

# Forestry Statistics 2021

## Chapter 2: UK-Grown Timber

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The Research Agency of the  
Forestry Commission

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## Introduction

This chapter covers the production of timber from woodland and the primary processing of harvested wood to give basic wood products.

Estimates for England, Wales, Scotland and Northern Ireland are included, in addition to UK totals, where possible.

International comparisons of timber production are available in the International Forestry chapter. Further information on the data sources and methodology used to compile the figures is provided in the Sources chapter.

Figures for 2020 were previously published in "UK Wood Production and Trade: 2020 Provisional Figures", released on 13 May 2021. Some figures have been revised from those previously published. For further details on revisions, see the Timber section of the Sources chapter.

A copy of all UK-grown timber tables can be accessed in spreadsheet format from the Data Downloads web page at [www.forestresearch.gov.uk/tools-and-resources/statistics/data-downloads/](http://www.forestresearch.gov.uk/tools-and-resources/statistics/data-downloads/).

## Key findings

The main findings for 2020 are (with percentage changes from 2019):

**Removals**<sup>1</sup> (harvesting) of UK roundwood:

- 10.0 million green tonnes of softwood (2%);
- 0.8 million green tonnes of hardwood (-5%);

**Deliveries**<sup>1</sup> of UK roundwood to wood processors and others:

- 10.7 million green tonnes of roundwood (softwood and hardwood), (-3%), of which:
  - Sawmills: 5.9 million green tonnes (-1%);
  - Wood-based panels: 1.2 million green tonnes (-5%);
  - Integrated pulp and paper mills: 0.4 million green tonnes (-17%);
  - Woodfuel: 2.6 million green tonnes (-2%);
  - Other uses, including round fencing, shavings and exports of roundwood: 0.6 million green tonnes (-12%);

**Production** of wood products in the UK included:

- 3.3 million cubic metres of sawnwood (-3%);
- 3.0 million cubic metres of wood-based panels (-9%);
- 3.6 million cubic metres of paper and paperboard (-6%).

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<sup>1</sup> The difference between total removals and deliveries reported here (around 0.2 million green tonnes in 2020) is likely to reflect a number of factors, including changes in stock levels and the different data sources and methodologies used.

## 2.1 Wood production

Wood production (also referred to as removals) refers to the harvesting of roundwood (trunk and branch wood) from coniferous (softwood) and non-coniferous (hardwood) trees. Figures are generally expressed here in green tonnes (weight when freshly felled).

Removals should not be confused with deliveries, which are the quantities of UK-grown roundwood that is delivered to processors (mills) or for other uses (such as woodfuel and exports). Deliveries statistics are presented in Tables 2.5 and 2.6. A comparison of removals and deliveries of UK softwood roundwood is provided in the Sources chapter.

The figures on removals of UK roundwood are used to monitor trends in the UK forest sector. The data is also used alongside figures for standing volume (the volume of standing trees) and increment (the growth rate of standing trees) to compile natural capital accounts for inclusion in the UK Environmental Accounts released by the Office for National Statistics.

The data are derived from a number of sources:

- FE/FLS/NRW/FS figures are obtained from Forestry England, Forestry and Land Scotland, Natural Resources Wales and Forest Service administrative systems;
- Private sector softwood figures are obtained from the Private Sector Softwood Removals Survey;
- Total hardwood figures are estimated from hardwood deliveries figures, which are compiled from surveys of the UK-grown timber industry, trade associations and expert estimates.

## 2.1.1 Summary: Wood production

It is estimated that a total of 10.9 million green tonnes of roundwood was removed from UK woodlands in 2020.

Softwood accounted for most of (92%) removals from UK woodland and totalled 10.0 million green tonnes in 2020 (Table 2.1a). This represented a 2% increase on the previous year's figure.

Hardwood removals totalled 0.8 million green tonnes in 2020 (Table 2.1b).

Private sector woodlands accounted for 54% of softwood production and 90% of hardwood production in 2020.

**Table 2.1a Softwood production, 2011-2020**

thousand green tonnes

Year	FE/ FLS/ NRW/ FS <sup>1</sup> woodland	Private sector <sup>2</sup> woodland	Total softwood
2011	4,870	5,186	10,056
2012	4,836	5,259	10,095
2013	5,084	5,852	10,936
2014	4,900	6,627	11,527
2015	4,691	5,968	10,659
2016	5,011	5,734	10,745
2017	4,761	6,075	10,836
2018	4,522	6,827	11,349
2019	3,937	5,884	9,822
2020	4,616	5,434	10,050

Source: Forestry England, Forest and Land Scotland, Natural Resources Wales, Forest Service, industry surveys, industry associations.

Notes:

1. FE: Forestry England, FLS: Forestry and Land Scotland, NRW: Natural Resources Wales, FS: Forest Service (Northern Ireland).
2. Private sector: removals from all other woodland (including some publicly owned woodland).

Table 2.1b Hardwood production, 2011-2020

thousand green tonnes

Year	FE/ FLS/ NRW/ FS <sup>1</sup> woodland	Private sector <sup>2</sup> woodland	Total hardwood <sup>3,4</sup>
2011	75	465	540
2012	55	478	533
2013	78	453	531
2014	71	465	536
2015	73	492	565
2016	68	528	596
2017	85	652	737
2018	88	746	835
2019	68	801	869
2020	87	743	830

Source: Forestry England, Forest and Land Scotland, Natural Resources Wales, Forest Service, industry surveys, industry associations.

Notes:

1. FE: Forestry England, FLS: Forestry and Land Scotland, NRW: Natural Resources Wales, FS: Forest Service (Northern Ireland).
2. Private sector: removals from all other woodland (including some publicly owned woodland).
3. Most hardwood production in the UK comes from private sector woodland; the figures are estimates based on reported deliveries to wood processing industries and others.
4. The increase in hardwood removals between 2016 and 2017 is largely attributed to a revised estimate for deliveries of UK grown hardwood used for woodfuel (see Table 2.6). This new estimate should not be interpreted as an increase in a single year.

Data: Longer time series of the above table, including estimates by country (England/ Wales/ Scotland/ Northern Ireland) are available from the Data downloads web page at:

[www.forestresearch.gov.uk/tools-and-resources/statistics/data-downloads/](http://www.forestresearch.gov.uk/tools-and-resources/statistics/data-downloads/)



## 2.1.2 Origin of private sector softwood removals

It is estimated that 70% of all softwood removals from private sector woodlands were harvested in Scotland, 18% in England, 10% in Wales and the remainder in Northern Ireland in 2020 (Table 2.2).

Private sector softwood removals in the UK in 2020 were 8% lower than the 2019 figure.

**Table 2.2 Private sector softwood removals by country, 2011-2020**

thousand green tonnes

<b>Year</b>	<b>England</b>	<b>Wales</b>	<b>Scotland</b>	<b>Northern Ireland</b>	<b>UK</b>
2011	738	501	3,894	53	5,186
2012	847	611	3,761	40	5,259
2013	929	695	4,205	23	5,852
2014	1,165	739	4,691	33	6,627
2015	1,052	686	4,203	28	5,968
2016	1,013	643	4,043	34	5,734
2017	961	783	4,295	36	6,075
2018	1,130	628	5,022	47	6,827
2019	1,222	485	4,133	44	5,884
2020	988	550	3,817	78	5,434

Source: Private Sector Softwood Removals Survey

Data: Longer time series of the above table, including estimates for hardwood removals and for removals FE/FLS/NRW/FS woodlands, are available from the Data downloads web page at:

[www.forestresearch.gov.uk/tools-and-resources/statistics/data-downloads/](http://www.forestresearch.gov.uk/tools-and-resources/statistics/data-downloads/)

### 2.1.3 Origin of FE/FLS/NRW/FS removals

Information on removals from Forestry England (FE), Forestry and Land Scotland (FLS), Natural Resources Wales (NRW) and Forest Service (FS) woodlands is obtained from administrative systems.

A total of 4.6 million green tonnes of softwood was removed from FE/FLS/NRW/FS woodlands in 2020, a 17% increase from the 2019 figure (Table 2.3).

Over one half (56%) of FE/FLS/NRW/FS softwood removals in 2020 occurred in Scotland, 22% in England, 13% in Wales and 9% in Northern Ireland.

**Table 2.3 FE/FLS/NRW/FS softwood removals by country, 2011-2020**

Year	thousand green tonnes				
	England	Wales	Scotland	Northern Ireland	UK
2011	1,185	689	2,566	430	4,870
2012	1,154	663	2,627	392	4,836
2013	1,188	693	2,819	384	5,084
2014	1,064	722	2,749	365	4,900
2015	1,023	692	2,644	333	4,691
2016	1,146	778	2,745	343	5,011
2017	1,087	660	2,666	349	4,761
2018	1,048	696	2,438	339	4,522
2019	905	525	2,143	364	3,937
2020	1,014	619	2,577	405	4,616

Source: Forestry England (FE), Forestry and Land Scotland (FLS), Natural Resources Wales, Forest Service (FS)

Data: Longer time series of the above table, including estimates for hardwood removals and for removals from private sector woodlands, are available from the Data downloads web page at:

[www.forestresearch.gov.uk/tools-and-resources/statistics/data-downloads/](http://www.forestresearch.gov.uk/tools-and-resources/statistics/data-downloads/)

## 2.1.4 Softwood availability forecast

The National Forest Inventory "50-year forecast of softwood availability" and "50-year forecast of hardwood availability" were published in April 2014. They are forecasts of potential availability rather than production, as they do not take account of management objectives, financial factors or the state of markets, all of which will affect the level of and timing of harvesting.

