44.0	59.7	63.0	1076	1058	1019	10	59.1	4.594	44	43	42	147.1	1973	0.92	16.7	28.2	70
75	217	44.9	61.6	64.7	1111	1093	1055	8	61.5	4.817	40	39	38	151.2	2047	0.75	13.4	27.3	75
80	211	45.5	63.1	66.1	1135	1117	1080	6	63.4	5.556	35	34	33	154.6	2107	0.61	10.1	26.3	80

Yield Class 28

15	2588	9.9	11.7	27.6	92	0	0	132	11.5	0.037	5	0	0	29.0	97	3.36	24.4	6.5	15
20	1272	14.6	15.5	24.0	143	16	0	1316	14.1	0.075	98	6	0	46.0	245	3.36	35.0	12.3	20
25	806	19.4	20.9	27.7	246	118	22	466	18.4	0.211	98	28	3	62.1	447	3.00	41.9	17.9	25
30	575	23.9	26.5	31.8	365	277	131	231	23.2	0.425	98	60	18	76.0	664	2.58	42.8	22.1	30
35	453	27.9	31.9	36.2	478	420	300	122	28.1	0.805	98	79	44	87.9	875	2.24	40.5	25.0	35
40	375	31.2	36.8	40.0	576	536	447	78	33.0	1.236	96	86	64	98.4	1069	1.97	36.9	26.7	40
45	329	34.0	41.3	44.1	673	642	575	46	37.7	1.707	78	73	62	107.7	1243	1.75	33.1	27.6	45
50	298	36.4	45.3	48.1	762	736	683	31	42.0	2.162	67	64	58	115.9	1399	1.54	29.3	28.0	50
55	275	38.4	48.8	51.6	840	818	771	23	46.0	2.614	58	56	53	123.1	1536	1.35	25.6	27.9	55
60	258	40.1	51.9	54.6	907	887	842	17	49.6	3.115	52	50	48	129.3	1654	1.17	22.0	27.6	60
65	245	41.5	54.6	57.3	963	944	902	13	52.8	3.586	46	45	43	134.8	1756	1.01	18.7	27.0	65
70	235	42.6	56.9	59.5	1008	989	949	10	55.5	4.040	41	40	38	139.5	1842	0.85	15.5	26.3	70
75	226	43.4	58.7	61.2	1041	1023	984	9	57.8	4.469	36	36	34	143.3	1911	0.68	12.4	25.5	75
80	220	44.1	60.1	62.4	1063	1046	1008	6	59.6	4.677	32	31	30	146.3	1965	0.55	9.3	24.6	80

Yield Class 26

15	2710	9.4	11.1	26.4	82	0	0	0	0.0	0.000	0	0	0	26.4	82	3.32	22.8	5.5	15
20	1377	13.8	14.9	23.9	131	11	0	1333	13.7	0.066	88	4	0	43.5	220	3.33	32.3	11.0	20
25	877	18.5	19.9	27.3	226	92	14	500	17.6	0.182	91	21	1	59.1	405	2.90	38.9	16.2	25
30	622	22.8	25.2	31.0	338	240	96	255	22.0	0.358	91	50	12	72.5	608	2.49	40.1	20.3	30
35	487	26.6	30.3	35.0	445	378	247	135	26.6	0.676	91	69	33	84.1	806	2.15	38.1	23.0	35
40	402	29.9	35.0	38.6	536	491	391	85	31.1	1.073	91	79	54	94.1	989	1.88	34.7	24.7	40
45	352	32.6	39.2	42.4	627	592	516	50	35.4	1.477	74	68	55	102.8	1153	1.65	31.0	25.6	45
50	318	34.9	42.9	46.1	710	681	621	34	39.4	1.869	63	59	52	110.5	1298	1.45	27.5	26.0	50
55	294	36.8	46.3	49.3	784	759	707	24	43.0	2.266	55	52	48	117.3	1427	1.26	24.0	25.9	55
60	275	38.5	49.1	52.1	847	825	778	19	46.3	2.620	48	47	44	123.2	1539	1.09	20.6	25.6	60
65	261	39.8	51.6	54.5	899	879	834	14	49.2	3.065	43	42	39	128.2	1633	0.92	17.3	25.1	65
70	249	40.9	53.6	56.4	940	921	878	12	51.6	3.396	38	37	35	132.4	1712	0.77	14.3	24.5	70
75	240	41.7	55.4	58.0	972	953	912	9	53.7	4.000	33	33	31	135.9	1777	0.62	11.4	23.7	75
80	233	42.4	56.7	58.9	991	974	933	7	55.3	4.014	29	28	27	138.6	1825	0.49	8.5	22.8	80

Grand Fir (Continued)

Yield Class 24

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	m^2					cm	m^3				m^2	m^3	m^2	m^3	m^3	
15	2728	8.9	10.5	23.7	68	0	0	0	0.0	0.000	0	0	0	23.7	68	3.27	21.1	4.6	15
20	1510	13.1	14.3	24.3	122	8	0	1218	13.3	0.061	74	3	0	41.3	196	3.29	29.8	9.8	20
25	971	17.5	19.0	27.4	208	69	8	539	16.9	0.156	84	15	0	56.4	366	2.81	35.8	14.6	25
30	689	21.6	23.8	30.7	311	202	66	282	20.9	0.299	84	40	7	69.4	553	2.41	37.2	18.4	30
35	534	25.2	28.6	34.2	412	335	194	155	25.0	0.542	84	59	23	80.5	738	2.06	35.5	21.1	35
40	441	28.4	32.9	37.5	498	445	332	93	29.1	0.905	84	70	42	90.0	908	1.77	32.4	22.7	40
45	385	31.0	36.8	41.0	582	542	452	56	33.0	1.239	69	62	46	98.2	1061	1.55	29.0	23.6	45
50	347	33.2	40.3	44.3	660	627	555	38	36.6	1.578	59	55	45	105.5	1198	1.37	25.8	24.0	50
55	320	35.1	43.4	47.4	730	701	642	27	39.9	1.932	51	49	43	111.9	1319	1.20	22.6	24.0	55
60	300	36.6	46.2	50.1	790	765	712	20	42.9	2.256	45	43	39	117.5	1424	1.02	19.3	23.7	60
65	284	37.9	48.4	52.2	838	816	767	16	45.4	2.522	40	38	36	122.1	1512	0.84	16.1	23.3	65
70	271	39.0	50.3	53.8	876	855	809	13	47.6	2.821	35	34	32	125.9	1584	0.70	13.3	22.6	70
75	261	39.8	51.9	55.2	906	886	842	10	49.5	3.223	30	30	28	129.1	1645	0.56	10.5	21.9	75
80	254	40.4	53.0	56.1	925	905	862	7	50.8	3.333	26	25	24	131.5	1689	0.44	7.8	21.1	80

Yield Class 22

15	2750	8.3	9.8	20.9	54	0	0	0	0.0	0.000	0	0	0	20.9	54	3.22	19.4	3.6	15
20	1684	12.2	13.8	25.0	112	6	0	1066	13.0	0.056	59	2	0	39.1	171	3.24	27.2	8.6	20
25	1096	16.4	17.9	27.7	190	48	3	588	16.1	0.131	77	11	0	53.7	326	2.70	32.7	13.0	25
30	778	20.3	22.3	30.5	284	162	41	318	19.6	0.243	77	29	4	66.2	498	2.30	34.3	16.6	30
35	597	23.8	26.7	33.4	378	288	139	181	23.4	0.427	77	48	14	76.8	668	1.97	32.9	19.1	35
40	490	26.8	30.7	36.3	459	394	265	107	27.0	0.721	77	60	30	85.8	827	1.69	30.1	20.7	40
45	427	29.3	34.4	39.5	537	489	382	63	30.5	1.025	65	55	37	93.6	969	1.47	27.0	21.5	45
50	384	31.4	37.6	42.6	609	570	483	43	33.7	1.304	55	50	38	100.5	1096	1.29	24.1	21.9	50
55	354	33.2	40.5	45.4	675	641	569	30	36.7	1.592	48	44	37	106.5	1209	1.12	21.1	22.0	55
60	331	34.7	42.9	47.9	731	702	640	23	39.3	1.836	42	39	34	111.7	1307	0.94	18.0	21.8	60
65	313	36.0	45.0	49.7	776	750	694	18	41.6	2.074	37	35	31	115.9	1389	0.77	14.9	21.4	65
70	299	37.0	46.7	51.1	811	786	734	14	43.5	2.312	32	31	28	119.4	1456	0.65	12.4	20.8	70
75	288	37.8	48.2	52.4	840	817	767	11	45.1	2.594	28	27	25	122.4	1512	0.52	9.7	20.2	75
80	279	38.4	49.2	53.2	857	835	788	9	46.4	2.807	23	23	21	124.5	1553	0.39	7.1	19.4	80

Yield Class 20

15	2770	7.7	8.9	17.3	40	0	0	0	0.0	0.000	0	0	0	17.3	40	3.16	17.6	2.7	15
20	1866	11.4	13.1	25.2	102	3	0	904	12.5	0.050	45	1	0	36.3	146	3.18	24.6	7.3	20
25	1233	15.3	16.9	27.8	172	32	0	633	15.3	0.111	70	7	0	50.7	286	2.63	29.7	11.5	25
30	881	19.1	20.9	30.4	258	124	24	352	18.5	0.199	70	21	2	62.6	443	2.22	31.3	14.8	30
35	673	22.4	24.9	32.8	345	241	92	208	21.8	0.336	70	38	9	72.8	599	1.89	30.3	17.1	35
40	546	25.2	28.6	35.2	421	344	199	127	25.1	0.554	70	49	19	81.5	746	1.61	27.8	18.6	40
45	474	27.6	32.0	38.2	492	433	311	72	28.2	0.847	60	49	27	88.9	877	1.39	25.0	19.5	45
50	427	29.6	35.0	41.0	559	512	408	47	31.1	1.081	51	44	30	95.4	995	1.21	22.3	19.9	50
55	392	31.3	37.7	43.6	620	580	492	35	33.8	1.312	44	40	31	101.0	1100	1.04	19.5	20.0	55
60	366	32.8	39.9	45.8	672	637	561	26	36.1	1.496	39	36	29	105.8	1191	0.87	16.6	19.8	60
65	345	34.0	41.8	47.4	714	682	615	21	38.1	1.672	34	32	27	109.7	1266	0.74	13.8	19.5	65
70	329	35.0	43.4	48.7	746	717	657	16	39.8	1.921	29	28	24	112.9	1328	0.60	11.4	19.0	70
75	317	35.7	44.8	50.0	773	746	690	12	41.3	2.223	25	24	21	115.7	1380	0.47	8.9	18.4	75
80	308	36.3	45.8	50.7	789	764	710	9	42.4	2.337	21	20	18	117.6	1417	0.35	6.4	17.7	80

Table 68 (contd)

Grand Fir (Continued)

