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CONTENTS

INTRODUCTION

This report contains statistics on removals (harvesting) of roundwood (timber) from forests and woodlands in the UK, and deliveries of roundwood to sawmills and other primary wood processing industries. It also includes some statistics on production of wood products.

Roundwood covers all material from forest operations: logs, small roundwood and roundwood chipped at the harvesting site. Softwood is timber from conifers, such as spruce, pine, fir and larch. Hardwood is timber from broadleaved trees such as oak, beech, ash and sycamore.

The geographic scope has been extended in this publication for the first time to cover the United Kingdom – Scotland, England, Wales and Northern Ireland. Previous publications (titled "British Timber Statistics") excluded Northern Ireland. In addition, this publication now includes data on imported timber. As a result some of the figures in this publication are not directly comparable to those in earlier publications.

The quality of data from the statistical systems used for this report was assessed against National Statistics (NS) standards in 2000. It was concluded that the surveys and other sources since 1994 largely met NS standards, but that quality is now higher than in earlier years. The scope of this NS publication is limited to the period 2000 to 2004, although summary figures back to 1995 are shown in graphical format.

Statistics for deliveries to primary wood processing industries are for UK mills that use UK roundwood. Imported roundwood is only included if it is used by processors that also use UK roundwood. Processors that only use imported timber and wood products are outside the scope. Secondary processors that use sawnwood or woodpulp to produce other wood products (e.g. furniture or paper) are also outside the scope.

Figures in the tables are individually rounded, so the constituent items may not add to the totals given.

CONVERSION FACTORS

For the first time, all figures for removals and deliveries are shown throughout this publication in green tonnes. Conversion factors are used to convert between cubic metres (standing, overbark, underbark) and green tonnes (weight when freshly felled, including moisture). The factors used in compiling this publication are shown in Section G.

ACKNOWLEDGEMENTS

This report was compiled by the Forestry Commission (Economics and Statistics), in association with the Expert Group on Timber and Trade Statistics (EGTTS). We gratefully acknowledge the assistance of all members of the EGTTS and of the associations that they represent. We would also like to acknowledge the extensive advice and assistance provided by the Northern Ireland Forest Service (FS) in the collection, quality assurance and presentation of data for Northern Ireland.

SUMMARY 1995 – 2004

This section provides a summary of statistics on deliveries and removals for 1995 to 2004. More detailed figures (covering 2000 to 2004) are provided in subsequent sections.

Table 1 gives the total softwood deliveries to the different sectors, as reported in Sections B – F. This total is then used in Table 2 to compare reported deliveries with the reported softwood removals (Section A). Table 3 summarises deliveries of hardwood as reported in Sections B – F, a figure that is then used to estimate non-FC hardwood removals in Table 4.

Table 1: Deliveries of UK softwood roundwood

000 green tonnes

Year	Sawmills	Pulpmills	Woodbased panels	Fencing	Other[1]	Total
1995	3,866	1,106	1,699	435	143	7,249
1996	4,006	853	1,500	385	135	6,879
1997	4,081	940	1,690	371	134	7,216
1998	4,156	844	1,527	401	134	7,063
1999	4,454	660	1,613	406	157	7,290
2000	4,473	695	1,685	347	169	7,370
2001	4,590	668	1,680	346	215	7,498
2002	4,661	696	1,456	290	288	7,391
2003	4,788	704	1,486	266	477	7,721
2004	4,894	483	1,525	274	1,110	8,286

[1] Data for exports from Northern Ireland in 1995-2003 are not available.

Figure 1: Deliveries of UK softwood roundwood

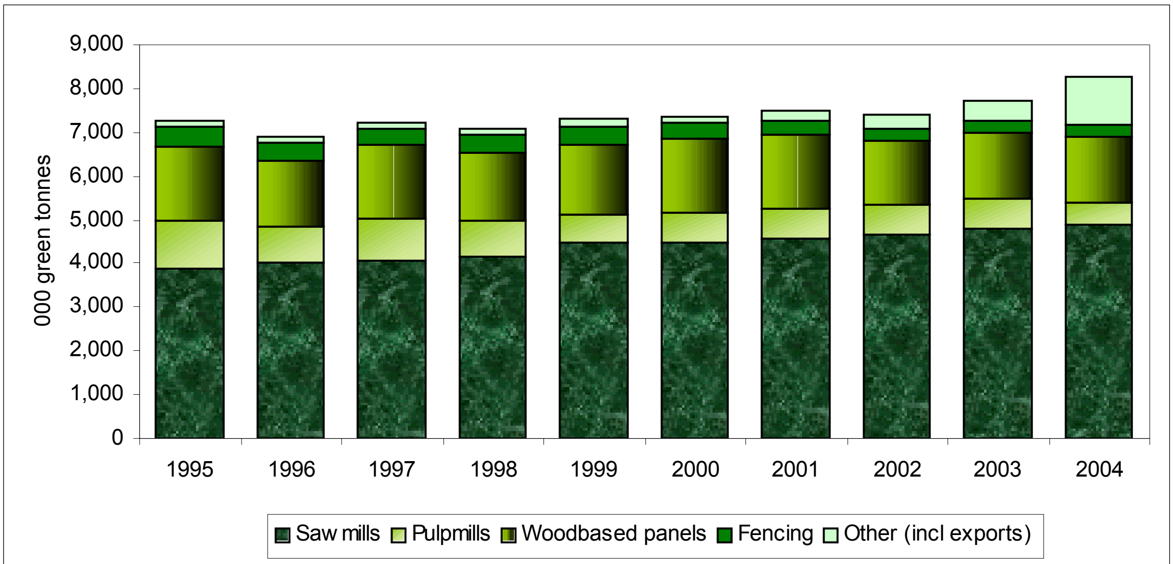


Table 2: Comparison of removals and deliveries of UK softwood roundwood

000 green tonnes

Year	FC/FS removals	Non-FC/FS removals	Total removals	Deliveries	Balance[1]
1995	3,590	2,893	6,482	7,249	-767
1996	3,720	2,761	6,481	6,879	-398
1997	3,949	2,846	6,795	7,216	-421
1998	4,188	2,638	6,826	7,063	-236
1999	4,725	2,555	7,280	7,290	-10
2000	4,850	2,580	7,430	7,370	60
2001	4,604	2,900	7,504	7,498	5
2002	4,650	3,029	7,679	7,391	289
2003	4,817	3,592	8,409	7,721	688
2004	4,894	4,172	9,066	8,286	780

[1] The difference between reported removals and deliveries. This can be caused by variations in the level of stocks between harvesting and delivery to the wood processor, but a persistent difference indicates that statistics for removals and/or deliveries may be unreliable.

Figure 2: Comparison of removals and deliveries of UK softwood roundwood

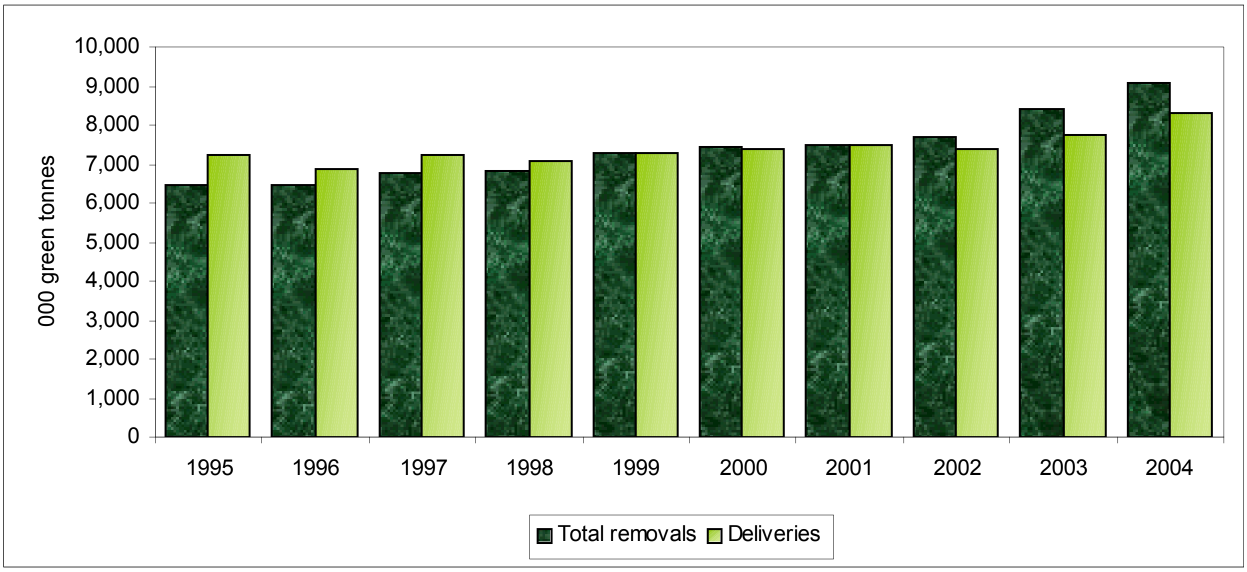


Figure 3: Comparison of removals and deliveries of UK softwood roundwood: Balance