More information on the forecasts and detailed breakdowns are available on the National Forest Inventory web pages at [www.forestresearch.gov.uk/tools-and-resources/national-forest-inventory/](http://www.forestresearch.gov.uk/tools-and-resources/national-forest-inventory/).

The forecasts are outside the scope of National Statistics, but are provided here to give more context to the data on wood production.

As these forecasts were produced in 2014, they do not take into account any of the findings from the '[preliminary estimates of the changes in canopy cover in British woodlands between 2006 and 2015](#)', released in August 2016.

The key assumptions underpinning the headline softwood forecast scenario include:

- Private woodland is managed in a way that maximises total production.
- The estate of Forestry England, Forestry and Land Scotland and Natural Resources Wales is managed according to current management plans; note that Forestry England, Forestry and Land Scotland, and Natural Resources Wales intend to cap production below the level set out in Table 2.4a.

Under the above scenario, softwood availability for Great Britain averages 15.2 million cubic metres a year over the 50-year period 2013 to 2061 (Table 2.4a). The majority (66%) of this softwood is projected to come from private sector woodland.

Table 2.4a Softwood availability forecasts

thousand m<sup>3</sup> overbark standing

Annual average in the period	England	Wales	Scotland	Great Britain
<b>FE/FLS/NRW<sup>1</sup></b>				
2013 - 2016	1,632	1,082	4,220	6,933
2017 - 2021	1,330	991	3,658	5,980
2022 - 2026	1,211	895	3,516	5,622
2027 - 2031	1,159	778	3,789	5,726
2032 - 2036	1,066	934	3,215	5,216
2037 - 2041	1,013	794	2,936	4,744
2042 - 2046	1,055	531	2,730	4,316
2047 - 2051	1,014	585	3,280	4,879
2052 - 2056	828	495	2,886	4,209
2057 - 2061	1,250	679	2,339	4,269
<b>Private sector<sup>2</sup></b>				
2013 - 2016	2,945	901	5,708	9,554
2017 - 2021	3,225	949	6,997	11,171
2022 - 2026	2,903	1,087	7,830	11,820
2027 - 2031	2,986	775	8,910	12,671
2032 - 2036	2,850	736	8,847	12,433
2037 - 2041	2,224	679	8,133	11,035
2042 - 2046	1,848	490	6,527	8,865
2047 - 2051	1,523	521	4,986	7,030
2052 - 2056	1,431	734	5,679	7,845
2057 - 2061	1,603	694	5,627	7,924
<b>Total softwood</b>				
2013 - 2016	4,577	1,983	9,928	16,487
2017 - 2021	4,555	1,940	10,656	17,151
2022 - 2026	4,113	1,982	11,346	17,442
2027 - 2031	4,145	1,553	12,700	18,398
2032 - 2036	3,916	1,670	12,062	17,649
2037 - 2041	3,237	1,473	11,069	15,779
2042 - 2046	2,903	1,021	9,257	13,181
2047 - 2051	2,537	1,106	8,266	11,909
2052 - 2056	2,259	1,229	8,566	12,054
2057 - 2061	2,853	1,373	7,966	12,193

Source: National Forest Inventory: 50-year forecast of softwood availability (Forestry Commission, April 2014)

Notes:

1. The estate of Forestry England (FE), Forestry and Land Scotland (FLS) and Natural Resources Wales (NRW) is assumed to be managed according to current management plans; note that Forestry England, Forestry and Land Scotland and Natural Resources Wales intend to cap production below the level set out in Table 2.4a.
2. Private woodland is assumed to be managed in a way that maximises total production.
3. More recent softwood availability forecasts, covering a 25 year period only, are available from the NFI web pages at: [www.forestresearch.gov.uk/tools-and-resources/national-forest-inventory/how-our-woodlands-might-change-over-time-8211-nfi-forecast-reports/](http://www.forestresearch.gov.uk/tools-and-resources/national-forest-inventory/how-our-woodlands-might-change-over-time-8211-nfi-forecast-reports/)
4. An update to these figures is due to be published in 2020.
5. To convert softwood 'overbark standing' into green tonnes multiply by 0.818. See the Sources chapter for more details on conversion factors.

These figures are outside the scope of National Statistics. For more information see the Sources chapter.

## 2.1.5 Hardwood availability forecast

The key assumptions underpinning the headline hardwood forecast scenario include:

- In private woodland, harvesting is limited to areas with evidence of recent thinning activity.
- The estate of Forestry England, Forestry and Land Scotland and Natural Resources Wales is managed according to current management plans.

Under the above scenario, hardwood availability for Great Britain averages 1.6 million m<sup>3</sup> a year over the 50-year period (Table 2.4b). The majority (89%) of this hardwood is projected to come from private sector woodland. If these woodlands were managed to maximise total production, the forecast would be much higher, as illustrated in the full National Forest Inventory report available at

[www.forestresearch.gov.uk/tools-and-resources/national-forest-inventory/](http://www.forestresearch.gov.uk/tools-and-resources/national-forest-inventory/).

Table 2.4b Hardwood availability forecasts

thousand m<sup>3</sup> overbark standing

Annual average in the period	England	Wales	Scotland	Great Britain
<b>FE/FLS/NRW<sup>1</sup></b>				
2013 - 2016	126	12	9	147
2017 - 2021	92	11	9	111
2022 - 2026	110	17	10	137
2027 - 2031	86	12	10	108
2032 - 2036	99	14	15	128
2037 - 2041	129	19	24	172
2042 - 2046	189	56	31	276
2047 - 2051	116	19	40	175
2052 - 2056	134	28	45	208
2057 - 2061	146	28	64	237
<b>Private sector<sup>2</sup></b>				
2013 - 2016	122	20	83	225
2017 - 2021	333	46	139	519
2022 - 2026	538	77	193	808
2027 - 2031	720	100	233	1,054
2032 - 2036	825	115	262	1,202
2037 - 2041	1,047	153	367	1,567
2042 - 2046	1,915	243	586	2,743
2047 - 2051	1,678	227	675	2,580
2052 - 2056	1,254	198	554	2,006
2057 - 2061	645	139	343	1,127
<b>Total hardwood</b>				
2013 - 2016	249	32	92	373
2017 - 2021	425	58	148	631
2022 - 2026	648	94	203	945
2027 - 2031	806	112	244	1,162
2032 - 2036	923	130	277	1,330
2037 - 2041	1,176	171	391	1,738
2042 - 2046	2,104	299	616	3,019
2047 - 2051	1,795	246	715	2,755
2052 - 2056	1,388	227	599	2,214
2057 - 2061	791	167	406	1,364

Source: National Forest Inventory: 50-year forecast of hardwood availability (Forestry Commission, April 2014)

Notes:

1. The estate of Forestry England (FE), Forestry and Land Scotland (FLS) and Natural Resources Wales (NRW) is assumed to be managed according to current management plans.
2. In private woodland, harvesting is assumed to be limited to areas with evidence of recent thinning activity. If these woodlands were managed to maximise total production, the forecast would be much higher, as illustrated in the full National Forest Inventory report available at: [forestresearch.gov.uk/tools-and-resources/national-forest-inventory/](http://forestresearch.gov.uk/tools-and-resources/national-forest-inventory/)
3. An update to these figures is due to be published in December 2021.
4. To convert hardwood 'overbark standing' into green tonnes multiply by 0.900. See the Sources chapter for more details on conversion factors.

These figures are outside the scope of National Statistics. For more information see the Sources chapter.



## 2.2 Deliveries of UK-grown roundwood

Figures for deliveries relate to the quantity of UK-grown roundwood that is delivered to processors (mills) or for other uses (such as woodfuel and exports). They are expressed in green tonnes (weight when freshly felled). Statistics on roundwood deliveries are used to monitor trends in the supply of, and demand for, UK-grown wood.

Deliveries should not be confused with removals, which are the quantities of roundwood that is harvested from UK woodland. Removals statistics are presented in Tables 2.1 to 2.3. A comparison of removals and deliveries of UK softwood roundwood is provided in the Sources chapter.

The data are derived from a number of sources, including surveys of the UK-grown timber industry, trade associations and expert estimates.

## 2.2.1 Softwood deliveries

In 2020, deliveries of UK roundwood (softwood and hardwood) totalled 10.7 million green tonnes, a 3% decrease from the previous year (Tables 2.5 and 2.6).

Most UK roundwood deliveries (92%) were softwood and totalled 9.9 million green tonnes in 2020 (Table 2.5). 5.8 million green tonnes (59% of UK softwood deliveries) were used by sawmills, a 1% decrease from the previous year. A further 1.9 million green tonnes were used for wood fuel (a 3% decrease), 1.2 million green tonnes were used to produce wood-based panels (a 5% decrease), 0.4 million green tonnes by integrated pulp and paper mills (a 17% decrease), and 0.6 million green tonnes for other uses, including round fencing, shavings and exports of roundwood (a 10% decrease).

The increase in softwood deliveries for woodfuel in recent years reflects an increase in wood use for heating and energy production in the UK (see the Sources chapter for further information).