Yield Class 18

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	2 m					cm	3 m				2 m	3 m	2 m	3 m	3 m	
15	2790	7.1	7.7	12.9	27	0	0	0	0.0	0.000	0	0	0	12.9	27	3.10	15.8	1.8	15
20	2065	10.7	12.3	24.7	91	1	0	725	12.0	0.042	30	0	0	32.8	121	3.11	22.0	6.1	20
25	1381	14.3	15.9	27.4	153	20	0	684	14.6	0.092	63	5	0	46.9	246	2.57	26.6	9.8	25
30	997	17.8	19.6	29.9	230	87	12	384	17.4	0.164	63	13	1	58.5	387	2.15	28.3	12.9	30
35	762	20.9	23.2	32.2	309	190	55	235	20.3	0.269	63	28	5	68.4	529	1.82	27.6	15.1	35
40	615	23.6	26.6	34.2	381	289	139	147	23.3	0.429	63	39	12	76.7	663	1.54	25.6	16.6	40
45	528	25.9	29.7	36.7	446	375	237	87	26.1	0.645	56	42	19	83.8	785	1.31	23.1	17.4	45
50	473	27.8	32.5	39.2	508	450	330	55	28.7	0.870	48	39	23	89.9	894	1.13	20.6	17.9	50
55	434	29.5	34.9	41.5	563	516	410	39	31.0	1.054	41	35	24	95.1	990	0.97	18.0	18.0	55
60	405	30.9	37.0	43.5	612	570	477	29	33.1	1.229	35	32	24	99.6	1073	0.81	15.4	17.9	60
65	382	32.1	38.7	45.1	651	613	530	23	34.9	1.378	31	28	22	103.3	1143	0.67	12.8	17.6	65
70	365	33.0	40.2	46.3	682	647	572	17	36.4	1.571	26	24	20	106.3	1201	0.55	10.5	17.2	70
75	352	33.7	41.4	47.4	706	674	605	13	37.7	1.710	22	21	18	108.8	1248	0.43	8.2	16.6	75
80	341	34.2	42.4	48.1	722	692	627	11	38.7	1.907	19	17	15	110.6	1282	0.31	5.8	16.0	80

Yield Class 16

15	2810	6.6	5.8	7.4	13	0	0	0	0.0	0.000	0	0	0	7.4	13	3.04	13.9	0.9	15
20	2295	9.9	11.5	23.7	80	0	0	515	11.3	0.032	16	0	0	28.8	97	3.03	19.3	4.8	20
25	1547	13.3	14.8	26.5	134	11	0	748	13.7	0.075	56	3	0	42.7	206	2.50	23.4	8.2	25
30	1126	16.6	18.1	29.0	202	53	4	421	16.2	0.133	56	8	0	53.8	330	2.06	25.2	11.0	30
35	862	19.5	21.4	31.1	274	140	30	264	18.9	0.213	56	18	2	63.3	458	1.75	25.0	13.1	35
40	692	22.1	24.6	33.0	340	233	86	170	21.6	0.331	56	29	6	71.3	580	1.49	23.5	14.5	40
45	587	24.3	27.6	35.0	400	316	166	105	24.1	0.492	52	34	12	78.2	692	1.25	21.2	15.4	45
50	521	26.2	30.1	37.1	456	387	250	66	26.5	0.683	44	33	16	83.9	792	1.06	18.8	15.8	50
55	477	27.8	32.4	39.2	506	448	327	44	28.5	0.858	37	30	18	88.7	880	0.90	16.4	16.0	55
60	444	29.1	34.3	41.0	551	500	391	33	30.4	1.000	32	27	18	92.9	956	0.77	14.2	15.9	60
65	420	30.2	36.0	42.6	588	544	444	24	32.1	1.158	28	24	18	96.4	1021	0.64	11.9	15.7	65
70	400	31.1	37.4	43.9	618	577	487	20	33.5	1.302	24	21	16	99.3	1075	0.51	9.6	15.4	70
75	385	31.8	38.5	44.8	640	602	518	15	34.6	1.411	20	18	14	101.5	1117	0.39	7.4	14.9	75
80	375	32.3	39.3	45.4	655	620	541	10	35.4	1.491	16	15	12	103.2	1149	0.28	5.2	14.4	80

Yield Class 14

20	2473	9.1	10.5	21.5	68	0	0	247	10.6	0.014	3	0	0	23.7	71	2.94	16.5	3.5	20
25	1668	12.3	13.7	24.6	112	6	0	805	12.9	0.061	49	1	0	37.3	164	2.45	20.2	6.6	25
30	1230	15.4	16.8	27.4	171	31	0	438	15.2	0.112	49	5	0	48.1	273	1.98	22.1	9.1	30
35	946	18.2	19.9	29.5	235	95	14	284	17.6	0.173	49	11	1	57.1	385	1.67	22.2	11.0	35
40	759	20.6	22.9	31.3	295	177	49	187	20.1	0.263	49	21	3	64.8	495	1.43	21.2	12.4	40
45	637	22.7	25.7	33.0	350	255	109	122	22.5	0.386	47	27	7	71.4	597	1.23	19.5	13.3	45
50	562	24.6	28.2	35.0	402	324	181	75	24.7	0.532	40	28	10	77.0	689	1.02	17.2	13.8	50
55	513	26.1	30.3	36.9	448	381	249	49	26.6	0.679	34	26	12	81.7	769	0.84	14.9	14.0	55
60	478	27.4	32.0	38.4	488	429	308	35	28.2	0.805	29	23	13	85.4	838	0.70	12.7	14.0	60
65	451	28.4	33.5	39.7	521	469	356	27	29.6	0.912	25	21	13	88.6	896	0.59	10.7	13.8	65
70	431	29.3	34.7	40.9	549	501	396	20	30.8	1.040	21	18	12	91.3	944	0.48	8.7	13.5	70
75	416	29.9	35.7	41.7	569	525	427	15	31.8	1.130	17	15	11	93.4	982	0.36	6.7	13.1	75
80	405	30.4	36.5	42.3	584	542	448	11	32.6	1.193	14	13	9	94.9	1011	0.26	4.7	12.6	80

Table 68 (contd)

Noble Fir

Normal Yield Table: Yield Class 22

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	m^2					cm	m^3				m^2	m^3	m^2	m^3	m^3	
15	3252	7.9	10.1	25.8	56	0	0	0	0.0	0.000	0	0	0	25.8	56	3.16	24.0	3.7	15
20	2442	11.5	12.8	31.6	142	4	0	810	12.3	0.053	43	1	0	41.2	185	3.09	28.2	9.2	20
25	1658	14.8	16.2	34.0	217	31	0	784	14.6	0.098	77	6	0	56.7	338	2.90	31.2	13.5	25
30	1221	17.6	19.8	37.6	299	118	17	437	17.5	0.176	77	17	1	70.8	496	2.57	31.3	16.5	30
35	955	20.0	23.2	40.4	376	232	68	266	20.5	0.289	77	34	6	82.5	650	2.19	30.2	18.6	35
40	773	22.2	26.5	42.8	447	338	161	182	23.6	0.424	77	49	15	92.7	798	1.95	28.9	19.9	40
45	651	24.1	29.7	45.1	511	428	270	122	26.8	0.629	77	59	29	102.0	939	1.76	27.5	20.9	45
50	560	25.8	32.7	47.1	567	505	374	91	29.9	0.845	77	65	41	110.3	1073	1.60	26.1	21.5	50
55	493	27.3	35.6	49.0	621	572	463	67	32.9	1.082	73	65	49	117.9	1199	1.45	24.6	21.8	55
60	444	28.8	38.2	50.9	674	633	542	49	35.8	1.323	66	61	50	124.9	1318	1.34	23.2	22.0	60
65	405	30.1	40.7	52.8	724	689	613	39	38.6	1.583	62	59	50	131.4	1430	1.27	22.0	22.0	65
70	374	31.3	43.2	54.7	772	741	677	31	41.2	1.886	60	57	51	137.5	1538	1.19	20.7	22.0	70
75	348	32.4	45.5	56.7	816	790	733	26	43.7	2.184	58	56	51	143.5	1641	1.11	19.6	21.9	75
80	326	33.4	47.7	58.2	852	828	777	22	45.9	2.485	57	55	51	148.8	1734	1.04	18.4	21.7	80

Yield Class 20

15	3305	7.5	9.4	23.1	42	0	0	0	0.0	0.000	0	0	0	23.1	42	2.96	20.8	2.8	15
20	2828	10.8	12.2	33.1	134	2	0	477	11.9	0.047	22	0	0	38.4	157	2.89	25.0	7.8	20
25	1912	13.9	14.9	33.4	199	18	0	916	13.6	0.076	70	3	0	52.0	292	2.73	27.8	11.7	25
30	1395	16.6	18.2	36.4	272	74	6	517	16.2	0.136	70	10	0	65.7	434	2.48	28.4	14.5	30
35	1090	18.9	21.4	39.1	343	175	37	305	18.8	0.230	70	22	2	76.9	576	2.11	27.8	16.4	35
40	884	21.0	24.4	41.5	410	278	99	206	21.6	0.341	70	37	8	86.8	712	1.87	26.7	17.8	40
45	737	22.8	27.4	43.4	470	368	191	147	24.4	0.479	70	47	17	95.6	842	1.68	25.4	18.7	45
50	632	24.5	30.2	45.3	523	444	289	105	27.3	0.671	70	55	28	103.5	966	1.52	24.1	19.3	50
55	554	26.0	32.9	47.0	572	511	380	78	30.1	0.871	68	58	37	110.8	1083	1.40	22.9	19.7	55
60	498	27.3	35.4	49.0	624	574	462	56	32.8	1.077	60	53	40	117.5	1194	1.30	21.7	19.9	60
65	455	28.6	37.8	51.0	673	631	536	43	35.4	1.302	56	52	41	123.8	1300	1.19	20.4	20.0	65
70	420	29.7	40.0	52.7	717	681	600	35	37.8	1.511	54	50	43	129.4	1398	1.09	19.1	20.0	70
75	389	30.8	42.0	53.9	754	722	651	31	40.0	1.720	52	50	44	134.4	1487	1.02	17.8	19.8	75
80	364	31.7	44.0	55.4	789	760	699	25	42.1	2.032	51	49	44	139.5	1573	0.96	16.8	19.7	80

Yield Class 18

15	3362	7.0	8.7	19.9	28	0	0	0	0.0	0.000	0	0	0	19.9	28	2.75	17.7	1.9	15
20	3295	10.0	11.5	34.4	125	1	0	67	11.5	0.038	3	0	0	35.1	127	2.70	21.9	6.4	20
25	2230	12.9	13.8	33.2	182	9	0	1065	12.8	0.059	63	2	0	47.6	247	2.55	24.8	9.9	25
30	1625	15.5	16.7	35.5	246	42	1	605	15.0	0.104	63	6	0	60.6	375	2.37	25.5	12.5	30
35	1266	17.7	19.5	37.9	311	116	16	359	17.2	0.176	63	13	0	71.3	503	2.05	25.3	14.4	35
40	1027	19.7	22.3	40.1	373	211	53	239	19.7	0.264	63	24	3	80.8	628	1.81	24.6	15.7	40
45	856	21.5	25.0	42.1	431	303	118	171	22.2	0.369	63	35	9	89.3	748	1.62	23.5	16.6	45
50	730	23.1	27.6	43.8	482	381	202	126	24.7	0.503	63	43	16	97.0	863	1.46	22.3	17.3	50
55	636	24.5	30.1	45.2	527	446	288	94	27.2	0.674	63	49	25	103.9	970	1.32	21.0	17.6	55
60	571	25.8	32.4	47.1	575	509	372	65	29.6	0.841	54	45	28	110.2	1072	1.22	19.9	17.9	60
65	521	27.0	34.6	49.0	621	566	446	50	31.9	1.020	50	44	32	116.1	1169	1.13	18.7	18.0	65
70	481	28.1	36.7	50.7	663	617	512	40	34.2	1.202	48	44	34	121.5	1260	1.02	17.4	18.0	70
75	446	29.1	38.5	52.0	700	658	567	35	36.2	1.353	47	43	36	126.2	1343	0.94	16.2	17.9	75
80	417	30.0	40.4	53.3	733	696	617	29	38.2	1.605	46	43	37	130.9	1422	0.89	15.3	17.8	80