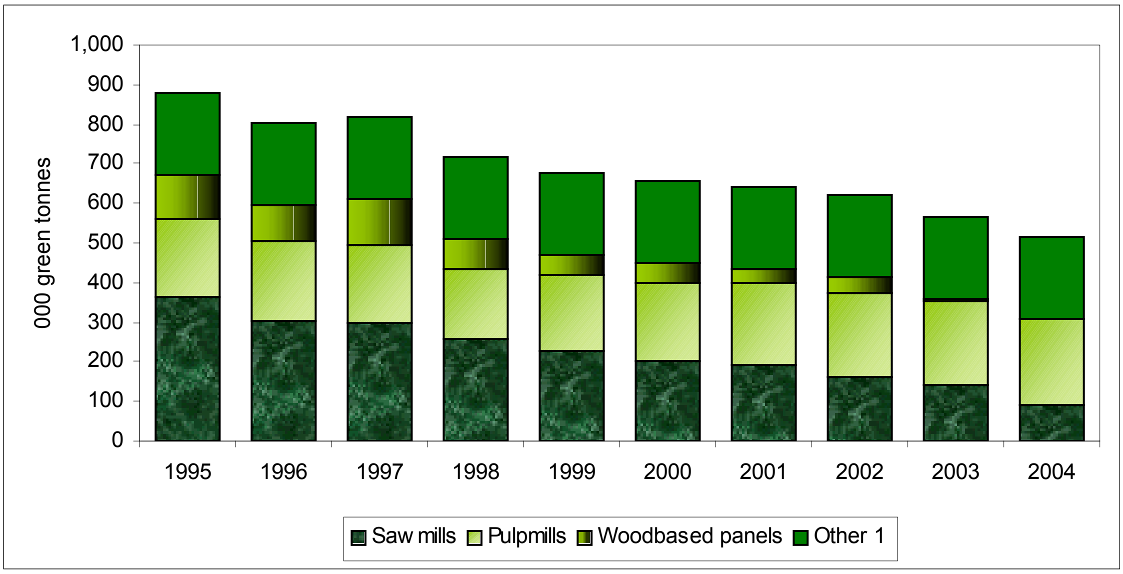
Table 3: Deliveries of UK hardwood roundwood

000 green tonnes

Year	Sawmills	Pulpmills	Woodbased panels	Other[1]	Total
1995	364	196	113	206	879
1996	304	202	91	206	803
1997	297	198	118	206	819
1998	255	180	77	206	718
1999	228	191	52	206	677
2000	200	200	50	206	656
2001	192	209	35	206	642
2002	163	210	43	206	622
2003	139	215	4	206	564
2004	93	214	2	206	515

[1] Other includes fencing

Figure 4: Deliveries of UK hardwood roundwood



[1] Other includes fencing

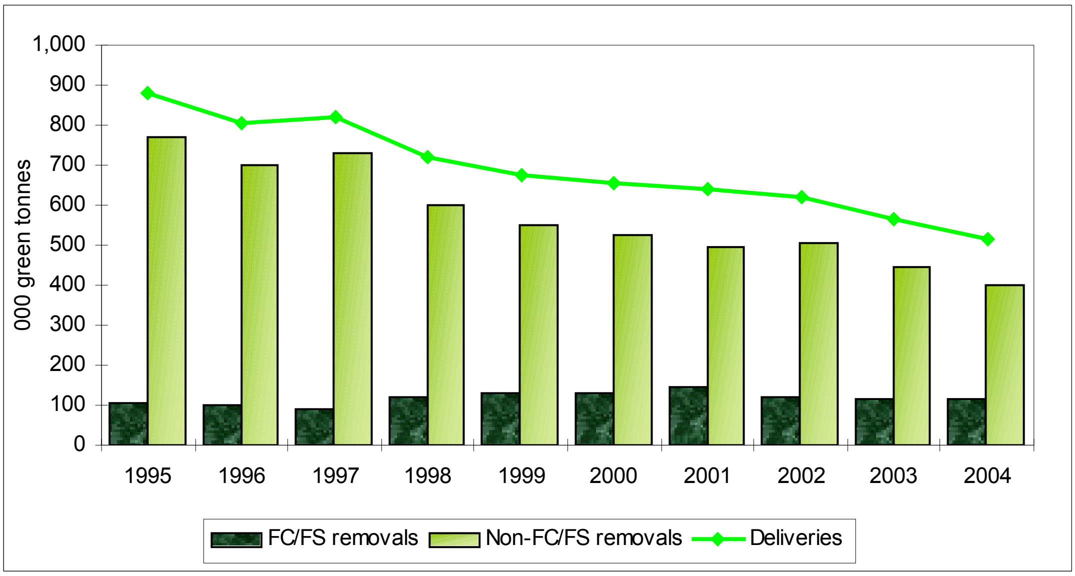
Table 4: Estimation of hardwood removals from non-FC/FS woodlands

000 green tonnes

Year	Deliveries	FC/FS removals	Non-FC/FS removals[1]
1995	879	107	772
1996	803	101	702
1997	819	91	728
1998	718	118	600
1999	677	128	549
2000	656	130	526
2001	642	145	497
2002	622	118	504
2003	564	117	447
2004	515	113	402

[1] Removals from non-FC/FS woodlands are estimated as Deliveries less FC/FS Removals. There is no survey or data source to obtain data for hardwood removals from non-FC/FS woodland.

Figure 5: Estimation of hardwood removals



A: REMOVALS OF SOFTWOOD ROUNDWOOD

This section provides information on softwood removals. Figures are provided for non-Forestry Commission / Forest Service (non-FC/FS) woodlands and for FC/FS woodlands separately. The final part of this section presents figures for all softwood removals and includes forecasts of softwood availability.

NON- FORESTRY COMMISSION / FOREST SERVICE WOODLANDS

The Forestry Commission carries out an annual survey of the largest harvesting companies. For the first time, this survey was extended to include Northern Ireland in 2004. Respondents to the survey are asked for the quantity of softwood removals from non-FC/ FS woodlands for the last 2 years.

A total of 41 forms were sent out to harvesting companies in the UK, and 33 responses were received (a response rate of 80%).

The percentage change from the survey results is used to roll forward the estimated total. As Northern Ireland figures were not collected for earlier years, estimates have been made based on available data.

It is estimated that a total of 4.2 million green tonnes of softwood was removed from non-FC/FS woodlands in 2004. This represents a 16% increase from the previous year's figure of 3.6 million green tonnes.

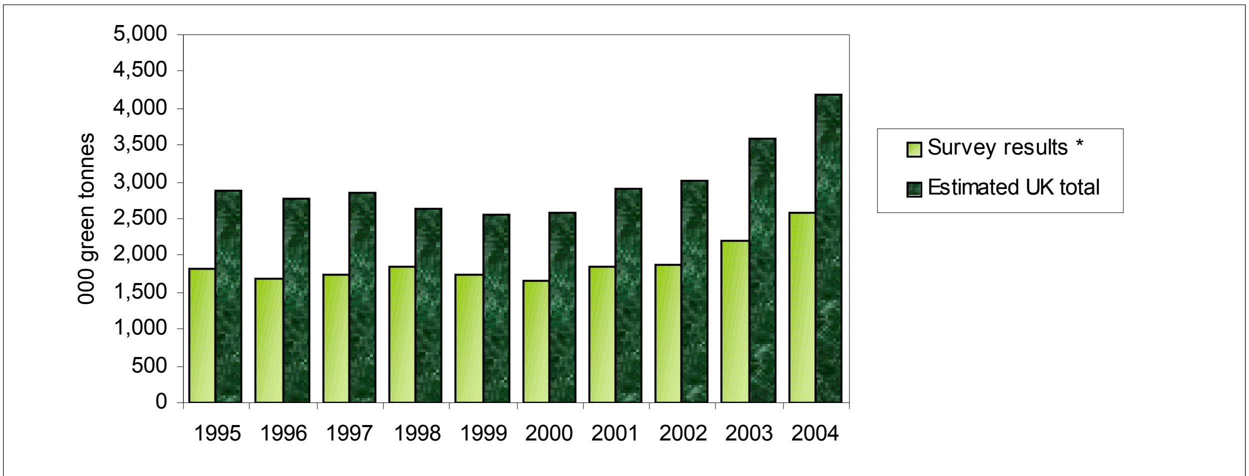
Table 5: Softwood removals survey

000 green tonnes

Year	Survey Results[1]		% change on previous year	Estimated UK total
	Previous year	Latest year		
2000	1,631	1,647	+1%	2,580
2001	1,634	1,837	+12%	2,900
2002	1,782	1,862	+4%	3,029
2003	1,851	2,199	+19%	3,592
2004	2,225	2,584	+16%	4,172

[1] Includes estimates for non-respondents. Survey results for 2004 include responses from Northern Ireland.

