



**THE
FORESTRY
INDUSTRY
COUNCIL
OF
GREAT BRITAIN**

A REFERENCE FOR THE FORESTRY INDUSTRY

This Yearbook is the most comprehensive reference source about the British forestry industry today. It is published every two years by the Forestry Industry Council of Great Britain, an umbrella body of organisations and professional associations which together represent the private sector of the forestry and forest products industry in the UK, from tree nurseries through to finished product.

The Yearbook gives up-to-date figures for the years 1996, 1997 and those for 1998 which were available at the time the Handbook went to press.



Forestry Commission

We are grateful to the Forestry Commission for their assistance in producing this Handbook, and for providing many of the statistics.

Forestry Industry Council of Great Britain
Stirling Business Centre
Wellgreen Place
STIRLING
FK8 2DZ

Tel: 01786 473717
Fax: 01786 473731
Email: ficgb@aol.com

Enquiries relating to the statistics in this Handbook should be addressed to:

Statistics
Forestry Commission
231 Corstorphine Road
EDINBURGH
EH12 7AT

Tel: 0131 314 6337
Email: statistics@forestry.gov.uk

CONTENTS



Introduction

1

The Growing Sector

3

Land Area Under Forestry 31 March 1998

4

Forest Cover – International Comparisons 1995

5

Age Profile of Forests in Britain

6

Main Commercial Tree Species Grown in Britain

7

New Planting and Restocking 1978-1998 (Conifers)

8

New Planting and Restocking 1978-1998 (Broadleaves)

9

IPD Forestry Index

10

Forestry Commission

13

Forestry Regulations

15

Woodland Grant Scheme

15

Sources of Information and Advice on Woodland Grant Schemes and Forestry Investment

17



Environment

23

Recreation

24

Woodland Day Visits 1996

25

Conservation

26

Forest Education Initiative

26

Woodmark Scheme

27



Supply and Demand

29

Imports and Exports 1993-1997

30

Imports/Exports and Apparent Consumption

31

The Demand for the Major Wood Products Groups 1990-2050

32

Forecasts of Average Annual UK Wood Production

33



Processing Sector

35

Wood flow

36

Major Forest Products Processing Mills which use Domestic Timber

37

Deliveries of Home-grown Timber to Wood Processing Industries

38

Significant Investments in the Processing Sector 1988-98

39



Paper and board

41

UK Production and Consumption of Paper and Board 1997

42

UK Production of Paper and Board Using Domestic Timber 1997

43

The Paper Federation of Great Britain

44



Wood-based panels

47

UK Production of Wood-based Panels 1997

48

The Wood Panel Industries Federation

49



Sawmilling

51

UKFPA

53

Principal Sawmills in Great Britain

54



Other Wood Products

57



Forestry Employment

59

Employment

60

Employment by Activity

61

Travel to Work Distances

62

Profile of Labour Through One Rotation

63

Comparisons with Previous Surveys

63

Forestry Training

64



International trade

67

World Trade in Forest Products 1996

68

Glossary

70

FICGB Structure

72

INTRODUCTION

Wood and wood products are all around us. Timber is used for construction, joinery, furniture and toys while paper provides our stationery, books, newsprint, magazines, packaging, toilet paper and a host of other products. From the ceiling and flooring of the building we are standing in, to the packaging of our breakfast cereal, wood is an integral part of our daily lives. Every man, woman and child in Britain consumes one tonne of wood every year.

Britain's warm wet climate is ideal for growing trees. In the past, most of the country was covered by natural forest but centuries of clearance for agriculture, warships, industry and housing left Britain with only 4% tree cover by the end of World War 1.

Strict regulations covering the felling of trees put in place by the Forestry Commission in the last war and a series of grant aid packages with attached conditions introduced by the Commission since then have helped raise Britain's forest cover today to almost 11%. Although more than double that of 1918, Britain is still one of the least wooded countries in Europe.

Growing trees is a long-term business and as well as contributing to the often high costs of planting and managing trees, the system of Government grants ensures that forests and woodlands are managed under environmentally sound principles. Where timber production is the main objective, today's professional foresters aim to integrate the growing of a raw material for industry with the creation and enhancement of landscape and the environment. This balance provides a habitat for animal, plant and insect life, and where possible, an area of recreation for the public.

Britain has learned much in the last 80 years of timber growing, but as it takes over 40 years for the 'crop' to mature, many of the benefits of modern forestry are yet to be realised.

This publication is produced every two years. An annually updated version is available on the Forestry Commission's website at www.forestry.gov.uk

The majority of wood quantities are in cubic metres and sometimes expressed as wood raw material equivalent (WRME) under bark . (See glossary on page 70).

THE GROWING SECTOR



Approximately 66% of forests in Britain are in private ownership. The state manages the remainder under Forest Enterprise, the management arm of the Forestry Commission.

The term private sector refers to a wide spectrum of owners from farmers and small woodland owners to medium and large estates, investors, wood processing companies, pension funds, utilities and life assurance companies as well as other government departments, agencies, local authorities and charitable trusts.

Woodland grants are available from the Forestry Commission in recognition of the long-term nature of establishing woodlands and also as a means of encouraging proper forest design, management, and where appropriate, public access. The disciplines imposed through the Forestry Commission, together with strict regulation of felling and replanting, ensure that Britain's woodlands are amongst the best regulated in the world. As early plantings approach felling, opportunities are arising to redesign and restructure our forest cover, using lessons learned over Britain's 80 years of pioneering commercial forestry. This ensures that as well as providing much needed timber for industry, the forests are multi-purpose, creating important benefits for wildlife, and in many cases opportunities for public recreation.

Around 80% of the timber used in Britain is softwood (i.e. of conifer origin). Productive conifer woodlands cover 1 539 000 hectares, 63% of the total woodland area and 6.7% of the total land area of the country. A large proportion of that crop is in Scotland, partly as a result of previous agricultural policies which have directed tree planting to poorer land such as uplands, and partly because of the matching of the species to the Scottish climate. Sitka spruce, introduced by David Douglas from Canada in the nineteenth century and often referred to as the super tree, grows extremely well in Scotland's mild and wet climate.

Modern forestry aims to achieve a balance between growing timber, the needs of the landscape, biodiversity and habitats for wildlife, and where appropriate, providing opportunities for recreation. Above all it is managed on a sustainable basis, i.e. where trees are felled they are replaced providing a constant harvest.

See pages 15-16 for a list of forestry regulations and grant schemes available.

Land Area Under Forestry - 31 March 1998

Key

All figures given in thousands of hectares

FC Forestry Commission

PW Private Woodlands

Other Woodlands not primarily managed for timber

Conifer Includes Scots pine

Scotland: Land area under forest 15.6%

	Conifer	B'Leaves	Coppice	Other	Total
FC	463	6	0	28	497
PW	526	115	0	65	705
Total	989	120	0	93	1202

Wales: Land area under forest 12.0%

	Conifer	B'Leaves	Coppice	Other	Total
FC	108	6	0	4	118
PW	59	60	1	9	129
Total	167	67	1	13	247

England: Land area under forest 7.6%

	Conifer	B'Leaves	Coppice	Other	Total
FC	167	34	1	17	219
PW	216	449	18	88	771
Total	383	483	19	105	990

Land area under forestry

	Scotland	Wales	England	GB
1924	5.6%	4.9%	5.1%	5.3%
1947	6.7%	6.2%	5.8%	6.1%
1965	8.5%	9.7%	6.8%	7.7%
1980	11.9%	11.7%	7.3%	9.3%

Great Britain: Land area under forest 10.7%

	Conifer	B'Leaves	Coppice	Other	Total
FC	738	46	1	49	834
PW	801	624	19	162	1606
Total	1539	670	20	211	2440

Source: Forestry Commission

Note: The figures in the tables may not add exactly due to rounding

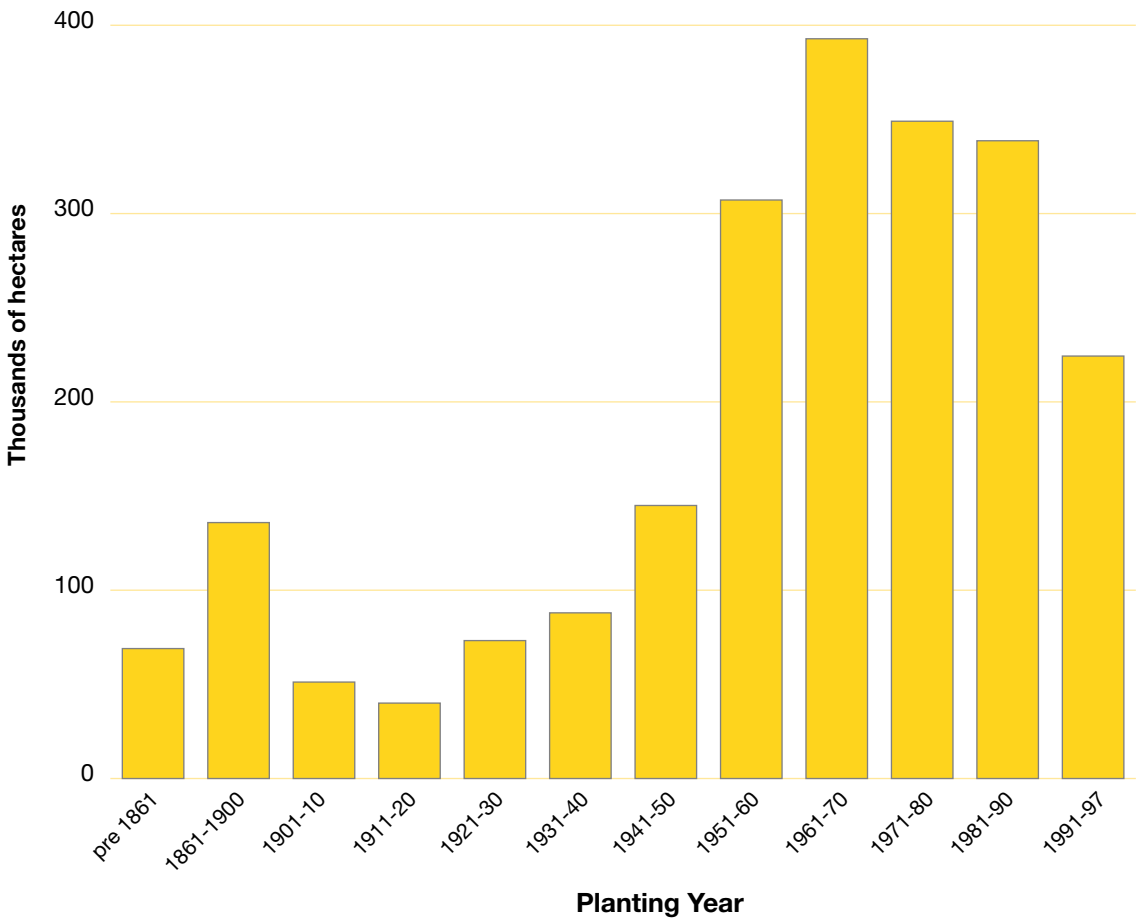
Forest Cover - International Comparisons -1995

COUNTRY	Percentage of total area	Total land area (million ha)	Forest Area (million ha)
United Kingdom	10%	24.2	2.5
Austria	47%	8.3	3.9
Belgium/Luxembourg	22%	3.3	0.7
Denmark	10%	4.2	0.4
Finland	66%	30.5	20.0
France	27%	55.0	15.0
Germany	31%	34.9	10.7
Greece	51%	12.9	6.5
Ireland	8%	6.9	0.6
Italy	22%	29.4	6.5
Netherlands	10%	3.4	0.3
Portugal	31%	9.2	2.9
Spain	17%	49.9	8.4
Sweden	59%	41.2	24.4
European Union	33%	313.2	102.9
Norway	26%	30.7	8.1
Switzerland	29%	4.0	1.1
Other Europe	27%	124.6	34.0
Total Europe (exc former USSR)	31%	472.4	146.1
Estonia	48%	4.2	2.0
Latvia	46%	6.2	2.9
Lithuania	30%	6.5	2.0
Russian Federation	45%	1688.9	763.5
Other former USSR	9%	489.2	45.8
Total former USSR	37%	2194.9	816.2
China	14%	932.6	133.3
Japan	67%	37.7	25.1
Other Temperate Asia	4%	859.8	35.9
Tropical Asia	33%	846.8	279.8
Total Asia (exc former USSR)	18%	2676.9	474.2
USA	23%	915.9	212.5
Canada	27%	922.1	244.6
Tropical North & America	30%	264.8	79.4
Total North & Central America	26%	2102.8	536.5
Brazil	65%	845.7	551.1
Other Tropical South America	51%	540.0	276.8
Temperate South America	12%	366.0	42.6
Total South America	50%	1751.7	870.6
Tropical Africa	23%	2236.2	504.9
Non Tropical Africa	2%	700.7	15.3
Total Africa	18%	2936.9	520.2
Australia	5%	764.4	40.9
New Zealand	29%	26.8	7.9
Tropical Oceania	78%	54.1	41.9
Total Oceania	11%	845.3	90.7
World	27%	12981.0	3454.5

Notes:







1. Source: FAO State of the World's Forest 1997 (UK amended)
2. Definition of forest differs from FAO publication source used in previous years.
Different countries may have used different definitions of forest cover.

Age Profile of Forests in Britain



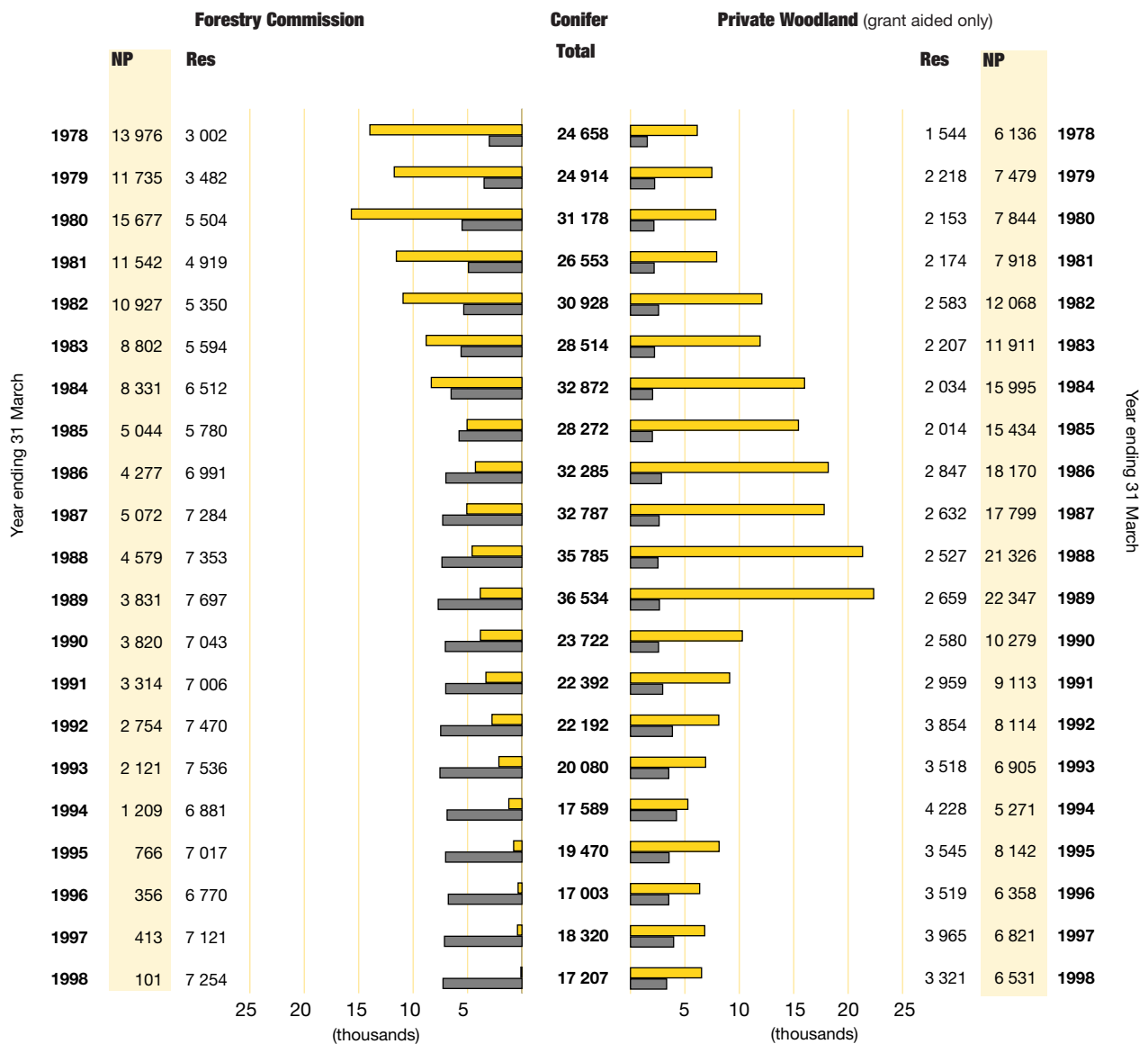
Source: Forestry Commission
Note: High forest only – excludes coppice and other woodland

Main Commercial Tree Species Grown in Britain

	Species	Possible Yield m³/ha	Average Yield m³/ha	Age at first thinning	Age at felling	Approx. % forest area
	Scots pine <i>Pinus sylvestris</i>	4-14	9	21-40	55-75	13
	Corsican pine <i>Pinus nigra var. maritima</i>	6-20	13	18-33	45-60	2
	Lodgepole pine <i>Pinus contorta</i>	4-14	7	19-40	50-60	7
	European larch <i>Larix decidua</i>	4-14	8	18-32	45-55	2
	Japanese larch <i>Larix kaempferi</i>	4-16	9	14-26	45-55	6
	Douglas fir <i>Pseudotsuga menziesii</i>	8-24	14	16-25	45-60	2
	Norway spruce <i>Picea abies</i>	6-22	12	20-35	50-70	6
	Sitka spruce <i>Picea sitchensis</i>	6-24	13	18-33	40-60	28
	Sessile oak <i>Quercus petraea</i>	2-8	5	24-35	120-160	9
	Pedunculate oak <i>Quercus robur</i>					
	Beech <i>Fagus sylvatica</i>	4-10	6	26-37	100-130	4
	Ash <i>Fraxinus excelsior</i>	4-10	5	14-24	60-80	4
	Silver birch <i>Betula pendula</i>	2-10	5	14-24	40-60	4
	Hairy birch <i>Betula pubescens</i>					