Table 69 (contd)

Noble Fir (Continued)

Yield Class 16

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	2 m					cm	3 m				2 m	3 m	2 m	3 m	3 m	
20	3101	9.2	11.3	30.9	96	0	0	0	0.0	0.000	0	0	0	30.9	96	2.50	19.0	4.8	20
25	2490	11.9	13.5	35.6	165	7	0	611	12.8	0.065	40	1	0	43.5	205	2.39	22.2	8.2	25
30	1846	14.3	15.9	36.5	222	28	0	644	14.4	0.087	56	4	0	54.8	318	2.21	22.7	10.6	30
35	1431	16.5	18.5	38.4	280	82	8	415	16.4	0.135	56	9	0	65.6	431	1.98	22.7	12.3	35
40	1166	18.4	21.0	40.3	336	163	31	265	18.5	0.211	56	17	2	74.6	544	1.75	22.2	13.6	40
45	976	20.1	23.4	42.1	390	245	75	190	20.7	0.297	56	26	5	82.8	654	1.55	21.4	14.5	45
50	833	21.6	25.8	43.5	438	321	139	143	22.9	0.390	56	33	9	90.1	758	1.39	20.3	15.2	50
55	724	23.0	28.0	44.7	481	385	212	109	25.0	0.511	56	39	15	96.6	856	1.25	19.2	15.6	55
60	649	24.2	30.1	46.2	524	444	287	75	27.2	0.656	50	39	20	102.6	949	1.15	18.1	15.8	60
65	593	25.3	32.1	48.0	567	499	360	56	29.2	0.794	45	37	23	108.1	1037	1.06	17.1	16.0	65
70	547	26.4	34.0	49.6	606	549	424	46	31.2	0.933	43	37	26	113.2	1120	0.97	15.8	16.0	70
75	508	27.3	35.6	50.6	639	589	477	39	33.0	1.058	42	37	28	117.6	1195	0.89	14.7	15.9	75
80	475	28.2	37.2	51.7	670	626	526	33	34.7	1.235	41	37	30	121.9	1267	0.82	13.8	15.8	80

Yield Class 14

20	3198	8.4	10.5	27.7	70	0	0	0	0.0	0.000	0	0	0	27.7	70	2.25	16.3	3.5	20
25	2942	10.8	12.5	36.3	145	3	0	256	12.2	0.065	17	0	0	39.3	162	2.19	19.0	6.5	25
30	2197	13.1	14.4	35.8	194	14	0	745	13.3	0.066	49	2	0	49.1	260	2.07	19.9	8.7	30
35	1706	15.2	16.7	37.2	246	42	0	491	15.0	0.100	49	4	0	59.2	361	1.91	20.2	10.3	35
40	1386	17.0	19.0	39.1	298	98	11	320	16.8	0.153	49	9	0	68.2	462	1.68	20.0	11.5	40
45	1164	18.6	21.1	40.8	347	172	34	222	18.6	0.221	49	15	1	76.0	560	1.48	19.3	12.4	45
50	997	20.0	23.3	42.4	392	243	72	167	20.5	0.295	49	22	4	83.0	654	1.32	18.3	13.1	50
55	866	21.3	25.3	43.4	432	308	124	131	22.4	0.375	49	28	7	89.3	743	1.18	17.2	13.5	55
60	766	22.5	27.2	44.4	470	365	186	100	24.2	0.461	46	31	11	94.8	826	1.06	16.3	13.8	60
65	696	23.6	28.9	45.8	509	419	249	70	26.0	0.576	40	30	13	99.9	906	0.97	15.4	13.9	65
70	641	24.6	30.6	47.1	545	467	311	55	27.7	0.682	38	30	16	104.6	980	0.90	14.3	14.0	70
75	596	25.5	32.1	48.4	577	509	368	45	29.3	0.813	37	30	19	108.9	1048	0.83	13.2	14.0	75
80	559	26.2	33.6	49.6	605	545	417	37	30.8	0.947	36	31	21	112.9	1112	0.76	12.4	13.9	80

Yield Class 12

20	3291	7.6	9.7	24.1	46	0	0	0	0.0	0.000	0	0	0	24.1	46	1.92	13.8	2.3	20
25	3038	9.8	12.0	34.4	120	1	0	253	0.0	0.000	0	0	0	34.4	120	1.90	16.0	4.8	25
30	2500	11.9	13.6	36.6	168	8	0	538	12.9	0.070	38	1	0	43.6	205	1.86	17.5	6.8	30
35	1978	13.9	15.5	37.2	214	24	0	522	14.1	0.081	42	3	0	52.4	294	1.77	17.6	8.4	35
40	1598	15.6	17.6	38.7	260	58	3	380	15.7	0.111	42	5	0	61.3	382	1.60	17.3	9.5	40
45	1345	17.2	19.4	40.0	304	112	15	253	17.2	0.166	42	8	0	68.5	468	1.40	16.9	10.4	45
50	1159	18.5	21.3	41.4	345	175	36	186	18.8	0.225	42	13	1	75.1	551	1.25	16.4	11.0	50
55	1014	19.7	23.2	42.8	384	236	68	145	20.4	0.290	42	19	3	81.2	632	1.11	15.6	11.5	55
60	896	20.8	24.9	43.7	417	291	111	118	22.0	0.356	42	23	5	86.6	707	1.00	14.5	11.8	60
65	813	21.9	26.5	44.7	452	341	160	83	23.5	0.409	34	22	7	91.2	776	0.89	13.6	11.9	65
70	746	22.8	27.9	45.5	483	385	209	67	24.9	0.484	33	23	9	95.4	839	0.81	12.7	12.0	70
75	694	23.6	29.3	46.7	512	425	259	52	26.3	0.602	32	24	11	99.4	900	0.76	11.9	12.0	75
80	650	24.3	30.6	47.8	539	461	308	44	27.6	0.702	31	25	13	103.2	958	0.70	11.0	12.0	80

Oak

Normal Yield Table: Yield Class 8

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	2 m					cm	3 m				2 m	3 m	2 m	3 m	3 m	
20	4995	10.2	7.2	20.5	67	0	0	1030	5.5	0.006	6	0	0	22.9	73	1.65	5.9	3.7	20
25	2521	12.5	9.6	18.2	75	0	0	2474	7.2	0.011	28	0	0	30.8	109	1.46	8.2	4.4	25
30	1479	14.6	12.4	17.9	93	2	0	1042	9.2	0.027	28	0	0	37.5	155	1.25	10.0	5.2	30
35	985	16.6	15.5	18.5	119	13	0	494	11.6	0.057	28	0	0	43.4	209	1.10	11.0	6.0	35
40	705	18.3	18.7	19.4	147	46	5	280	14.1	0.100	28	2	0	48.5	265	0.97	11.3	6.6	40
45	547	19.9	21.8	20.5	176	95	22	158	16.7	0.178	28	5	0	53.1	322	0.88	11.1	7.2	45
50	443	21.3	25.0	21.7	203	142	55	104	19.3	0.269	28	10	1	57.3	377	0.81	10.6	7.5	50
55	367	22.6	28.0	22.6	226	181	99	76	21.9	0.367	28	15	4	61.1	428	0.72	9.9	7.8	55
60	310	23.8	30.9	23.3	245	212	144	57	24.5	0.487	28	19	7	64.5	475	0.65	9.2	7.9	60
65	265	24.9	33.8	23.7	261	236	181	45	27.1	0.621	28	22	11	67.6	519	0.59	8.5	8.0	65
70	229	25.9	36.6	24.1	274	254	211	36	29.8	0.787	28	24	15	70.4	560	0.54	7.9	8.0	70
75	200	26.7	39.4	24.3	284	268	234	29	32.4	0.952	28	25	18	73.0	598	0.50	7.4	8.0	75
80	175	27.5	42.1	24.4	292	279	252	25	35.2	1.157	28	26	21	75.5	634	0.47	7.0	7.9	80
85	155	28.2	44.7	24.3	298	287	265	20	37.9	1.379	28	26	22	77.7	668	0.44	6.6	7.9	85
90	138	28.8	47.2	24.2	302	293	274	17	40.8	1.628	28	27	24	79.8	700	0.41	6.3	7.8	90
95	123	29.4	49.8	24.0	305	297	281	15	43.6	1.897	28	27	24	81.8	730	0.38	5.9	7.7	95
100	111	29.9	52.2	23.7	306	300	285	12	46.4	2.179	27	26	24	83.6	759	0.35	5.6	7.6	100
105	101	30.4	54.5	23.4	307	301	288	10	49.2	2.490	26	25	24	85.3	786	0.33	5.2	7.5	105
110	92	30.8	56.7	23.2	307	302	289	9	51.8	2.809	25	24	23	86.9	811	0.30	4.9	7.4	110
115	84	31.2	58.8	22.8	307	301	290	8	54.5	3.130	24	24	23	88.3	834	0.28	4.6	7.3	115
120	77	31.6	60.8	22.5	305	300	290	7	57.2	3.515	23	23	22	89.7	856	0.27	4.3	7.1	120
125	72	31.9	62.8	22.1	304	299	289	5	60.0	3.862	22	22	21	91.0	877	0.26	4.1	7.0	125
130	67	32.2	64.7	21.8	302	298	288	5	62.4	4.300	22	21	20	92.2	897	0.24	4.0	6.9	130
135	62	32.5	66.5	21.5	301	297	288	5	65.0	4.682	21	20	20	93.4	917	0.22	3.8	6.8	135
140	58	32.7	68.1	21.2	300	296	287	4	67.4	5.051	20	19	19	94.5	935	0.21	3.6	6.7	140
145	55	32.9	69.7	20.9	299	295	286	3	69.7	5.529	19	19	18	95.5	953	0.20	3.4	6.6	145
150	52	33.1	71.3	20.6	298	293	285	3	71.2	5.774	18	18	17	96.4	969	0.19	3.2	6.5	150