Figure 6: Softwood removals survey, 1995 - 2004

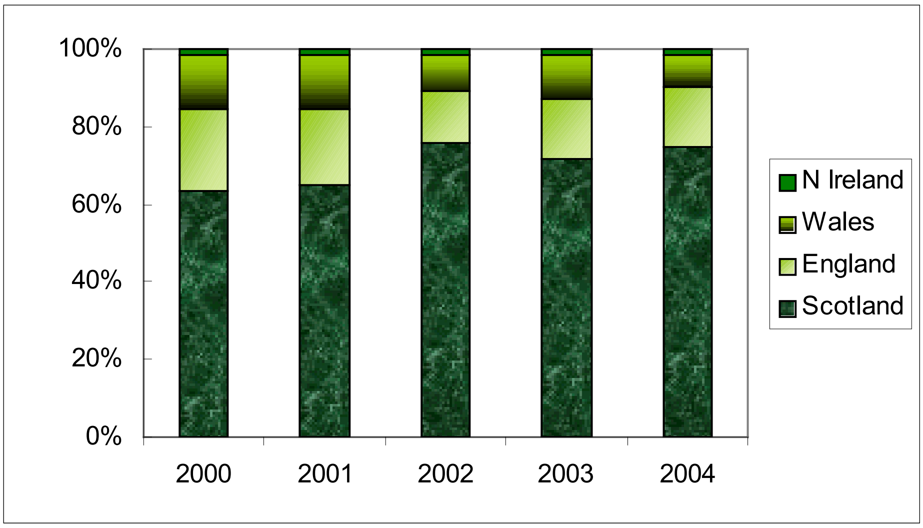


* survey results for 2004 include Northern Ireland

Origin of non FC/ FS softwood

It is estimated that 75% of all softwood removals from non-FC/FS woodlands were harvested in Scotland, 16% in England, 8% in Wales and 2% in Northern Ireland in 2004.

Figure 7: Origin of non FC/ FS softwood, 2000 - 2004



Exports

For the first time, harvesting companies were asked in 2004 to indicate the amount of softwood removed from non FC/FS woodlands which was exported. Results are included in Section F 'Softwood Exports'.

Certification

Certification, e.g. to the UK Woodland Assurance Standard (UKWAS), demonstrates that an area of woodland is sustainably managed. For the 27 respondents reporting softwood removals from non-FC/FS woodland in 2004, a total of 1.8 million green tonnes (70%) was from certified woodland.

FORESTRY COMMISSION / FOREST SERVICE WOODLANDS

Information on removals from Forestry Commission and Forest Service woodlands is extracted from administrative records.

A total of 4.9 million green tonnes of softwood was removed from FC/FS woodlands in 2004. This represents a 2% increase on the previous year's figure of 4.8 million green tonnes.

Table 6: Forestry Commission / Forest Service softwood removals

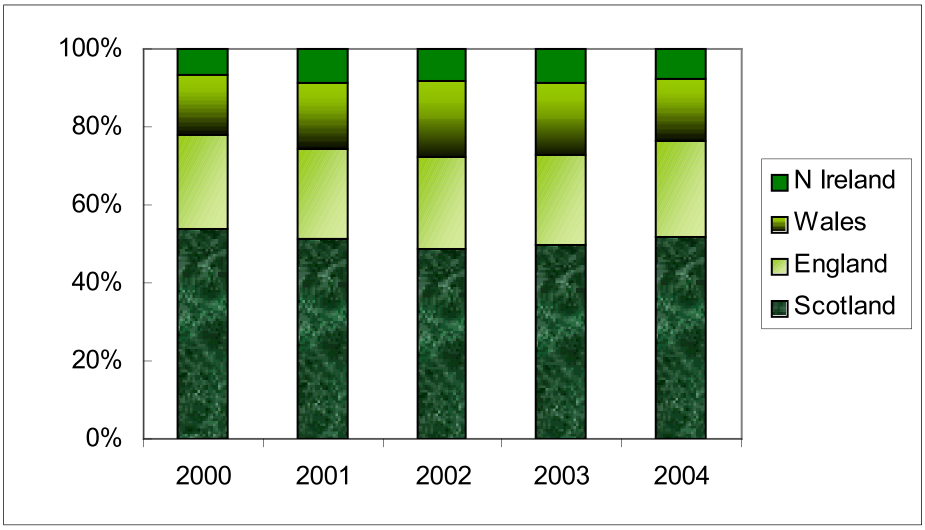
000 green tonnes

Year	Scotland	England	Wales	N Ireland	UK
	(Forestry Commission)			(Forest Service)	(Total FC / FS)
2000	2,616	1,156	752	326	4,850
2001	2,354	1,075	779	396	4,604
2002	2,268	1,103	894	385	4,650
2003	2,405	1,107	880	424	4,817
2004	2,527	1,204	783	380	4,894

Origin of Forestry Commission / Forest Service softwood

Over one half (52%) of FC/FS softwood harvested in 2004 was removed from woodlands in Scotland. A further 25% came from England, 16% from Wales and the remaining 7% from Northern Ireland.

Figure 8: Origin of Forestry Commission / Forest Service softwood



Certification

All timber from Forestry Commission and Forest Service woodlands is certified.

TOTAL: ALL WOODLANDS

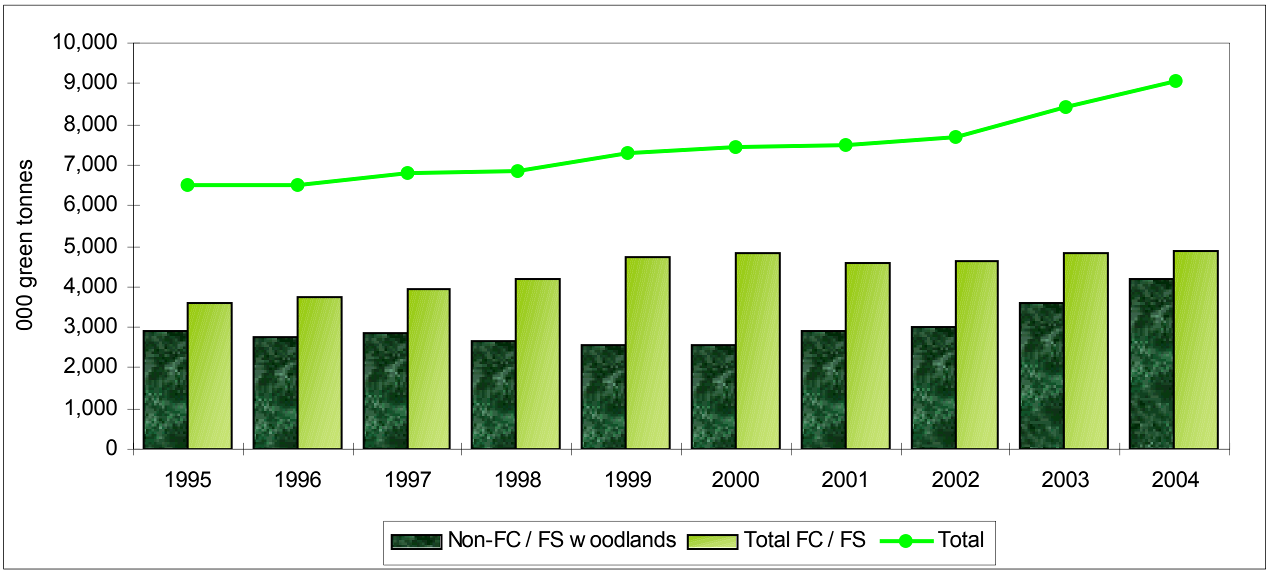
Total softwood removals in 2004 increased by 8% from the previous year; 54% of the total was from FC/FS woodlands.