**Table 2.5 Deliveries of UK-grown softwood, 2011-2020**

thousand green tonnes

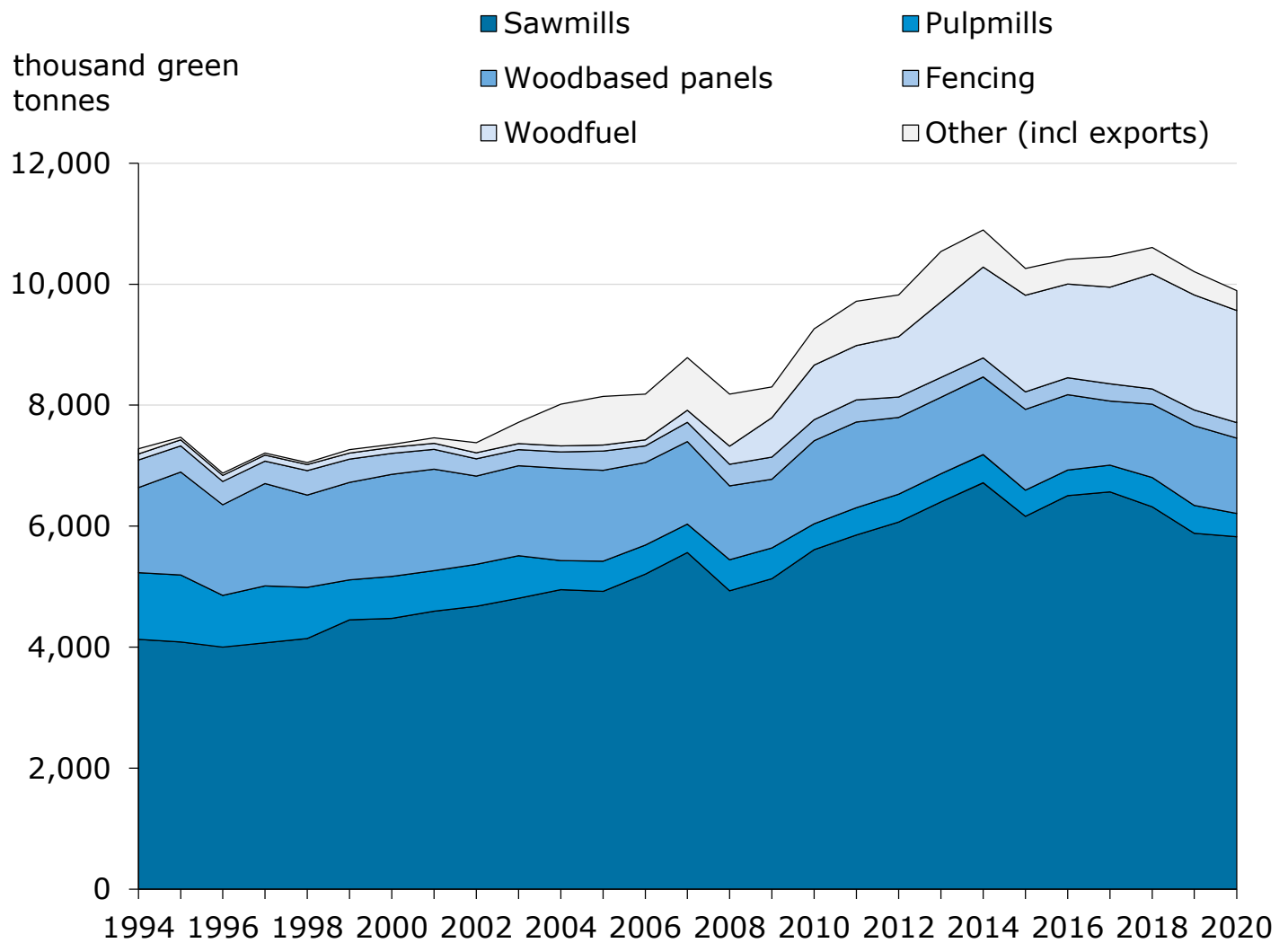
Year	Saw mills	Pulp mills	Wood-based panels	Fencing	Wood fuel <sup>1</sup>	Other <sup>2</sup>	Exports	Total
2011	5,852	453	1,417	363	900	145	585	9,715
2012	6,066	461	1,269	338	1,000	154	535	9,824
2013	6,400	465	1,263	332	1,250	191	640	10,540
2014	6,718	465	1,283	317	1,500	176	437	10,896
2015	6,161	435	1,334	288	1,600	164	276	10,258
2016	6,504	423	1,248	277	1,550	178	231	10,412
2017	6,568	442	1,059	283	1,600	170	331	10,453
2018	6,319	486	1,210	255	1,900	174	264	10,608
2019	5,880	464	1,316	262	1,900	183	201	10,207
2020	5,826	383	1,248	257	1,850	188	140	9,891

Source: industry surveys, industry associations.

Notes:

1. Woodfuel derived from stemwood. Includes estimates of roundwood use for biomass energy. The figures are estimated by the Expert Group on Timber and Trade Statistics, and make use of wood fuel data reported in the Private Sector Softwood Removals Survey.
2. Includes shavings and poles. Quantities for some uses are estimates by the Expert Group on Timber and Trade Statistics.

Figure 2.1 Deliveries of UK-grown softwood, 1994-2020



Sources: Industry surveys, industry associations

Notes:

1. Woodfuel derived from stemwood. Includes estimates of roundwood use for biomass energy. The figures are estimated by the Expert Group on Timber and Trade Statistics, and make use of wood fuel data reported in the Private Sector Softwood Removals Survey.
2. Includes shavings and poles. Quantities for some uses are estimates by the Expert Group on Timber and Trade Statistics.

## 2.2.2 Hardwood deliveries

There was a total of 0.8 million green tonnes of UK hardwood deliveries in 2020 (Table 2.6). The majority of UK hardwood deliveries (84% in 2020) were used for woodfuel.

Table 2.6 Deliveries of UK-grown hardwood, 2011-2020

thousand green tonnes

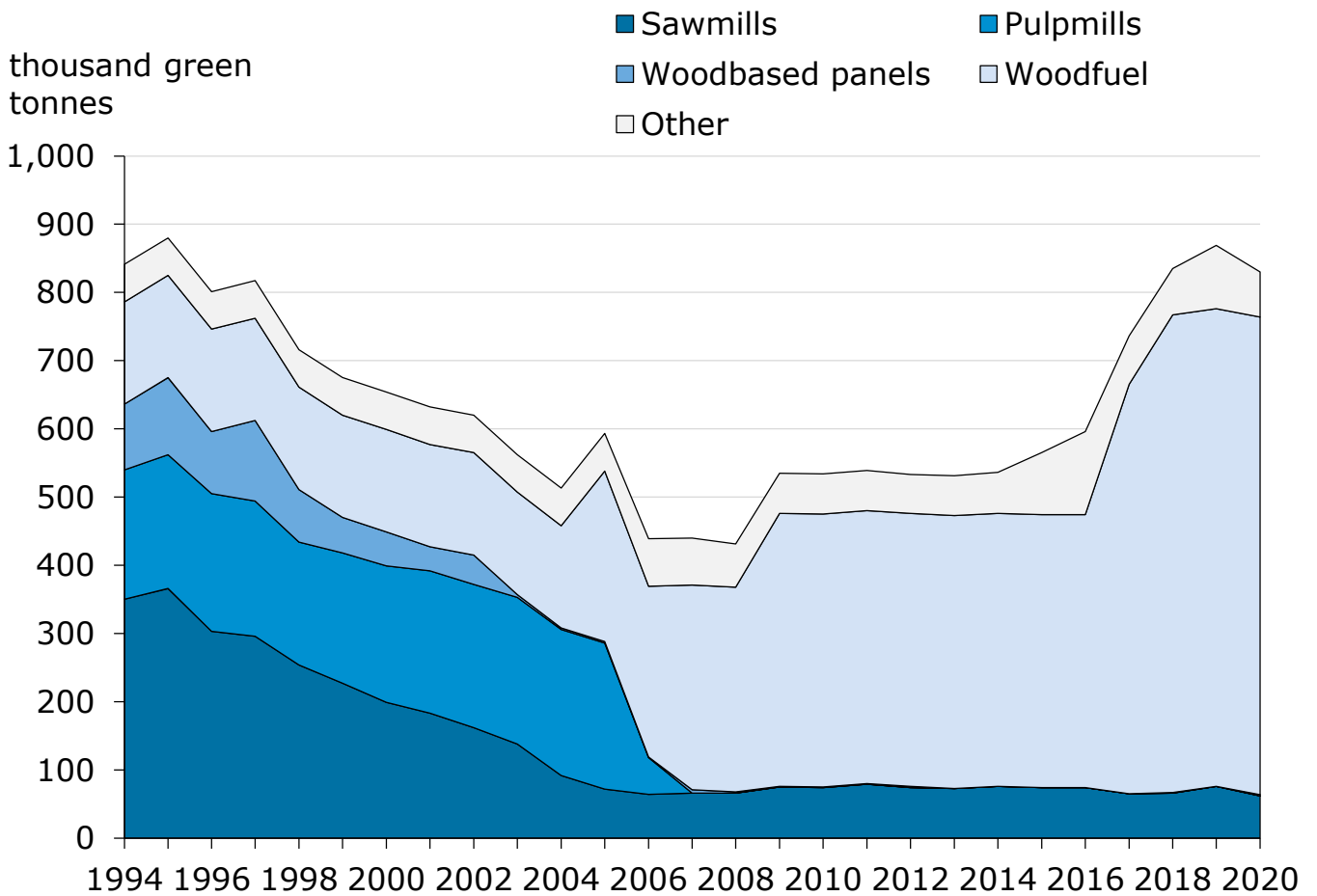
Year	Sawmills	Pulp mills	Wood-based panels	Woodfuel	Other	Total
2011	79	0	1	400	59	540
2012	74	0	2	400	57	533
2013	73	0	0	400	58	531
2014	76	0	0	400	60	536
2015	74	0	0	400	91	565
2016	74	0	0	400	122	596
2017	65	0	0	600	71	737
2018	66	0	1	700	68	835
2019	76	0	0	700	93	869
2020	62	0	2	700	66	830

Source: industry surveys, industry associations.