Yield Class 6

20	5115	8.4	6.9	18.7	42	0	0	0	0.0	0.000	0	0	0	18.7	42	1.33	4.6	2.1	20
25	3529	10.4	8.6	20.3	62	0	0	1586	6.2	0.005	8	0	0	25.1	71	1.21	6.4	2.8	25
30	2144	12.2	10.6	19.1	76	0	0	1385	8.0	0.015	21	0	0	30.8	106	1.09	7.5	3.5	30
35	1459	13.9	13.0	19.3	95	3	0	685	9.6	0.031	21	0	0	36.0	145	0.98	8.1	4.1	35
40	1073	15.4	15.4	19.9	116	12	0	386	11.5	0.054	21	0	0	40.6	187	0.89	8.4	4.7	40
45	822	16.8	17.9	20.6	137	34	2	251	13.4	0.084	21	1	0	44.9	229	0.81	8.4	5.1	45
50	645	18.1	20.4	21.1	157	70	12	177	15.5	0.119	21	2	0	48.7	271	0.73	8.2	5.4	50
55	524	19.2	23.0	21.7	176	106	30	121	17.5	0.173	21	5	0	52.2	311	0.66	7.8	5.6	55
60	436	20.2	25.4	22.1	193	139	57	88	19.7	0.237	21	8	1	55.3	348	0.61	7.4	5.8	60
65	370	21.1	27.9	22.6	208	166	90	66	21.8	0.319	21	11	3	58.2	384	0.56	7.0	5.9	65
70	319	21.9	30.3	23.0	221	188	123	51	24.0	0.413	21	14	5	60.9	418	0.52	6.6	6.0	70
75	279	22.7	32.6	23.3	231	206	152	40	26.0	0.526	21	16	7	63.4	450	0.47	6.2	6.0	75
80	246	23.3	34.9	23.5	240	220	175	33	28.1	0.634	21	17	9	65.6	480	0.43	5.9	6.0	80
85	218	23.9	37.2	23.6	248	231	194	28	30.2	0.747	21	18	12	67.7	508	0.41	5.6	6.0	85
90	194	24.4	39.4	23.6	254	240	210	24	32.4	0.886	21	19	14	69.7	535	0.38	5.3	5.9	90
95	173	24.8	41.6	23.5	258	246	221	21	34.6	1.029	21	19	15	71.5	560	0.35	4.9	5.9	95
100	156	25.2	43.6	23.4	261	251	230	17	36.7	1.206	21	19	16	73.2	584	0.31	4.6	5.8	100
105	142	25.6	45.5	23.2	264	255	237	14	38.8	1.371	20	18	16	74.6	606	0.29	4.3	5.8	105
110	130	25.9	47.4	23.0	266	258	242	12	40.8	1.533	19	18	16	76.1	627	0.27	4.0	5.7	110
115	120	26.2	49.2	22.9	267	260	245	10	42.8	1.762	18	17	16	77.4	646	0.25	3.7	5.6	115
120	112	26.4	50.8	22.6	268	262	248	8	44.7	1.943	17	16	15	78.5	664	0.23	3.5	5.5	120
125	105	26.6	52.2	22.4	268	262	249	7	46.4	2.025	16	16	14	79.6	680	0.22	3.2	5.4	125
130	98	26.8	53.8	22.2	269	263	251	7	48.3	2.221	15	15	14	80.7	696	0.21	3.0	5.4	130
135	92	27.0	55.2	22.1	269	264	252	6	50.0	2.407	14	14	13	81.7	710	0.19	2.8	5.3	135
140	87	27.2	56.7	21.9	269	264	253	5	51.8	2.577	13	13	12	82.6	724	0.18	2.6	5.2	140
145	82	27.3	58.0	21.8	269	265	254	5	53.5	2.778	13	12	12	83.5	736	0.16	2.4	5.1	145
150	78	27.4	59.3	21.6	268	264	254	4	55.2	2.974	12	11	11	84.3	747	0.15	2.2	5.0	150

Table 70 (contd)

Oak (Continued)

Yield Class 4

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	m^2					cm	m^3				m^2	m^3	m^2	m^3	m^3	
25	4200	8.0	7.0	16.6	30	0	0	0	0.0	0.000	0	0	0	16.6	30	0.97	4.4	1.2	25
30	3750	9.6	8.5	21.2	54	0	0	450	0.0	0.000	0	0	0	21.2	54	0.93	4.9	1.8	30
35	2363	11.0	10.3	19.5	66	0	0	1387	7.6	0.010	13	0	0	25.8	79	0.88	5.3	2.3	35
40	1702	12.3	12.1	19.5	79	1	0	661	9.0	0.021	14	0	0	30.0	106	0.81	5.5	2.7	40
45	1283	13.5	14.0	19.8	93	5	0	419	10.4	0.034	14	0	0	33.9	134	0.74	5.6	3.0	45
50	1006	14.5	16.0	20.3	107	14	0	277	12.0	0.051	14	0	0	37.4	162	0.68	5.6	3.2	50
55	822	15.4	18.0	20.9	121	31	2	184	13.5	0.076	14	1	0	40.7	190	0.62	5.6	3.5	55
60	681	16.3	20.0	21.3	134	55	8	141	15.1	0.100	14	1	0	43.6	218	0.57	5.4	3.6	60
65	573	17.0	22.0	21.7	147	80	19	108	16.7	0.130	14	2	0	46.4	244	0.53	5.2	3.8	65
70	492	17.7	23.9	22.1	158	103	34	81	18.4	0.173	14	4	0	48.9	270	0.48	5.0	3.9	70
75	428	18.2	25.8	22.3	169	123	54	64	20.0	0.216	14	6	1	51.2	294	0.44	4.8	3.9	75
80	376	18.7	27.7	22.6	178	141	75	52	21.6	0.272	14	7	2	53.3	317	0.41	4.5	4.0	80
85	335	19.2	29.4	22.8	186	155	96	41	23.2	0.337	14	9	3	55.3	339	0.37	4.3	4.0	85
90	300	19.6	31.2	22.9	193	167	115	35	24.8	0.406	14	10	4	57.1	360	0.34	4.0	4.0	90
95	270	19.9	32.9	22.9	198	177	131	30	26.3	0.471	14	10	5	58.7	379	0.31	3.8	4.0	95
100	244	20.2	34.5	22.8	202	184	144	26	27.8	0.536	14	11	6	60.2	397	0.29	3.5	4.0	100
105	221	20.4	36.2	22.7	204	189	155	23	29.2	0.603	14	12	7	61.6	414	0.27	3.2	3.9	105
110	201	20.5	37.8	22.5	206	193	164	20	30.7	0.677	13	12	8	62.9	429	0.25	2.9	3.9	110
115	185	20.7	39.3	22.4	208	196	171	16	32.2	0.758	13	11	8	64.1	443	0.23	2.7	3.9	115
120	171	20.8	40.7	22.2	209	198	176	14	33.7	0.841	12	10	8	65.2	455	0.20	2.4	3.8	120
125	159	20.9	42.0	22.0	209	200	181	12	35.0	0.915	11	10	8	66.2	467	0.19	2.2	3.7	125
130	149	21.0	43.3	21.9	210	201	184	10	36.4	1.000	10	9	8	67.1	477	0.18	2.0	3.7	130
135	141	21.1	44.4	21.8	210	202	187	8	37.6	1.072	9	8	7	67.9	486	0.16	1.8	3.6	135
140	134	21.2	45.5	21.8	210	203	189	7	38.8	1.143	8	8	7	68.7	495	0.15	1.6	3.5	140
145	128	21.2	46.5	21.8	211	204	191	6	39.9	1.224	7	7	6	69.4	502	0.13	1.4	3.5	145
150	123	21.3	47.4	21.7	211	205	192	5	40.9	1.265	6	6	5	70.0	508	0.12	1.2	3.4	150

Normal Yield Tables continued overleaf

Beech

Normal Yield Table: Yield Class 10

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	m^2					cm	m^3				m^2	m^3	m^2	m^3	m^3	
20	4600	11.5	7.8	21.9	56	0	0	0	0.0	0.000	0	0	0	21.9	56	1.36	10.3	2.8	20
25	2902	14.3	9.7	21.3	85	0	0	1698	7.6	0.015	26	0	0	28.9	111	1.32	11.7	4.4	25
30	1840	17.0	12.0	20.8	111	1	0	1062	8.9	0.033	35	0	0	35.1	172	1.26	12.6	5.7	30
35	1236	19.3	14.9	21.5	140	12	0	604	10.7	0.058	35	0	0	41.3	237	1.21	13.2	6.8	35
40	886	21.3	18.1	22.9	172	46	4	350	12.8	0.100	35	1	0	47.1	304	1.14	13.5	7.6	40
45	667	23.0	21.5	24.3	206	107	23	219	15.4	0.160	35	4	0	52.7	372	1.08	13.6	8.3	45
50	526	24.4	25.0	25.8	239	168	65	141	18.3	0.247	35	10	1	57.9	440	1.02	13.5	8.8	50
55	428	25.7	28.5	27.3	271	220	126	98	21.4	0.356	35	18	4	62.9	507	0.97	13.2	9.2	55
60	358	26.9	32.0	28.7	301	264	189	70	24.6	0.497	35	24	9	67.6	572	0.92	12.7	9.5	60
65	305	28.0	35.4	29.9	328	301	243	53	27.7	0.663	35	28	15	72.1	634	0.87	12.1	9.8	65
70	265	29.0	38.6	31.1	352	331	286	40	30.9	0.873	35	30	20	76.3	693	0.81	11.5	9.9	70
75	232	29.9	41.9	32.0	372	356	321	33	34.1	1.061	35	32	25	80.2	748	0.76	10.8	10.0	75
80	205	30.6	45.2	32.8	390	376	349	27	37.3	1.280	34	32	27	83.9	800	0.73	10.1	10.0	80
85	183	31.4	48.3	33.6	405	394	371	22	40.3	1.540	33	31	28	87.4	849	0.68	9.4	10.0	85
90	166	32.0	51.4	34.4	420	410	389	17	43.4	1.809	31	30	28	90.7	894	0.64	8.9	9.9	90
95	152	32.5	54.3	35.0	433	424	405	14	46.3	2.076	30	29	27	93.9	937	0.61	8.4	9.9	95
100	139	33.0	57.1	35.7	445	437	419	13	49.0	2.350	29	28	27	96.8	979	0.57	8.0	9.8	100
105	129	33.5	59.9	36.2	456	449	432	10	51.7	2.642	28	27	26	99.6	1018	0.54	7.6	9.7	105
110	119	33.9	62.6	36.7	466	458	443	10	54.2	2.925	27	27	25	102.3	1055	0.52	7.2	9.6	110
115	111	34.3	65.3	37.2	475	468	452	8	56.8	3.220	26	26	25	104.8	1090	0.49	6.8	9.5	115
120	104	34.7	67.9	37.6	482	475	461	7	59.3	3.556	26	25	24	107.2	1123	0.47	6.4	9.4	120
125	97	35.0	70.4	37.9	488	481	468	7	61.6	3.846	25	25	24	109.5	1154	0.45	6.1	9.2	125
130	92	35.3	72.9	38.3	493	487	473	5	64.0	4.224	25	24	23	111.7	1183	0.43	5.7	9.1	130
135	86	35.5	75.3	38.5	497	490	477	6	66.3	4.463	24	24	23	113.7	1211	0.41	5.4	9.0	135
140	81	35.7	77.8	38.7	500	494	481	5	68.6	4.740	24	23	23	115.8	1238	0.40	5.2	8.8	140
145	77	36.0	80.2	38.8	502	494	481	4	71.1	5.087	23	23	22	117.7	1263	0.39	4.9	8.7	145
150	73	36.2	82.7	38.9	501	494	481	4	73.3	5.372	23	23	22	119.7	1286	0.38	4.7	8.6	150