Note: Thinning treatment and expected age of felling may be affected by site stability as well as Yield Class

New Planting and Restocking 1978 - 1998 (Conifer)



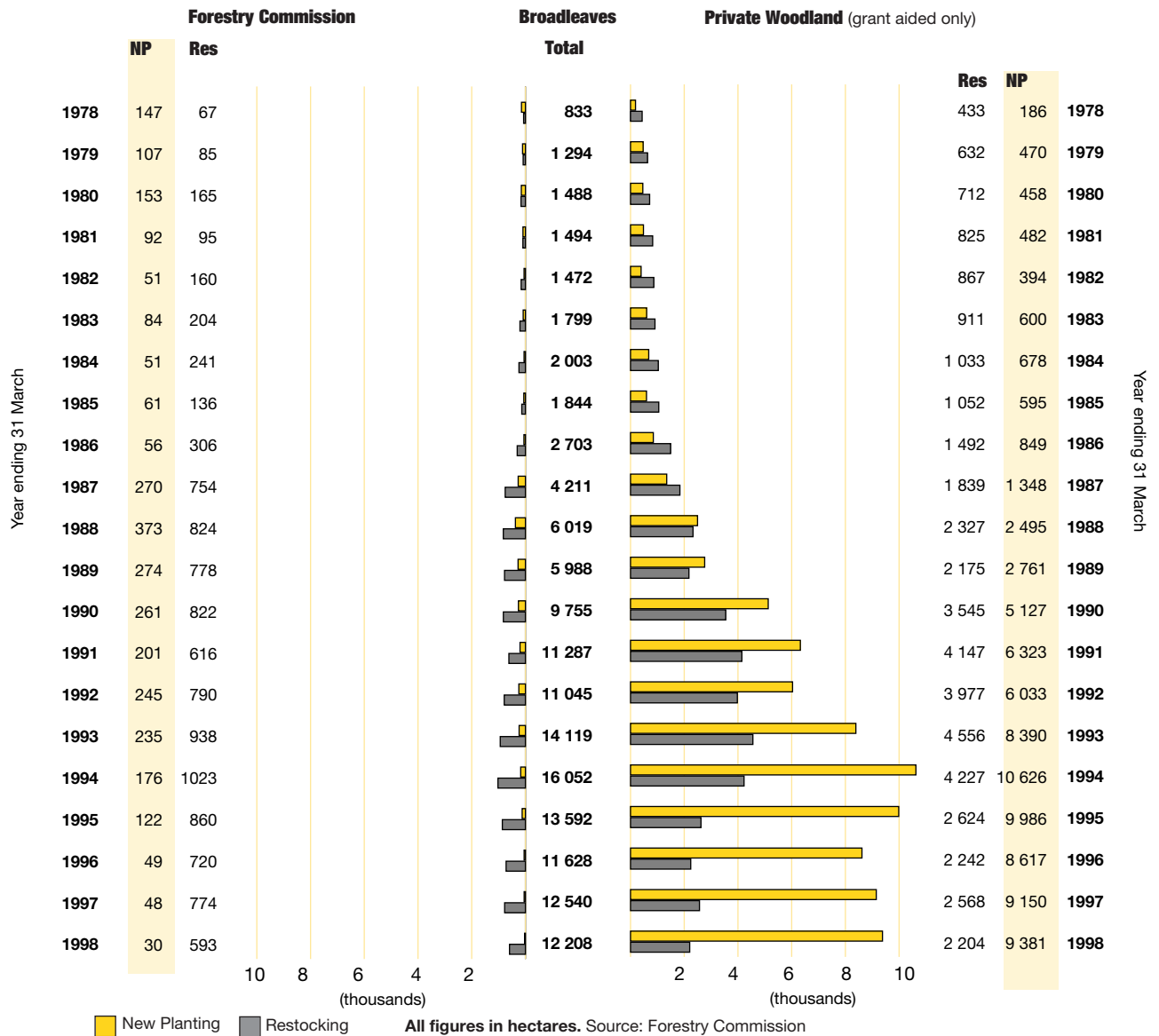
New Planting and Restocking of Native Pinewoods

Year ending 31 March	1990	1991	1992	1993	1994	1995	1996	1997	1998
New Planting									
Private Woodland	23	528	957	3022	2139	3833	4190	4784	4735
Forestry Commission	8	35	28	72	4	1	27	0	0
Restocking									
Private Woodland	0	0	0	114	870	519	1235	372	298
Forestry Commission	22	2	2	7	8	0	133	28	1

Notes:

1. Forestry Commission restocking includes restocking and new planting in Ancient Woodlands & Ancient Semi Natural Woodlands.
2. Private Woodland figures include planting of associated broadleaves in native pinewoods.
3. Figures are included in totals for conifers and broadleaves.
4. Figures include natural regeneration.

New Planting and Restocking 1978 - 1998 (Broadleaves)



IPD FORESTRY INDEX

The Investment Property Databank Index is an independent analysis of the total investment return on UK forestry.

It shows returns recorded since 1980 by a representative sample of UK private sector commercial forests (mainly Sitka spruce) and reflects movements in valuations driven by changes in timber prices and investor demand. It is based on a series of annual value appraisals combined with full cash flow details of each property.

Summary

- The median valuation increased for all age categories in 1997.
- In the three years from 1994-1997 forestry returned 7.9% per annum, a fall of 2% from 9.9% per annum for the three years 1993 to 1996.
- Immature crops show the strongest underlying performance.
- Lower levels of investment returns have been reflected, particularly in more mature crops, somewhat more sensitive to timber prices.

Detailed information on the IPD index, updated each autumn, is available from:

**Claire Herd
Investment Property Databank
7/8 Greenland Place
LONDON
NW1 0AP**

**Tel: 0171 482 5149
Fax: 0171 267 0208**

Email: manager@ipdindex.co.uk

**Andrew Jennings
Forestry Consultant
Orchard Cottage
Tower Hill
HORSHAM
West Sussex
RH13 7JT**

Tel/Fax: 01403 253034

Detailed Results

TABLE 1
Nominal and Real Returns to Forestry
1980-1997 (including transactions)

Year End 31 Dec	No. of Forests	Nominal Total Return	Total Return Index*	Real Total Return	Timber Price % pa	Timber Price Index**
1980	-	-	75.9	-	-	-
1981	26	7.9	81.9	-3.7	-31.1	88.2
1982	31	0.0	81.9	-5.1	4.2	91.8
1983	38	0.6	82.4	-4.5	20.4	110.6
1984	44	0.4	82.8	-4.0	12.9	124.9
1985	53	6.6	88.2	0.8	6.6	133.1
1986	66	4.7	92.3	0.9	14.1	151.9
1987	76	7.0	98.8	3.2	10.4	167.6
1988	95	6.3	105.0	-0.5	-0.3	167.1
1989	107	9.0	114.5	1.2	-14.9	142.1
1990	111	-4.9	108.9	-13.0	-17.1	117.8
1991	123	-3.8	104.8	-7.9	-17.9	96.7
1992	126	-4.6	100.0	-7.0	3.5	100.0
1993	126	-4.5	95.5	-6.3	8.3	108.3
1994	126	9.8	104.8	6.7	19.2	129.1
1995	126	8.5	113.7	5.2	-8.1	118.6
1996	126	11.4	126.7	8.6	-9.7	107.1
1997	126	3.9	131.5	0.3	-17.6	88.2
Annualised*						
1980-87	-	3.8	-	-1.8	3.9	-
1987-92	-	0.2	-	-5.6	-9.8	-
1992-97	-	5.6	-	2.7	-2.5	-
1994-97	-	7.9	-	4.6	-11.9	-

* Annualised returns shown are from December. For example, 1980-87 represents performance from December 1980 to December 1987 – i.e. the seven years 1981 to 1987 inclusive.

*Index based at 1992 after the expiry of expenditure relief.

**This is a real price index (1996 prices). Timber prices used are Forestry Commission standing coniferous sales. Data are on financial year basis to a March year end.

Note: this table emphasises the three distinct periods of forestry return. Until March 1988 forestry investment was heavily influenced by tax relief on expenditure. Although expenditure relief ended for new purchases on 15th March 1988, properties bought prior to that date continued to benefit until April 1993, leading to a transitional period which affected returns in the years ending December 1988-92. During this period, forestry returns adjusted to a new fiscal regime. The third period, from 1992 onwards, shows returns available to investors under continuing arrangements.

Comment: The annualised return for the period 1994-97 at 4.6% is close to the norm expected from coniferous plantations on the basis of maintenance of real timber values and physical growth.

TABLE 2
Nominal and Real Returns to Forestry
1980-1997 (excluding transactions)

Year End 31 Dec	0-10 Years		11-20 Years		21-30 Years		>30 Years	
	Nom	Real	Nom	Real	Nom	Real	Nom	Real
1980	-	-	-	-	-	-	-	-
1981	6.3	-5.1	-	-	-	-	-	-
1982	1.8	-3.4	-3.3	-8.3	-	-	-	-
1983	3.4	-1.8	3.4	-1.8	-	-	-	-
1984	1.3	-3.1	1.8	-2.7	-	-	-	-
1985	1.9	-3.6	4.7	-1.0	-	-	-	-
1986	5.2	1.5	6.4	2.6	-	-	-	-
1987	0.0	-3.6	10.8	6.9	13.8	9.7	-	-
1988	-5.4	-11.4	10.8	3.7	3.6	-3.0	-	-
1989	-3.5	-10.4	13.0	5.0	12.3	4.3	-	-
1990	-12.5	-20.0	-5.1	-13.2	-3.3	-11.5	-1.2	-9.6
1991	-2.2	-6.4	-3.2	-7.4	-5.0	-9.1	-2.5	-6.7
1992	-3.9	-6.3	-6.1	-8.4	-4.0	-6.4	-3.9	-6.3
1993	-3.2	-5.0	-4.6	-6.4	-5.2	-7.0	-3.9	-5.7
1994	3.8	0.9	5.7	2.7	13.3	10.1	10.1	7.0
1995	8.9	5.5	7.3	4.0	11.7	8.2	4.8	1.6
1996	4.7	2.2	6.3	3.8	18.1	15.2	5.2	2.7
1997	6.6	2.9	7.0	3.3	4.1	0.4	1.6	-1.9
Annualised								
1980-87	2.8	-2.8	-	-	-	-	-	-
1987-92	-5.6	-11.0	1.6	-4.3	0.5	-5.3	-	-
1992-97	4.1	1.2	4.3	1.4	8.1	5.1	3.5	0.6
1994-97	6.7	3.5	6.9	3.7	11.1	7.8	3.9	0.8

Comment: Forests in the 11-20 age category achieved the highest return in 1997, followed by the youngest category. Annualised returns over the last three years highlight the fact that the 21-30 year age category has performed exceptionally well. There is little variation in performance up to year 20 categories. The oldest age category shows the poorest performance reflecting the fall in timber prices since 1994.

Detailed Results

TABLE 3
Nominal and Real Returns by Region (excluding transactions)

Year End 31 Dec	North Scotland	Midland Scotland	South Scotland	North England	Wales
1980	-	-	-	-	-
1981	-	5.8	9.4	-	5.3
1982	-	-4.1	-0.3	-	8.9
1983	-	1.1	3.7	-0.5	7.2
1984	-	-7.3	2.4	-1.5	9.0
1985	-	2.7	4.9	21.2	3.7
1986	-	13.7	3.7	3.1	8.1
1987	-3.8	25.1	1.1	6.3	4.9
1988	-6.2	10.5	4.0	5.3	4.9
1989	-6.9	15.7	8.0	8.9	-8.6
1990	-34.6	-8.1	0.4	0.5	-10.2
1991	-7.1	-6.6	-1.2	2.5	-7.6
1992	-7.4	-5.1	-3.5	-4.7	-5.4
1993	-4.7	-6.6	-3.3	-3.1	-3.8
1994	2.5	2.2	15.7	7.2	7.6
1995	-5.0	2.6	14.3	4.0	5.9
1996	-3.2	0.6	18.2	4.8	16.9
1997	-8.7	1.0	3.9	14.8	4.6
Annualised					
1982-87	-	6.5	3.1	5.4	6.5
1987-92	-13.3	0.8	1.4	2.4	-5.5
1992-97	-3.9	-0.1	9.4	5.4	6.0
1994-97	-5.7	1.4	12.0	7.8	9.0

Comment: The North of England out-performed the four other regions by a considerable margin. Forests in the north of Scotland continued the trend of falling value, reflecting perhaps a relatively small sample.

TABLE 4
Nominal Total Returns to Forestry and other Investments

Year End 31 Dec	Forestry	Let Land	Commercial * Property	Equities**	Gilts***	FTA* Property Shares
1980	-	-	-	-	-	-
1981	7.9	7.9	15.0	14.3	2.4	4.8
1982	0.0	1.4	7.5	30.7	52.6	-5.2
1983	0.6	3.9	7.8	28.4	16.2	35.1
1984	0.4	2.3	9.5	29.8	10.4	23.5
1985	6.6	-14.1	9.2	19.8	12.6	8.4
1986	4.7	-13.0	11.8	25.9	12.5	24.8
1987	7.0	-1.4	26.7	7.1	16.4	23.7
1988	6.3	14.9	29.1	10.4	8.2	27.8
1989	9.0	18.7	15.2	36.0	7.4	5.3
1990	-4.9	3.1	-9.3	-9.8	7.9	-18.1
1991	-3.8	-0.1	-4.7	20.0	18.2	-13.5
1992	-4.6	0.8	-3.3	20.8	19.1	-12.6
1993	-4.5	14.9	19.0	27.9	25.1	-8.4
1994	9.8	20.0	12.4	-5.6	-8.4	-18.6
1995	8.5	27.0	4.5	23.8	17.6	6.9
1996	11.4	22.2	10.8	16.8	7.6	28.0
1997	3.9	8.1 [†]	17.8	22.6	15.5	24.6
Annualised						
1980-87	3.8	-2.2	12.3	22.0	16.7	15.7
1987-92	0.2	7.2	4.4	14.4	12.0	-3.6
1992-97	5.6	18.3	12.8	16.4	10.9	4.9
1994-97	7.9	18.8	10.9	21.0	13.5	19.5

* **Source:** IPD Long Term Index including transactions and developments

** **Source:** WM Equity weighted average Pension Fund return

*** **Source:** WM Bonds weighted average Pension Fund return

† **Holding period returns**

† **Estimated Let Land Figure 1997 by FPD Savills (including transactions and developments)**

Comment: Forestry valuations suffered in 1997 from the strength of sterling, which resulted in a fall in timber prices and from increased supply of recycled wood due to the impact of Landfill tax. However for the private investor, returns on forestry investment would be improved by income tax, capital gains and inheritance tax benefits.

FORESTRY COMMISSION

The Forestry Commission is the Government Department responsible for advising forestry Ministers on forestry policy and for implementing that policy throughout Britain.

The Commission has a statutorily appointed Board of Commissioners with prescribed duties and powers defined in the Forestry Acts 1967 and 1979. The Board consists of a Chairman and up to 10 other Forestry Commissioners, who are appointed by the Queen on the recommendation of Ministers.

The Forestry Commission's mission is to:

Protect and expand Britain's forests and woodlands and increase their value to society and the environment

Its objectives are to:

- Protect Britain's forests and woodlands
- Expand Britain's forest area
- Enhance the economic value of our forest resources
- Conserve and improve the biodiversity, landscape and cultural heritage of our forests and woodlands
- Develop opportunities for woodland recreation
- Increase public understanding and community participation in forestry

The Headquarters and National Offices of the Forestry Commission:

Forestry Commission Headquarters
231 Corstorphine Road
Edinburgh
EH12 7AT
Tel: 0131 334 0303
Fax: 0131 334 3047

Forestry Commission (Scotland)
231 Corstorphine Road
Edinburgh
EH12 7AR
Tel: 0131 334 0303
Fax: 0131 334 6152

Forestry Commission (England)
Great Eastern House
Tenison Road
Cambridge
CB1 2DU
Tel: 01223 314546
Fax: 01223 460699

Forestry Commission (Wales)
Victoria Terrace
Aberystwyth
Ceredigion
SY23 2DQ
Tel: 01970 625866
Fax: 01970 626177

The Forestry Commission has two executive agencies, Forest Enterprise (launched on the 1st April 1996) and Forest Research (launched on the 1st April 1997), which work to targets set by Commissioners and Ministers.

Forestry Commission

FOREST ENTERPRISE is responsible for the management of forests and woodlands owned by the nation. It aims to deliver multiple-purpose benefits by the efficient and sustainable management of the public forest estate.

The main offices of Forest Enterprise:

Forest Enterprise North Scotland
21 Church Street
Inverness
IV1 1EL
Tel: 01463 232811
Fax: 01463 243846

Forest Enterprise South Scotland
55-57 Moffat Road
Dumfries
DG1 1NP
Tel: 01387 272440
Fax: 01387 251491

Forest Enterprise England
Avon Fields House
Somerdale
Keynsham
Bristol
BS31 2BF
Tel: 01179 869481
Fax: 01179 861981

Forest Enterprise Wales
Victoria Terrace
Aberystwyth
Ceredigion
SY23 2DQ
Tel: 01970 612367
Fax: 01970 625282

FOREST RESEARCH aims to deliver high-quality scientific research and surveys, to inform the development of forestry policies and practices, and promote high standards of sustainable forest management.

The main research stations of Forest Research:

Northern Research Station
Roslin
Midlothian
EH25 9SY
Tel: 0131 445 2176
Fax: 0131 445 5124

Alice Holt Lodge
Wrecclesham
Farnham
Surrey
GU10 4LH
Tel: 01420 22255
Fax: 01420 23653

More information can be obtained from the Forestry Commission web site at:

www.forestry.gov.uk

Forestry Regulations

In Britain, forestry regulation is the statutory responsibility of the Forestry Commissioners, whose power extends over both state and private sectors.

The UK Forestry Standard (1998) sets the Government's detailed policies for sustainable forestry management in the UK. The Standard addresses, in a UK context, the issues described in the 'Statement of Principles for a Global Consensus on the Management, Conservation and Development of all types of Forest' adopted by the UN Conference on Environment and Development (Rio de Janeiro 1992), and in the Resolutions of the Ministerial Conference on the Protection of European Forests (Helsinki 1993).