Notes:

1. Figures are based on processing industries' purchases of hardwood grown in the UK and estimates for woodfuel and other uses.
2. Woodfuel reported here is derived from stemwood and includes estimated roundwood use for biomass energy.
3. The apparent increase in woodfuel from 2016 to 2017 reflects a new estimate of the level of hardwood deliveries for woodfuel and should not be interpreted as an increase in a single year.
4. Other includes round fencing and roundwood exports.

Figure 2.2 Deliveries of UK-grown hardwood, 1994-2020



Source: industry surveys, industry associations.

Notes:

1. Other includes round fencing and roundwood exports.
2. The apparent increase woodfuel from 2016 to 2017 reflects a new estimate of the level of hardwood deliveries for woodfuel and should not be interpreted as an increase in a single year.

## 2.3 Sawmills - All Mills

Data are collected by Forest Research in an annual Sawmill Survey. The following section includes summary results, covering number of mills, consumption and production are available for all mills.

In addition, there are also more detailed figures for larger mills only. The threshold defining larger mills was changed for the collection of 2016 data, from annual sawnwood production of 10 thousand m<sup>3</sup> to annual sawnwood production of 25 thousand m<sup>3</sup>. Further information on this change is provided in the section on Larger Mills within this chapter and in the Sawmill Survey section of the Sources chapter.

Consumption units are given in green tonnes. For production, the units used are m<sup>3</sup> sawnwood. For conversion factors between different units, see the Timber section of the Sources chapter.

### 2.3.1 Summary: consumption & production

In 2020, sawmills in the UK consumed a total of 6.1 million green tonnes of softwood, a 2% decrease from 2019 (Table 2.7a). The total of 6.1 million green tonnes of softwood consumption in 2020 represents the lowest level since 2011.

A further 0.07 million green tonnes of hardwood were consumed by UK sawmills in 2020. Most of the logs, 5.8 million green tonnes of softwood and 0.06 million green tonnes of hardwood, were grown in the UK.

Table 2.7a Consumption by UK sawmills, 2011-2020

thousand green tonnes

Year	UK grown soft wood	Imported softwood	Total softwood	UK grown hardwood	Imported hardwood	Total hardwood
2011	5,852	125	5,977	79	20	99
2012	6,066	124	6,191	74	17	91
2013	6,400	126	6,525	73	13	86
2014	6,718	159	6,877	76	14	90
2015	6,161	182	6,343	74	14	88
2016	6,504	209	6,713	74	17	91
2017	6,568	267	6,835	65	13	78
2018	6,319	325	6,643	66	13	79
2019	5,880	343	6,223	76	13	88
2020	5,826	263	6,088	62	12	74

Source: Sawmill Survey

A total of 3.3 million m<sup>3</sup> of sawnwood was produced in the UK in 2020, a 3% decrease from 2019.

In addition to producing sawnwood, sawmills also generate other products. Further information on other products produced by larger mills are provided in Tables 2.18 and 2.18a.

**Table 2.7b Sawnwood production by UK sawmills, 2011-2020**

<b>Year</b>	thousand m <sup>3</sup> sawnwood	
	<b>Softwood production</b>	<b>Hardwood production</b>
2011	3,222	51
2012	3,356	48
2013	3,531	45
2014	3,711	47
2015	3,446	45
2016	3,619	46
2017	3,719	41
2018	3,617	41
2019	3,408	46
2020	3,302	37

Source: Sawmill Survey



## 2.3.2 Number of mills by size

A total of 147 sawmills processed UK roundwood in 2020 (Table 2.8). Most mills (80%) produced less than 25 thousand m<sup>3</sup> sawnwood (softwood and hardwood) during the year.

Over the past ten years, the number of active sawmills has decreased by 20%. Most of this change has occurred in the smallest size categories.

**Table 2.8 Number of sawmills by size category of mill, 2011-2020**

<b>Year</b>	<b>&lt; 1</b>	<b>1 - &lt; 5</b>	<b>5 - &lt; 10</b>	<b>10 - &lt; 25</b>	<b>25 - &lt; 50</b>	<b>50 - &lt; 100</b>	<b>100 +</b>	<b>Total</b>
2011	70	49	13	23	9	7	12	183
2012	69	47	14	19	11	8	11	179
2013	67	44	14	17	13	6	13	174
2014	69	39	14	17	13	8	12	172
2015	66	41	16	17	12	6	12	170
2016	60	40	16	20	6	10	13	165
2017	60	40	13	22	5	10	12	162
2018	60	34	12	21	8	7	12	154
2019	56	34	13	20	8	6	12	149
2020	55	32	13	18	10	8	11	147

Source: Sawmill Survey

Notes:

1. Categories are based on total sawnwood production (softwood and hardwood), in thousand m<sup>3</sup>.

Data: Longer time series of the above table are available from the Data Downloads web page at:

[www.forestresearch.gov.uk/tools-and-resources/statistics/data-downloads/](http://www.forestresearch.gov.uk/tools-and-resources/statistics/data-downloads/)

### 2.3.3 Number of mills by country

Around one half (54%) of the 147 active sawmills in 2020 were in England, around one third (32%) were in Scotland, 8% in Wales and 6% in Northern Ireland (Table 2.9).

Table 2.9 Number of sawmills by country, 2011-2020

Year	England	Wales	Scotland	Northern Ireland	UK
2011	95	16	63	9	183
2012	94	15	61	9	179
2013	91	15	59	9	174
2014	91	15	57	9	172
2015	91	15	55	9	170
2016	88	14	54	9	165
2017	87	13	53	9	162
2018	82	12	51	9	154
2019	80	12	48	9	149
2020	79	12	47	9	147

Source: Sawmill Survey

Data: Longer time series of the above table are available from the Data Downloads web page at: [www.forestresearch.gov.uk/tools-and-resources/statistics/data-downloads/](http://www.forestresearch.gov.uk/tools-and-resources/statistics/data-downloads/)

## 2.3.4 Number of sawmills by type of wood sawn

Around two thirds (67%) of the 147 active sawmills in 2020 processed softwood only (Table 2.10). A further 27% processed both softwood and hardwood, and the remainder processed only hardwood.

Table 2.10 Number of sawmills by type of wood sawn, 2011-2020

<b>Year</b>	<b>Softwood only</b>	<b>Hardwood only</b>	<b>Both</b>	<b>Total</b>
2011	120	10	53	183
2012	118	11	50	179
2013	118	11	45	174
2014	115	9	48	172
2015	112	9	49	170
2016	109	9	47	165
2017	109	10	43	162
2018	102	9	43	154
2019	101	8	40	149
2020	99	8	40	147

Source: Sawmill Survey

### 2.3.5 Consumption of softwood by size of mill

Despite accounting for only 20% of all sawmills (see Table 2.8), those with total annual sawnwood production of 25 thousand m<sup>3</sup> or more accounted for 87% of the total softwood consumed by sawmills in 2020 (Table 2.11).

Table 2.11 Consumption of softwood by size category of mill, 2011-2020

Year	thousand green tonnes							Total
	< 1	1 - < 5	5 - < 10	10 - < 25	25 - < 50	50 - < 100	100 +	
2011	32	173	156	685	615	830	3,486	5,977
2012	33	169	184	539	738	1,133	3,395	6,191
2013	36	170	177	476	804	777	4,085	6,525
2014	36	143	173	486	833	1,090	4,117	6,877
2015	31	153	204	553	795	801	3,805	6,343
2016	28	139	199	588	372	1,117	4,270	6,713
2017	29	149	152	692	339	1,352	4,122	6,835
2018	32	124	134	626	585	1,009	4,134	6,643
2019	30	124	169	639	550	831	3,881	6,223
2020	32	116	151	504	598	1,146	3,541	6,088

Source: Sawmill Survey

Notes:

1. Categories are based on total sawnwood production (softwood and hardwood), in thousand m<sup>3</sup>.

Data: Longer time series of the above table are available from the Data Downloads web page at:

[www.forestresearch.gov.uk/tools-and-resources/statistics/data-downloads/](http://www.forestresearch.gov.uk/tools-and-resources/statistics/data-downloads/)

## 2.3.6 Consumption of softwood by mills in each country

Mills in Scotland consumed around one half (50%) of the 6.1 million green tonnes of softwood delivered to UK sawmills in 2020 (Table 2.12). A further 30% was consumed by mills in England, 10% in Northern Ireland and 9% in Wales.

Table 2.12 Consumption of softwood by country, 2011-2020

thousand green tonnes

Year	England	Wales	Scotland	Northern Ireland	UK
2011	1,723	634	3,078	543	5,977
2012	1,818	654	3,191	528	6,191
2013	1,876	702	3,416	532	6,525
2014	1,979	711	3,657	530	6,877
2015	1,914	655	3,243	531	6,343
2016	1,981	737	3,437	558	6,713
2017	2,086	691	3,475	583	6,835
2018	2,026	648	3,329	640	6,643
2019	1,990	561	2,994	678	6,223
2020	1,827	566	3,064	631	6,088

Source: Sawmill Survey

Data: Longer time series of the above table are available from the Data Downloads web page at:

[www.forestresearch.gov.uk/tools-and-resources/statistics/data-downloads/](http://www.forestresearch.gov.uk/tools-and-resources/statistics/data-downloads/).

### 2.3.7 Production of sawn softwood by size of mill

UK sawmills produced a total of 3.3 million m<sup>3</sup> of softwood in 2020, a 3% decrease from the 2019 figure (Table 2.13).

Sawmills with total annual sawnwood production of 25 thousand m<sup>3</sup> or more accounted for 87% of the total sawn softwood produced by sawmills in 2020.