Yield Class 8

20	4990	9.8	6.9	18.1	32	0	0	0	0.0	0.000	0	0	0	18.1	32	1.25	8.3	1.6	20
25	4108	12.2	8.2	21.7	69	0	0	882	6.9	0.012	7	0	0	23.9	76	1.21	9.2	3.0	25
30	2724	14.4	9.9	21.1	88	0	0	1384	7.8	0.020	28	0	0	29.9	123	1.17	9.8	4.1	30
35	1872	16.4	12.1	21.4	111	1	0	852	9.0	0.033	28	0	0	35.6	174	1.12	10.3	5.0	35
40	1329	18.2	14.6	22.2	135	11	0	543	10.4	0.052	28	0	0	41.1	226	1.08	10.7	5.7	40
45	989	19.7	17.4	23.5	162	34	1	340	12.3	0.082	28	0	0	46.4	281	1.02	11.0	6.2	45
50	766	21.0	20.3	24.7	189	82	13	223	14.5	0.125	28	2	0	51.3	336	0.96	11.0	6.7	50
55	613	22.2	23.2	26.0	216	133	39	153	16.8	0.184	28	5	0	56.0	391	0.91	10.9	7.1	55
60	505	23.3	26.2	27.3	242	181	83	108	19.3	0.259	28	10	1	60.4	445	0.86	10.6	7.4	60
65	426	24.3	29.2	28.4	266	220	133	79	22.0	0.354	28	15	4	64.5	497	0.81	10.2	7.6	65
70	365	25.2	32.1	29.5	288	253	182	61	24.6	0.463	28	19	7	68.5	547	0.76	9.7	7.8	70
75	318	26.0	34.9	30.4	307	281	223	47	27.3	0.592	28	22	11	72.2	594	0.72	9.2	7.9	75
80	280	26.8	37.7	31.2	323	302	257	38	30.0	0.731	28	24	15	75.7	638	0.68	8.7	8.0	80
85	249	27.4	40.4	32.0	338	321	285	31	32.6	0.881	27	24	18	79.0	680	0.64	8.2	8.0	85
90	224	28.1	43.1	32.6	351	337	308	25	35.3	1.048	26	24	19	82.1	720	0.61	7.7	8.0	90
95	204	28.6	45.6	33.3	364	352	327	20	37.8	1.227	25	23	20	85.0	757	0.57	7.4	8.0	95
100	187	29.1	48.1	33.9	376	365	343	17	40.2	1.404	24	23	20	87.8	793	0.54	7.0	7.9	100
105	172	29.5	50.6	34.5	386	377	357	15	42.5	1.589	23	22	20	90.5	827	0.52	6.6	7.9	105
110	159	29.9	52.9	35.0	396	388	369	13	44.8	1.778	22	22	20	93.0	859	0.49	6.2	7.8	110
115	148	30.3	55.2	35.5	404	397	379	11	47.1	1.991	22	21	20	95.4	889	0.47	5.8	7.7	115
120	139	30.6	57.5	36.0	411	404	387	9	49.2	2.163	21	21	19	97.7	917	0.45	5.4	7.6	120
125	130	30.9	59.7	36.3	416	409	394	9	51.4	2.379	21	20	19	99.9	942	0.43	5.1	7.5	125
130	122	31.0	61.8	36.7	420	413	399	8	53.5	2.590	20	20	19	102.0	967	0.41	4.8	7.4	130
135	115	31.2	64.0	37.0	424	417	403	7	55.6	2.789	20	19	19	104.0	990	0.40	4.6	7.3	135
140	109	31.4	66.1	37.2	427	421	407	6	57.6	2.985	19	19	18	105.9	1013	0.38	4.4	7.2	140
145	103	31.6	68.2	37.4	430	424	411	6	59.5	3.183	19	19	18	107.8	1035	0.37	4.1	7.1	145
150	97	31.7	70.3	37.6	429	423	411	6	61.5	3.357	19	18	18	109.6	1052	0.36	3.9	7.0	150

Table 71 (contd)

Beech (Continued)

Yield Class 6

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	m^2					cm	m^3				m^2	m^3	m^2	m^3	m^3	
25	4700	9.6	6.7	16.6	40	0	0	0	0.0	0.000	0	0	0	16.6	40	1.11	6.4	1.6	25
30	3946	11.4	8.0	19.8	61	0	0	754	6.9	0.011	12	0	0	23.7	73	1.09	7.0	2.4	30
35	2684	13.1	9.7	19.7	76	0	0	1262	7.5	0.017	21	0	0	29.1	109	1.06	7.5	3.1	35
40	1928	14.6	11.6	20.4	94	0	0	756	8.6	0.028	21	0	0	34.3	147	0.99	7.9	3.7	40
45	1423	15.9	13.8	21.2	113	6	0	505	9.9	0.042	21	0	0	39.0	188	0.93	8.2	4.2	45
50	1087	17.1	16.2	22.3	133	19	0	336	11.5	0.062	21	0	0	43.5	229	0.89	8.4	4.6	50
55	855	18.2	18.7	23.4	155	48	5	232	13.2	0.091	21	1	0	47.8	271	0.84	8.4	4.9	55
60	691	19.2	21.3	24.6	176	88	18	164	15.1	0.129	21	2	0	51.9	314	0.80	8.4	5.2	60
65	574	20.1	23.9	25.7	196	128	42	117	17.3	0.180	21	4	0	55.8	355	0.75	8.2	5.5	65
70	487	20.9	26.4	26.7	216	162	76	87	19.5	0.241	21	8	1	59.5	395	0.71	7.9	5.6	70
75	420	21.6	29.0	27.7	233	192	115	67	21.8	0.314	21	11	3	62.9	434	0.67	7.6	5.8	75
80	367	22.3	31.5	28.5	249	217	151	53	24.0	0.395	21	14	5	66.2	471	0.63	7.2	5.9	80
85	324	22.9	33.9	29.3	263	238	183	43	26.3	0.487	21	16	7	69.2	506	0.60	6.8	5.9	85
90	289	23.5	36.3	29.9	275	255	210	35	28.6	0.592	21	17	10	72.2	539	0.57	6.5	6.0	90
95	260	24.0	38.7	30.5	286	270	233	29	30.9	0.699	20	17	12	74.9	570	0.54	6.1	6.0	95
100	237	24.4	40.9	31.1	297	283	252	23	33.1	0.820	19	17	13	77.5	600	0.51	5.8	6.0	100
105	217	24.8	43.1	31.7	306	294	269	20	35.2	0.939	18	17	13	80.0	628	0.48	5.5	6.0	105
110	201	25.2	45.3	32.3	315	305	282	16	37.4	1.074	18	16	14	82.4	654	0.46	5.1	5.9	110
115	187	25.5	47.3	32.8	323	313	294	14	39.3	1.190	17	16	14	84.6	679	0.44	4.8	5.9	115
120	174	25.7	49.4	33.3	329	321	303	13	41.4	1.333	16	16	14	86.8	701	0.42	4.4	5.8	120
125	164	25.9	51.3	33.8	335	327	310	10	43.3	1.459	16	15	14	88.9	723	0.40	4.1	5.8	125
130	154	26.1	53.3	34.2	339	332	316	10	45.2	1.582	16	15	14	90.9	743	0.39	3.9	5.7	130
135	145	26.2	55.2	34.6	343	336	322	9	47.1	1.727	15	15	14	92.8	761	0.37	3.7	5.6	135
140	137	26.3	57.0	34.9	346	340	326	8	48.8	1.852	15	15	14	94.6	779	0.36	3.5	5.6	140
145	129	26.4	58.9	35.2	348	342	329	8	50.7	2.000	15	14	14	96.4	796	0.35	3.2	5.5	145
150	122	26.5	60.7	35.4	347	342	330	7	52.4	2.116	15	14	14	98.1	810	0.34	3.0	5.4	150

Yield Class 4

30	5200	8.3	6.2	15.7	26	0	0	0	0.0	0.000	0	0	0	15.7	26	0.97	4.7	0.9	30
35	4185	9.6	7.2	16.9	41	0	0	1015	6.7	0.009	9	0	0	20.5	50	0.94	5.0	1.4	35
40	3048	10.9	8.4	16.9	53	0	0	1137	7.2	0.012	14	0	0	25.1	76	0.91	5.3	1.9	40
45	2279	12.0	9.9	17.6	66	0	0	769	7.9	0.018	14	0	0	29.6	103	0.86	5.5	2.3	45
50	1729	13.1	11.7	18.5	80	0	0	550	8.7	0.025	14	0	0	33.7	131	0.80	5.7	2.6	50
55	1335	14.0	13.6	19.5	94	5	0	394	9.8	0.036	14	0	0	37.6	159	0.76	5.8	2.9	55
60	1064	14.9	15.7	20.6	109	13	0	271	11.1	0.052	14	0	0	41.3	188	0.72	5.8	3.1	60
65	869	15.7	17.8	21.6	125	30	2	195	12.6	0.072	14	0	0	44.8	218	0.68	5.8	3.3	65
70	724	16.4	20.0	22.7	139	57	9	145	14.2	0.097	14	1	0	48.1	246	0.64	5.8	3.5	70
75	616	17.0	22.1	23.6	154	85	20	108	15.9	0.130	14	2	0	51.3	275	0.61	5.6	3.7	75
80	532	17.6	24.2	24.5	167	112	39	84	17.6	0.166	14	3	0	54.2	302	0.57	5.4	3.8	80
85	464	18.2	26.4	25.3	179	135	63	68	19.4	0.208	14	5	1	57.0	328	0.55	5.1	3.9	85
90	411	18.6	28.4	26.1	190	154	88	53	21.3	0.260	14	7	1	59.7	353	0.52	4.9	3.9	90
95	366	19.0	30.5	26.7	200	171	113	45	23.1	0.313	14	9	2	62.2	377	0.49	4.6	4.0	95
100	328	19.4	32.6	27.3	208	185	136	38	25.0	0.373	14	10	4	64.6	399	0.47	4.3	4.0	100
105	296	19.7	34.6	27.8	215	196	154	32	27.0	0.443	14	11	5	66.9	420	0.45	4.1	4.0	105
110	270	20.0	36.5	28.3	222	206	170	26	28.8	0.510	13	11	6	69.1	440	0.43	3.8	4.0	110
115	249	20.2	38.4	28.8	228	214	184	21	30.7	0.582	12	11	7	71.2	458	0.41	3.6	4.0	115
120	231	20.4	40.2	29.3	233	222	196	18	32.4	0.657	12	10	8	73.1	476	0.39	3.4	4.0	120
125	216	20.6	41.9	29.9	239	228	206	15	34.1	0.730	11	10	8	75.1	492	0.38	3.1	3.9	125
130	203	20.7	43.7	30.4	243	234	214	13	35.8	0.806	11	10	8	76.9	507	0.36	2.9	3.9	130
135	191	20.8	45.3	30.8	246	238	220	12	37.4	0.875	11	10	8	78.7	521	0.35	2.6	3.9	135
140	180	20.8	47.0	31.3	248	241	225	11	39.1	0.953	10	10	8	80.4	533	0.34	2.4	3.8	140
145	170	20.9	48.6	31.6	249	243	228	10	40.6	1.020	10	10	9	82.1	544	0.33	2.2	3.8	145
150	161	20.9	50.3	32.0	250	244	230	9	42.2	1.099	10	10	9	83.7	555	0.32	2.0	3.7	150

Table 71 (contd)

Sycamore, Ash*, Birch

Normal Yield Table: Yield Class 12

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	2 m					cm	3 m				2 m	3 m	2 m	3 m	3 m	
10	1787	9.3	7.3	7.5	12	0	0	1163	6.9	0.006	7	0	0	11.9	19	2.10	13.2	1.9	10
15	868	12.3	12.2	10.2	43	1	0	919	10.9	0.046	42	0	0	23.1	91	2.06	15.3	6.1	15
20	495	15.0	18.2	12.8	81	22	2	373	15.8	0.113	42	5	0	33.1	172	1.99	16.4	8.6	20
25	347	17.3	25.0	17.0	123	86	33	148	22.2	0.283	42	24	6	43.0	256	1.91	16.6	10.2	25
30	271	19.2	31.5	21.0	163	142	99	76	29.4	0.548	42	35	22	52.2	338	1.71	15.8	11.3	30
35	221	20.8	37.2	24.0	197	184	154	50	35.5	0.842	42	39	31	60.1	414	1.47	14.3	11.8	35
40	187	22.0	42.2	26.1	223	214	194	34	41.2	1.149	40	38	34	66.9	480	1.24	12.4	12.0	40
45	167	22.9	46.6	28.5	254	246	230	20	46.0	1.356	26	25	24	72.5	537	1.03	10.6	11.9	45
50	154	23.7	50.3	30.7	282	275	260	13	50.3	1.669	21	21	20	77.2	586	0.87	9.2	11.7	50
55	145	24.3	53.5	32.7	306	299	285	9	53.5	2.044	18	18	17	81.2	628	0.74	7.9	11.4	55
60	138	24.9	56.2	34.4	326	320	306	7	56.2	2.352	17	16	16	84.7	665	0.63	6.7	11.1	60
65	132	25.3	58.5	35.6	340	334	321	6	58.5	2.565	16	16	15	87.5	695	0.52	5.8	10.7	65
70	127	25.6	60.5	36.4	351	345	333	5	60.5	2.778	15	15	14	89.9	721	0.46	5.0	10.3	70
75	122	26.0	62.3	37.1	361	355	343	5	62.3	2.938	14	14	13	92.1	745	0.41	4.5	9.9	75
80	118	26.3	63.8	37.6	368	363	351	4	63.8	3.143	13	13	13	94.0	766	0.36	4.1	9.6	80

* *Note:* The volume yields for Ash will be those for one Yield Class less than is indicated by the height growth, i.e. Production Class 'c'. For example, the yield table for Yield Class 10 should be used for Ash if the Yield Class according to the height/age curves is 12.