New Planting: Indicative Forestry Strategies identify areas of preferred or potential forest location and areas of environmental sensitivity. Planting and forest management are controlled through a system of consultation and grants, with statutory environmental assessment for particularly sensitive projects.

Management: is promoted through grants linked to approved Plans of Operations.

Felling: is strictly controlled through a system of felling licences or approvals within Plans of Operations. These specify the extent and type of felling, together with conditions of regeneration, restocking and subsequent management.

New Planting, Management and Felling Controls: are operated on the basis of compliance with the UK Forestry Standard. This was developed in consultation with environment and forestry interests and supported by the National forestry research programme, to cover the interaction of forest management and biodiversity, water resources, landscape and social benefits.

Independent Monitoring: the Government has undertaken to monitor the achievement of standards according to criteria and indicators specified in the UK Forestry Standard and to publish the results. This will include a process of independent assessment.

GRANTS FOR PLANTING TREES AND LOOKING AFTER WOODLANDS

The **Woodland Grant Scheme** (WGS) aims to encourage the creation and management of woodland by providing money to help towards cost of work. The WGS scheme is run by the Forestry Commission.

The **Farm Woodland Premium Scheme** (FWPS) is designed to enhance the environment through planting of farm woodlands. This scheme is administered by the Forestry Commission and payments are made by the Agriculture Departments.

Woodland Grant Scheme

Establishment – Planting

Area (ha)	Coniferous (£/ha)	Broadleaves (£/ha)
Any size	700 flat rate	-
Up to 10	-	1350
10 plus	-	1050

Instalments: 70% after planting; 30% at year 5

Stocking densities; conifers and broadleaves – 2250 trees/ha. A lower density of 1100 trees/ha may be acceptable for new native woodlands or for small scale planting of broadleaves where there is little timber production potential, normally as discrete woodlands under 3 hectares, or as a component of a predominantly coniferous planting scheme, and for poplars.

Establishment – Natural Regeneration

Initial discretionary payment of 50% of agreed cost of work necessary to encourage natural regeneration followed by a fixed payment, when adequate stocking is achieved.

Flat Rates: £525/ha – broadleaves • £325/ha – conifers.

Stocking densities; conifers and broadleaves – minimum of 2250 trees/ha. In some circumstances a lower density of 1100 trees/ha for broadleaves may be acceptable. This discretionary payment may be available as a contribution to operations which encourage natural regeneration (eg scarification, fencing) where this is an acceptable method of establishment.

Establishment – Challenge Funds

Challenge Funds where applicants bid for the money they require to carry out planting are available in particular areas of the country.

These Challenge Funds are available for planting on bracken land in Wales, to encourage the creation of new native woodlands in the National Parks of England and Wales, to regenerate the native woodlands in the Deeside Forest and the Forest of Spey and to plant productive woodlands in the Grampian Forest and the Central Scotland Forest.

Community Woodland Supplement (CWS)

£950/ha (conifers and broadleaves)
100% normally payable after planting

Community Woodland Supplement is available to encourage the creation of new woodlands close to towns and cities which can be used for informal public recreation.

Better Land Supplement (BLS)

£600/ha (conifers and broadleaves)
100% payable after planting

For new planting on arable land, other cropped land or improved grassland. Grasslands not used for agriculture are excluded. BLS is not available for short rotation coppice.

Short Rotation Coppice (SRC)

£600/ha on non set-aside land
£400/ha on set-aside land

Total area of SRC to be aided under the WGS to be limited nationally to 1250/ha year on set-aside and 1000/ha year on non set-aside land. Initially a 5 year scheme. Areas planted with SRC are not eligible for other supplements.

Native Pinewoods

Up to 10ha – 1350/ha
10/ha plus – 1050/ha
Instalments: 70% after planting; 30% at year 5

WGS Grant and annual payments under FWPS paid at broadleaf planting rate for new native pinewood of natural character in qualifying areas north of the Forth-Clyde valley. Contact your local Conservancy office for further details.

Establishment Restocking

Flat rates: £525/ha – broadleaves • £325/ha conifers
100% payable after planting

Stocking densities: conifers – minimum of 2250 trees/ha; broadleaves – minimum of 1100 trees/ha. Native pinewoods areas restocked with native pine are eligible for the broadleaved rate of grant.

Annual Management Grant (AMG)

£35/ha/year for agreed work

Available for any age of woodland to enhance its special value, to bring it up to current standards, for public access, or to secure work funded by Woodland Improvement Grant.

Livestock Exclusion Annual Premium (LEAP)

£80/ha/year – Annual payment for 10 years
LEAP is regarded as agricultural income for tax purposes

Compensates for loss of grazing and shelter. Available in less favoured areas (LFAs) for certain types of woodland where protection or regeneration is a priority.

Woodland Improvement Grant (WIG)

Either a discretionary capital payment based on 50% of agreed cost or challenge funding through a tender scheme

Work in existing woodlands which will result in significant public and/or environmental benefits. Your local Conservancy office will tell you if there is a WIG project or Challenge Fund operating in your area.

Locational Supplement (LS)

£800/ha
100% payable after planting

An additional incentive for the planting of new woodland in specially targeted areas. Your local Conservancy office will tell you if LS is available in your area.

National Forest Tender Schemes

This scheme is aimed at stimulating new planting in the National Forest area in the English Midlands.

Farm Woodland Premium Scheme (FWPS)

This grant is designed to encourage the creation of new woodlands on farms, both to enhance the environment and as a productive alternative land use. The grant, administered by the Forestry Commission, comprise annual payments made by the Agriculture Departments, (MAFF in England, SOAEFD in Scotland and WOAD in Wales). You must have approval under the Woodland Grant Scheme before you get the annual payments under the FWPS. You must not start any work until you have received a signed Woodland Grant Scheme contract.

Annual Payments

Category of land

(Payment rates £/hectare/year)

	Outside the LFA	LFA (DA) disadvantaged areas	LFA (SDA) severely disadvantaged areas
Arable Land	300	230	160
Other Improved Land	260	200	140
Unimproved Land	Ineligible	60	60

Qualifications

- 1) Duration of annual payments
>50% broadleaves 15 years
<50% broadleaves 10 years
- 2) Minimum area per application is one hectare, with no minimum block size.
- 3) You cannot receive FWPS payments on more than 200ha of land. You cannot receive FWPS payments on more than 40ha of unimproved land.
- 4) The FWPS is open to farmers who, either personally or through a manager run an agricultural business that includes the land to be converted into woodland.

Sources of Information and Advice on Woodland Grant Schemes and Forestry Investment

Trade and professional bodies who are members of FICGB

Association of Professional Foresters (APF), founded in 1960, is the association for all those who derive their livelihood from forestry from the chainsaw operator in the wood to the director in the boardroom. Representing the practical side of the industry, it endeavours to promote and contribute to the future of employment in the many aspects of the forest industry, with five core objectives:

1. To establish and maintain professional standards
2. To promote professional development and education
3. To promote profitability
4. To carry out representational work
5. To maintain and develop itself and its effectiveness

- Since 1976 the APF has organised the biennial Forestry Machinery Exhibition. This major international event is the shop window of the industry.

- In 1973 the APF became the first British forestry body to join the Union of European Foresters which has direct access to decision makers in the EU.

- The APF offers members telephone helplines, a diary, quarterly NEWS, and annual conference. Funds are available through a registered charity to assist APF members. Other benefits include group discount insurance, health care and breakdown assistance.

Association of Professional Foresters of Great Britain
7/9 West Street, BELFORD, Northumberland, NE70 7QA
Tel: 01668 213937 Fax: 01668 213 555
Email: jane@apfs.demon.co.uk
website: www.apfs.demon.co.uk/whyjoin/homepage.htm

The Forestry Contracting Association (FCA) is the major trade association for the contracting side of the forestry industry. Members come from across the full range of the industry including chainsaw operators, harvesting and planting contractors, timber hauliers, forest owners and processing companies. The Association was set up in 1993 with the major aim of improving the profitability of the contracting sector. The head office is located in Aberdeenshire with a network of Regional Groups and Field Officers throughout Scotland, England and Wales.

The Association provides a range of benefits and services to Members including:

- Discounted insurance • Finance packages • Advisory helplines • Representation
- Code of Practice • Bi-monthly magazine, FCANEWS • Training provision – The Association provides a range of forestry training courses through the Field Officer network, grants have been negotiated in many parts of the country to offset part of the training costs.

The Association has three Specialist Groups to look after specific membership sectors; Horse Logging; Charcoal and Coppice; Timber Haulage. The Specialist Groups have their own pages in FCANEWS and hold meetings on topics related to their own sectors.

Forestry Contracting Association Ltd, Dalfling
Blairdaff, INVERURIE, Aberdeenshire AB51 5LA
Tel: 01467 651368 Fax: 01467 651595
Email: fcauk.com

Trade and professional bodies who are members of FICGB

The Institute of Chartered Foresters (ICF) is the regulatory body for the UK Forestry profession under UK and EC law and within the UK ICF is the representative body of the forestry profession. 'Forestry' is defined in its broadest context and includes professionals practising in all aspects of tree management, including forest management, arboriculture, urban forestry, environmental forestry and training and education in these fields.

The Institute is a fully professional body of practitioners from every branch of forestry and related disciplines and has as its main objective the maintenance and improvement of the standards and practice of forestry. ICF is charged under its charter with safeguarding the public interest in all forestry matters and does so by advising Government on matters of policy, maintaining the standards regulating entry to the profession and by ensuring that members continue to develop the knowledge, skills and personal qualities which are necessary throughout the practitioner's working life.

Institute of Chartered Foresters, 7A St Colme Street, EDINBURGH EH3 6AA
Tel: 0131 225 2705 **Fax: 0131 220 6128**
Email: icfor@btinternet.com **www.btinternet.com/~icfor/icfweb.htm**

The Royal Forestry Society of England, Wales and Northern Ireland (RFS) is an independent, registered charity, founded in 1882. With over 4,500 members, it is the largest such forestry association in Great Britain. It comprises 21 Divisions covering England, Wales and Northern Ireland and has an open membership, bringing together all those interested in trees, whether professional or amateur. It publishes the 'Quarterly Journal of Forestry', containing articles on all aspects of trees and woods. The Society aims to spread the knowledge of trees and forestry and encourages their positive management through its:

- local meetings
- annual UK study tour
- overseas visits
- specialist library and slide collection
- advice and information service on a wide range of forestry-related topics
- a Website
- examinations for the 'Professional Diploma' and 'Certificate in Arboriculture'
- woodland management competitions
- symposia
- prizes to forestry students and bursaries to young foresters to attend RFS events and for independent travel.

The RFS owns an extensive redwood grove and pinetum near Welshpool, and Hockeridge & Pancake Woods in the Chilterns and Ibstock in the National Forest - and uses these as examples of how modern silvicultural practice can produce timber sustainably yet still be compatible with conservation, landscape and recreation.

The Royal Forestry Society of England, Wales and Northern Ireland
102 High Street, TRING, Herts HP23 4AF
Tel: 01442 822028 **Fax: 01442 890395**
Email: rfsHQ@rfs.org.uk **Website: www.rfs.org.uk**

The Royal Institution of Chartered Surveyors (RICS)

Owners of both broadleaved and coniferous woodland throughout the UK need to ensure that the diverse elements are properly managed, to ensure the woodlands are run as efficiently as possible balancing the need to maximise returns with the constraints imposed on woodland and forestry management by the environment, legislation and the finite resources available.

Chartered surveyors who undertake forestry and woodland management provide a comprehensive and professional service for both private and public forestry owning clients, whether the woodland is commercial, sporting or amenity in nature.

Chartered surveyors dealing with forestry and woodland management are usually fully qualified practising members of the Rural Practice Division of the Royal Institution of Chartered Surveyors. The interests of these chartered surveyors are represented by the RICS Forestry and Woodland Management Group which maintains a monitoring brief on all aspects of legislation, policy and practice issues.

The Royal Institution of Chartered Surveyors
Surveyor Court, COVENTRY CV4 8JE
Tel: 0171 222 7000 **Fax: 0171 334 3852**
E-mail: info@rics.org.uk **Website: www.rics.org.uk**

Trade and professional bodies who are members of FICGB

The Royal Scottish Forestry Society (RSFS) is believed to be the oldest constituted forestry society in the English-speaking world, its aim can be summed up in the phrase ‘the advancement of forestry in all its numerous branches’.

The RSFS further this aim by organising meetings and conferences throughout Scotland, and arranging excursions abroad, to exchange ideas and to view the practices of tree, woodland and forest management. Tree planting by both private and public landowners is encouraged and their interests are represented to all those involved in forestry in Scotland. In addition to keeping members informed of the latest developments and research findings in forestry through the publication of a scientific and technical journal, Scottish Forestry, published quarterly, a Travel Study Scholarship is awarded by their Silvicultural Group, one of the two specialist groups of the Society. The other specialist group is the ‘Trees, Woods and People Group’ formed to consider the establishment and management of trees and amenity woodlands in and around towns.

Recently the Society has created a Trust Company to own and manage a native woodland estate on Loch Lomondside, Cashel – the Forest for Thousand Years, a project funded by the Millennium Commission through the Millennium Forest for Scotland Trust.

The Society is managed by a governing Council with representatives drawn from each of six regions in Scotland.

Royal Scottish Forestry Society
The Stables, Dalkeith Country Park
Dalkeith, Midlothian
EH22 2NA
Tel: 0131 660 9480 Fax: 0131 660 9490

The Timber Growers Association (TGA) is Britain’s leading association for woodland owners and forestry businesses. With approaching two thousand members and over a third of a million hectares of woodland in membership TGA is the voice of the growing sector in Britain’s rapidly expanding forestry industry.

Nowadays Britain’s woodlands are being managed for a multiplicity of purposes from timber production to recreation and conservation and their membership reflects that diversity embracing the very smallest owners through to large traditional estates and investment properties.

The TGA motto is ‘making woodlands work’ because it is only through encouraging true working woods that woodland managers can deliver the conservation, landscape and social benefits that society values so highly. To do this growers need to be able to produce high quality timber products through cost effective and socially responsible woodland management. TGA’s role is to foster an environment in which growers can operate effectively, responsibly and profitably.

TGA works hard to provide effective support to its members by offering an enhanced range of member services as well as ensuring that its voice is heard promoting their interests where and when it matters.

Their main service areas are representing the members’ interests to Government, and in Europe, information services and advice.

TGA has nine regions each serviced by a Regional Co-ordinator.

Timber Growers Association
5 Dublin Street Lane South
EDINBURGH EH1 3PX
Tel: 0131 538 7111 Fax: 0131 538 7222
Email: tga@ednet.co.uk Website: www.timber-growers.co.uk

Sources of Information and Advice on Woodland Grant Schemes and Forestry Investment

Forestry investment and forest managers

The following are a list of companies who are members of the Forestry Industry Council of Great Britain and who can offer specialist, independent and professional advice on the investment opportunities in British forestry and in the, purchase, management, and/or harvesting of British timber. Their clients range from Government bodies to traditional estates, and from pension companies to financial institutions. Listed below are their head offices.

Specialists in investment, forestry sales and forest management:-

Bidwells
Trumpington Road
CAMBRIDGE
CB2 2LD
Tel: 01223 841841
Fax: 01223 845150
Email: bidcam@bidwells.co.uk

Bidwells
5 Atholl Place
PERTH
PH1 5NE
Tel: 01738 630666
Fax: 01738 627264
Email: bidper@bidwells.co.uk

Clark Scott-Harden
Lowther
PENRITH
Cumbria
CA10 2HG
Tel: 01931 712392
Fax: 01931 712639
Email: post.lowther@csh.co.uk

Clark Scott-Harden
11 Osborne Terrace
Jesmond
NEWCASTLE-UPON-TYNE
NE2 1NE
Tel: 0191 281 1277
Fax: 0191 281 1547
Email: postmaster@csh.co.uk

John Clegg & Co
The Old Coach House
Southern Road
THAME
OXON OX9 2ED
Tel: 01844 215800
Fax: 01844 215252
Email: thame@johnclegg.co.uk

John Clegg & Co
2 Rutland Square
EDINBURGH
EH1 2AS
Tel: 0131 229 8800
Fax: 0131 229 4827
Email: edinburgh@johnclegg.co.uk

John Clegg & Co
Apex House
Wonastow Road
MONMOUTH
Gwent
NP5 4YE
Tel: 01600 715311
Fax: 01600 714234

FIM Services Limited
(Trading as Forestry Investment Management and FIM)
Glebe Barn,
Great Barrington
Burford
OXON
OX18 4US.
Tel: 01451 844655
Fax: 01451 844509
Email: fim@fimltd.co.uk

Sources of Information and Advice on Woodland Grant Schemes and Forestry Investment

Specialists in forest management, harvesting and marketing of timber

Scottish Woodlands Limited
Research Park
Riccarton
EDINBURGH
EH14 4AP
Tel: 0131 451 5154
Fax: 0131 451 5146
Website: www.scottishwoodlands.co.uk

Tilhill Economic Forestry
Old Sauchie
Sauchieburn
STIRLING
FK7 9QG
Tel: 01786 811721
Fax: 01786 814124
Email: enquiries@tef-stirling.co.uk
Website: www.tef-forestry.co.uk

Specialists in harvesting and marketing of timber

Euroforest Ltd
Mead House
BENTLEY
Farnham
Surrey
GU10 5HY
Tel: 01420 23030
Fax: 01420 23774

Euroforest Ltd
Castlebank House
High Street
DINGWALL
Ross-shire
IV15 9HL
Tel: 01349 861610
Fax: 01349 861448



ENVIRONMENT

For hundreds of years, woodlands have provided shelter for man and animals, and cover for gamebirds as well as timber for a variety of end-uses.

Although little trace of these ancient forests remains, today's foresters manage woodlands for the wide range of benefits that forests can offer.

Well managed woodlands support a rich diversity of plants and animals. They also provide an area for the public to enjoy their leisure time and make an excellent 'classroom' in which children can learn about the wonders of wood.

Recreation

Britain is a densely populated country with almost three quarters of the population living in towns and cities. Increased mobility, leisure time and an interest in the countryside are bringing those people out of the towns into rural areas to seek recreation.

A particular advantage of forestry is that it is both a land use and an industry which can often combine access and recreation without loss of production. Large forests are also able to absorb large numbers of people without giving the appearance of crowding.