Table 2.13 Production of sawn softwood by size of mill, 2011-2020

Year	thousand m <sup>3</sup>							Total
	< 1	1 - < 5	5 - < 10	10 - < 25	25 - < 50	50 - < 100	100 +	
2011	18	100	86	374	335	443	1,867	3,222
2012	18	98	95	314	393	564	1,874	3,356
2013	20	98	93	287	429	404	2,200	3,531
2014	20	83	91	282	448	563	2,224	3,711
2015	18	88	111	296	466	422	2,045	3,446
2016	17	80	106	338	186	597	2,296	3,619
2017	17	86	77	384	178	647	2,328	3,719
2018	19	71	65	355	311	468	2,327	3,617
2019	18	71	80	349	306	382	2,203	3,408
2020	18	66	72	277	321	551	1,997	3,302

Source: Sawmill Survey

Notes:

1. Categories are based on total sawnwood production (softwood and hardwood), in thousand m<sup>3</sup>.

Data: Longer time series of the above table are available from the Data Downloads web page at:

[www.forestresearch.gov.uk/tools-and-resources/statistics/data-downloads/](http://www.forestresearch.gov.uk/tools-and-resources/statistics/data-downloads/).

## 2.3.8 Production of sawn softwood by mills in each country

1.7 million m<sup>3</sup> (51%) of sawn softwood was produced by sawmills in Scotland in 2020 (Table 2.14). A further 30% was produced by mills in England, 11% in Northern Ireland and the remaining 8% in Wales.

Table 2.14 Production of sawn softwood by country, 2011-2020

Year	thousand m <sup>3</sup>				
	England	Wales	Scotland	Northern Ireland	UK
2011	953	316	1,663	291	3,222
2012	999	326	1,743	288	3,356
2013	1,024	349	1,869	289	3,531
2014	1,090	354	1,981	286	3,711
2015	1,055	324	1,783	284	3,446
2016	1,091	366	1,867	294	3,619
2017	1,157	319	1,917	326	3,719
2018	1,120	308	1,837	351	3,617
2019	1,107	266	1,684	351	3,408
2020	1,007	263	1,683	349	3,302

Source: Sawmill Survey

Data: Longer time series of the above table are available from the Data Downloads web page at:

[www.forestresearch.gov.uk/tools-and-resources/statistics/data-downloads/](http://www.forestresearch.gov.uk/tools-and-resources/statistics/data-downloads/).

## 2.4 Sawmills - Larger Mills

The following, more detailed, tables are available for larger mills (those producing at least 25 thousand m<sup>3</sup> sawnwood annually) only.

These larger mills are estimated to account for 87% of all sawn softwood produced in 2020 (see Table 2.13).

The tables cover the following topics

- Source of softwood logs;
- Sawn softwood product markets;
- Other softwood products; and
- Sawmill employment.



## 2.4.1 Softwood consumption and production

Total softwood consumption by the 29 sawmills covered by the detailed sawmill survey in 2020 was 5.3 million green tonnes (Table 2.15). Sawn softwood production by these mills was 2.9 million m<sup>3</sup> and other softwood products (chips, bark, sawdust, etc) amounted to 2.8 million tonnes.

Sawmills in Scotland accounted for around one half (52%) of all softwood consumption by larger mills. A further 28% was consumed by mills in England, 11% in Northern Ireland and the remaining 9% in Wales.

**Table 2.15 Larger mills<sup>1</sup>, 2020: softwood consumption and production**

<b>Large mills</b>	<b>England</b>	<b>Wales</b>	<b>Scotland</b>	<b>Northern Ireland</b>	<b>UK</b>
Number of mills	10	3	14	2	29
Consumption (thousand green tonnes)	1,478	481	2,736	589	5,285
Sawnwood production (thousand m <sup>3</sup> )	827	218	1,497	327	2,869
Other products (thousand tonnes)	708	256	1,543	341	2,848

Source: Sawmill Survey (detailed)

Notes:

1. Sawmills producing at least 25 thousand m<sup>3</sup> sawnwood (softwood and hardwood).

## 2.4.2 Source of softwood logs

Of all softwood sawlogs consumed by larger sawmills in 2021, 57% came from Scotland, 21% from England, 11% from Wales and 6% from Northern Ireland (Tables 2.16 and 2.16a). The remaining 5% were imported from other countries.

97% of softwood sawlogs used by Scottish mills in 2020 came from Scotland. The corresponding proportions of mills' log use coming from within the same country were 64% for England, 75% for Wales and 54% for Northern Ireland.

Table 2.16 Larger mills<sup>1</sup>, 2020: source of softwood logs

Source	thousand green tonnes				
	England	Wales	Scotland	Northern Ireland	UK
England	945	70	88	0	1,103
Wales	220	359	0	0	579
Scotland	313	53	2,648	5	3,019
Northern Ireland	0	0	0	321	321
<b>Total UK logs</b>	<b>1,478</b>	<b>481</b>	<b>2,736</b>	<b>326</b>	<b>5,022</b>
Other countries	0	0	0	263	263
<b>Total log consumption</b>	<b>1,478</b>	<b>481</b>	<b>2,736</b>	<b>589</b>	<b>5,285</b>

Source: Sawmill Survey (detailed)

Notes:

1. Sawmills producing at least 25 thousand m<sup>3</sup> sawnwood (softwood and hardwood).

Table 2.16a Larger mills<sup>1</sup>,2020: source of softwood logs

per cent of total softwood consumption

<b>Year</b>	<b>England</b>	<b>Wales</b>	<b>Scotland</b>	<b>Northern Ireland</b>	<b>Other countries</b>	<b>Total</b>
2016	20	14	59	5	4	100
2017	20	14	57	4	5	100
2018	20	13	57	5	6	100
2019	21	13	54	6	7	100
2020	21	11	57	6	5	100

Source: Sawmill Survey (detailed)

Notes:

1. Sawmills producing at least 25 thousand m<sup>3</sup> sawnwood (softwood and hardwood).

### 2.4.3 Sawn softwood product markets

In 2020, 43% of sawn softwood produced by larger sawmills was used for fencing, 27% for construction, 24% for packaging and pallets, and the remaining 6% went to all other markets (Tables 2.17 and 2.17a).

Table 2.17 Larger mills<sup>1</sup>, 2020 sawn softwood product markets

per cent of total softwood product markets

Product market	England	Wales	Scotland	Northern Ireland	UK
Construction	12	10	37	31	27
Fencing	62	42	33	42	43
Packaging / pallets	21	40	22	27	24
Other	4	8	8	0	6
Total	100	100	100	100	100

Source: Sawmill Survey (detailed)

Notes:

1. Sawmills producing at least 25 thousand m<sup>3</sup> sawnwood (softwood and hardwood).

Table 2.17a Larger mills<sup>1</sup>, 2016-2020 sawn softwood product markets

per cent of total softwood product markets

Year	Construction	Fencing	Packaging / pallets	Other	Total
2016	28	35	30	7	100
2017	32	36	24	8	100
2018	33	36	24	7	100
2019	30	37	26	7	100
2020	27	43	24	6	100

Source: Sawmill Survey (detailed)

Notes:

1. Sawmills producing at least 25 thousand m<sup>3</sup> sawnwood (softwood and hardwood).

## 2.4.4 Other softwood products

Sawmills were asked to estimate the quantity of other products (excluding sawnwood) that they generated from softwood and sold to different industries. The figures presented below are based on these estimates.

Other softwood products amounted to 2.8 million tonnes in 2020 (Table 2.15). Around two fifths (38%) of other softwood products were sold to wood processing industries in the form of chips and 17% were sold to these industries in sawdust and other formats (Table 2.18). A further 20% of other products were sold to bio-energy (including pellet manufacturers), 19% were sold to others and 6% were used internally for heat or energy.

Table 2.18 Larger mills<sup>1</sup>, 2020: other softwood products

per cent of total other softwood products

Destination and type of product	England	Wales	Scotland	Northern Ireland	UK
<b>Sold to wood processing industries</b>					
Wood chips	49	61	37	0	38
Bark	0	0	0	0	0
Sawdust & other	22	22	17	0	17
<b>Total</b>	<b>71</b>	<b>83</b>	<b>54</b>	<b>0</b>	<b>54</b>
<b>Sold to bio-energy (incl pellet manufacturers)</b>					
Wood chips	8	4	16	31	15
Bark	1	0	0	0	0
Sawdust & other	0	0	5	16	5
<b>Total</b>	<b>9</b>	<b>4</b>	<b>22</b>	<b>47</b>	<b>20</b>
<b>Other sales</b>					
Wood chips	3	0	5	12	5
Bark	8	10	10	10	10
Sawdust & other	5	0	5	5	5
<b>Total</b>	<b>16</b>	<b>11</b>	<b>20</b>	<b>26</b>	<b>19</b>
<b>Internal use for heat/energy</b>					
Wood chips	3	1	2	26	5
Bark	0	0	1	0	1
Sawdust & other	0	0	1	0	1
<b>Total</b>	<b>3</b>	<b>1</b>	<b>4</b>	<b>26</b>	<b>6</b>

Source: Sawmill Survey (detailed)

Notes:

1. Sawmills producing at least 25 thousand m<sup>3</sup> sawnwood (softwood and hardwood).

The proportion of other products that were reported as sold to wood processing industries have shown an overall reduction over the last five years (Table 2.18a).

**Table 2.18a Larger mills<sup>1</sup>, 2016-2020: other softwood products by destination**

per cent of total other softwood products

<b>Year</b>	<b>Sold to wood processing industries</b>	<b>Sold to bio-energy (incl pellet manufacturers)</b>	<b>Other sales</b>	<b>Internal use for heat/energy</b>	<b>Total<sup>2</sup></b>
2016	58	21	19	2	100
2017	56	22	19	3	100
2018	46	24	25	5	100
2019	53	20	19	8	100
2020	54	20	19	7	100

Source: Sawmill Survey (detailed)

Notes:

1. Sawmills producing at least 25 thousand m<sup>3</sup> sawnwood (softwood and hardwood).
2. Total includes sales of firewood and other products disposed of as waste.