Yield Class 10

10	2949	8.3	6.4	9.4	11	0	0	0	0.0	0.000	0	0	0	9.4	11	1.90	8.6	1.1	10
15	1121	11.2	9.8	8.5	33	0	0	1828	8.7	0.017	32	0	0	19.4	65	1.86	12.3	4.3	15
20	664	13.8	14.9	11.6	67	6	0	457	12.7	0.077	35	1	0	28.3	133	1.80	14.3	6.7	20
25	455	16.0	20.6	15.1	106	48	8	209	17.9	0.168	35	9	1	37.1	207	1.69	14.6	8.3	25
30	339	17.9	26.5	18.6	142	107	50	116	23.7	0.303	35	22	7	45.7	278	1.52	13.6	9.3	30
35	270	19.4	31.5	21.1	171	150	105	69	29.1	0.507	35	29	17	52.7	343	1.30	12.1	9.8	35
40	223	20.5	36.1	22.8	193	179	147	47	34.0	0.750	35	32	25	58.7	400	1.10	10.6	10.0	40
45	199	21.4	40.0	25.0	218	207	182	24	38.4	1.004	24	23	20	63.7	449	0.94	9.2	10.0	45
50	184	22.1	43.4	27.2	242	232	213	15	42.3	1.252	19	18	16	68.0	491	0.79	8.0	9.8	50
55	173	22.8	46.2	29.0	263	254	237	11	45.5	1.441	16	15	14	71.7	528	0.67	6.9	9.6	55
60	165	23.3	48.5	30.5	280	272	256	8	48.3	1.614	14	14	13	74.7	560	0.56	5.8	9.3	60
65	158	23.7	50.4	31.4	293	286	270	7	50.4	1.718	13	13	12	77.2	586	0.47	4.9	9.0	65
70	152	24.0	51.9	32.1	303	296	281	6	52.2	1.838	13	12	12	79.4	608	0.41	4.4	8.7	70
75	146	24.3	53.4	32.8	312	306	291	6	53.9	2.000	12	11	11	81.4	629	0.36	3.9	8.4	75
80	141	24.6	54.8	33.3	319	313	299	5	55.4	2.229	11	11	10	83.0	647	0.32	3.4	8.1	80

Yield Class 8

15	1535	10.0	8.5	8.7	22	0	0	1315	7.9	0.012	15	0	0	15.2	37	1.65	10.6	2.5	15
20	894	12.5	12.5	11.0	52	1	0	641	10.9	0.044	28	0	0	23.5	95	1.60	12.1	4.8	20
25	613	14.6	17.1	14.1	87	17	0	281	14.6	0.100	28	2	0	31.2	158	1.48	12.3	6.3	25
30	454	16.4	21.7	16.7	118	62	14	159	18.8	0.177	28	9	1	38.3	218	1.36	11.4	7.3	30
35	357	17.8	26.2	19.2	144	107	49	97	23.2	0.288	28	17	5	44.8	272	1.15	10.1	7.8	35
40	294	18.9	29.9	20.7	164	138	88	63	27.3	0.440	28	22	11	50.1	319	0.97	8.8	8.0	40
45	258	19.7	33.3	22.4	183	164	124	36	30.9	0.597	22	19	13	54.6	360	0.82	7.7	8.0	45
50	236	20.4	36.1	24.2	202	187	153	22	34.0	0.747	17	15	12	58.3	395	0.69	6.6	7.9	50
55	221	21.0	38.5	25.7	219	206	177	15	36.7	0.876	13	12	10	61.5	426	0.58	5.7	7.7	55
60	209	21.5	40.4	26.9	233	222	197	12	38.9	0.975	12	11	10	64.1	452	0.48	4.8	7.5	60
65	200	21.8	42.1	27.8	244	234	211	9	40.8	1.101	11	10	9	66.3	473	0.40	4.1	7.3	65
70	192	22.2	43.4	28.4	253	243	222	8	42.4	1.149	10	10	9	68.2	492	0.36	3.6	7.0	70
75	185	22.5	44.7	29.0	261	252	232	7	43.8	1.230	9	9	8	69.8	509	0.31	3.2	6.8	75
80	179	22.7	45.7	29.5	267	259	240	6	45.1	1.344	8	8	7	71.3	524	0.27	2.8	6.6	80

Table 72 (contd)

Sycamore, Ash*, Birch (Continued)

Yield Class 6

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	2 m					cm	3 m				2 m	3 m	2 m	3 m	3 m	
15	2918	8.5	6.9	10.8	9	0	0	0	0.0	0.000	0	0	0	10.8	9	1.45	9.0	0.6	15
20	1454	10.9	9.5	10.2	36	0	0	1464	8.5	0.014	21	0	0	18.4	57	1.37	9.9	2.9	20
25	973	12.9	12.8	12.5	65	2	0	481	11.0	0.044	21	0	0	25.3	108	1.25	9.9	4.3	25
30	709	14.6	16.0	14.3	93	13	0	264	13.7	0.080	21	1	0	31.0	156	1.08	9.2	5.2	30
35	549	15.9	19.2	15.9	115	40	5	160	16.7	0.132	21	4	0	36.1	199	0.96	8.2	5.7	35
40	445	16.9	22.3	17.3	132	74	18	104	19.6	0.203	21	8	1	40.6	237	0.85	7.1	5.9	40
45	379	17.7	25.1	18.7	146	103	40	66	22.4	0.281	18	10	3	44.6	270	0.70	6.1	6.0	45
50	343	18.4	27.4	20.2	161	127	66	36	24.8	0.360	13	9	3	47.8	298	0.58	5.2	6.0	50
55	317	18.9	29.3	21.4	174	145	89	26	26.8	0.431	11	8	4	50.4	322	0.48	4.5	5.8	55
60	298	19.3	31.0	22.4	185	160	109	19	28.5	0.497	9	8	4	52.6	342	0.40	3.8	5.7	60
65	283	19.7	32.3	23.2	194	172	125	15	30.0	0.560	8	7	5	54.5	359	0.34	3.2	5.5	65
70	270	20.0	33.5	23.8	201	181	138	13	31.3	0.605	8	7	5	56.0	374	0.29	2.8	5.3	70
75	260	20.3	34.5	24.3	207	189	148	10	32.4	0.667	7	6	4	57.3	387	0.25	2.5	5.2	75
80	252	20.5	35.4	24.8	213	196	158	8	33.4	0.713	6	5	4	58.5	398	0.22	2.1	5.0	80

* See page 186.

Yield Class 4

20	2391	9.0	7.5	10.4	15	0	0	459	7.2	0.007	3	0	0	12.3	18	1.12	7.6	0.9	20
25	1567	10.9	9.7	11.6	39	0	0	824	8.8	0.017	14	0	0	18.4	57	1.00	7.5	2.3	25
30	1146	12.4	12.0	13.0	62	1	0	421	10.4	0.033	14	0	0	23.4	93	0.90	7.0	3.1	30
35	889	13.6	14.2	14.1	81	5	0	257	12.1	0.055	14	0	0	27.4	126	0.74	6.2	3.6	35
40	721	14.6	16.2	14.9	95	14	0	168	13.8	0.083	14	1	0	30.8	155	0.62	5.3	3.9	40
45	601	15.3	18.1	15.5	106	28	2	120	15.4	0.117	14	2	0	33.6	179	0.53	4.6	4.0	45
50	529	15.9	19.8	16.4	115	46	7	72	17.0	0.155	11	2	0	36.1	200	0.45	3.9	4.0	50
55	484	16.4	21.3	17.3	125	63	13	45	18.6	0.189	9	3	0	38.3	218	0.39	3.4	4.0	55
60	452	16.8	22.6	18.2	133	78	21	32	19.9	0.217	7	3	0	40.2	233	0.34	2.9	3.9	60
65	427	17.1	23.7	18.9	140	90	29	25	21.0	0.239	6	3	1	41.7	246	0.28	2.4	3.8	65
70	407	17.4	24.6	19.4	146	100	37	20	21.9	0.254	5	3	1	43.0	256	0.24	2.0	3.7	70
75	393	17.6	25.5	20.0	151	109	45	14	22.7	0.295	4	2	1	44.1	266	0.21	1.8	3.5	75
80	382	17.8	26.2	20.6	156	117	53	11	23.5	0.296	3	2	1	45.2	274	0.17	1.5	3.4	80

Table 72 (contd)

Poplar

Normal Yield Table: Yield Class 14

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	m^2					cm	m^3				m^2	m^3	m^2	m^3	m^3	
5	185	8.6	12.4	2.2	7	0	0	0	0.0	0.000	0	0	0	2.2	7	0.82	5.2	1.5	5
10	185	16.0	23.2	7.8	51	31	9	0	0.0	0.000	0	0	0	7.8	51	1.32	12.0	5.1	10
15	185	22.0	32.6	15.4	127	113	83	0	0.0	0.000	0	0	0	15.4	127	1.59	17.1	8.5	15
20	185	27.0	40.3	23.7	222	211	187	0	0.0	0.000	0	0	0	23.7	222	1.61	19.4	11.1	20
25	185	31.0	46.6	31.5	321	311	290	0	0.0	0.000	0	0	0	31.5	321	1.47	19.1	12.8	25
30	185	34.1	51.4	38.3	413	403	382	0	0.0	0.000	0	0	0	38.3	413	1.24	16.9	13.8	30
35	185	36.4	55.0	43.9	490	481	460	0	0.0	0.000	0	0	0	43.9	490	1.00	14.0	14.0	35
40	185	38.1	57.7	48.3	553	543	521	0	0.0	0.000	0	0	0	48.3	553	0.79	11.2	13.8	40
45	185	39.3	59.7	51.8	602	592	571	0	0.0	0.000	0	0	0	51.8	602	0.61	8.8	13.4	45
50	185	40.2	61.2	54.5	641	630	608	0	0.0	0.000	0	0	0	54.5	641	0.47	6.8	12.8	50
55	185	40.9	62.3	56.4	670	659	636	0	0.0	0.000	0	0	0	56.4	670	0.35	5.2	12.2	55
60	185	41.4	63.2	58.0	692	681	658	0	0.0	0.000	0	0	0	58.0	692	0.26	3.8	11.5	60

Note: At the square spacing of 7·3 m (24 feet) used in the construction of the Poplar yield table, it has been assumed that no thinnings will be carried out.