Each woodland is different and the potential for recreation depends on its age and ancillary uses and any forestry operations which may be in progress. The risk of fire, damage and vandalism, deters some owners from opening up their woodlands although others have experienced help from members of the public who act as unofficial wardens.

The forestry industry recognises the value of providing recreation as a 'product' of the forest and encourages as many woodland owners and managers as possible to facilitate public access where this is practicable.

With their greater resources, the Forestry Commission has invested in developing Forest Parks and visitor centres, cabin sites, camping and caravan sites, and many popular picnic areas.

In 1996 the UK Day Visits Survey interviewed over 7,000 adults, in England, Wales and Scotland, to ask about leisure day trips from home in the previous two weeks. The total figure for woodland day visits for the year was 346 million for Great Britain (308 million for England, 11 million for Wales and 26 million for Scotland). Around half of the visits were to woodlands within walking distance of home and an average of two hours were spent there.

Complete results of the 1996 survey and details of the Forestry Commission recreational facilities are available from:

Statistics
Forestry Commission
231 Corstorphine Road
Edinburgh
EH12 7AT

Tel: 0131 314 6337
Email: statistics@forestry.gov.uk

Woodland Day Visits 1996

The Day Visits Survey 1996 was carried out by Social & Community Planning Research (SCPR) for a consortium of Departments and Agencies. A total of 7649 adults were interviewed at home (England 3467, Wales 2117, Scotland 2005). The survey primarily asked about leisure day trips from home in the previous two weeks - to towns, countryside and the coast - and went on to ask if a wood or forest were visited as part of the trip; these responses were weighted to provide estimates of visits in the year. If no wood or forest had been visited in the previous two weeks, the survey asked about the most recent visit in the last year.

		GB	England	Wales	Scotland
Total number of woodland visits in 1996 (millions)		346	308	11	26
		%	%	%	%
Timing of the last visit to woodland	Within last 2 weeks	11	12	8	12
	Over 2 weeks, within last 4 weeks	6	6	6	6
	Over 4 weeks, within last 3 months	7	8	6	6
	Over 3 months, within last 6 months	6	6	5	7
	Over 6 months, within last year	7	7	7	7
	No visit in last year	63	60	69	61
Season of year	January-March	24	23	36	29
	April-June	31	32	22	29
	July-September	25	25	18	31
	October-December	18	19	23	12
Duration of visit (round trip)	Up to 1 hour	30	31	25	15
	Over 1 hour, up to 2 hours	29	29	34	29
	Over 2 hours, up to 3 hours	13	13	12	17
	Over 3 hours	28	27	29	38
Distance travelled (round trip)	Up to 5 miles	54	54	65	41
	Over 5 miles, up to 10 miles	19	19	12	18
	Over 10 miles, up to 20 miles	9	9	9	14
	Over 20 miles	18	18	14	27
Main mode of transport	Car / van	43	43	32	49
	On foot	48	48	61	37
	Bicycle	7	7	3	7
	Other	2	2	4	7
Composition of group	One person	41	42	49	24
	Two adults	32	32	27	38
	Group with child(ren)	17	15	14	31
	Other group	10	11	10	7
Perceived owner or manager	Local Authority	43	43	30	38
	Forestry Commission	12	11	25	24
	Voluntary organisation	8	8	7	5
	Private owner	17	16	27	20
	Other	6	7	2	2
	Don't know	14	15	9	10

Source: 1996 Day Visits Survey

Conservation

Although Britain is a relatively small country, it can support a wide range of woodland types reflecting an enormous range of climate and geology. All forests and woodlands, including their associated open ground and edges, are of value for nature conservation and today's forest management encompasses the whole woodland or forest area and not just the trees in it.

Most of Britain's wildlife originated in forest and woodland habitats and across the country the highest nature conservation value is assigned to forests and woodlands which appear to be nearest their natural undisturbed state. Since all have been subjected to management to some extent over many hundreds of years, there are no absolute models. The few remaining areas of ancient native woodlands are some of the richest and most valuable eco-systems in Britain, and as such receive special attention. The best examples of such woodlands have been designated National Nature Reserves (NNR) and Sites of Special Scientific Interest (SSSI) and receive legal protection.

Modern foresters maintain and add to the range of habitats within their woodlands using detailed guidelines published by the Forestry Commission covering recreation; nature conservation; forests and water; soils; landscape and archaeology.

In January 1998 the Forestry Commission published the UK Forestry Standard which describes the regulatory framework for UK forestry and the standards for sustainable forest management which the Government requires in both public and private forests.

Forest Education Initiative (FEI)

The Forest Education Initiative brings together people who grow and use timber with those in education. It aims to increase young people's understanding of the local and global importance of trees and woodland, the forestry industry and the timber trade and the connections between them.

The FEI achieves this in 2 main ways:

1. Publications for schools

- Only Made of Wood 5-7 years old
- The Wonder of Wood 7-11 years old
- Investigating Trees and Timber 14-16 years old

2. Cluster Groups

These are loose groupings which bring together the education and forestry sectors. They work together to create opportunities for teachers to use trees and woods in their teaching.

FEI is a partnership between the Forestry Industry Council of Great Britain, the Forestry Commission, the Timber Trade Federation and the Forestry Trust for Conservation and Education.

For further information please contact:

**Margaret Hardy
FEI Co-ordinator
Great Eastern House
Tenison Road
CAMBRIDGE CB1 2DU**

Woodmark Scheme

The FICGB Woodmark is a timber tracking scheme to show that the wood product is derived from British grown timber and that the tree was felled in accordance with official Government regulations. The scheme can trace the labelled product back to the relevant Forestry Commission felling licence, plan of operations or forest design plan.

The Woodmark, a registered certification trade mark, therefore guarantees the source of timber from a managed British forest. The operation of the Woodmark is independently audited.



The FICGB Woodmark/Recovery is designed to extend the Woodmark label to cover wood-based panels and some paper products which, in addition to timber from British managed forests, also comprise sawmill co-products, recycled fibres and wood recovered from other processes. Although the new timber content is trackable to British forests, the recycled element may originate from imported timber.



SUPPLY AND DEMAND



In 1997 the UK used 48.3 million cubic metres of timber (Wood Raw Material Equivalent, underbark), equivalent to 0.82 m³ per person. Around 80% of this is softwood i.e. conifers. Imports met 85% of demand making the UK one of the largest European markets for forest products. The demand for paper and board is forecast to rise by 75% by 2025 and the consumption of wood-based panel products is expected to rise by 65% in the same period.

Current UK timber production is 9.3 million cubic metres overbark standing and is forecast to rise by 65% over the next 20 years reaching a peak of around 16 million cubic metres in 2025. Production will then decrease; this is due to the decline in planting in the early 1970s following the post-war peak.

Because of the relatively small percentage of land under forest, the UK is unlikely to exceed 25% self sufficiency in timber and wood products.

More added value may be achieved through extended ranges of industrial products and by-products from more efficient conversion of timber and sawmill products, and the collection and use of recycled materials and recovered wood.

The scale and future growth of forest products consumption in the UK offers clear opportunities for the expansion of processing plants in a number of sectors, providing additional markets for UK timber in the future.

All figures in this section include Northern Ireland and therefore refer to the United Kingdom rather than Great Britain.

Imports and Exports 1993 -1997

Volume - Thousand cubic metres WRME underbark

	IMPORTS					EXPORTS				
	1993	1994	1995	1996	1997	1993	1994	1995	1996	1997
Wood (round and sawn)										
Softwood (conifer)	12 902	15 943	12 536	13 335	13 977	160	181	290	201	203
Hardwood	833	1 498	1 432	1 659	1 614	64	63	81	82	93
Wood-based panels	4 841	5 095	5 150	5 372	5 970	525	599	718	756	985
Paper and Board										
Paper	14 447	16 444	15 930	16 564	17 803	3 312	3 664	3 355	3 407	4 193
Pulp	7 737	8 154	8 447	7 929	8 171	81	74	158	55	22
Recovered Paper	159	493	677	250	211	567	1 181	762	912	1 341
Total wood	41 577	47 627	44 172	45 107	47 746	4 708	5 762	5 364	5 414	6 838
and wood product										

£ million	IMPORTS					EXPORTS				
	1993	1994	1995	1996	1997	1993	1994	1995	1996	1997
Total value	4 892	5 755	6 797	6 409	6 116	990	1 157	1 335	1 252	1 273
(wood & wood products)										
Value of related	1 389	1 537	1 735	1 697	1 645	1 059	1 090	1 325	1 400	1 415
products (paper products, coated paper, cork, etc)										
Total value	6 281	7 292	8 532	8 106	7 761	2 050	2 247	2 660	2 653	2 688
(Divs 24, 25, 63, 64)										

Source: UK Overseas Trade Statistics and Conversion Factors

TRADE DEFICIT	1993	1994	1995	1996	1997
£ million	4 231	5 045	5 872	5 453	5 073

Major countries supplying the UK wood market in 1997

As a percentage of total UK imports

	Coniferous Sawnwood	Non coniferous Sawnwood	Plywood	Particleboard	Fibreboard	Wood Pulp	Paper and Paperboard
Finland	16	2	7		5	12	25
Sweden	33	6	1		1	9	20
Other EC	7	13	6	91	62	12	34
Total EC	57	20	14	91	67	33	78
Baltic States	25	18	2	5	5	0	0
Brazil	0	3	13			14	1
Canada	6	5	6	1	1	15	7
Indonesia	0	2	23				0
Malaysia		10	5		2		
Russia	7		6			0	1
USA	1	17	22		11	18	5
Other non EC	4	24	10	3	15	21	8
Total non EC	43	80	86	9	33	67	22

Note: Categories used above are those used by FAO in 'Forest Products Trade Flow Data', they are not necessarily consistent with those used to calculate conversion factors in the FICGB Handbook.

Imports/Exports and Apparent Consumption

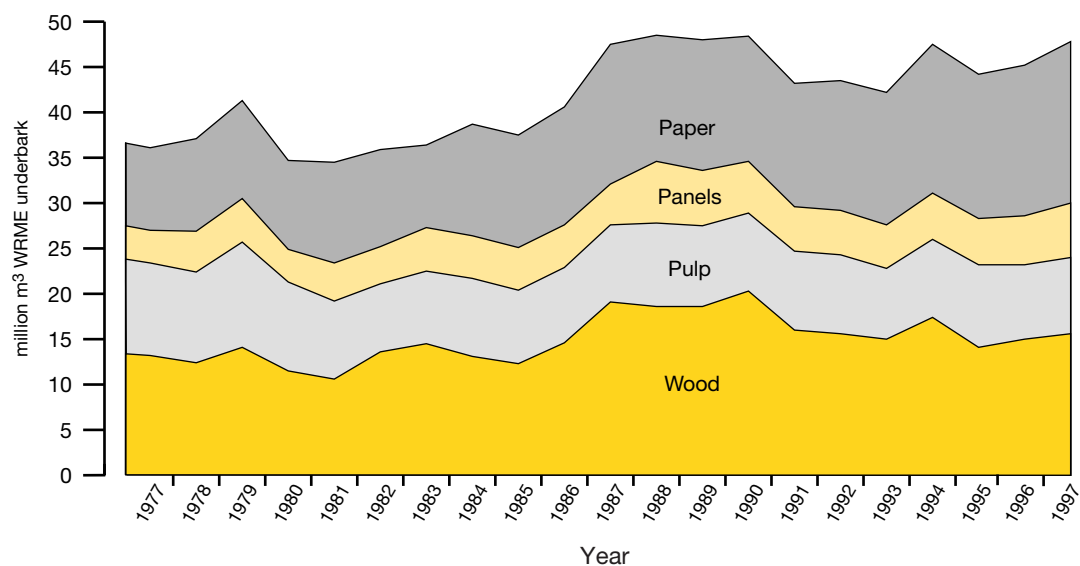
million cubic metres WRME underbark

	IMPORTS					EXPORTS	UK	Apparent
	Wood	Pulp	Panels	Paper	Total	Total	Prod'n	Consumption
1977	13.2	10.2	3.6	9.1	36.1	1.3	3.9	38.7
1978	12.4	10.0	4.5	10.2	37.1	1.2	3.8	39.7
1979	14.1	11.6	4.8	10.8	41.3	1.5	4.0	43.8
1980	11.5	9.8	3.6	9.8	34.7	2.3	4.0	36.4
1981	10.6	8.6	4.2	11.1	34.5	2.5	4.3	36.3
1982	13.6	7.5	4.1	10.7	35.9	2.2	4.1	37.8
1983	14.5	8.0	4.8	9.1	36.4	2.3	3.9	38.0
1984	13.1	8.6	4.7	12.3	38.7	2.8	3.9	39.8
1985	12.3	8.1	4.7	12.4	37.5	2.3	5.2	40.4
1986	14.6	8.3	4.7	13.0	40.6	2.8	5.3	43.1
1987	19.1	8.5	4.5	15.4	47.5	3.6	5.5	49.4
1988	18.6	9.2	6.8	13.9	48.5	3.8	6.0	50.7
1989	18.6	8.9	6.1	14.4	48.0	4.2	6.5	50.3
1990	20.3	8.6	5.7	13.8	48.4	4.7	6.5	50.2
1991	16.0	8.7	4.9	13.6	43.2	5.0	6.5	44.8
1992	15.6	8.7	4.9	14.3	43.5	5.1	6.6	45.0
1993	15.0	7.8	4.8	14.6	42.2	4.5	6.8	44.5
1994	17.4	8.6	5.1	16.4	47.6	5.8	7.3	49.0
1995	14.1	9.1	5.1	15.9	44.3	6.0	7.6	45.8
1996	15.0	8.2	5.4	16.6	45.1	5.4	7.1	46.7
1997	15.6	8.4	6.0	17.8	47.7	6.8	7.4	48.3

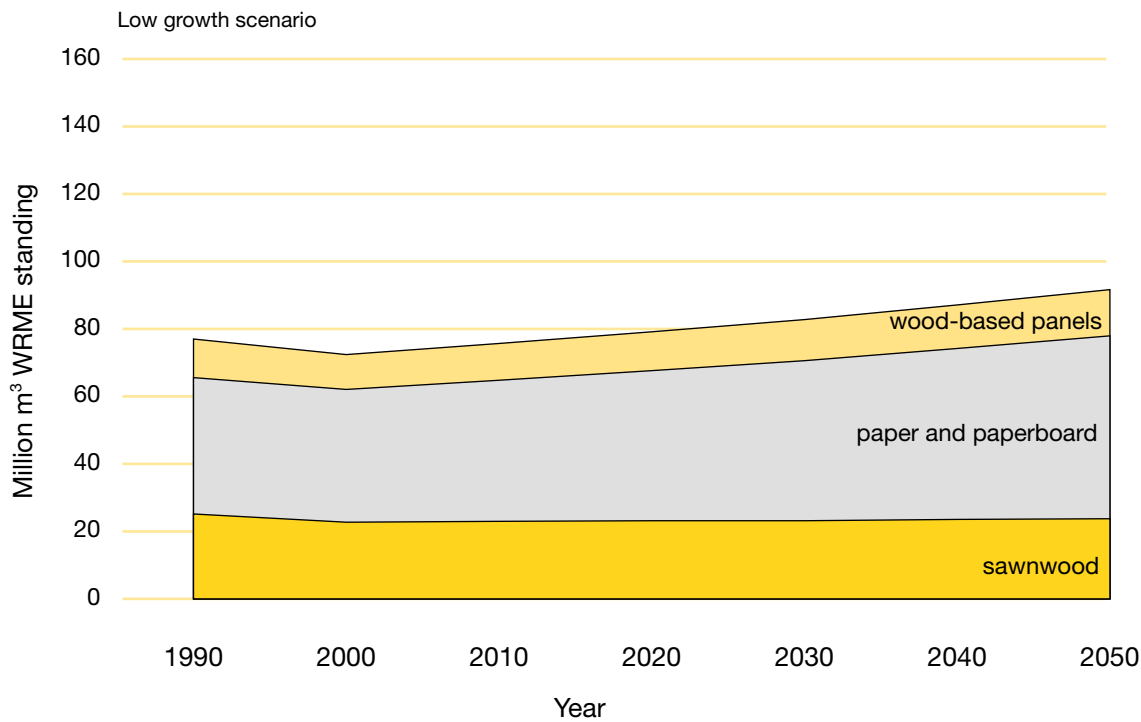
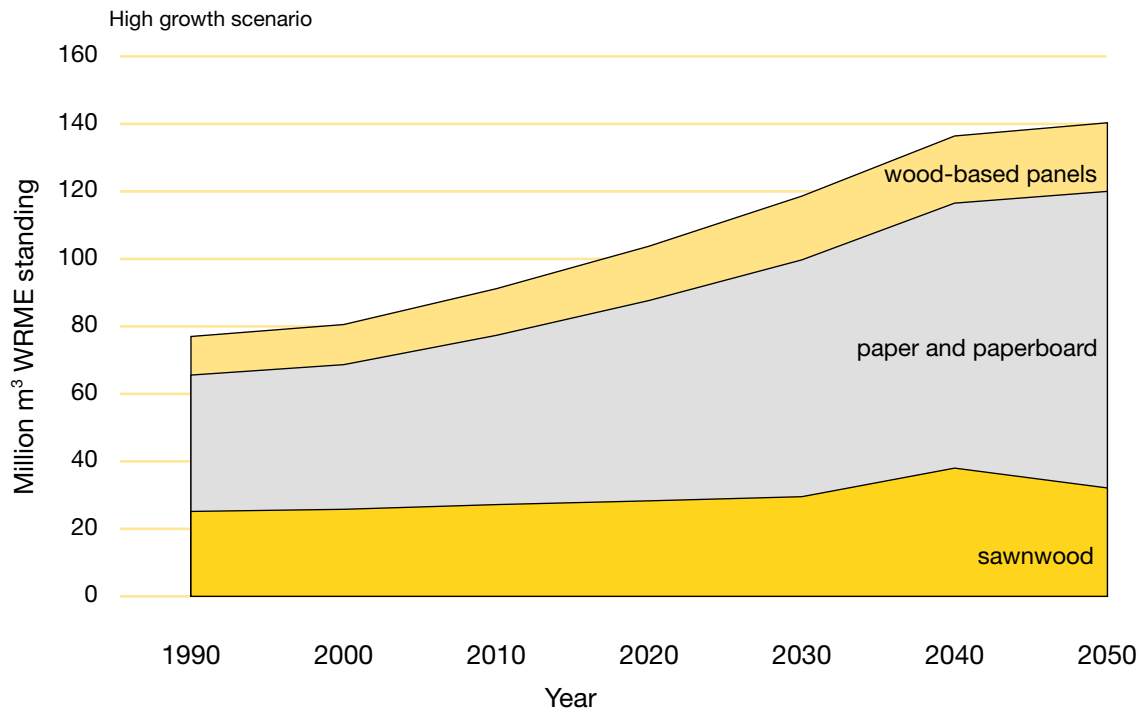
Notes

1. Source : UK Overseas Trade Statistics and conversion factors.
2. WRME = wood raw material equivalent, softwood + hardwood, underbark.
3. Wood = roundwood and sawnwood. Pulp includes wastepaper. Panels include veneer, plywood, particleboard, fibreboard and other wood products. Paper includes paperboard.
4. UK production estimated from deliveries for Great Britain + Northern Ireland
5. Apparent consumption = imports - exports + UK production; it excludes recycled waste-paper and residues of UK origin.