## 2.4.5 Sawmill employment

There were estimated to be 2.7 thousand full-time equivalent staff employed directly by sawmills producing at least 25 thousand m<sup>3</sup> of sawnwood in 2020 (Tables 2.19 and 2.19a).

Table 2.19 Larger mills<sup>1</sup>, 2020: sawmill employment

Employment type	full-time equivalents				
	England	Wales	Scotland	Northern Ireland	UK
<b>Direct</b>					
Line & production workers	777	147	1,086	258	2,268
Managerial & administrative staff	162	15	168	35	380
Haulage of logs to the mill	63	0	17	2	82
Total direct employment	1,002	162	1,271	295	2,730
<b>Others<sup>2</sup></b>					
Line & production workers	31	6	39	0	76
Managerial & administrative staff	3	0	2	0	5
Total contract employment	34	6	41	0	81

Source: Sawmill Survey (detailed)

Notes:

1. Sawmills producing at least 25 thousand m<sup>3</sup> sawnwood (softwood and hardwood).
2. 'Others' refers to others undertaking work for the sawmill, including contractors and their employees.
3. The results exclude any employment on harvesting, and any employment at the site not directly related to the sawmill (e.g. exclude work producing pallets or other wood products from sawn wood).
4. Excludes haulage employment on contract.



Table 2.19a Larger mills<sup>1</sup>, 2016-2020: sawmill employment

full-time equivalents

Employment	Line & production workers	Managerial & administrative staff	Haulage of logs to the mill	Total employment
<b>Direct</b>				
2016	2,456	384	45	2,885
2017	2,369	428	79	2,875
2018	2,368	416	75	2,859
2019	2,220	395	76	2,691
2020	2,268	380	82	2,730
<b>Others<sup>2</sup></b>				
2016	50	2	..	52
2017	76	3	..	79
2018	50	0	..	50
2019	76	0	..	76
2020	76	5	..	81

Source: Sawmill Survey (detailed)

Notes:

1. Sawmills producing at least 25 thousand m<sup>3</sup> sawnwood (softwood and hardwood).
2. Excludes haulage employment on contract.
3. .. denotes data not available.

## 2.5 Pulp & paper

Statistics on inputs to the pulp & paper industry only cover the integrated pulp & paper mills in the UK that use UK roundwood. There were four such mills until 2003, three from 2004 and two from spring 2006. Figures on inputs are provided by the Confederation of Forest Industries (Confor).

Figures on production of pulp and paper are provided by the Confederation of Paper Industries, and cover all paper production in the UK, not just from mills using UK roundwood.

### 2.5.1 Inputs for the integrated pulp & paper mills

The integrated pulp & paper mills in the UK consumed a total of 0.5 million tonnes of material (all softwood) in 2020, a 10% decrease from the 2019 total (Table 2.20).

UK roundwood represented 81% of the inputs for the integrated pulp & paper mills in 2020, with the remaining 19% coming from sawmill products.

Table 2.20 Inputs for the integrated pulp & paper mills<sup>1</sup>, 2011-2020

thousand green tonnes

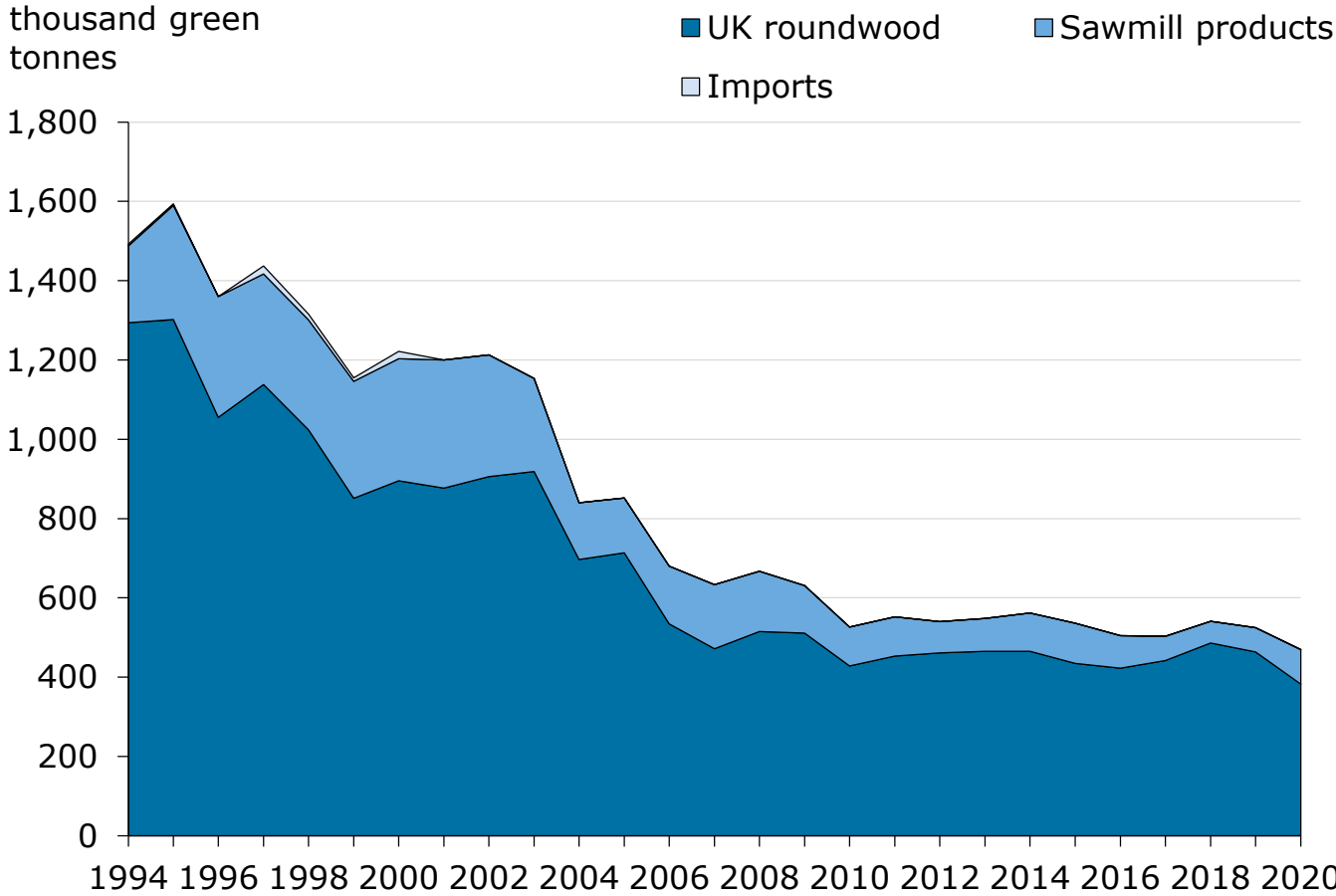
<b>Year</b>	<b>UK roundwood<sup>2</sup></b>	<b>Sawmill products</b>	<b>Total</b>
2011	453	99	552
2012	461	79	540
2013	465	83	548
2014	465	97	562
2015	435	101	536
2016	423	82	505
2017	442	61	503
2018	486	55	541
2019	464	61	525
2020	383	87	470

Source: Confor

Notes:

1. Excludes inputs of recycled paper and cardboard. All inputs are softwood.
2. UK roundwood derived from stemwood.

Figure 2.3 Inputs to integrated pulp and paper mills, 1994-2020



Source: Confor

## 2.5.2 Production of paper

Figures for the production of paper (Table 2.21) are provided by the Confederation of Paper Industries. They cover all paper production from UK mills, not just those using UK roundwood. Most UK paper production uses recovered waste paper or imported pulp.

A total of 3.6 million tonnes of paper and paperboard was produced in the UK in 2020, a decrease of 6% from the previous year. Packaging materials accounted for 53% of the total UK paper production in 2020, sanitary and household papers for 20% and other paper and paperboard (including graphic papers) for 27%.

**Table 2.21 Production of paper and paperboard, 2011-2020**

thousand tonnes

<b>Year</b>	<b>Sanitary &amp; household papers</b>	<b>Packaging materials</b>	<b>Other (including graphic papers)</b>	<b>Total paper &amp; paperboard</b>
2011	766	1,600	1,976	4,342
2012	795	1,798	1,887	4,480
2013	802	1,851	1,908	4,561
2014	768	1,801	1,828	4,397
2015	772	1,894	1,304	3,970
2016	730	1,800	1,147	3,677
2017	734	1,935	1,188	3,858
2018	738	1,904	1,253	3,894
2019	762	1,884	1,205	3,851
2020	742	1,915	974	3,631

Source: Confederation of Paper Industries

## 2.6 Wood-based panels

Wood-based panels include oriented strand board (OSB), wood chipboard and cement bonded particleboard (which are all types of particleboard), and medium density fibreboard (MDF) and other fibreboard (which are both types of fibreboard).

Statistics on wood-based panels are provided by the Wood Panel Industries Federation (WPIF).

### 2.6.1 Inputs for wood-based panel products

Table 2.22 and Figure 2.4 provide statistics on the inputs to mills that produce wood-based panels in the UK. The mills used a total of 3.8 million tonnes of material in 2020, a 2% decrease from 2019. The inputs in 2020 comprised 1.2 million green tonnes of roundwood (33%), 1.5 million green tonnes of sawmill products (40%), 1.0 million tonnes of recycled wood fibre (26%) and 0.1 million tonnes of imports (2%).