Table 7: Total softwood removals 2000 - 2004: All Woodlands

000 green tonnes

Year	Non FC / FS	FC / FS	Total	% Non FC / FS	% FC/FS
2000	2,580	4,850	7,430	35	65
2001	2,900	4,604	7,504	39	61
2002	3,029	4,650	7,679	39	61
2003	3,592	4,817	8,409	43	57
2004	4,172	4,894	9,066	46	54

Figure 9: Total softwood removals 1995 - 2004: All Woodlands



SOFTWOOD AVAILABILITY FORECASTS

Forecasts of softwood availability, which are produced at intervals of approximately 5 years, are provided below.
No forecasts are currently published for hardwood availability.

Table 8: Forecast of softwood availability

000 m^3 overbark standing

	2002 - 2006	2007 - 2011	2012 - 2016	2017 – 2021
United Kingdom				
FC/FS woodlands	5,525	6,380	6,694	7,302
Non-FC/FS woodlands	5,765	7,098	8,224	8,649
Total	**11,290**	**13,478**	**14,918**	**15,951**
Scotland				
FC woodlands	2,782	3,477	3,756	4,432
Non-FC woodlands	3,415	4,443	5,351	5,713
Total	**6,197**	**7,920**	**9,107**	**10,145**
England				
FC woodlands	1,378	1,497	1,482	1,414
Non-FC woodlands	1,748	1,966	2,122	2,202
Total	**3,126**	**3,463**	**3,604**	**3,616**
Wales				
FC woodlands	965	1,006	1,006	1,006
Non-FC woodlands	582	669	731	714
Total	**1,547**	**1,675**	**1,737**	**1,720**
Northern Ireland				
FS woodlands	400	400	450	450
Non-FS woodlands	20	20	20	20
Total	**420**	**420**	**470**	**470**

Source:
Scotland, England & Wales:
Smith S, Gilbert J and Coppock R (2000), Forestry Commission. Great Britain: New Forecast of Softwood Availability.
In Forestry & British Timber (April 2001)

Northern Ireland: Forest Service

Figure 10: Forecast of softwood availability by FC/FS and Non-FC/FS

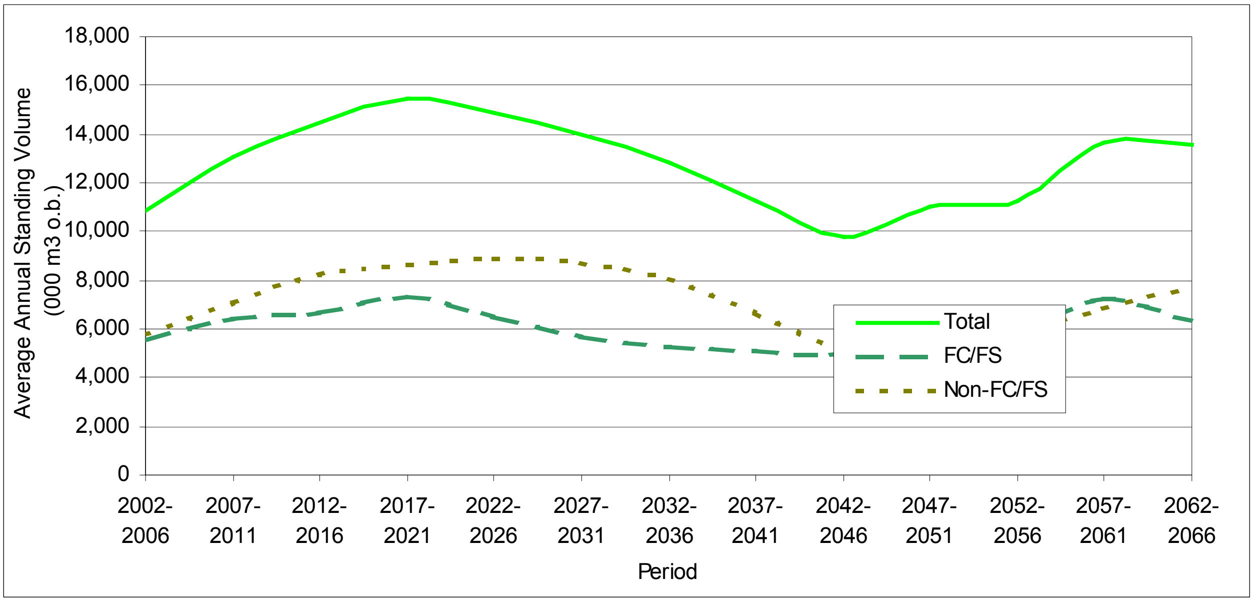
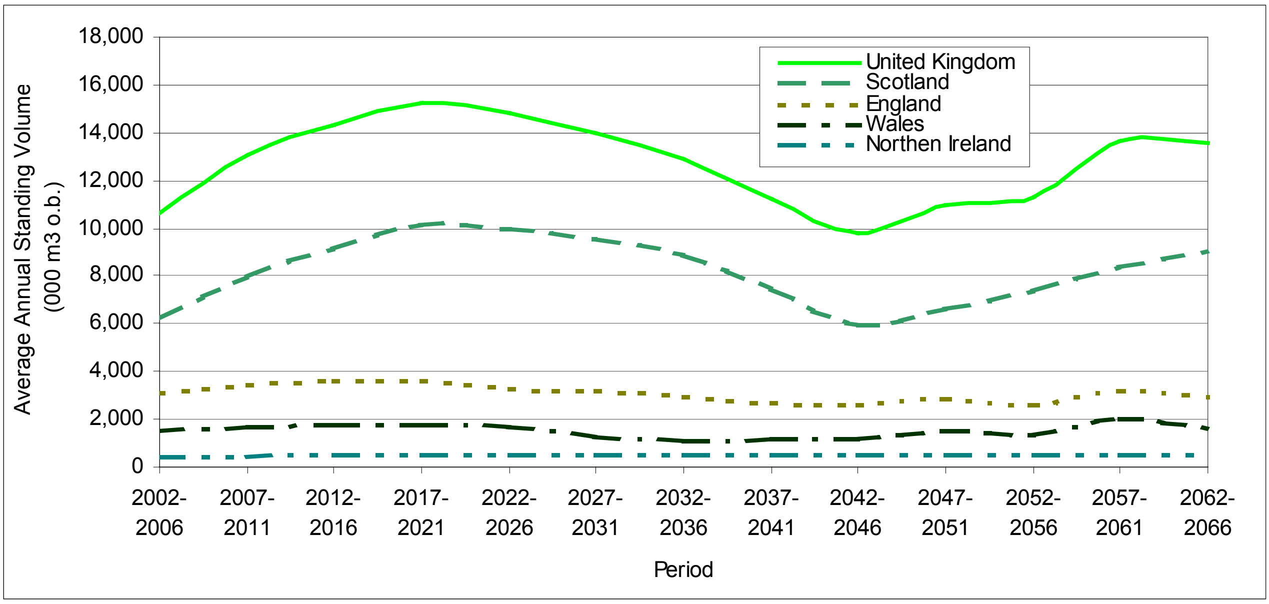


Figure 11: Forecast of softwood availability by country



Source:
Scotland, England & Wales:
Smith S, Gilbert J and Coppock R (2000), Forestry Commission. Great Britain: New Forecast of Softwood Availability.
In Forestry & British Timber (April 2001)

Northern Ireland: Forest Service

B: SAWMILLS

This section presents results from the 2004 sawmill survey. Consumption figures, for the first time, include imported sawlogs as well as UK grown sawlogs. Production therefore also includes sawnwood produced from both imported and UK grown sawlogs. The first part of this section presents data on sawlog consumption and sawnwood production for all mills, whilst the second part presents more detailed information for mills producing around 5,000 m^3 or more of sawnwood, collected from the biennial sawmill survey.

Consumption units are given in green tonnes, which includes moisture; for production, the units used are m^3 sawnwood.

ANNUAL SAWMILL SURVEY (ALL MILLS)

In the 2004 survey, questionnaires were issued to a total of 262 sawmills. A total of 147 responses were received (including those from mills participating in the biennial survey), giving an overall response rate of 56%.

The latest estimates for consumption (green tonnes) and sawnwood production (m^3) in the last five years, including estimates for non-respondents, are shown in table 9. As consumption is now expressed in green tonnes and includes both UK grown and imported sawlogs, the figures for earlier years differ from those previously published. Figures for Northern Ireland in earlier years have been estimated from available data.