Yield Class 12

5	185	7.9	11.6	2.0	6	0	0	0	0.0	0.000	0	0	0	2.0	6	0.68	4.0	1.1	5
10	185	14.8	21.5	6.7	41	21	5	0	0.0	0.000	0	0	0	6.7	41	1.14	10.0	4.1	10
15	185	20.5	30.3	13.3	105	89	58	0	0.0	0.000	0	0	0	13.3	105	1.40	14.6	7.0	15
20	185	25.3	37.7	20.7	186	175	148	0	0.0	0.000	0	0	0	20.7	186	1.44	16.7	9.3	20
25	185	29.1	43.7	27.7	272	262	240	0	0.0	0.000	0	0	0	27.7	272	1.31	16.5	10.9	25
30	185	32.1	48.3	33.8	352	342	322	0	0.0	0.000	0	0	0	33.8	352	1.12	14.8	11.7	30
35	185	34.3	51.7	38.9	420	411	390	0	0.0	0.000	0	0	0	38.9	420	0.90	12.4	12.0	35
40	185	35.9	54.3	42.9	475	466	445	0	0.0	0.000	0	0	0	42.9	475	0.71	10.0	11.9	40
45	185	37.1	56.3	46.0	519	510	488	0	0.0	0.000	0	0	0	46.0	519	0.56	7.9	11.5	45
50	185	38.0	57.8	48.5	554	544	522	0	0.0	0.000	0	0	0	48.5	554	0.42	6.0	11.1	50
55	185	38.7	58.8	50.2	579	569	547	0	0.0	0.000	0	0	0	50.2	579	0.31	4.6	10.5	55
60	185	39.2	59.6	51.6	599	589	567	0	0.0	0.000	0	0	0	51.6	599	0.22	3.4	10.0	60

Yield Class 10

10	185	13.4	19.6	5.6	31	12	2	0	0.0	0.000	0	0	0	5.6	31	0.96	8.4	3.1	10
15	185	18.8	27.8	11.2	84	66	36	0	0.0	0.000	0	0	0	11.2	84	1.20	12.0	5.6	15
20	185	23.4	34.8	17.6	150	137	109	0	0.0	0.000	0	0	0	17.6	150	1.26	14.0	7.5	20
25	185	27.0	40.5	23.8	223	212	188	0	0.0	0.000	0	0	0	23.8	223	1.17	14.1	8.9	25
30	185	29.8	44.9	29.2	291	281	260	0	0.0	0.000	0	0	0	29.2	291	0.99	12.6	9.7	30
35	185	32.0	48.1	33.7	350	340	319	0	0.0	0.000	0	0	0	33.7	350	0.80	10.7	10.0	35
40	185	33.6	50.6	37.3	398	389	368	0	0.0	0.000	0	0	0	37.3	398	0.64	8.7	9.9	40
45	185	34.7	52.5	40.1	437	427	406	0	0.0	0.000	0	0	0	40.1	437	0.49	6.8	9.7	45
50	185	35.6	53.9	42.2	466	456	435	0	0.0	0.000	0	0	0	42.2	466	0.37	5.2	9.3	50
55	185	36.2	54.9	43.8	488	479	457	0	0.0	0.000	0	0	0	43.8	488	0.28	4.0	8.9	55
60	185	36.7	55.7	45.0	505	495	474	0	0.0	0.000	0	0	0	45.0	505	0.19	2.9	8.4	60

Poplar (Continued)

Yield Class 8

Age	MAIN CROP After Thinning							Yield From THINNINGS						CUMULATIVE PRODUCTION		INCREMENT C.A.I.		INCREMENT M.A.I.	Age
	Number of Trees	Top Ht.	Mean Diam.	Basal Area	Volume in cubic metres to top diameters of:			Number of Trees	Mean Diam.	Mean Vol. per Tree	Volume in cubic metres to top diameters of:			Basal Area	Vol. to 7cm	Basal Area	Vol. to 7cm	Vol. to 7cm	
					7 cm	18 cm	24 cm				7 cm	18 cm	24 cm						
		m	cm	2 m					cm	3 m				2 m	3 m	2 m	3 m	3 m	
10	185	12.0	17.4	4.4	22	5	0	0	0.0	0.000	0	0	0	4.4	22	0.78	6.3	2.2	10
15	185	16.9	24.9	9.0	62	43	17	0	0.0	0.000	0	0	0	9.0	62	0.99	9.3	4.1	15
20	185	21.2	31.4	14.3	115	100	70	0	0.0	0.000	0	0	0	14.3	115	1.06	11.2	5.8	20
25	185	24.6	36.7	19.6	174	162	135	0	0.0	0.000	0	0	0	19.6	174	1.00	11.5	7.0	25
30	185	27.3	40.9	24.3	230	219	195	0	0.0	0.000	0	0	0	24.3	230	0.86	10.5	7.7	30
35	185	29.4	44.1	28.2	279	268	247	0	0.0	0.000	0	0	0	28.2	279	0.71	9.0	8.0	35
40	185	30.9	46.5	31.4	319	309	289	0	0.0	0.000	0	0	0	31.4	319	0.56	7.4	8.0	40
45	185	32.1	48.3	33.8	352	342	322	0	0.0	0.000	0	0	0	33.8	352	0.43	5.7	7.8	45
50	185	32.9	49.6	35.7	376	367	346	0	0.0	0.000	0	0	0	35.7	376	0.32	4.3	7.5	50
55	185	33.5	50.5	37.0	395	386	365	0	0.0	0.000	0	0	0	37.0	395	0.24	3.3	7.2	55
60	185	33.9	51.2	38.1	409	400	379	0	0.0	0.000	0	0	0	38.1	409	0.16	2.4	6.8	60

Yield Class 6

10	185	10.2	15.1	3.3	14	1	0	0	0.0	0.000	0	0	0	3.3	14	0.60	4.4	1.4	10
15	185	14.8	21.6	6.8	42	22	5	0	0.0	0.000	0	0	0	6.8	42	0.76	6.8	2.8	15
20	185	18.7	27.4	10.9	81	64	33	0	0.0	0.000	0	0	0	10.9	81	0.85	8.4	4.1	20
25	185	21.9	32.4	15.3	125	111	81	0	0.0	0.000	0	0	0	15.3	125	0.82	8.8	5.0	25
30	185	24.4	36.3	19.2	169	156	129	0	0.0	0.000	0	0	0	19.2	169	0.72	8.3	5.6	30
35	185	26.4	39.3	22.5	208	196	171	0	0.0	0.000	0	0	0	22.5	208	0.60	7.2	5.9	35
40	185	27.8	41.6	25.1	240	229	206	0	0.0	0.000	0	0	0	25.1	240	0.47	5.9	6.0	40
45	185	28.9	43.2	27.2	266	255	233	0	0.0	0.000	0	0	0	27.2	266	0.36	4.6	5.9	45
50	185	29.7	44.5	28.7	285	275	254	0	0.0	0.000	0	0	0	28.7	285	0.27	3.4	5.7	50
55	185	30.3	45.3	29.9	300	290	269	0	0.0	0.000	0	0	0	29.9	300	0.20	2.6	5.5	55
60	185	30.7	46.0	30.7	311	301	280	0	0.0	0.000	0	0	0	30.7	311	0.13	1.9	5.2	60

Yield Class 4

10	185	8.1	11.9	2.1	6	0	0	0	0.0	0.000	0	0	0	2.1	6	0.42	2.5	0.6	10
15	185	12.0	17.5	4.4	22	5	0	0	0.0	0.000	0	0	0	4.4	22	0.54	4.2	1.5	15
20	185	15.5	22.6	7.4	47	28	7	0	0.0	0.000	0	0	0	7.4	47	0.62	5.6	2.4	20
25	185	18.4	27.0	10.6	78	60	30	0	0.0	0.000	0	0	0	10.6	78	0.63	6.2	3.1	25
30	185	20.8	30.7	13.7	109	93	62	0	0.0	0.000	0	0	0	13.7	109	0.57	5.9	3.6	30
35	185	22.6	33.5	16.3	136	123	93	0	0.0	0.000	0	0	0	16.3	136	0.47	5.2	3.9	35
40	185	23.9	35.6	18.4	160	147	119	0	0.0	0.000	0	0	0	18.4	160	0.37	4.3	4.0	40
45	185	25.0	37.1	20.0	179	167	140	0	0.0	0.000	0	0	0	20.0	179	0.29	3.4	4.0	45
50	185	25.7	38.3	21.3	194	182	156	0	0.0	0.000	0	0	0	21.3	194	0.22	2.6	3.9	50
55	185	26.2	39.1	22.2	204	193	168	0	0.0	0.000	0	0	0	22.2	204	0.15	1.9	3.7	55
60	185	26.6	39.6	22.8	212	201	176	0	0.0	0.000	0	0	0	22.8	212	0.10	1.4	3.5	60

AGE OF MAXIMUM MEAN ANNUAL VOLUME INCREMENT

(see text, pages 42 and 113)

SPECIES	YIELD CLASS													
	30	28	26	24	22	20	18	16	14	12	10	8	6	4
Scots pine	—	—	—	—	—	—	—	—	66	69	73	77	82	89
Corsican pine	—	—	—	—	—	53	54	55	57	59	61	64	70	—
Lodgepole pine	—	—	—	—	—	—	—	—	54	56	60	65	71	80
Sitka spruce	—	—	—	46	48	50	52	55	57	59	61	64	66	—
Norway spruce	—	—	—	—	63	65	67	69	72	75	79	84	90	—
European larch	—	—	—	—	—	—	—	—	—	47	49	52	56	60
Japanese larch/ Hybrid larch	—	—	—	—	—	—	—	—	41	42	44	47	50	56
Douglas fir	—	—	—	50	51	52	54	56	58	61	64	—	—	—
Western hemlock	—	—	—	53	56	59	63	67	73	79	—	—	—	—
Western red cedar/ Lawson cypress	—	—	—	58	60	63	65	67	69	72	—	—	—	—
Grand fir	51	51	52	52	53	54	55	56	57	—	—	—	—	—
Noble fir	—	—	—	—	64	66	68	69	71	73	—	—	—	—
Oak	—	—	—	—	—	—	—	—	—	—	—	68	79	90
Beech	—	—	—	—	—	—	—	—	—	—	80	87	96	107
Sycamore/ Ash/Birch	—	—	—	—	—	—	—	—	—	40	41	43	45	49
Poplar	—	—	—	—	—	—	—	—	35	36	37	38	39	42

MEAN BREAST-HEIGHT DIAMETER (centimetres) AT AGE OF MAXIMUM MEAN ANNUAL VOLUME INCREMENT

(see text, page 113)

SPECIES	YIELD CLASS													
	30	28	26	24	22	20	18	16	14	12	10	8	6	4
Scots pine	—	—	—	—	—	—	—	—	45	41	37	32	27	22
Corsican pine	—	—	—	—	—	40	38	36	33	31	28	25	22	—
Lodgepole pine	—	—	—	—	—	—	—	—	34	31	29	26	22	19
Sitka spruce	—	—	—	40	39	37	36	34	31	29	26	23	19	—
Norway spruce	—	—	—	—	51	48	44	41	38	35	31	28	24	—
European larch	—	—	—	—	—	—	—	—	—	36	33	29	25	21
Japanese larch/ Hybrid larch	—	—	—	—	—	—	—	—	35	32	29	25	22	19
Douglas fir	—	—	—	55	52	50	47	44	41	37	34	—	—	—
Western hemlock	—	—	—	38	37	36	35	34	33	32	—	—	—	—
Western red cedar/ Lawson cypress	—	—	—	42	40	38	36	34	32	29	—	—	—	—
Grand fir	49	47	44	42	39	37	35	33	31	—	—	—	—	—
Noble fir	—	—	—	—	40	38	36	33	31	28	—	—	—	—
Oak	—	—	—	—	—	—	—	—	—	—	—	35	34	31
Beech	—	—	—	—	—	—	—	—	—	—	45	42	39	35
Sycamore/ Ash/Birch	—	—	—	—	—	—	—	—	—	42	37	31	25	19
Poplar	—	—	—	—	—	—	—	—	55	52	49	46	41	36

Appendix I

DESCRIPTION OF UNITS OF MEASURE

Yield Class. A classification of rate of growth in terms of the potential maximum mean annual increment per hectare of volume to 7 cm top diameter, irrespective of age of culmination, or of tree species.