Imports



The Demand for the Major Wood Product Groups over the period 1990-2050



Source: Revised Forecasts of the Supply and Demand for Wood in the United Kingdom Technical Paper 19, Forestry Commission (1996).
 Note: Sawnwood includes roundwood products, fuelwood and charcoal.

Forecasts of Average Annual UK Wood Production

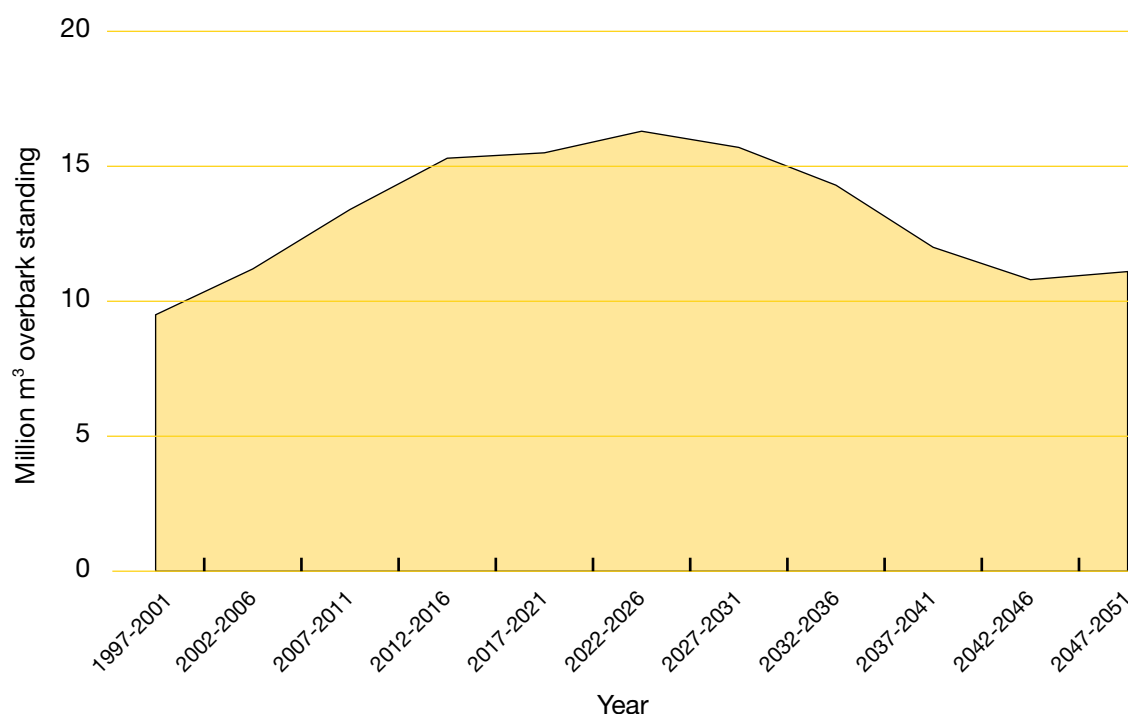
million cubic metres overbark standing

Year	Small roundwood		Sawlog		Total
	Conifers	B'leaves	Conifers	B'leaves	
1997-2001	3.8	0.1	4.6	1.0	9.5
2002-2006	4.1	0.1	6.0	1.0	11.2
2007-2011	4.4	0.1	7.9	1.0	13.4
2012-2016	4.6	0.1	9.5	1.1	15.3
2017-2021	4.4	0.1	9.9	1.1	15.5
2022-2026	4.5	0.1	10.6	1.1	16.3
2027-2031	4.3	0.1	10.2	1.1	15.7
2032-2036	4.1	0.1	9.0	1.1	14.3
2037-2041	3.6	0.1	7.2	1.1	12.0
2042-2046	3.4	0.1	6.2	1.1	10.8
2047-2051	3.5	0.1	6.4	1.1	11.1

Notes:

1. All figures are UK totals.
2. Volumes are total standing volumes including bark, down to a minimum top diameter of 7 cm overbark.
3. Sawlog volumes have been calculated as volume to 18 cm diameter overbark (20 cm in Northern Ireland), plus half the volume in the size category 14-18 cm overbark top diameter (14-20 cm overbark in Northern Ireland).

Source: Revised Forecasts of the Supply and Demand for Wood in the United Kingdom Technical Paper 19, Forestry Commission (1996) .



PROCESSING SECTOR



The processing area of the British forestry industry is built around four distinct forest products sectors:

Sawnwood

Wood-based panels

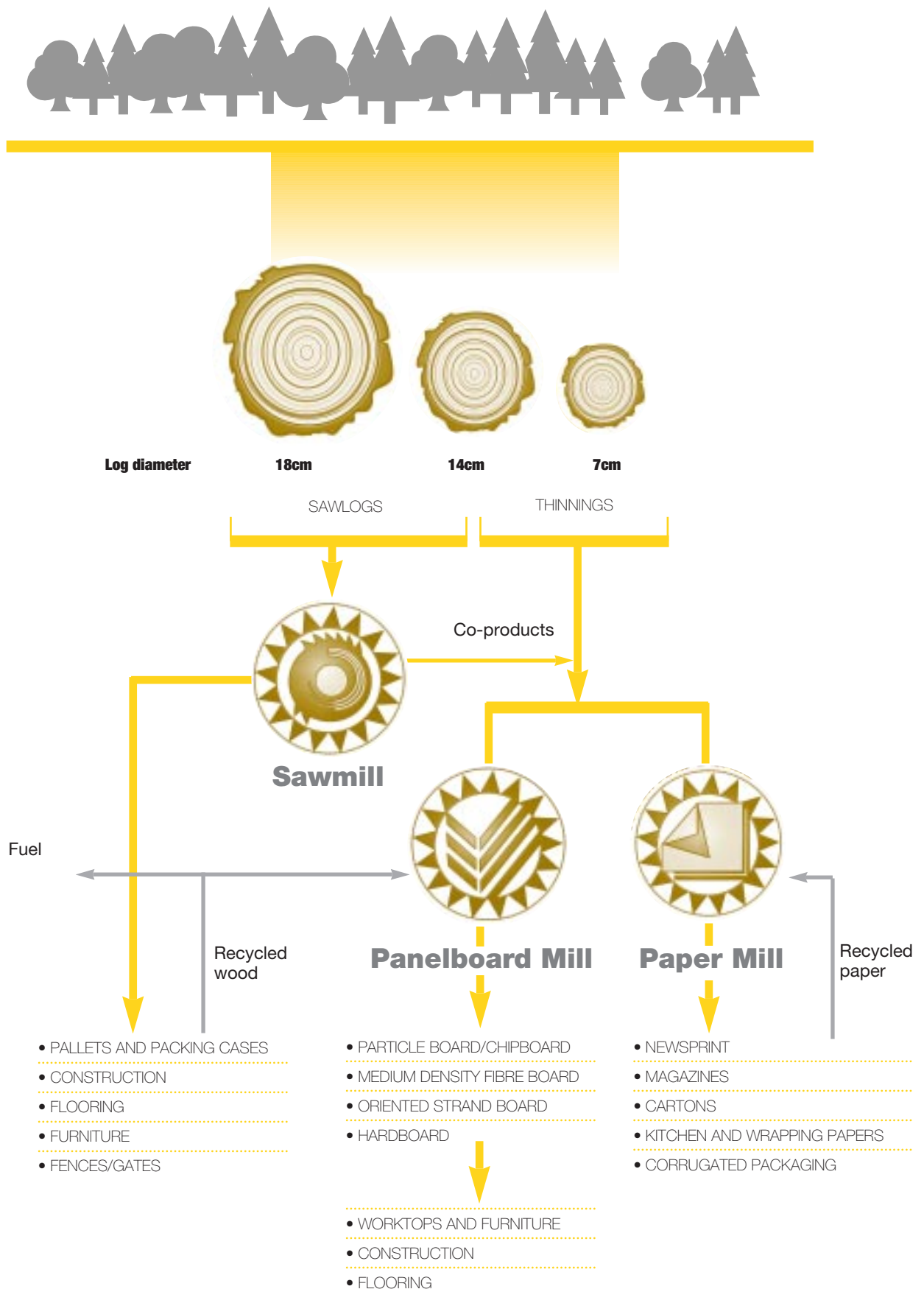
Paper and Board

Other wood

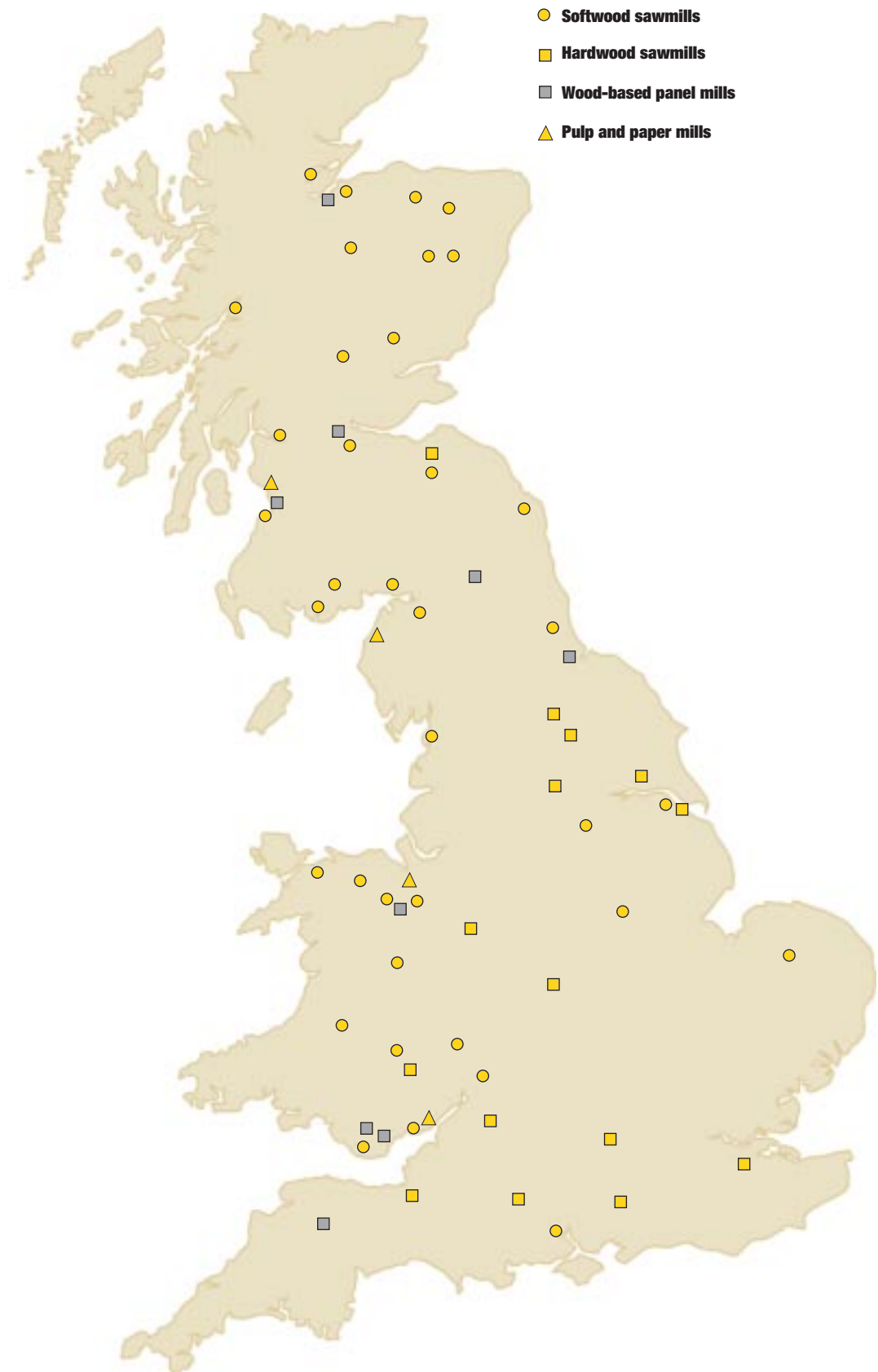
The combination of a steadily increasing timber resource and continuing Government support has given timber processors the confidence to build new processing capacity in the UK. Since the mid 1980's more than £1.6 billion has been invested, resulting in the most modern wood processing industry in Europe.

While Britain remains a relatively small timber producer compared with the world's major timber exporting nations, British grown timber is fully competitive with the imported product for the bulk markets of pulp, wood based sheet materials, board and construction timber.

Regulations on the growing sector guarantee that wood from British forests is sustainable and meets high environmental standards. The FICGB's Woodmark stamp on timber records that timber has been supplied from regulated British forests and permits the source of the raw material to be traced back to a sustainably managed forest.



Major Forest Products Processing Mills which use Domestic Timber



Deliveries of Home-grown Timber to Wood Processing Industries

Thousand cubic metres underbark

	Softwood Logs	Hardwood Logs	Woodbased Panels	Paper products	Other (inc fuel)	Total GB use
1977	1 400	1 010	190	790	440	3 830
1978	1 480	1 010	160	680	430	3 760
1979	1 640	890	190	790	430	3 940
1980	1 640	910	220	390	540	3 700
1981	1 670	910	250	270	530	3 620
1982	1 870	720	220	280	370	3 440
1983	1 880	580	280	300	360	3 390
1984	1 830	540	300	420	350	3 430
1985	2 790	590	400	580	400	4 760
1986	2 390	650	670	780	350	4 840
1987	2 570	440	770	850	380	5 000
1988	2 860	480	840	940	420	5 530
1989	3 040	610	990	1 020	450	6 110
1990	3 120	520	1 020	1 080	480	6 220
1991	2 930	560	1 260	1 060	480	6 290
1992	3 130	300	1 250	1 070	550	6 320
1993	3 250	240	1 330	1 160	590	6 560
1994	3 330	310	1 470	1 250	710	7 070
1995	3 300	320	1 770	1 260	690	7 340
1996	3 430	250	1 550	1 010	640	6 890
1997	3 500	250	1 760	1 100	630	7 240

Notes:

1. All figures based on processing industries' estimates of purchases of timber grown in GB.
2. The main wood based panels are particleboard (inc OSB) and fibreboard.
3. Paper products are paper and paperboard.
4. Other includes timber for fencing and mining, and a variety of other uses.
5. All figures are rounded to the nearest 10 000

Significant Investments in the Processing Sector 1988 - 98



PAPER AND BOARD



Britain uses over 12.2 million tonnes of paper and board each year, over half of which is imported. Only a small proportion 11% is produced directly from British timber, mostly conifers, the remainder being produced from imported pulp and recycled fibre.

Britain currently has four integrated mills making newsprint, light-weight coated paper (magazine), paperboard and fluting for corrugated cases, from British grown timber. Two of these also have significant recycling capabilities.

These mills, integrating pulp and paper production on single sites, incorporate some of the most advanced processing and control technologies available, with a future capability to increase production capacity in line with timber supply and economies of scale.

The British mills, already established in home markets, have opened up export markets within their product ranges – newsprint, lightweight coated paper for magazines, brochures etc, paperboard and linerboard for a variety of packaging uses.

Investment in the sector since 1983 is approximately £650 million. UK manufactured newsprint has gained 25% market share, lightweight coated paper 30% and paperboard 20%.

Demand for paper and board is forecast to rise by 76% by the year 2025.

UK Production and Consumption of Paper and Board 1997

Total UK consumption of paper and board

12 240 000 tonnes

UK imports of paper and board

7 202 000 tonnes

UK imports of woodpulp

1 633 000 tonnes

UK imports of waste paper/recycled fibre

34 300 tonnes

UK exports of paper and board

1 439 000 tonnes

Number of paper and board mills in UK

98

Number of mills using domestic timber

4

Total UK production of paper and board

6 455 000 tonnes

based on:

1 633 000 tonnes imported woodpulp

4 620 000 tonnes recycled fibre

940 000 tonnes domestic softwood

198 000 tonnes domestic hardwood

299 000 tonnes softwood residues

UK Production of Paper and Board Using Domestic Timber 1997

Sector Summary (Raw material intake):	940 000 tonnes
	small roundwood (conifer)
	198 000 tonnes
	small roundwood (broadleaves)
	299 000 tonnes
	sawmill residues (softwood)
	0 tonnes
	sawmill residues (hardwood)
	200 000 tonnes
	recycled newsprint and other paper
	50 000 tonnes
	recycled cardboard

Main product lines

Newsprint

Light-weight coated paper

Paperboard

Semi-chemical fluting

Newsprint

(Shotton Paper Co. plc)

Raw Material Intake	444 000 tonnes
	small roundwood
	260 000 tonnes
	softwood residues
	190 000 tonnes
	recycled newsprint and other paper
Production Output	438 500 tonnes
	newsprint
UK Market Share	20%
	of UK newsprint
End Uses	Newspapers

Lightweight coated paper

(Caledonian Paper plc)

Raw Material Intake	218 000 tonnes
	small roundwood
	(spruce)
	0 tonnes
	Kraft pulp
Production Output	223 000 tonnes
	lightweight coated paper
UK Market Share	18%
End Uses	glossy magazines, brochures etc.