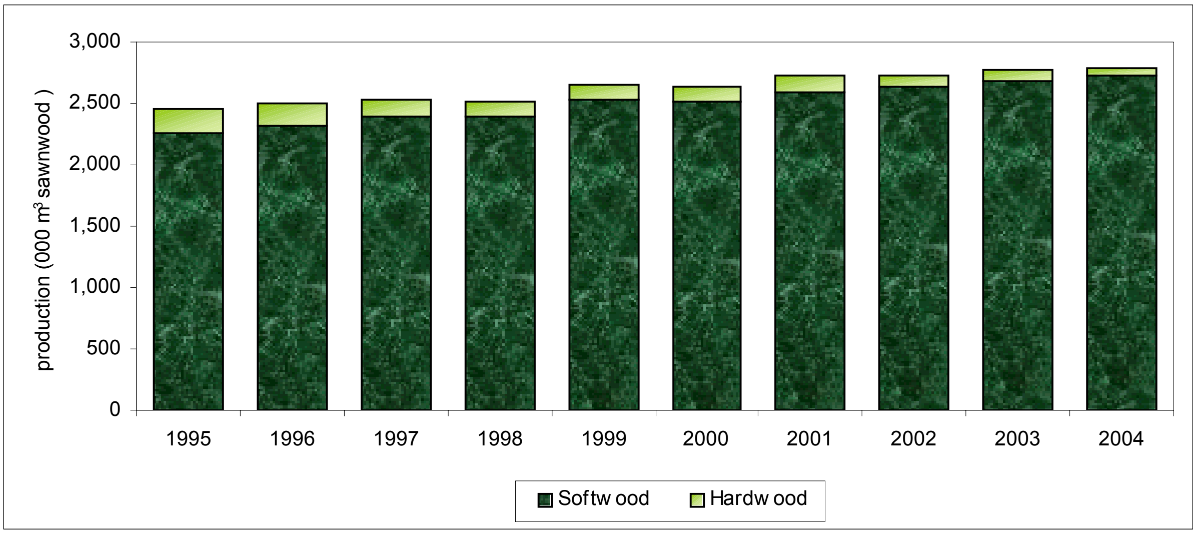
Sawmills consumed a total of 5.1 million green tonnes of softwood in 2004, an increase of 2% from the 2003 figure. Over the same period, hardwood consumption fell by 24%, to 121 thousand green tonnes in 2004.

Table 9: Consumption & production, 2000-2004

consumption: **000 green tonnes**
production: **000 m^3**

	Softwood			Hardwood		
	Consumption of		Production	Consumption of		Production
	UK grown	Imported		UK grown	Imported	
2000	4,473	234	2,521	200	11	108
2001	4,590	239	2,598	192	70	130
2002	4,661	235	2,640	163	18	91
2003	4,788	225	2,687	139	18	81
2004	4,894	226	2,722	93	28	61

Figure 12: Sawnwood production



It is estimated that there were 235 active sawmills in the UK in 2004. The majority of sawmills (70%) produced no more than 5 thousand cubic metres of sawnwood in 2004.

Table 10: Number of sawmills, 2000-2004

					Number of sawmills
	2000	**2001**	**2002**	**2003**	**2004**
No of active mills	**304**	**280**	**259**	**251**	**235**
Production[1]					
< 1,000	118	104	96	96	92
1,001 - 5,000	107	96	87	82	73
5,001 - 10,000	32	28	26	22	20
10,001 - 25,000	19	24	24	23	22
25,000 - 50,000	14	13	10	12	10
> 50,000	14	15	16	16	18
Country					
Scotland	88	86	82	80	76
England	174	152	139	134	123
Wales	27	27	23	22	21
N Ireland	15	15	15	15	15

[1] Categories are based on **total** sawnwood production

Sawmills with total sawnwood production of more than 5 thousand cubic metres accounted for 95% of the total softwood consumed by sawmills in 2004. Of all softwood delivered to sawmills in 2004, mills in Scotland consumed almost one half (45%). A further 27% of softwood deliveries were consumed by mills in England, 16% in Wales and the remaining 13% in Northern Ireland.

Table 11: Softwood consumption & production, 2004

consumption: **000 green tonnes**
production: **000 m^3**

	Softwood	
	Consumption	**Production**
UK Total	**5,121**	**2,722**
Production[1]		
< 1,000	33	19
1,001 - 5,000	232	134
5,001 - 10,000	216	119
10,001 - 25,000	605	317
25,000 - 50,000	638	352
> 50,000	3,397	1,780
Country		
Scotland	2,289	1,237
England	1,358	734
Wales	813	409
N Ireland	662	342

[1] Categories are based on **total** sawnwood production

Certification

Sawmills were asked a few questions on certification. Excluding nil responses, there were 132 sawmills providing data for 2004. 49 (37%) reported that they held a chain of custody certificate, although this proportion varied from 20% of mills producing less than 5 thousand m^3 of sawnwood in 2004 to 95% of those producing at least 25 thousand m^3 of sawnwood.

Table 12: Chain of custody certificates [1], 2004

Number of sawmills

	Production[2]			Total
	<5	5 - <25	25+	
Total	**84**	**27**	**21**	**132**
Mills holding certificate	17	12	20	49
Mills without certificate	61	15	0	76
Certification status not reported	6	0	1	7

[1] Sawmills responding in 2004, excluding nil responses. These 132 mills accounted for around three quarters of the estimated total sawnwood production in 2004.
[2] Categories are based on **total** sawnwood production

The following table shows the percentage of certified input and output volumes for 2002-2004, based on responses received. Certified timber accounted for over three quarters of sawlog consumption and around two thirds of sawnwood production in 2004. These proportions varied by size of mill, with larger mills generally reporting higher levels of certified timber than smaller mills.

Table 13: Consumption and production certified, 2002-2004

%

		Production[1]			Total
		<5	5 - <25	25+	
% consumption certified	2002	11%	38%	79%	65%
	2003	21%	52%	75%	67%
	2004	18%	43%	94%	80%
% production certified	2002	5%	20%	81%	62%
	2003	4%	29%	60%	50%
	2004	12%	27%	76%	64%

[1] Categories are based on **total** sawnwood production

BIENNIAL SAWMILL SURVEY (LARGER MILLS ONLY)

Additional information was collected in 2004 from mills that, based on responses to previous surveys, were believed to produce more than 5 thousand m^3 of sawnwood. Similar information has been collected at two yearly intervals since 1996 and less frequently before then.

Of the 71 mills who were sent a detailed questionnaire, 48 responded (68%). Data from previous biennial surveys have been used to estimate figures for those who had responded in previous years but not for 2004.

Softwood

Total softwood consumption by all sawmills covered by the biennial survey was 4.86 million green tonnes.

Source of logs: The majority of all softwood sawlogs came from Scotland (53%), a further 18% came from England, 17% from Wales, 7% from Northern Ireland and the remaining 5% was imported.

Almost all softwood sawlogs used by Scottish mills came from Scotland (96%). Over one half of the softwood sawlogs used by English mills came from England (57%) with the remainder coming from Scotland and Wales.

Species cut: Spruce accounted for the majority of softwood consumed by UK mills (77%), with pine accounting for a further 13% and other conifers 10%.

Table 14: Species of log cut

per cent

	Scotland	England	N Ireland	Wales	**UK**
Spruce	80%	63%	93%	78%	77%
Pine	12%	23%	4%	9%	13%
Other Softwoods	7%	14%	4%	14%	10%

Product markets: 34% of softwood production was used for fencing in 2004. A further 33% was used for construction, 31% for packaging and pallets and the remaining 2% went to all other markets.

Table 15: Product Markets

per cent

	Scotland	England	N Ireland	Wales	**UK**
Construction	46%	23%	29%	19%	33%
Fencing	24%	47%	43%	31%	34%
Packaging / pallets	29%	28%	23%	49%	31%
Other	1%	2%	6%	0%	2%

Other products: Other products (excluding sawnwood) produced by the 71 mills was estimated to total 2.60 million tonnes. Around two thirds of these other products were sold to wood processing industries in the form of chips, 9% was sold to wood processing industries as bark and 18% was sold to these industries in other formats (e.g. sawdust). A further 4% of other products was sold to other industries and 2% was sold for bio-energy. No wood was disposed of as waste.

Table 16: Other products

per cent

	Scotland	England	N Ireland	Wales	**UK**
Sold to wood processing industries					
Wood chips	69%	64%	67%	63%	67%
Bark	7%	10%	9%	10%	9%
Sawdust & other	17%	18%	20%	17%	18%
Sold to bio-energy	0%	4%	0%	6%	2%
Other sales					
Wood chips	0%	1%	2%	1%	1%
Bark	2%	1%	1%	0%	1%
Sawdust & other	2%	1%	1%	2%	2%
Firewood	0%	0%	0%	0%	0%
Burnt for heat	1%	0%	0%	1%	1%

Hardwood

Total hardwood consumption by all sawmills estimated to produce over 5 thousand m^3 of sawnwood was 60 thousand green tonnes.

Source of logs: The majority of hardwood sawlogs came from England (70%).