Table 2.22 Softwood inputs to wood-based panel mills, 2011-2020

thousand green tonnes

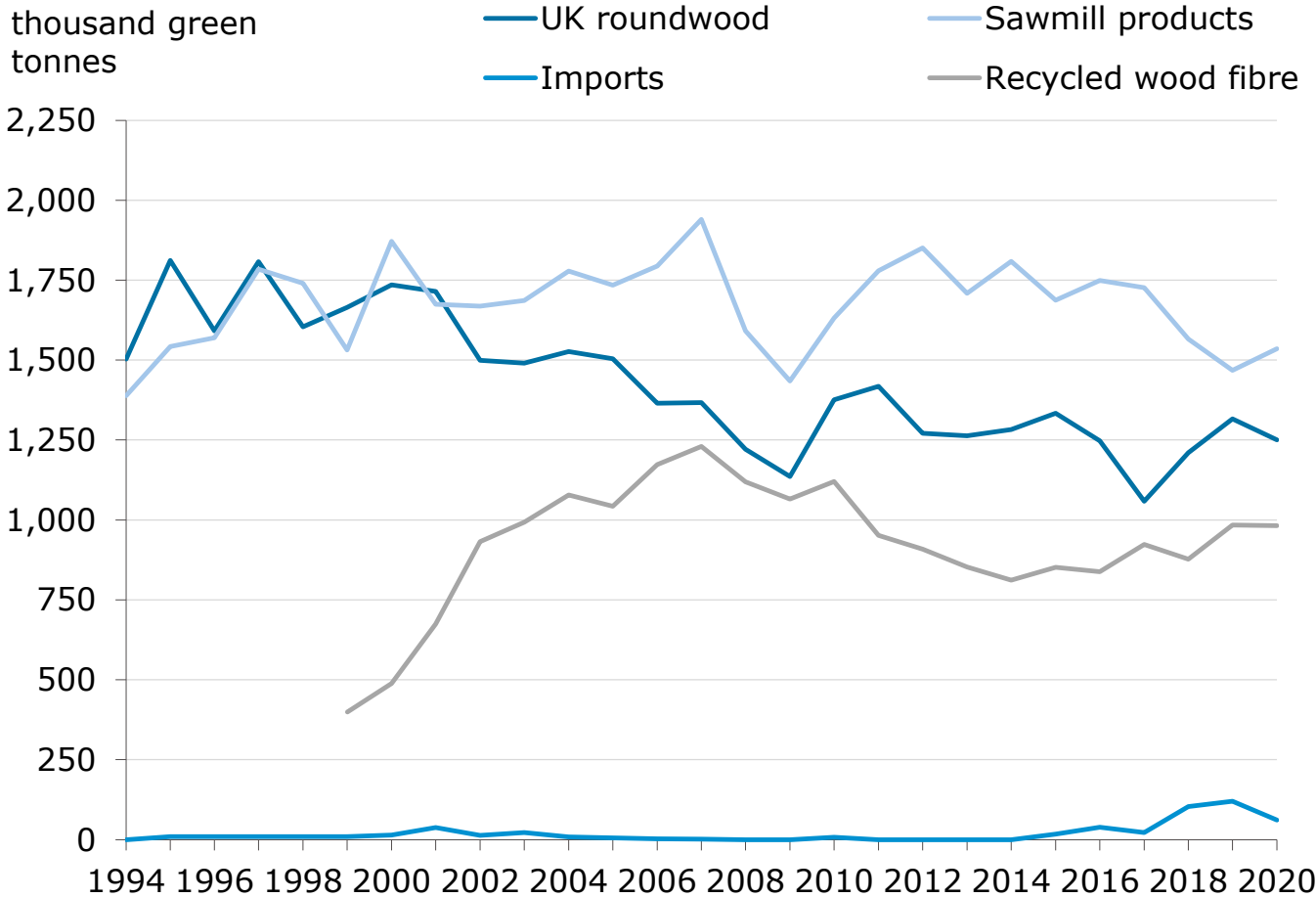
Year	UK round-wood <sup>1</sup> softwood	UK round-wood <sup>1</sup> hardwood	Sawmill products	Imports <sup>2</sup> softwood	Imports <sup>2</sup> hardwood	Recycled wood fibre <sup>3,4</sup>
2011	1,417	1	1,779	0	0	952
2012	1,269	2	1,851	0	0	909
2013	1,263	0	1,709	0	0	853
2014	1,283	0	1,809	0	0	812
2015	1,334	0	1,687	12	5	852
2016	1,248	0	1,749	10	29	838
2017	1,059	0	1,726	0	22	923
2018	1,210	0	1,566	30	74	877
2019	1,316	0	1,468	43	78	984
2020	1,248	2	1,535	22	39	982

Source: Wood Panel Industries Federation

Notes:

1. UK roundwood derived from stemwood.
2. Imports include roundwood, wood products and products from imported wood.
3. Recycled wood fibre is wood fibre recovered from both pre- and post-consumer wood waste for use in woodbased panel production. It comprises wood originally grown in the UK and wood originally grown in forests outside the UK.
4. Quantities are as delivered, with an assumed average moisture content of 25%. To convert to green tonnes (assuming moisture content of 52%), multiply by 1.56.

Figure 2.4 Inputs to wood-based panel mills



Source: Wood Panel Industries Federation.

Note:

- 1. Recycled wood fibre data not available before 1999.



## 2.6.2 Production of wood-based panel products

Total production of wood-based panels in 2020 was 3.0 million m<sup>3</sup>, a 9% decrease from 2019 (Table 2.23). Four fifths (78%) of wood-based panel products produced in the UK in 2020 were particleboard (including oriented strand board (OSB)).

The marked decrease between 2011 and 2012 largely results from the closure of a panel mill in 2012.

Table 2.23 Wood-based panel production, 2011-2020

Year	thousand m <sup>3</sup>		
	Particleboard <sup>1</sup>	Fibreboard <sup>2</sup>	Total
2011	2,625	759	3,384
2012	2,215	788	3,003
2013	2,276	756	3,032
2014	2,319	749	3,068
2015	2,324	756	3,080
2016	2,349	684	3,033
2017	2,501	675	3,176
2018	2,355	724	3,079
2019	2,495	751	3,246
2020	2,296	656	2,952

Source: Wood Panel Industries Federation

Notes:

1. Includes Oriented Strand Board (OSB).
2. Includes Medium Density Fibreboard (MDF).
3. Changes in the mix of materials used and type of product produced can result in apparent discrepancies between the trends for inputs (Table 2.22) and production.

## 2.7 Miscellaneous products

### Softwood

Data for softwood fencing are obtained from the Survey of Round Fencing Manufacturers. Figures for other uses are reported by manufacturers or are estimated by representatives of the wood processing industries.

1.9 million green tonnes of UK softwood were estimated to have been used directly for woodfuel (including biomass energy) in 2020, a 3% decrease from the previous year (Table 2.24). A further 257 thousand green tonnes of UK softwood were consumed by round fencing manufacturers and 188 thousand green tonnes for other uses in 2020.

Table 2.24 Miscellaneous uses of UK softwood roundwood, 2011-2020

thousand green tonnes

Year	Fencing	Woodfuel <sup>1</sup>	Other <sup>1</sup>	Total
2011	363	900	145	1,408
2012	338	1,000	154	1,492
2013	332	1,250	191	1,773
2014	317	1,500	176	1,992
2015	288	1,600	164	2,052
2016	277	1,550	178	2,006
2017	283	1,600	170	2,053
2018	255	1,900	174	2,329
2019	262	1,900	183	2,346
2020	257	1,850	188	2,294

Source: Survey of Round Fencing Manufacturers, industry associations

Notes:

1. Woodfuel derived from stemwood. Includes estimates of roundwood use for biomass energy. The figures are estimated by the Expert Group on Timber and Trade Statistics, and make use of wood fuel data reported in the Private Sector Softwood Removals Survey.
2. Includes shavings and poles. Quantities for some uses are estimates by the Expert Group on Timber and Trade Statistics.

## Hardwood

An estimated 700 thousand green tonnes of UK hardwood were used for woodfuel (including biomass energy) in 2020. A further 30 thousand green tonnes were estimated to have been consumed by round fencing manufacturers and 36 thousand green tonnes for other uses, including exports.

### 2.7.1 Softwood round fencing manufacturers

There were 45 active round fencing manufacturers in 2020 (Table 2.25).

Just over two thirds of round fencing manufacturers (67%) consumed less than 5 thousand green tonnes of softwood annually.

**Table 2.25 Number of softwood round fencing manufacturers by size category<sup>1</sup>, 2011-2020**

<b>Year</b>	<b>&lt; 1</b>	<b>1 - &lt; 5</b>	<b>5 - &lt; 10</b>	<b>10 +</b>	<b>Total</b>
2011	21	24	10	8	63
2012	21	21	11	7	60
2013	20	22	11	7	60
2014	18	21	10	7	56
2015	15	19	10	6	50
2016	17	16	11	6	50
2017	16	17	9	7	49
2018	15	15	10	6	46
2019	14	16	10	6	46
2020	15	15	9	6	45

Source: Survey of Round Fencing Manufacturers

Notes:

1. Categories are based on total softwood consumption, in thousand green tonnes.

Longer time series of roundwood purchased by round fencing manufacturers, by size category and by country (England/ Wales/ Scotland/ Northern Ireland) are available from the Data downloads web page at: [www.forestresearch.gov.uk/tools-and-resources/statistics/data-downloads/](http://www.forestresearch.gov.uk/tools-and-resources/statistics/data-downloads/).

## 2.7.2 Roundwood purchased by softwood round fencing manufacturers

A total of 278 thousand green tonnes of softwood (UK grown and imported) was purchased by softwood fencing manufacturers in 2020 (Table 2.26). This represents a decrease of 4% from the 2019 total of 288 thousand green tonnes.