Paperboard

(Iggesund Paperboard Ltd)

Raw Material Intake	278 000 tonnes
	small roundwood
	(spruce and pine)
	39 000 tonnes
	sawmill softwood residues
Production Output	176 000 tonnes
	paperboard
UK Market Share	23%
End Uses	food cartons, packets, packaging, graphics

Semi Chemical fluting

(St Regis Paper Co Ltd Sudbrook)

Raw Material Intake	198 000 tonnes
	hardwood logs
	0 tonnes
	hardwood residues
	50 000 tonnes
	recycled cardboard
Production Output	132 000 tonnes
	semi chemical fluting
End Uses	corrugated paper, boxes, packaging

*St Regis Paper Co has other mills in UK which do not take timber but are based on recycled fibres for their raw material (1 000 000 tonnes)

The Paper Federation of Great Britain

The Paper Federation of Great Britain represents the interests of paper and board manufacturers. Based in Swindon, but with meeting rooms in London, the Federation represents over 90% of production of the industry and, with few exceptions its membership includes all the paper, board and coating mills in the UK and, for certain purposes, other companies from various related sectors of the paper industry.

The Federation:

- has a number of specialist departments each providing expert advice and assistance:
 - Employment Affairs
 - Education and Training
 - Business and Environment
 - Statistics
 - Communications.
- is also a major sponsor of the Pulp and Paper Information Centre, the centralised source of information for the paper and board industry, with an emphasis on environmental issues;
- is a member of the Confederation of European Paper Industries where it endeavours to ensure that the UK industry is influential in EU matters;
- introduced a new Associate grade of membership in 1996 for any organisation or company with an interest in the paper industry;
- services a number of affiliated trade associations which are able to retain their own identity, while benefiting from the cost effective access to state-of-the-art- information technology and expert advice the Federation provides.

**The Paper Federation of Great Britain
Papermakers House
1 Rivenhall Road
Westlea
Swindon
SN5 7BD.**

**Tel: 01793 886086
Fax: 01793 886182
Website: www.paper.org.uk**

The following four companies serve both UK and international markets with newsprint, high quality publication papers, paperboard and semi-chemical fluting.

Newsprint:

Shotton Paper Company plc
Weighbridge Road
SHOTTON
Deeside
Flintshire
CH5 2LL
Tel: 01244 280000
Fax: 01244 280363

High quality publication materials i.e. magazines, catalogue and advertising materials:

Caledonian Paper plc
Meadowhead Road
Shewalton
IRVINE
KA11 5AT
Tel: 01294 312020
Fax: 01294 314400

Primary fibre paperboard for packaging and graphics markets:

Iggesund Paperboard (Workington) Ltd
WORKINGTON
Cumbria
CA14 1JX
Tel: 01900 601000
Fax: 01900 605000

Semi-chemical fluting, i.e. the centre, corrugated layer of a cardboard box:

St Regis Paper Company Limited
Sudbrook Mill
NEWPORT
Monmouthshire
NP6 4XT
Tel: 01291 426269
Fax: 01291 426290

WOOD-BASED PANELS



Five types of panelboard are produced in Britain and capture a major share of the UK market:

Total UK apparent consumption of these wood-based panels (1997)

3 798 128m³

UK imports of these wood-based panels (1997)

1 497 155m³

UK exports of these wood-based panels (1997)

326 944m³

UK production of these wood-based panels based on domestic timber (1997)

2 530 000m³ (approx)

1. Particleboard/Chipboard: mainly used for furniture, worktops, DIY, flooring, roofing and general construction. Seven industrial plants in the UK using British domestic timber have currently 66% of UK market share.

2. Medium Density Fibreboard (MDF): highly engineered versatile board which can be worked, turned and laminated – used for furniture, fittings, partitions, wall-linings, mouldings, flooring and general construction. Two industrial plants using British domestic timber have currently 63% of GB market share.

3. Oriented Strand Board (OSB): a technology based product capable of competing with and often technically outperforming plywood – used for construction, sheathing, flooring, internal walls, roof decking, hoarding, shop-fitting, furniture and agricultural buildings. One industrial plant using British domestic timber currently has 65% of GB market share.

4. Cement Bonded Particleboard: engineered from a cement wood mix to produce a fireproof panel for use in building construction, internal and external walls, fire-resistant elements, asbestos substitute and acoustically sensitive applications.

5. Hardboard: a high density fibreboard used mainly in a variety of non-construction uses. One industrial plant using British domestic timber

UK Production of Wood-based Panels 1997

Main product lines

Medium Density Fibreboard (MDF)

Oriented Strand Board (OSB)

Cement Bonded Particleboard

Particleboard/Chipboard

Hardboard

Medium Density Fibreboard (MDF)

(CSC Forest Products Ltd, Kronospan Ltd)

Raw Material Intake **607 000 tonnes**
softwood residues
170 000 tonnes
softwood roundwood

Production Output **410 000 m³**

UK Market Share **78%**
of MDF market

End Uses Furniture, fittings,
partitions, wall-linings,
flooring, general
construction

Oriented Strand Board (OSB)

(CSC Forest Products Ltd)

Raw Material Intake **400 000 tonnes**
softwood roundwood
(pine)

Production Output **200 000 tonnes**

End Uses Construction,
sheathing, flooring,
internal walls, roof
decking, hoarding,
shop-fitting, agricultural
buildings, furniture.

Cement Bonded Particleboard

(Cape Calsil Systems Ltd)

Raw Material Intake **8 000 tonnes**
softwood roundwood
(plus cement)

End Uses Building construction
material, internal and
external, fire-resistant
panels, accoustics

Particleboard/Chipboard

(CSC Forest Products Ltd, Egger (UK) Ltd,
Kronospan Ltd, Direct Worktops Ltd)

Raw Material Intake **1 229 000 tonnes**
softwood roundwood
59 000 tonnes
hardwood roundwood
848 000 tonnes
softwood residues
23 000 tonnes
hardwood residues
49 000 tonnes
imported residues
115 000 tonnes
recycled wood

Production Output **1 920 000 m³**
chipboard

End Uses Furniture, DIY, worktops,
flooring, roofing, general
construction

Hardboard

(Tech-board Ltd)

Raw Material Intake Re-commenced
production 1998
No current data

End Uses Furniture, motor
vehicles, packaging and
other non-construction
uses

The Wood Panel Industries Federation

The Wood Panel Industries Federation was established in 1995 in succession to other similar organisations. It is the representative body of the wood-based panel manufacturing sector in the United Kingdom and the Republic of Ireland. Membership comprises companies holding about 80 per cent of wood panelboard production capacity in Britain and Ireland, together with manufacturers and suppliers of resins, urea, methanol and special additives, and certain distributive interests.

The Federation's remit is to define, develop and advise on the panelboard industry's technical and environmental database through standards, guidelines and research. It is represented on 13 BSI committees and (through BSI) 9 CEN working groups, and holds the CEN working group secretariats for Oriented Strand Board and Cement Bonded Particleboard.

The Federation lobbies in London, Belfast, Dublin and Brussels on technical, environmental, health and safety issues. It is affiliated to CEI-Bois (European Confederation of Woodworking Industries), EPF (European Federation of Wood-based Panel Industries, formed from the particleboard/OSB and MDF confederations and national associations), BMP (National Council of Building Material Producers) and other organisations, and works closely with research institutes. It has a seat on the European Forestry and Forest Products Forum.

**The Wood Panel Industries Federation
28 Market Place
Grantham
Lincolnshire NG31 6LR
Tel: 01476 563707
Fax: 01476 579314
Email: wpif.panelboards@virgin.net**

Panelboard manufacturers in membership of the FICGB in Great Britain are:

**CSC Forest Products Ltd
Station Road
COWIE
Tel: 01786 819212
Fax: 01786 817143
Website: www.cscfp.com**

**Kronospan Limited
CHIRK
Wrexham
LL14 5NT
Tel: 01691 773361
Fax: 01691 773292
Website: www.kronospan.co.uk**

SAWMILLING



In terms of prices paid for wood, sawmilling is the high value sector within the British forestry industry and it is to this end that most commercial woodlands are managed. The growth of this sector will parallel the increasing supply of British timber as increasing volumes of timber reach maturity. Current projections indicate that sawn softwood self-sufficiency is expected to peak at 50% by 2025, assuming sustained production of 15 million m³ roundwood per year.

Recent investment has made the latest British mills the technological equal of any in Scandinavia, Europe and North America.

The sawmilling sector in Great Britain is diverse in its size, organisation and ownership and serves a variety of markets – for example: construction material, timber frame construction, roofing, furniture, joinery, fencing, pallets, packaging and a wide range of components and assembled products.

The sector competes against imported timber, which establishes price and quality levels. Current UK consumption of round and sawn timber stands at 19.6 million m³ WRME with imports comprising 15.6 million m³ WRME.

All sawmill products are produced to exacting specifications; all are in demand from industry and all are essential for the economic success of the forest industry.

Economics and conservation considerations dictate that every part of the log is used. When a softwood sawlog enters a sawmill, only 50-55% emerges as sawn timber: some 7% is bark, 10% sawdust and 25-30% are wood chips. Similarly the processing of small roundwood for the manufacture of medium density fibreboard (MDF) and oriented strand board (OSB) also produces substantial quantities of bark.

The conversion of roundwood (logs) to sawn timber produces sawmill co-products, including wood chips, sawdust and bark. These valuable materials provide the raw materials for wood based sheet materials, including particleboard (wood chipboard) and paper and board products. Wood chips and sawdust are produced in accordance with specifications provided by the manufacturers of panel products and paper and board products.

Approximately 1 million cubic metres of bark is produced, processed and sold into the horticultural industry each year, much used for decorative mulching. Mulches suppress weeds and retain soil moisture.

Other uses of bark are many and varied, such as for play areas, equestrian surfaces and also for specialised applications for example, orchid cultivation. Increasingly fine bark is being composted and nutrients added to produce peat free growing media for grow-bags and potting composts.

Sawmilling

Estimated number of sawmills sawing British grown logs (softwood and hardwood) 1997

Sawmill production m³ sawnwood/year	England	Number of Mills		GB TOTAL
		Wales	Scotland	
Under 1000	132	16	47	195
1000 to 9 999	105	13	35	153
10 000 to 24 999	10	0	9	19
over 25 000	8	5	10	23
Total	255	34	101	390

Softwood log consumption and sawnwood production 1997

	England	000m³		GB TOTAL
		Wales	Scotland	
Log consumption (ub)	1 443	605	1 470	3 497
Sawnwood production	829	334	819	1 982

Hardwood log consumption and sawnwood production 1997

	England	000m³		GB TOTAL
		Wales	Scotland	
Log consumption (ub)	224	8	22	254
Sawnwood production	126	5	11	141

Source: HGTAC Sawmill Survey 1997

UKFPA

The United Kingdom Forest Products Association (UKFPA) represents the technical and commercial interests of the British grown timber industry.

UKFPA Members include harvesting companies, sawmillers, timber merchants, pallet and packaging manufacturers, fencing manufacturers, paper and board products manufacturers, wood based sheet materials manufacturers, bark processors, suppliers of forestry and sawmill equipment and manufacturers of timber preservative products.

Located throughout the United Kingdom, UKFPA Members, account for at least 85% of the production of sawn British grown softwood and some 90% of the production of sawn British grown hardwood.

UKFPA is governed by an executive council, supported by specialist sub-committees which address topics including wood supply, harvesting & contracting, technical & development issues, health and safety, education & training, membership & promotion and environmental matters.

UKFPA maintains contact with a wide range of organisations in both the public and private sectors, both in the UK and overseas. A key function of the Association is to represent the interests of the British grown timber industry in many British and European standards committees.

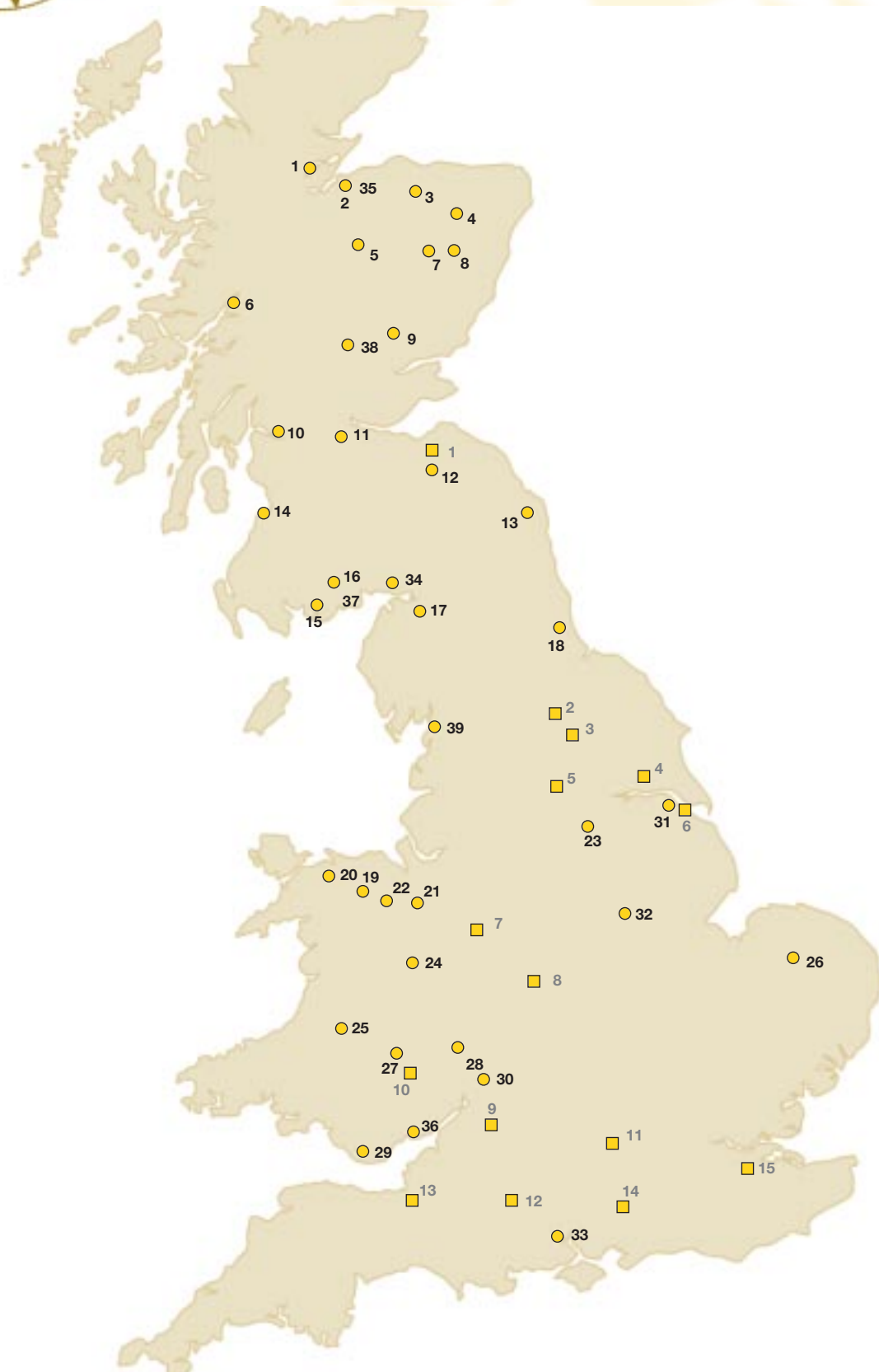
A list of UKFPA Members and a directory of Members' products and services is available free of charge from the UKFPA office.

**United Kingdom Forest Products Association
Office 14
John Player Building
Stirling Enterprise Park
Springbank Road
STIRLING
FK7 7RP**

**Tel: 01786 449029
Fax: 01786 473112**



Principal Sawmills in Great Britain



Softwood

TELEPHONE

1	J.D.G. Munro & Partners - Dingwall Sawmills, Old Evanton Road, Dingwall, Ross-shire IV15 9RB	01349 863226
2	John Gordon & Son Ltd - Balblair Road, Nairn IV12 5LT	01667 453223
3	James Jones & Sons Ltd - Mosstodloch HQ: Broomage Avenue, Larbert, Stirlingshire FK5 4NQ	01324 562241
4	James Jones & Sons Ltd - Kinnoir HQ: Broomage Avenue, Larbert, Stirlingshire FK5 4NQ	01324 562241
5	BSW Timber Plc - Boat of Garten HQ: East End, Earlstoun, Berwickshire TD4 6JA	01896 849255
6	BSW Timber Plc - Kilmallie HQ: East End, Earlstoun, Berwickshire TD4 6JA	01896 849255
7	James Jones & Sons Ltd - Aboyne HQ: Broomage Avenue, Larbert, Stirlingshire FK5 4NQ	01324 562241
8	James Cordiner & Son Ltd - Silverbank Sawmills, Banchory, Kincardineshire AB31 5PY	01330 823366
9	James Jones & Sons Ltd - Kirriemuir HQ: Broomage Avenue, Larbert, Stirlingshire FK5 4NQ	01324 562241
10	Riding Sawmills Ltd - Clyde Sawmills, Cardross, Dumbarton G82 5NP	01389 841263
11	James Callander & Son Ltd - Abbotshaugh Sawmills, Bainsford, Falkirk FK2 7XU	01324 621563
12	Windymains Sawmill - Windymains, Humber, East Lothian EH36 5PA	01875 833602
13	A & J. Scott Ltd - Station Sawmills, Wooperton, Alnwick, Northumberland NE66 4XW	01668 217288
14	Adam Wilson & Sons Ltd - Heathfield Road, Ayr KA8 9SS	01292 267842
15	Robert Howie & Sons - Kenmuir Sawmills, Dalbeattie, Kirkcudbrightshire DG5 4PL	01556 610876
16	James Jones & Sons Ltd - Dumfries HQ: Broomage Avenue, Larbert, Stirlingshire FK5 4NQ	01324 562241
17	BSW Timber plc - Carlisle HQ: East End, Earlstoun, Berwickshire TD4 6JA	01896 849255
18	Taylor-made Timber Products Ltd - Sherburn Hill, Durham DH6 1PS	0191 372 0524
19	Conwy Timber Company - Gwyddelwern Sawmills, Gwyddelwern, Denbighshire LL21 9DG	01490 412241
20	Conwy Timber Company - Morfa Sawmills, Conwy, N Wales LL32 8HB	01492 596601
21	ETC Sawmills Ltd - Elson, Ellesmere, Shropshire SY12 9JW	01691 622441
22	Kronospan Sawmilling Ltd - Chirk, Wrexham LL14 5NT	01691 775256
23	Jeffrey Walker & Co Ltd - Brunel Ind Estate, Harworth, Doncaster, South Yorkshire DN11 8QA	01302 751175
24	Charles Ransford & Sons Ltd - Station Street, Bishop's Castle, Shropshire SY9 5AQ	01588 638331
25	BSW Timber plc - Newbridge on Wye HQ: East End, Earlstoun, Berwickshire TD4 6JA	01896 849255
26	M R Ellis (Timber) Ltd - Hevingham, Norwich	01603 755321
27	Pontrilas Timber & Builders Merchants Ltd - Pontrilas, Nr Hereford, Herefordshire HR2 OBE	01981 240444
28	Forest Fencing Ltd - Stanford Court, Stanford Bridge, Worcester WR6 6SR	01886 812451
29	BSW Timber plc - Senghenydd HQ: East End, Earlstoun, Berwickshire TD4 6JA	01896 849255
30	Berite Sawmills Ltd - Lakeside Sawmills, Broadway Lane, South Cerney, Cirencester, Glos GL7 5UH	01285 860781
31	Stuart H Somerscales Ltd - Keelby, Grimsby DN41 8HU	01469 560704
32	Jeffrey Walker & Co Ltd - Doncaster Road, Nottingham DN11 8QA	01909 732619
33	R F Giddings & Co Ltd - Ringwood Road Sawmills, Bartley, Southampton, SO40 7LT	01703 813157
34	Kerr Timber Products Ltd - Annan, Dumfriesshire, DG12 6SL	01461 201622
35	Tulloch Timber (Nairn) Ltd - Grigorhill Industrial Estate, Nairn IV12 5HY	01667 452347
36	Gwent Timber Products Ltd - Crumlin, Newport, Gwent NP1 4AG	01495 248080
37	James Kingan & Sons Ltd - New Abbey, Dumfries DG2 8BY	01387 850282
38	Perthshire Timber Co - Polney Sawmill, Dunkeld, Perthshire PH8 0HU	01350 727494
39	P Irving & Sons - Hutton Roof Sawmills, Kirkby Lonsdale, Carnforth LA6 2PE	01524 271510