Species cut: Oak accounted for over half of hardwood sawlogs consumed by UK mills (57%), with beech accounting for a further 23%, ash for 8% and other hardwoods 12%.

Product markets: 81% of hardwood production went to construction in 2004. A further 4% was used for packaging and pallets and the remainder went to all other markets.

Other products: Other products (excluding sawnwood) produced by the 71 mills was estimated to total 20 thousand tonnes. 43% of these other products were sold to wood processing industries as wood chips, 19% were sold for bio-energy and the remainder comprised other sales.

Employment

There were estimated to be a total of 3,046 direct employees and 949 contractors and sub-contractors employed by sawmills producing over 5 thousand m^3 of sawnwood in 2004.

Table 17: Sawmill Employment

Full time equivalents

Employment[1]	Scotland	England	N Ireland	Wales	UK
Direct					
Line & production workers	1,019	912	301	268	2,500
Managerial & administrative staff	171	194	71	30	466
Haulage of timber/ products	13	57	4	6	80
Total direct employment	**1,203**	**1,163**	**376**	**304**	**3,046**
Contract					
Line & production workers	143	390	0	44	577
Managerial & administrative staff	11	6	0	0	17
Haulage of timber/ products	170	51	54	80	355
Total contract employment	**324**	**447**	**54**	**124**	**949**

[1] The figures may include harvesting staff for some mills

C: PULP & PAPER INDUSTRY

Consumption

The statistics for the pulp and paper industry in Tables 18 - 20 only cover the integrated pulp and paper mills that use UK roundwood. There are currently three such mills in the UK. Figures were provided by the UK Forest Products Association (UKFPA).

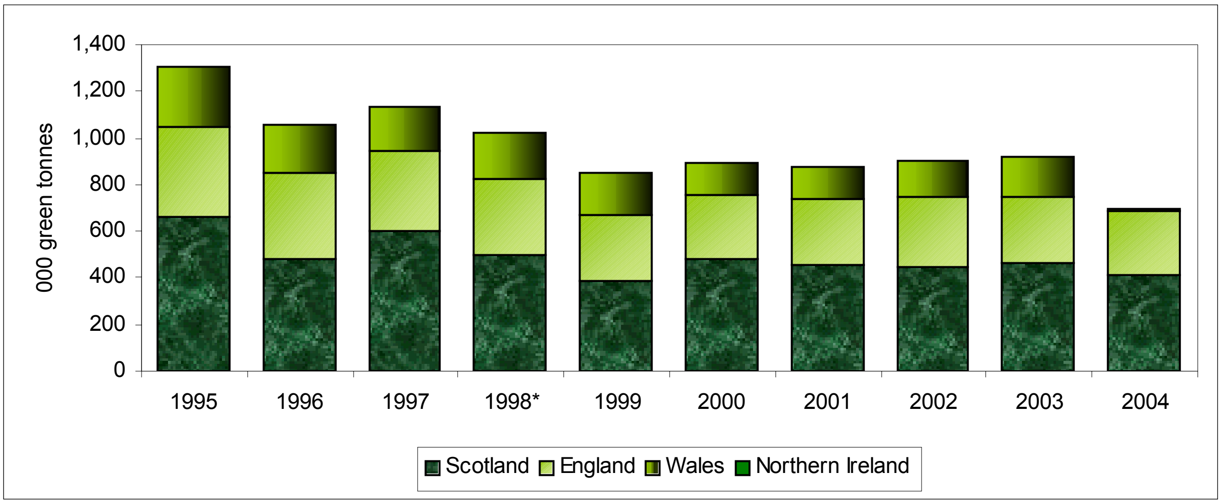
These mills consumed 483 thousand green tonnes of UK grown soft roundwood and 214 thousand green tonnes of UK grown hard roundwood in 2004. This represented a 31% fall in the consumption of softwood but no change in hardwood consumption from the previous year.

Table 18: Origin of UK roundwood used by the integrated pulp and paper mills

000 green tonnes

	2000	2001	2002	2003	2004
UK	**895**	**877**	**906**	**919**	**697**
Softwood	695	668	696	704	483
Hardwood	200	209	210	215	214
Scotland	**479**	**454**	**448**	**466**	**416**
Softwood	479	454	448	466	416
Hardwood	0	0	0	0	0
England	**274**	**286**	**298**	**283**	**267**
Softwood	86	86	98	87	67
Hardwood	188	200	200	196	200
Wales	**142**	**137**	**160**	**170**	**14**
Softwood	130	128	150	151	0
Hardwood	12	9	10	19	14
Northern Ireland	**0**	**0**	**0**	**0**	**0**
Softwood	0	0	0	0	0
Hardwood	0	0	0	0	0

Figure 13: Origin of UK roundwood used by the integrated pulp and paper mills



UK roundwood represented 83% of the inputs for the integrated pulp and paper mills in 2004, with the remaining 17% coming from sawmill products.

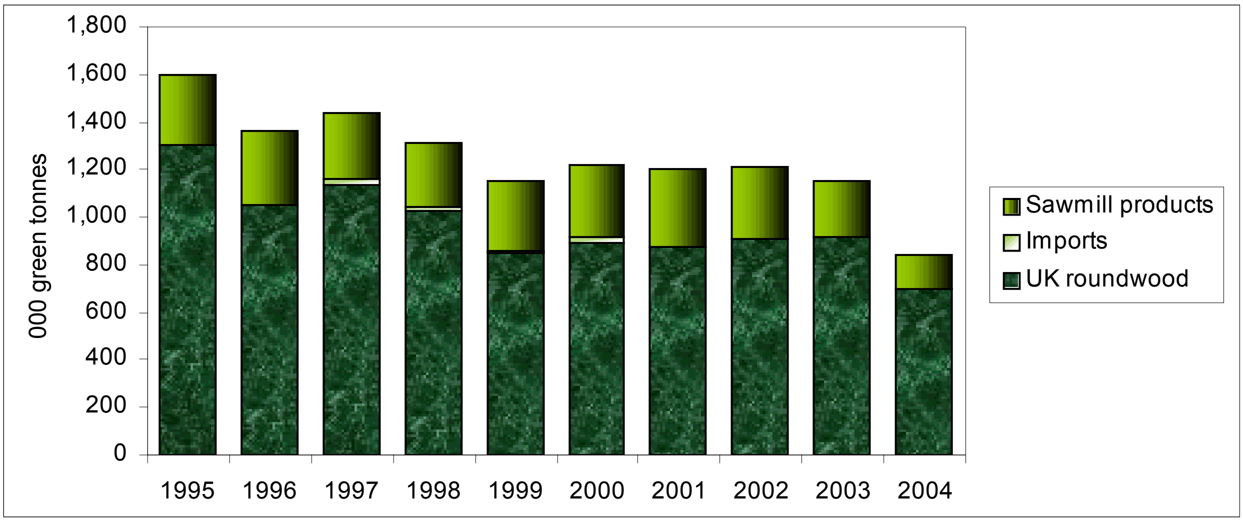
Table 19: Inputs for the integrated pulp and paper mills

000 green tonnes

	2000[3]	2001	2002	2003	2004
UK roundwood [1]	**895**	**877**	**906**	**919**	**697**
Softwood	695	668	696	704	483
Hardwood	200	209	210	215	214
Sawmill products [2]	**308**	**323**	**307**	**234**	**143**
Softwood	308	323	307	234	143
Hardwood	0	0	0	0	0
Total	**1,222**	**1,200**	**1,213**	**1,153**	**840**
Softwood	1,004	991	1,003	938	626
Hardwood	218	209	210	215	214

[1] UK roundwood includes all material from forest operations.
[2] Sawmill products include peeled and unpeeled chips, sawdust, slabwood, shavings, postplant chips and peelings.
[3] The total in 2000 includes inputs from imported roundwood and chips (19 thousand green tonnes).

Figure 14: Inputs for the integrated pulp and paper mills



Production

Figures for the production of pulp and paper are provided by the Paper Federation of Great Britain. They cover all paper production from UK mills, not just those using UK roundwood.

A total of 6.2 million tonnes of paper and 0.3 million tonnes of wood pulp were produced by UK paper mills in 2004.