Age. Number of growing seasons since planting.

Number of Trees (*per hectare*). This is based on an assumed (square) planting distance which is an estimate of the average for existing crops. The initial value is reduced to allow for mortality up to the age of first thinning, but no allowance is made for natural mortality once thinning has started.

Top Height. The average total height of the 100 trees of largest diameter per hectare. Mean height will be less than top height by amounts which will vary from 1 metre in low thinned crops to 2 metres for crown thinned and lightly thinned crops.

Mean Diameter at Breast Height (*dbh*). The quadratic mean diameter (the diameter equivalent to the mean basal area) of all trees measured at 1·3 m above ground-level.

Basal Area (*per hectare*). The sum of the overbark cross-sectional areas of the stems of all trees, measured at 1·3 m. above ground-level.

Total (Cumulative) Basal Area (*per hectare*). This is the main crop basal area plus the basal areas of present and all previous thinnings.

Volume (*per hectare*). This is expressed as overbark volume and is based mainly on 3-metre sectional measurements using Hubers formula (see Forestry Commission Bulletin 31, *Code of Sample Plot Procedure* (1959), for more details). The conventional top diameter limit for volume measurement is 7 cm, and the minimum log length to this top diameter considered to have volume is 1·3 m. Thus, trees with a dbh of less than 7 cm have no measurable volume. In hardwoods, the measurement limit is either to 7 cm, or to the point at which no main stem is distinguishable, whichever comes first.

Average Volume per Tree (*Volume to 7 cm top diameter ob*). Note that the value obtained by dividing volume by the number of trees given in the table may differ slightly from the tabulated average volume, which is a smoothed value.

Total (Cumulative) Volume Production. This is volume to 7 cm top diameter of the main crop plus that of present and all previous thinnings.

Current Annual Basal Area and Volume Increments (*CAI*). These are not periodic annual increments, but *current* annual increments, i.e. the increments put on during the year in question, not the average increments between the five-yearly tabulations in the Normal Yield Tables. The increment figures

refer to total basal area and volume production, not to maincrop basal areas and volumes.

Mean Annual Volume Increment (*MAI*). This is the total volume production to date, divided by the age, i.e. the average rate of volume production over the life of the crop to date.

Rounding conventions. Tables are, in general, presented in simplified form in that the original computed values have been rounded; this sometimes results in apparent inconsistencies. The following rounding conventions are used:

Top height—to nearest 0·1 m
Number of trees—to nearest 1 per hectare
Mean dbh—to nearest 0·1 cm

Basal area—to nearest 0·1 m^2/ha
Volume per hectare—to nearest 1·0 m^3/ha

Basal area increment—to nearest 0·01 m^2/ha
Volume increment—to nearest 0·1 m^3/ha

Average volume—to nearest 0·001 m^3

Appendix II

CONVERSION FACTORS

1. Land Area

1 hectare (ha) = 2·471 05 acres

Reciprocal 1 acre = 0·404 686 hectares (ha)

2. Length

1 metre (m) = 3·280 84 feet

Reciprocal 1 foot = 0·304 8 metres (m)

3. Diameter to Girth

1 centimetre diameter (cm diam.) = 0·309 212 inches *quarter* girth

Reciprocal 1 inch *quarter* girth = 3·234 03 centimetres diameter (cm diam.)

1 centimetre diameter (cm diam.) = 1·236 85 inches *true* girth

Reciprocal 1 inch *true* girth = 0·808 507 centimetres diameter (cm diam.)

4. Basal Area

1 square metre (m^2) = 8·453 96 square feet quarter girth

Reciprocal 1 square foot quarter girth = 0·118 288 square metres (m^2)

5. Basal Area, per unit area

1 square metre per hectare (m^2/ha) = 3·421 19 square feet quarter girth per acre

Reciprocal 1 square foot quarter girth per acre = 0·292 296 square metres per hectare (m^2/ha)

6. Volume

1 cubic metre (m^3) = 27·736 1 *hoppus* feet

Reciprocal 1 *hoppus* foot = 0·036 054 1 cubic metres (cu m or m^3)

1 cubic metre (m^3) = 35·314 7 *cubic* feet

Reciprocal 1 *cubic* foot = 0·028 316 8 cubic metres (cu m or m^3)

7. Volume per unit area

1 cubic metre per hectare (m^3/ha) = 11·224 4 hoppus feet per acre

Reciprocal 1 hoppus foot per acre = 0·089 091 6 cubic metres per hectare (m^3/ha)

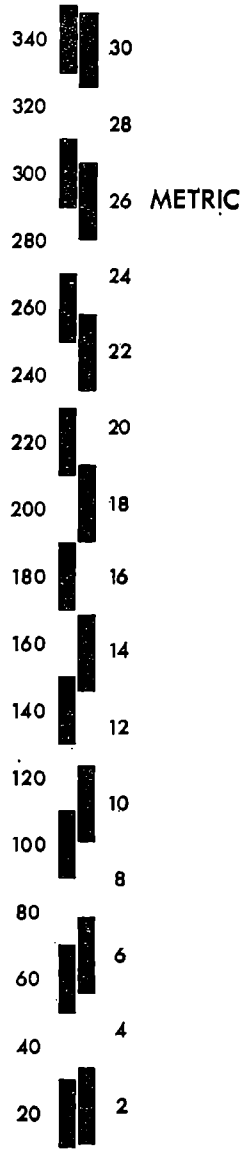
YIELD CLASS CONVERSION SCALE

Allocation of Areas in Hoppus Yield Classes to Metric Yield Classes

Hoppue Yield-Class	Cubic metres per hectare	Metric Yield Classes embraced	Proportion of area allocated to Metric Yield Class	Factors to convert acres in Hoppus Y.C. to hectares in Metric Y.C.
340	30·3	32 30	0·10 0·90	0·0405 0·3642
320	28·5	30 28	0·25 0·75	0·1012 0·3035
300	26·7	28 26	0·35 0·65	0·1416 0·2630
280	24·9	26 24	0·45 0·55	0·1821 0·2226
260	23·2	24 22	0·60 0·40	0·2428 0·1619
240	21·4	22 20	0·70 0·30	0·2833 0·1214
220	19·6	20 18	0·85 0·15	0·3440 0·0607
200	17·8	18 16	0·95 0·05	0·3845 0·0202
180	16·0	16	1·00	0·4047
160	14·3	16 14	0·05 0·95	0·0202 0·3845
140	12·5	14 12	0·20 0·80	0·0809 0·3237
120	10·7	12 10	0·35 0·65	0·1416 0·2630
100	8·9	10 8	0·45 0·55	0·1821 0·2226
80	7·1	8 6	0·55 0·45	0·2226 0·1821
60	5·3	6 4	0·65 0·35	0·2630 0·1416
40	3·6	4 2	0·80 0·20	0·3237 0·0809
20	1·8	2	0·90	0·3642

e.g. 135 hectares H.Y.C.140 ≡ (135 x 0·2 ha Metric Y.C.14 / +135 x 0·8 ha Metric Y.C.12)

200 acres H.Y.C.120 ≡ (200x0·1416 ha Metric Y.C.12 / +200x0·2630 ha Metric Y.C.10)



Appendix IV

CONVERSION OF DIAMETER AT BREAST HEIGHT (dbh) TO BASAL AREA

dbh cm	Basal Area m^2	dbh cm	Basal Area m^2	dbh cm	Basal Area m^2	dbh cm	Basal Area m^2
1	0·0001	11	0·0095	21	0·0346	31	0·0755
2	0·0003	12	0·0113	22	0·0380	32	0·0804
3	0·0007	13	0·0133	23	0·0415	33	0·0855
4	0·0013	14	0·0154	24	0·0452	34	0·0908
5	0·0020	15	0·0177	25	0·0491	35	0·0962
6	0·0028	16	0·0201	26	0·0531	36	0·1018
7	0·0038	17	0·0227	27	0·0573	37	0·1075
8	0·0050	18	0·0254	28	0·0616	38	0·1134
9	0·0064	19	0·0284	29	0·0661	39	0·1195
10	0·0079	20	0·0314	30	0·0707	40	0·1257

Appendix V

SPECIES COVERED BY THE MANAGEMENT TABLES

A. Specific Tables

SP	Scots pine	*Pinus sylvestris*	
CP	Corsican pine	*Pinus nigra* var. *maritima*	
LP	Lodgepole pine	*Pinus contorta*	
SS	Sitka spruce	*Picea sitchensis*	
NS	Norway spruce	*Picea abies*	
EL	European larch	*Larix decidua*	
JL	Japanese larch	*Larix kaempferi*	Combined tables
HL	Hybrid larch	*Larix* × *eurolepis*	Combined tables
DF	Douglas fir	*Pseudotsuga menziesii*	
WH	Western hemlock	*Tsuga heterophylla*	
RC	Red cedar	*Thuja plicata*	Combined tables
LC	Lawson cypress	*Chamaecyparis lawsoniana*	Combined tables
GF	Grand fir	*Abies grandis*	
NF	Noble fir	*Abies procera*	
Oak	Pedunculate/Sessile	*Quercus robur/petraea*	
Be	Beech	*Fagus sylvatica*	
SAB	Sycamore/Ash/Birch	*Acer pseudoplatanus/Fraxinus excelsior/Betula pubescens/pendula*	
Po	Hybrid poplars	*Populus* × *euramericana*	

B. Suggested Tables for other Species

For these species:		*Use tables for:*	
Maritime pine	*Pinus pinaster*	*Pinus contorta*	LP
Weymouth pine	*Pinus strobus*	*Pinus sylvestris*	SP*
Monterey pine	*Pinus radiata*	*Pinus nigra* var. *maritima*	CP
Serbian spruce	*Picea omorika*	*Picea abies*	NS*
Silver fir	*Abies alba*	*Abies procera*	NF
Californian Redwood & Wellingtonia	*Sequoia sempervirens* *Sequoiadendron giganteum*	*Abies grandis*	GF*
Grey, Common & Italian alder	*Alnus incana, glutinosa & cordata*	Combined table for Ash, Sycamore & Birch	SAB
Norway maple	*Acer platanoides*		
Hornbeam	*Carpinus betulus*		
Elm	*Ulmus procera/glabra*		
Sweet Chestnut	*Castanea sativa*	*Fagus sylvatica*	Be
Red oak	*Quercus borealis*		
Nothofagus	*Nothofagus procera*		

* Use Production Class 'a', i.e. the Yield Class is likely to be one greater than that indicated by the General Yield Class curves for the recommended species.