Hardwood

1	BSW Timber PLC - Petersmuir HQ: East End, Earlstoun, Berwickshire TD4 6JA	01896 849255
2	Duffield Timber - Green Lane, Melmerby, Ripon, North Yorkshire HG 5JB	01765 640564
3	John Boddy (Timber) Ltd - Riverside Sawmills, Boroughbridge, North Yorkshire YO51 9LJ	01423 322370
4	Barchards Ltd - Gibson Lane, Melton, North Ferriby, East Yorkshire HU14 3HF	01482 633388
5	Nidd Valley Sawmills Ltd - Dacre Banks, Harrogate, North Yorkshire HG3 4EA	01423 780220
6	Stuart H Somerscales Ltd - Keelby, Grimsby DN41 8HU	01909 732619
7	Henry Venables Ltd - Doxey Road, Stafford, Staffordshire ST16 2EN	01785 259131
8	Whitmores' Timber Co Ltd - Main Road, Claybrooke Magna, Lutterworth, Leics LE17 5AQ	01455 209121
9	Vastern Timber Co Ltd - The Sawmills, Wootton Bassett, Swindon, Wilts SN4 7PD	01793 853281
10	Pontrilas Timber & Builders Merchants Ltd - Pontrilas, Nr Hereford, Herefordshire HR2 OBE	01981 240444
11	B & K Earle - Woodcote Sawmill, Reading	01491 680520
12	East Bros (Timber) Ltd - West Dean, Salisbury, Wiltshire SP5 1JA	01794 340270
13	A J Charlton & Sons Ltd - Buckland Down, Frome, Somerset BA11 2RH	01373 812501
14	W L West & Sons Ltd - Selham, Petworth, West Sussex GU28 0PJ	01798 861611
15	Morgan & Co (Strood) Ltd - Knight Road, Rochester, Kent ME2 2BA	01634 290909

OTHER WOOD PRODUCTS



The fourth sector of the Forest Products Industry, other timber products, covers all the timber products not covered previously. These are diverse and include veneers, telegraph poles, garden furniture, high-value furniture etc. This sector has a considerable potential for growth.

Misc Industrial Timber	456 000 green tonnes	
	softwood roundwood	<div>323 000 round fencing</div> <div>100 000 fuelwood</div> <div>33 000 other</div>
	205 000 green tonnes	
	hardwood roundwood	<div>30 000 round fencing</div> <div>150 000 fuelwood</div> <div>25 000 other</div>
End Uses	<div>Mining</div> <div>Fuel/firewood</div> <div>Fences</div> <div>Posts</div> <div>Rails</div> <div>Agricultural and household implements</div> <div>Horticultural/garden products</div> <div>Poles</div> <div>Craft products</div> <div>Turnery</div>	

EMPLOYMENT AND TRAINING



The British wood products industry is built upon the expanding availability of timber. Previous agricultural policies have directed forestry to poorer upland soils often in remote rural areas, where employment opportunities are limited.

Employment opportunities increase as new forests are thinned, harvested and replanted, and through the development of subsequent processing. Based on expanding timber supplies and investment in processing, the sector projects a growth of jobs throughout GB of around 1,000 per year between now and 2016.

Figures taken from the 1993-94 Forest Employment Survey reveal that approximately 35,000 people are employed in the British forestry and primary wood processing industry. 86% of forestry employees and 25% contract labour live within 10 miles of where they work.

The growing, harvesting and processing of timber is directly and indirectly associated with many other activities. Any appraisal of the wood products industry in its impact on output and employment should therefore also include dependent suppliers and customers. For example, processing mills are important purchasers and consumers of raw materials, water, energy, chemicals, components and services.

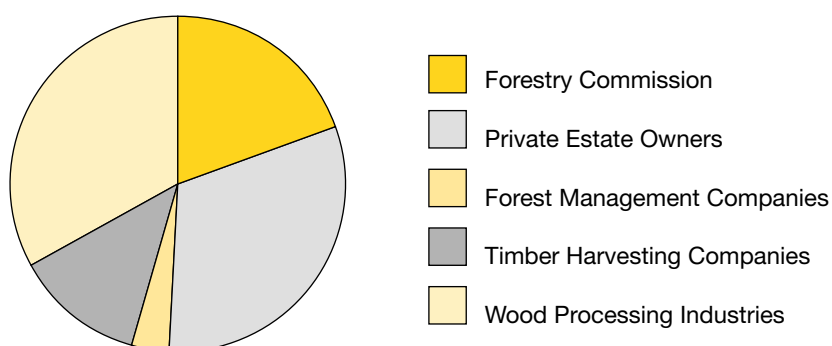
Employment

Based on the results of the 1993 - 1994 Survey

Employment in Forestry and Primary Wood Processing

	England	Wales	Scotland	GB
Forestry Commission	2 570	1 270	2 810	6 650
Private Estate Owners	7 525	1 100	2 125	10 750
Forest Management Companies	735	125	1,050	1 910
Timber Harvesting Companies	2 135	515	1 645	4 295
Wood Processing Industries	6 445	1 740	3 030	11 215
Total	19 410	4 750	10 660	34 820

Sectors of Employment

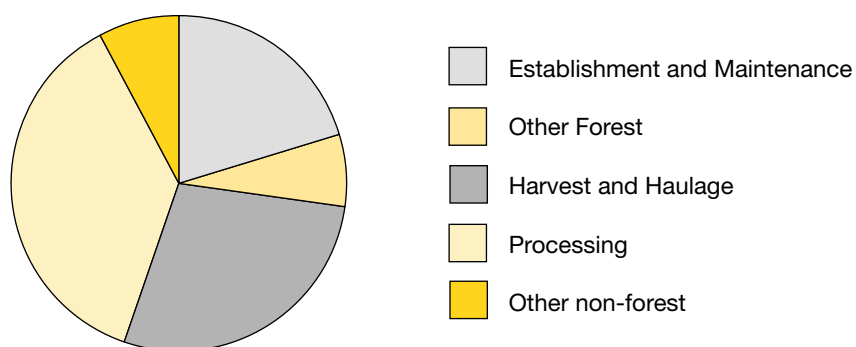


Employment by Activity

Employment by Activity

	England	Wales	Scotland	GB
Forest nurseries	380	-	200	580
Establishment	1 790	260	720	2 770
Maintenance	2 530	400	795	3 725
Harvesting/extraction	4 220	1 310	3 215	8 745
Road construction	285	90	255	630
Other forest based	1 200	175	360	1 735
FOREST total	10 405	2 235	5 545	18 185
Haulage of timber	325	215	445	985
Processing	7 555	2 015	3 290	12 860
Other non-forest based	1 125	285	1 380	2 790
NON-FOREST total	9 005	2 515	5 115	16 635
TOTAL	19 410	4 750	10 660	34 820

Employment in Forestry Activities

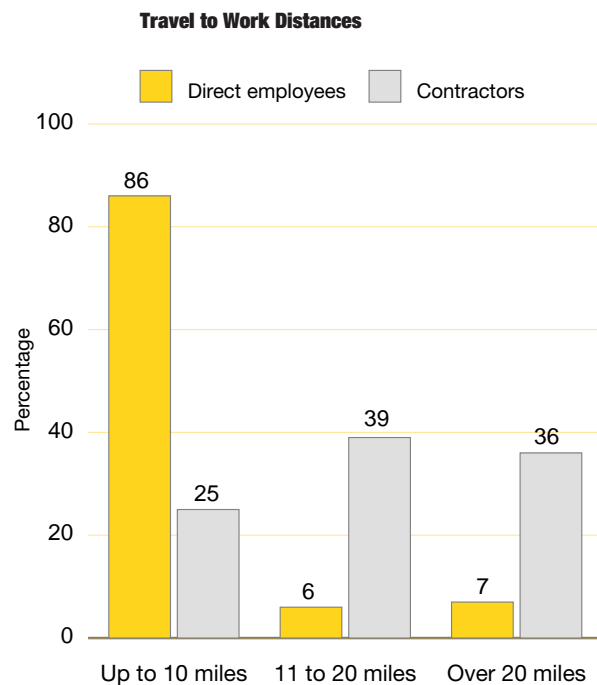


Travel to Work Distances

Travel Distances (percentage breakdown for each category of employer)

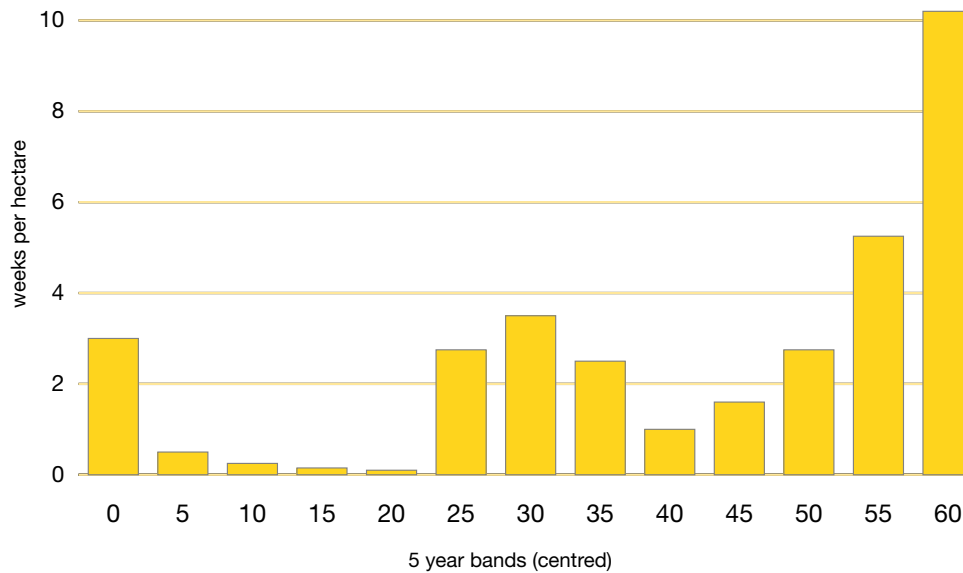
	Up to 10 miles	11 to 20 miles	Over 20 miles
DIRECT LABOUR			
Private Estate Owners	96%	3%	1%
Forest Management Companies	52%	22%	26%
Timber Harvesting Companies	48%	16%	36%
All	86%	6%	7%

CONTRACT LABOUR			
Private Estate Owners	38%	29%	33%
Forest Management Companies	13%	34%	53%
Timber Harvesting Companies	16%	52%	32%
All	25%	39%	36%



Profile of labour through One Rotation

Average yield class conifer crop: thinned



The peak at age-bands 25 and 30 is partially caused by the building of harvesting access roads.

Comparisons with Previous Surveys

BY SECTOR	1985-86	1988-89	1993-94
Forestry Commission	8 280	7 720	6 650
Private Estate Owners	13 970	15 325	10 750
Forest Management Companies	2 515	2 240	1 910
Timber Harvesting Companies	5 735	5 725	4 295
Processing	9 200	10 040	11 215
TOTAL	39 700	41 050	34 820

BY ACTIVITY	1985-86	1988-89	1993-94
Establishment/Maintenance	8 950	7 110	7 075
Other Forest	1 420	1 725	2 365
Harvesting and Haulage	13 325	12 210	9 730
Processing	10 655	14 100	12 860
Office	5 350	5 905	2 790
TOTAL	39 700	41 050	34 820

Forestry Training

1. Introduction

Forestry is the science and practice of managing forests and woodlands. It covers the wide range of technical and managerial skills required to establish, maintain and harvest timber crops. Though forestry's principal aim is to produce timber other objectives such as amenity, conservation and recreation are of equal importance. Forestry is rewarding to those who seek to combine an outdoor life with an interesting and varied career. The structure of forestry education and training has been developed to meet both the needs of the industry and those of new entrants. The qualifications confirm competence by giving national recognition of an individual's skill and encourage career progression for those with the necessary ability. Entry routes depend on an individual's academic or vocational qualifications and experience.

2. Induction Training

The Youth Training Scheme (YTS) is well established as an appropriate foundation for employment and as the access route to higher level qualifications. YTS and other training schemes are aimed at school leavers and unemployed people to prepare them for a career in forestry and equip them with key skills. Participants in these schemes increasingly achieve National or Scottish Vocational Qualifications (N/SVQ) at Levels 1 and 2.

Alternatively a number of colleges now offer the EDEXCEL 1st Diploma or the SQA National Certificates in Forestry and Woodland Operations which offer 1 years full time training to students. Qualifications will be valuable in gaining employment and aid progression towards additional part-time studies or full-time education.

3. Skilled Forest Workers

Entry at this level does not require formal qualifications although competence in key skills such as numeracy and literacy is necessary.

This sector of employment is the largest but as mechanisation of forest operations increases there is a demand for a higher level of skill. The type of work varies with location, land management system and function, e.g. harvesting. Training to the required level of competence can be in-service and by attendance on block release or shorter courses run by the Forestry Commission, colleges and Forestry and Arboriculture Safety and Training Council (FASTCo) approved instructors. The new N/SVQs, which are functionalised at this level to meet typical employment patterns, offer new and existing operatives the chance to gain nationally recognised qualifications through assessment in the workplace. Their structure is also aimed at encouraging lifetime learning and career progression.

4. Craftsmen, Supervisors and Self Employed Contractors

Those with the aptitude and ability can obtain training leading to higher qualifications from a wide range of Further Education (FE) colleges and other providers of training and assessment. These are listed in FASTCo's Register of Approved Instructors or can be accessed through the Training Access Point (TAP) and ECTISS databases.

The range of qualifications includes City & Guilds Phase III and its SQA equivalent made up of National Certificate Modules. EDEXCEL offer a full time Ordinary National Diploma (OND) course. The new N/SVQs at Level 3 are very relevant to this group. They are functionalised into two streams. One is applicable to supervisors and machine operators, the second is designed to meet the needs of the increasingly important sector of self employed contractors. The mandatory units are made up of technical competencies whilst the optional ones focus on business planning skill this employment sector requires. A forestry Modern Apprenticeship scheme is available in Scotland.

5. Forest Managers

Employment at this level is usually dependent on having achieved one of the following qualifications:

National Diploma in Forestry
Higher National Diploma in Forestry
National Certificate in Forestry
BSC Degree in Forestry
City & Guilds Phase IV Certificate in Forestry
Possession of a full driving licence is essential.

People with these qualifications usually commence their career as Technical Managers, known in the industry as Foresters. They are responsible for planning and controlling forest operations which includes the protection of the forest environment. Many foresters also work abroad typically for government, non government and voluntary organisations such as VSO. Foresters are responsible for maintaining good relations with neighbours and organisations or individuals who wish to use the forest for sport or recreation. In the Forestry Commission, and some other large employers, opportunities exist to specialise in activities such as wildlife management, training or research. Subsequent progression within the industry is based on merit as there are no longer artificial barriers to those with sub degree qualifications.

6. Other Qualifications

The National Diploma in Forestry (NDF)

The NDF is considered to be the equivalent to an ordinary degree qualification. The Central Forestry Examination Board has stood down so the NDF is no longer available.

Institute of Chartered Foresters (ICF)

The Institute offers chartered status by examination to professional foresters normally resident in the United Kingdom and with two or more years experience in approved practice. The examination is in two parts: exemptions may be obtained from some or all of Part I by possession of forestry or allied qualifications, whilst Part II is taken by all candidates to confirm professional competence. Short revision courses for ICF examinations are offered by Newton Rigg College and the Scottish School of Forestry in Inverness.

Technical and Managerial Courses

Short courses in a range of technical and managerial subjects are available at various locations throughout the country.

Technical courses are usually given by instructors who are registered with FASTCo. Full details of these are available from that organisation. Specific management courses are available from the Forestry Commission for the private sector subject to demand. Many colleges also provide technical and management courses details of which can be obtained from the college Principal.

7. Information Sources

The ECTISS and TAP databases provide comprehensive guidance on forestry and arboriculture training providers. This is supplemented by specific information available from individual FE colleges and other training providers. FASTCo publishes a free Career guidance book and annually its Register of Approval Instructors. This is a summary manual of safety and training provision in forestry and arboriculture and is available on request at a price of £15 including post and packing.