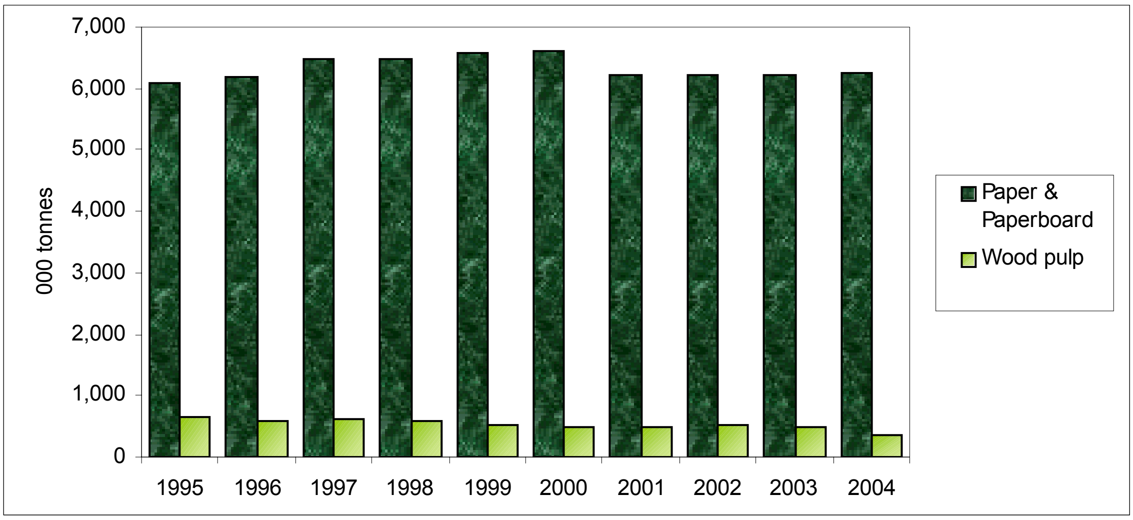
Table 20: Production of pulp and paper

000 tonnes

Product	2000	2001	2002	2003	2004
Paper & Paperboard	**6,605**	**6,204**	**6,218**	**6,226**	**6,240**
Graphic papers (inc newsprint)	2,847	2,627	2,526	2,532	2,632
Sanitary & household papers	724	738	823	808	806
Packaging materials	2,291	2,190	2,207	2,240	2,230
Other	743	649	662	646	572
Wood pulp [1]	**474**	**492**	**524**	**504**	**344**
Mechanical	411	429	444	413	258
Semi-Chemical	63	63	80	91	86

[1] These figures for wood pulp measure the intermediate product in integrated mills.

Figure 15: Production of pulp and paper



D: WOODBASED PANEL PRODUCTS

Consumption

The statistics for inputs to the woodbased panel products sector in the UK have been supplied by the Wood Panel Industries Federation (WPIF).

A total of 1.5 million green tonnes of UK roundwood was consumed by the woodbased panel products sector in 2004, a 2% increase from the previous year. A further 1.8 million green tonnes of sawmill products and 1.1 million green tonnes of recycled wood fibre were also consumed in 2004.

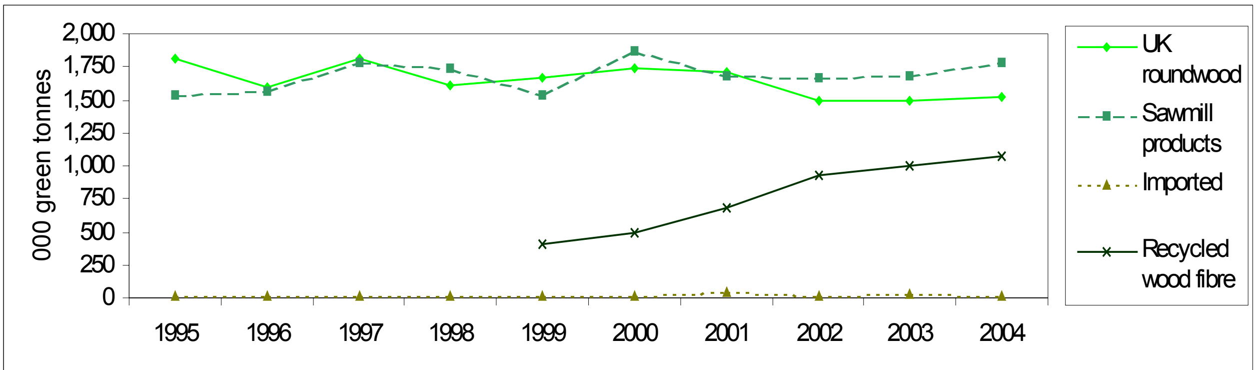
Table 21: Inputs for woodbased panel products

000 green tonnes

	2000	2001	2002	2003	2004
UK roundwood [1]					
Total	**1,735**	**1,715**	**1,499**	**1,490**	**1,527**
Softwood	1,685	1,680	1,456	1,486	1,525
Hardwood	50	35	43	4	2
Sawmill products [2]					
Total	**1,871**	**1,675**	**1,669**	**1,686**	**1,778**
Softwood	1,871	1,675	1,669	1,682	1,778
Hardwood	0	0	0	4	0
Imports [3]					
Total	**14**	**38**	**13**	**22**	**9**
Softwood	14	13	13	22	9
Hardwood	0	25	0	0	0
Recycled wood fibre [4]	**488**	**675**	**932**	**993**	**1,078**
Total	**4,108**	**4,103**	**4,113**	**4,191**	**4,392**
Softwood	3,570	3,368	3,138	3,190	3,312
Hardwood	50	60	43	8	2
Recycled wood fibre	488	675	932	993	1,078

[1] UK roundwood includes all material from forest operations.
[2] Sawmill products include peeled and unpeeled chips, sawdust, slabwood, shavings, postplant chips and peelings.
[3] Imports include roundwood, wood products and products from imported wood.
[4] Recycled wood fibre is wood fibre recovered from both pre- and post-consumer wood waste for use in woodbased panel production.

Figure 16: Inputs for woodbased panel products



Production

Figures for the production of woodbased panel products are provided by the Wood Panel Industries Federation (WPIF).

A total of 3.5 million m^3 of woodbased panel products were produced in 2004. The majority of this total (75%) was particleboard and oriented strand board (OSB).

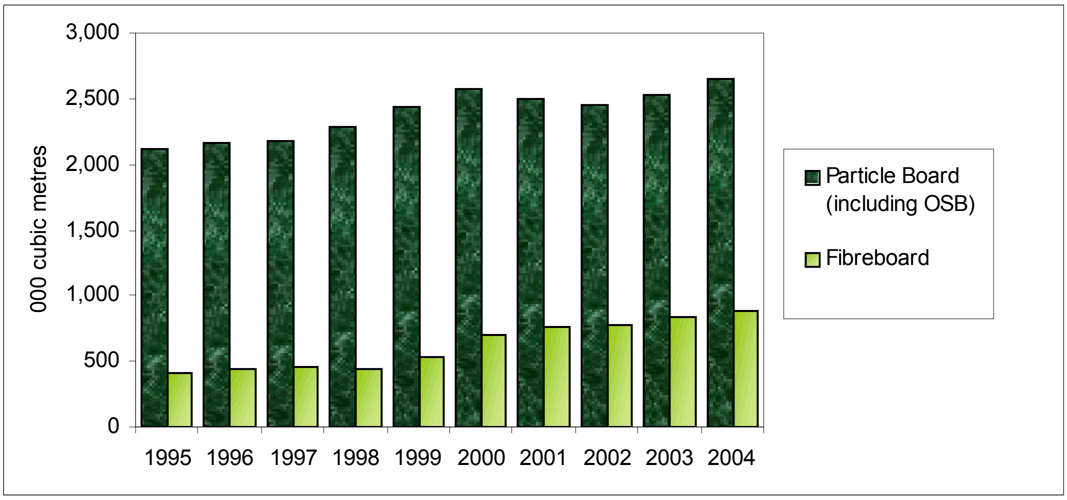
Table 22: Production of woodbased panel products

000 m^3

Product	2000[1]	2001	2002	2003	2004
Total Woodbased Panels	**3,275**	**3,255**	**3,217**	**3,361**	**3,533**
Particleboard & OSB	2,570	2,498	2,446	2,526	2,653
Fibreboard (MDF)	700	757	771	835	880

[1] The total in 2000 includes plywood (5 thousand m^3)

Figure 17: Production of woodbased panel products



E: MISCELLANEOUS PRODUCTS

ROUNDWOOD FENCING MANUFACTURERS

Surveys of roundwood fencing manufacturers have been carried out annually since 1993. The survey is now believed to give good coverage of softwood fencing. However, as the coverage of hardwood is believed to be very limited, no results are provided for hardwood fencing.

As for the sawmill and private sector removals surveys, the survey of round fencing manufacturers was extended in 2004 to include manufacturers in Northern Ireland. For 2004, questionnaires were sent out to a total of 107 manufacturers and 67 responses were received (63% response).