Forestry and Arboriculture Safety and Training Council (FASTCo)
231 Corstorphine Road, Edinburgh, EH12 7AT
Tel: 0131 314 6247 Fax: 0131 316 4344
Email: fastco@forestry.gov.uk



INTERNATIONAL TRADE

International trade in forest products is estimated to be over \$100 billion per annum making it the third most valuable commodity traded internationally.

Over 80% of timber is traded among the developed nations – and over 60% is conducted among only ten countries, including Britain which imports 85% of its timber requirements.

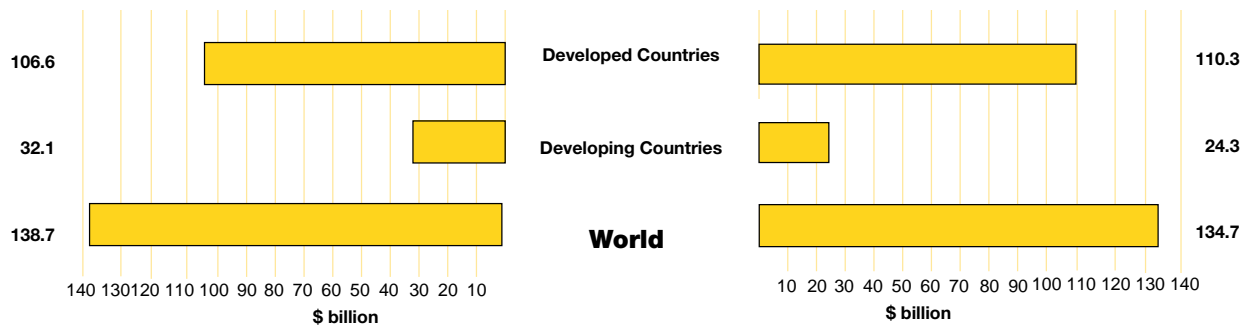
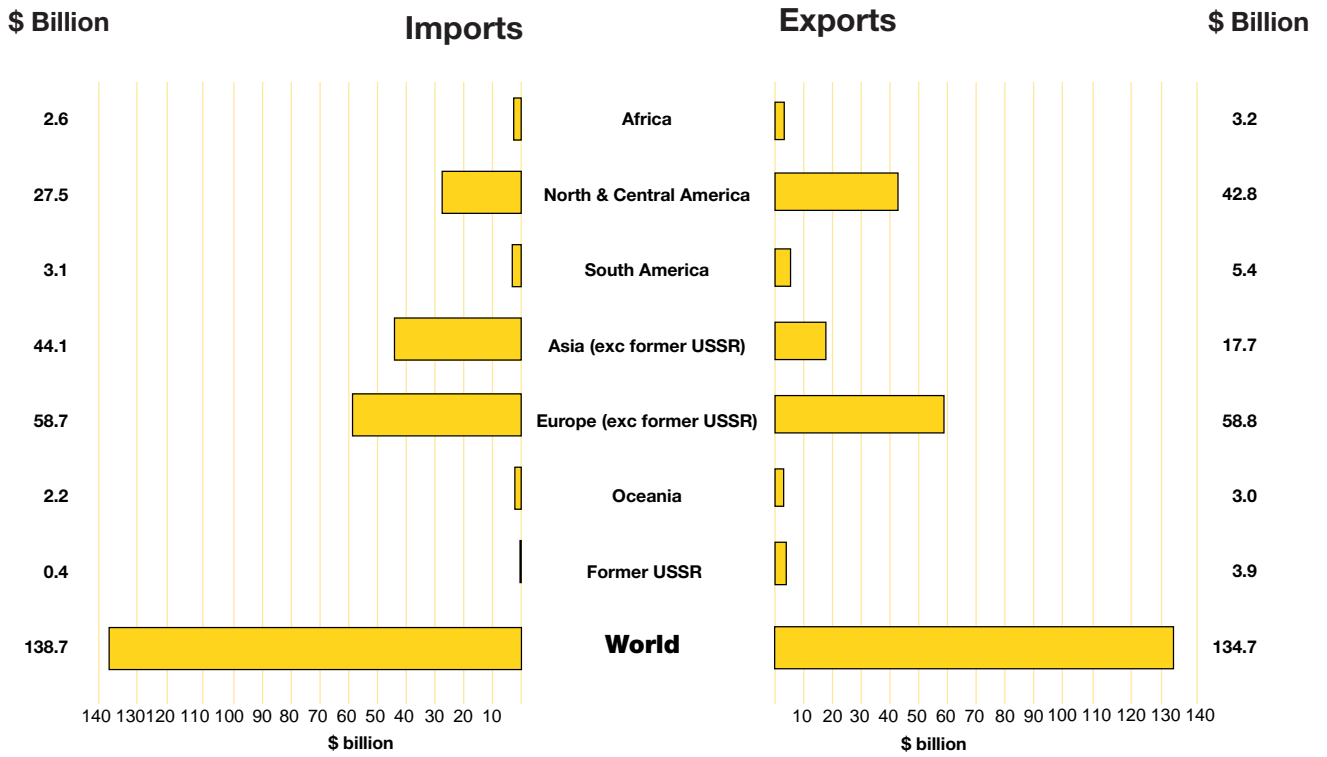
Around three quarters of the world forest resource is broadleaves; industrial nations such as the United Kingdom rely on the 21% of coniferous forests to provide the raw material for timber based industries. The vast majority of those coniferous forests (90%) are in industrial nations, principally North America, Scandinavia, Europe and the former USSR.

World timber resource 1990

Country	Total forest land million hectares	Productive forest land	Timber volume million m ³
World	5 120	3 442	383 727
Canada	453	247	28 671
United States	296	210	24 730
South and Central America	1 260	966	109 422
Africa	1 137	545	54 938
Europe	174	140	18 541
USSR	942	755	84 234
Asia	658	490	52 062
Oceania	201	88	10 056

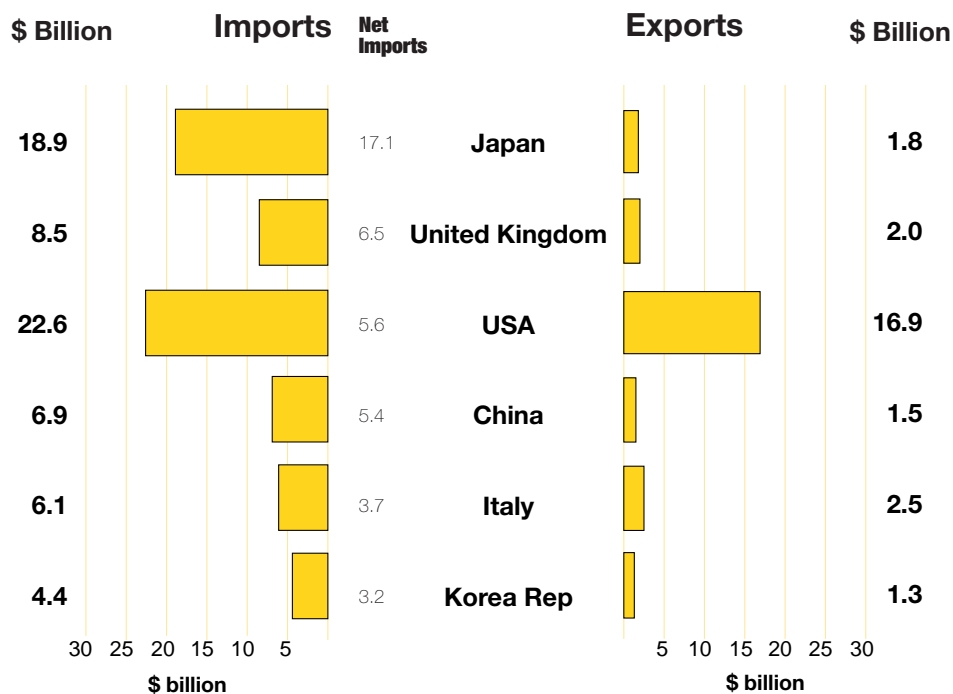
FAO Forest Resource Assessment 1990 – published in 'Forestry Statistics Today for Tomorrow: 1945-1993...2001' [FAO 1995]

World Trade in Forest Products 1996

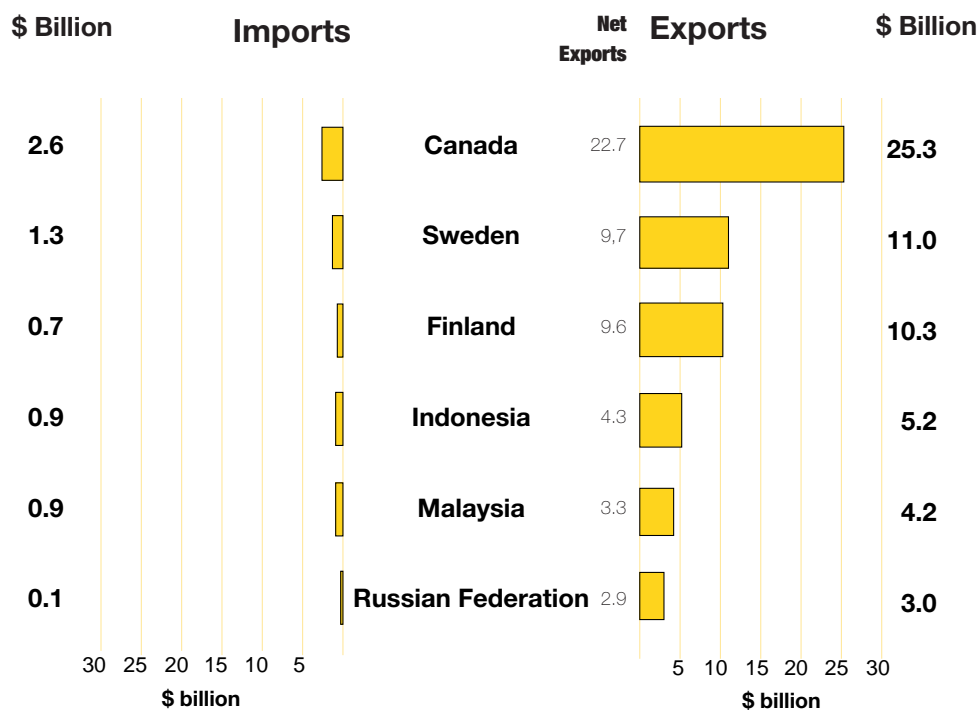


World Trade in Forest Products 1996

Large Net Importers of Forest Products



Large Net Exporters of Forest Products



Glossary

Afforestation: The new planting of bare lands with trees, usually of a substantial area.

Ancient woodlands: The classification is defined as woodland known to be continuously present since 1600 AD (1750 AD in Scotland).

Biodiversity: The variety of ecosystems and living organisms (species), including genetic variation within species.

By-products (sawmill): Materials including wood chips, sawdust and bark which arise during the conversion of logs to sawn timber. These materials are processed for further use by other industries. May also be known as co-products (sawmill).

Carcassing timber: Timber used in construction for framing and similar applications, for example joists, studs etc.

Cement Bonded Particleboard: Sheet material manufactured under pressure, based on wood and other vegetable particles bound with hydraulic cement and possibly containing additives.

Chipboard: (See Particleboard)

Coppice: Management based on regeneration by regrowth from cut stumps (coppice stools). The same stool is used through several cycles of cutting and regrowth.

Co-products (sawmill): Materials including wood chips, sawdust and bark which arise during the conversion of logs to sawn timber. These materials are processed for further use by other industries. May also be known as by-products (sawmill).

Establishment: The first five to ten years or formative period which ends once young trees are of sufficient size that, given adequate protection, they are likely to survive at the required stocking.

Fibreboard (wood fibreboard): Panel material with thickness equal to or greater than 1.5mm, manufactured from lignocellulosic fibres with application of heat and/or pressure. The bond is derived either from the felting of the fibres and their inherent adhesive properties or from a synthetic binder added to the fibres.

Flaxboard: Particleboard made from flax shives, or from a mixture of flax shives and wood particles and a binder. (Not made in the UK).

Fluting: Triangular shaped configurations formed by an undulation of the of inner corrugated liner in corrugated type paperboard, similar to and sometimes known as corrugation. There are four types:- A-flute, B-flute, C-flute and E-flute.

A-flute: approximately 3/16" high, specifically, the triangular shaped fold of this dimension in the corrugating medium, averaging 34-36 per linear foot.

B-flute: approximately 3/32" high and averaging 50-52 per linear foot.

C-flute: approximately 5/32" high and averaging 39-42 per linear foot.

E-flute: approximately 1/16" high and averaging 88-100 per linear foot.

Great Britain: England, Scotland and Wales.

Green tonne: Weight measurement of timber fresh felled before any natural or artificial drying has occurred.

Hardboard: Wood fibreboard having a density equal to or greater than 900 kg/m³. (Not made in the UK).

Hardwood: The wood of broadleaved trees, a term sometimes used for the broadleaved trees themselves.

Insulating board: Softwood fibreboard that has a density usually not exceeding 350 kg/m³ and a thermal conductivity not exceeding 0.058 W/(m.k). (Not made in the UK).

Lightweight coated paper: A term applied to any type of paper having a basis weight in the lower ranges specific for a particular grade whose surface has been treated in such a way as to apply a coating in order to enhance its finish characteristics. The coating consists of a layer of coating materials such as clay, various pigments and/or special substances in combination with adhesives of some type, varnish or lacquer. The coating is used to improve the surface characteristic of the paper, eg, opacity, smoothness, colour, printing quality.

Linerboard: A type of kraft paperboard, generally unbleached, used to line or face corrugated coreboard (on both sides) to form shipping boxes and various types of containers. Some linerboard may contain recycled fibre, from small amounts, to 100%.

Medium-Density Fibreboard (MDF): Wood fibreboard made by a dry process in which the primary bond is derived from a bonding agent, and having a density usually exceeding 600 kg/m³.

Native species: Species which have arrived and inhabited an area naturally, without deliberate assistance by man. For trees and shrubs in the UK usually taken to mean those present after post-glacial recolonisation and before historic times. Some species are only native in particular regions –hence locally native.

Native woodlands: Woods mainly or entirely of locally native species.

Natural regeneration: Plants growing on a site as a result of natural seed fall or suckering. The term is also used to describe the silvicultural practices used to encourage natural seeding and successful growth of the seedlings.

New planting: Establishing woodland on ground which was not woodland in the recent past.

Oriented Strand Board (OSB): Multi-layered board made from strands of wood of a predetermined shape and thickness together with a binder. The strands in the external layers are aligned and parallel to the board length or width.

Origin: The original natural genetic source.

Overbark: Measurement of timber including the bark.

Particleboard/chipboard: Panel material manufactured under pressure and heat from particles of wood (wood flakes, chips, shavings, sawdust) in particle form, with the addition of an adhesive.

Plywood: Wood-based panel consisting of an assembly of layers bonded together with the direction of the grain in adjacent layers, usually at right angles. (Not made in the UK).

Private forests: Woodlands or forests which are not owned by the Government.

Provenance: Location of trees from which seed or cuttings is collected. Designation of Regions of Provenance under the Forest Reproductive Materials regulations is used to help nurseries and growers select suitable material. The term is often confused with 'origin' which is the original natural genetic source.

Pulp: A fibrous material produced by mechanically or chemically reducing wood into their component parts from which pulp, paper and paperboard sheets are formed after proper slushing and treatment or used for dissolving purposes (dissolving pulp or chemical cellulose) to make rayon, plastics, and other synthetic products. Sometimes called wood pulp.

Recovered/Reclaimed wood: Either industrial process by-products (eg offcuts or fines from a board manufacturing mill, furniture factory, joinery or construction) or from post-consumer waste wood (eg pallets, construction waste) after the stage of recovery or reclamation for purposes of recycling.

Regeneration: Renewal of woodland through sowing, planting or natural regeneration.

Residues: An older term that was used to describe saw dust, wood chips, slab wood, offcuts, bark etc. that arise from sawmilling and wood processing. The term is deprecated. See by-products and co-products.

Restocking: The replanting of an area after trees are removed.

Roundwood: Timber felled and may be cut into lengths, but which has not been processed into chip or planks, i.e. it is still round.

Sawlogs: Material of at least 14 cm top diameter that is destined to be sawn into planks or boards.

Sawnwood: Sawn timber – timber which has been cut into planks or boards from logs.

Semi-natural woodland: Woodland composed of mainly locally native trees and shrubs which derive from natural seedfall or coppice rather than from planting. Ancient and Semi-natural woodlands are defined as those known to be continuously present since 1600 AD (1750 AD in Scotland).

Softboard: Wood fibreboard having a density of less than 400 kg/m³ and having thermal and acoustic basic properties. (Not made in the UK).

Softwood: The wood of coniferous trees or conifers themselves.

Standing volume: Measurement of quantity before trees are felled. Usually expressed as cubic metres overbark.

Thinning: A proportion of stems removed in order to give the best stems space and light to grow into a more valuable crop. This is usually carried out some time after canopy closure and may be repeated at intervals. It is a necessary operation in the production of quality timber. A temporary reduction in standing volume will result.

Underbark: Measurement of timber excluding the bark.

United Kingdom: Great Britain and Northern Ireland.

Veneer: A thin layer of wood, produced by peeling or slicing, used for decorative purposes. Veneers are usually applied to less expensive or less attractive substitutes including solid timber, woodbased sheet materials etc.

Wood Raw Material Equivalent (WRME): Indicates the volume of tree timber that is required to produce a quantity of wood product. The conversion factors to derive WRME volumes are currently under review. In this Handbook most WRME volumes are expressed in cubic metres underbark. WRME volumes can also be expressed in cubic metres standing volume, as on page 32. For a given quantity of product, underbark volumes are around 20% less than standing volumes.

Yield class: A classification system based on height, used to assess the volume production of a stand. Class values range from 4 (cubic metres per hectare per annum) for broadleaves, larch and pine, up to 30 for grand fir. It reflects the potential productivity of the site for the tree species growing on it.

FICGB STRUCTURE

The Forestry Industry Council of Great Britain (FICGB) is the organisation which brings together a comprehensive grouping of enterprises, organisations, and professional associations that make up the private sector of the forestry industry in this country.

FICGB encompasses all forestry industry activities from silvicultural research, the expansion of new planting and the sustainable management of the forest resource, to the maximisation of non-market benefits and the commercial processing of timber as an internationally competitive enterprise.

It provides the forum for industry to debate and plan its future development and the means to promote a more informed understanding of the role and contribution of the UK forestry industry within the national economy.