Based on the 2004 survey, including estimates for non respondents, it is estimated that there were 71 manufacturers using a total of 274 thousand green tonnes of softwood.

Table 23: Softwood round fencing – number of manufacturers

Year	Size category (green tonnes p.a.)				Total
	Under 1,000	1,000-4,999	5,000-9,999	10,000+	
2000	43	36	8	7	94
2001	41	33	8	7	89
2002	34	25	10	7	76
2003	28	28	9	6	71
2004	29	29	7	6	71

Figure 18: Softwood round fencing – number of manufacturers

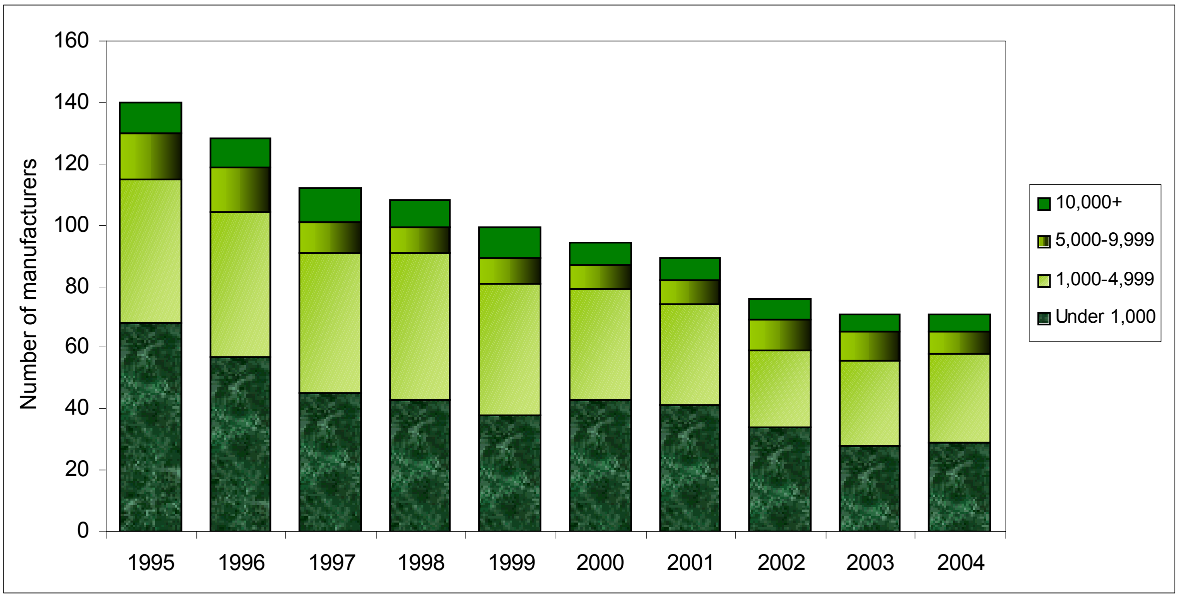
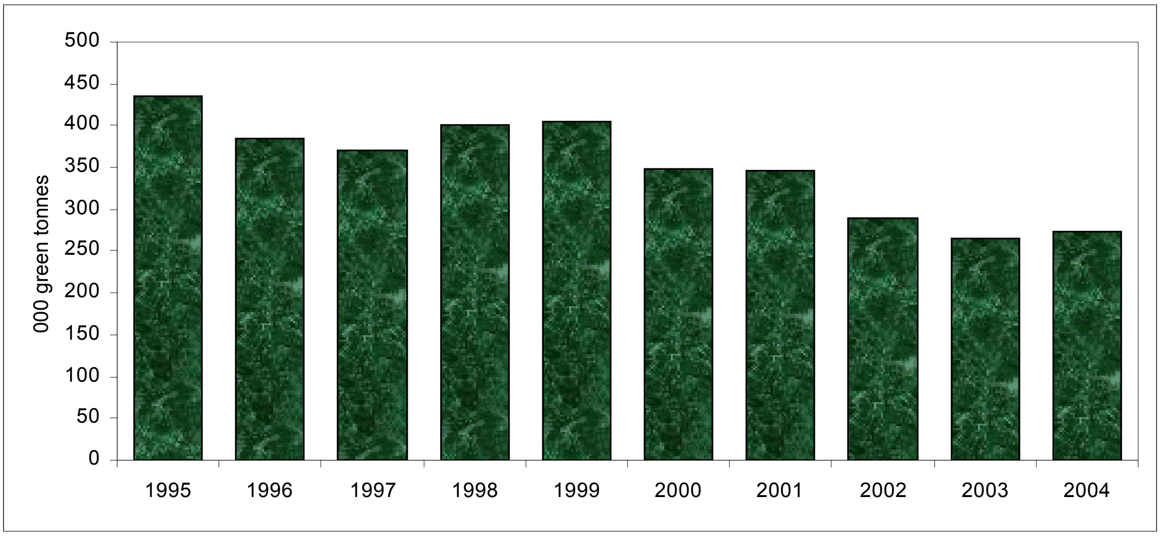


Table 24: UK roundwood purchased by softwood round fencing manufacturers

000 green tonnes

Year	Size category (green tonnes p.a.)				Total
	Under 1,000	1,000-4,999	5,000-9,999	10,000+	
2000	15	82	60	190	347
2001	13	74	59	200	346
2002	12	63	68	148	290
2003	10	62	62	132	266
2004	10	69	52	143	274

Figure 19: UK roundwood purchased by softwood round fencing manufacturers



Certification

Fencing manufacturers were asked a few questions on certification. Excluding nil responses, there were 56 manufacturers providing responses in 2004, of which 15 (27%) reported that they held a chain of custody certificate.

21 manufacturers recorded input from certified sources, accounting for between 40% and 100% of roundwood consumed by these mills. This represents around 58% of total roundwood consumption by manufacturers reporting data in 2004.

14 manufacturers recorded output sold as certified.

SUMMARY FOR MISCELLANEOUS PRODUCTS

Other miscellaneous products believed to be produced from UK roundwood include fuelwood, poles and shavings.

Softwood

Figures for softwood fencing are produced from the surveys of round fencing manufacturers. ‘Other’ figures have been estimated by the Expert Group on Timber and Trade Statistics (EGTTS).

Table 25: Miscellaneous uses of UK softwood roundwood

000 green tonnes

	Fencing	Other [1]	Total
2000	347	153	**500**
2001	346	154	**500**
2002	290	155	**445**
2003	266	170	**436**
2004	274	180	**454**

[1] Includes fuelwood, shavings, poles and woodwool.

Hardwood

No firm data are available for miscellaneous uses of hardwood. The Expert Group on Timber and Trade Statistics (EGTTS) estimate that a total of around 206 thousand green tonnes are used annually, comprising around151 thousand green tonnes for fuelwood, 30 thousand green tonnes for round fencing and 25 thousand green tonnes for other uses.

F: SOFTWOOD EXPORTS

A total of 465 thousand green tonnes of softwood pulpwood was exported from the UK in 2004. A further 145 thousand green tonnes of logs and 320 thousand green tonnes of chips were also exported, giving total softwood exports in 2004 of 930 thousand green tonnes.

Table 26: Summary of softwood exports

000 green tonnes

	Pulpwood					**Logs**	**Chips**	**TOTAL**
	Scotland	England	Wales	N. Ire	**UK**	**UK**	**UK**	**EXPORTS[2]**
2000[1]	..	..	..	..	**16**	**..**	**..**	**16**
2001[1]	..	..	..	..	**61**	**..**	**..**	**61**
2002[1]	123	0	10	..	**133**	**..**	**..**	**133**
2003[1]	187	2	28	..	**217**	**90**	..	**307**
2004	348	42	57	18	**465**	**145**	**320**	**930**

.. Denotes not available
[1] Figures from 2000 to 2003 are GB only; Northern Ireland data not available

Respondents to the private sector softwood removals survey (Section A), were asked to indicate the quantity of softwood removed from non-FC/FS woodlands which was exported. The 27 respondents reporting non-FC/FS removalsin 2004 reported total exports (logs and pulpwood) of 224 thousand green tonnes.

This suggests that, of the 610 thousand green tonnes of softwood logs and pulpwood exported from the UK in 2004, 386 thousand tonnes was removed from FC/FS woodland.

G. CONVERSION FACTORS

Conversion factors were used in this report to convert between cubic metres (standing, overbark or underbark) and green tonnes (delivered weight, including moisture). These are illustrated in the following diagram (where different factors apply to softwood and hardwood, these are marked SW and HW). Factors are generalised, based on a range of different types of timber and processing methods. They are shown to 3 decimal places to ensure the diagram balances.

Figure 20: Conversion factors between cubic metres and green tonnes