Table 2.26 Total roundwood purchased<sup>2</sup> by size category<sup>1</sup> of softwood round fencing manufacturers, 2011-2020

Year	thousand green tonnes				
	< 1	1 - < 5	5 - < 10	10 +	Total
2011	8	65	60	250	383
2012	8	57	69	226	360
2013	7	57	79	204	346
2014	7	54	74	201	335
2015	6	46	79	185	316
2016	7	41	78	177	303
2017	6	45	71	185	307
2018	6	37	71	162	276
2019	6	40	76	166	288
2020	6	36	69	166	278

Source: Survey of Round Fencing Manufacturers

Notes:

1. Categories are based on total softwood consumption, in thousand green tonnes.
2. This table includes purchases of both UK grown and imported softwood, whereas table 2.24 relates to UK grown softwood only.

Longer time series of roundwood purchased by round fencing manufacturers, by size category and by country (England/ Wales/ Scotland/ Northern Ireland) are available from the Data downloads web page at: [www.forestresearch.gov.uk/tools-and-resources/statistics/data-downloads/](http://www.forestresearch.gov.uk/tools-and-resources/statistics/data-downloads/).

## 2.8 Exports

UK softwood exports in 2020 consisted of 110 thousand green tonnes of sawlogs and 29 thousand green tonnes of industrial roundwood (excluding sawlogs), giving a total of 140 thousand green tonnes of roundwood (Table 2.27). The quantity of softwood roundwood exports decreased by 30% between 2019 and 2020.

The UK also exported 55 thousand tonnes of softwood chips in 2020, a 49% decrease from the previous year.

Table 2.27 Summary of softwood exports

thousand green tonnes

Year	Industrial roundwood <sup>1</sup>	Roundwood sawlogs	Total roundwood	Chips
2011	415	171	585	158
2012	405	130	535	142
2013	379	260	640	126
2014	228	209	437	151
2015	75	202	276	86
2016	48	183	231	51
2017	124	207	331	92
2018	67	197	264	112
2019	46	154	201	109
2020	29	110	140	55

Source: industry associations

Notes:

1. Includes all roundwood other than sawlogs.

## 2.9 Certification

Forest certification assesses forest management practices against an agreed standard and awards a label to those forest products that meet the standard. In order for products to achieve certification, both [forest management practices and the Chain of Custody](#), which tracks timber from forest to retail outlet, must be assessed.

The following tables provide information on the level of certified wood produced in the UK (Table 2.28) and the number of sawmills and round fencing manufacturers holding Chain of Custody certificates (Table 2.29).

Estimates of the certified softwood removals in the UK by country, are also provided (Table 2.28a). As these figures are relatively new and the quality of data at this level is still improving, these estimates are currently labelled as experimental statistics.

Information on areas of certified woodland is provided in Chapter 1.

## 2.9.1 Volume certified

67% of private sector softwood removals in 2020 were from certified woodlands (Table 2.28). The percentage of private sector softwood removals that are certified has fluctuated over recent years; industry experts have indicated a general reduction in the level of certification amongst smaller estates and an increase in production from larger estates.

As nearly all removals from Forestry England, Forestry and Land Scotland, Natural Resources Wales and Forest Service woodland are certified, this equates to around 82% of all softwood removals in 2020 from certified sources.

78% of sawmills' roundwood consumption in 2020 was certified. For round fencing manufacturers, 64% of total softwood consumption was certified.

**Table 2.28 Per cent of volume certified, 2011-2020**

Year	per cent certified volume			
	Softwood removals from Private sector woodland	Total softwood removals <sup>1</sup>	Consumption (softwood and hardwood) by sawmills	Consumption (softwood) by round fencing manufacturers
2011	72	85	80	61
2012	70	84	81	60
2013	76	87	83	55
2014	72	84	80	69
2015	69	83	80	71
2016	66	82	81	70
2017	75	86	79	71
2018	71	82	78	61
2019	65	79	77	69
2020	67	82	78	64

Source: industry surveys

Notes:

1. Includes all removals from FE/FLS/NRW/FS woodland.

Experimental statistics providing a country breakdown of softwood removals from certified woodlands in 2020 indicate that 88% of softwood removals from woodlands in Wales were certified, 87% from Northern Ireland, 85% from Scotland and 67% from England.

Table 2.28a Per cent of volume certified by country<sup>1</sup>: softwood removals, 2020

Country	per cent certified volume	
	Softwood removals from Private sector woodland	Total softwood removals <sup>2</sup>
England	33	67
Wales	74	88
Scotland	75	85
Northern Ireland	17	87
UK	67	82

Source: Forestry England (FE), Forestry and Land Scotland (FLS), Natural Resources Wales (NRW), Forest Service (FS), Private Sector Softwood Removals Survey

Notes:

1. These figures are currently experimental statistics.
2. Includes all removals from FE/FLS/NRW/FS woodland.



## 2.9.2 Chain of custody certificates

Sawmills and round fencing manufacturers were also asked whether they held a Chain of Custody certificate. 74% of sawmills for which the certification status was known held a Chain of Custody certificate in 2020 (Table 2.29). This proportion varied with size of mill, from 10% for mills producing less than 5 thousand m<sup>3</sup> sawnwood to 100% for those producing 25 thousand m<sup>3</sup> sawnwood or more. Around two thirds (69%) of round fencing manufacturers for which the certification status was known held a Chain of Custody certificate.

Table 2.29 Chain of custody certificates, 2020

Mills	number of mills			
	Mills holding certificate	Mills without certificate	Certification status not known <sup>1</sup>	Total <sup>1</sup>
<b>Sawmills<sup>2</sup> (size of mill<sup>3</sup>)</b>				
< 5	1	9	77	87
5 - < 25	10	4	17	31
25 +	26	0	3	29
<b>All sawmills</b>	<b>37</b>	<b>13</b>	<b>97</b>	<b>147</b>
Round fencing manufacturers	9	4	32	45

Source: industry surveys

Notes:

1. Includes non-respondents to survey in current year.
2. For large sawmills (those producing at least 25 thousand m<sup>3</sup>) that did not report whether or not they held a certificate or did not respond to the 2020 survey, the certification status was obtained from the FSC database, where possible.
3. Categories are based on total sawnwood production (softwood and hardwood), in thousand m<sup>3</sup>.

## 2.10 Woodfuel and pellets

Wood from various sources can be used for fuel, including roundwood, chips and sawdust from wood processing, specific products such as pellets and briquettes, and recycled wood.

The following pages provide data on:

- recycled wood used for woodfuel (Table 2.30 below);
- woodfuel supply by sawmills and round fencing manufacturers (Table 2.31);  
and
- wood pellet production (Table 2.32) and feedstock (Table 2.33).

In addition, estimates of roundwood used directly for woodfuel are provided in tables 2.5 and 2.6.

## 2.10.1 Recycled wood used for woodfuel

Estimates of recycled wood used for woodfuel have been obtained from the Wood Recyclers' Association. In 2020, it is estimated that around 2.5 million tonnes of recycled wood were used for woodfuel, similar to the level in 2019.

Table 2.30 Recycled wood used for woodfuel<sup>1</sup>, 2011-2020

million tonnes

Year	Total
2011	0.59
2012	0.76
2013	0.83
2014	1.34
2015	1.45
2016	1.55
2017	1.66
2018	2.17
2019	2.49
2020	2.48

Source: Wood Recyclers Association

Notes:

1. Post consumer recovered wood, comprising wood originally grown in the UK and wood originally grown in forests outside the UK.
2. Figures from 2014 relate to capacity, rather than consumption.
3. Quantities are as delivered, with an assumed average moisture content of 25%. To convert to green tonnes (assuming moisture content of 52%), multiply by 1.56.

These figures are outside the scope of National Statistics.

## 2.10.2 Woodfuel supply by sawmills and round fencing manufacturers

An estimated 776 thousand green tonnes (mainly softwood) of woodfuel were supplied by sawmills in 2020 and a further 79 thousand green tonnes were supplied by round fencing manufacturers (Table 2.31). Almost three quarters (72%) of the total woodfuel supplied was sold to bioenergy.

Table 2.31 Woodfuel supply<sup>1</sup> by sawmills and round fencing manufacturers, 2016-2020

thousand green tonnes

Mill type	Sales to bioenergy	Sales as firewood	Used internally for heat/ energy	Total
<b>Sawmills</b>				
2016	581	14	65	660
2017	620	15	96	731
2018	633	7	152	792
2019	533	17	206	757
2020	573	23	180	776
<b>Round fencing manufacturers</b>				
2016	57	7	1	65
2017	55	7	3	66
2018	52	8	4	65
2019	43	10	25	77
2020	43	10	27	79

Source: Sawmill Survey, Survey of Round Fencing Manufacturers

Notes:

1. Material reported as sales/use for woodfuel, but may have been used for other purposes.

### 2.10.3 Wood pellets

Wood pellets and briquettes are processed wood products that can be made from roundwood, sawmill products and/or recycled wood. Some of the wood used to make wood pellets and briquettes will be accounted for elsewhere in this release (e.g. in Tables 2.30 and 2.31). Wood pellets and briquettes are often used for woodfuel, but pellets may also be used for other purposes (such as horse bedding or cat litter).

A total of 271 thousand tonnes of wood pellets and briquettes are estimated to have been produced in the UK in 2020. This represents a 9% decrease from the 2019 estimate of 298 thousand tonnes.

Table 2.32 Wood pellet feedstock, 2011-2020

thousand tonnes

<b>Year</b>	<b>Total</b>
2011	244
2012	278
2013	301
2014	354
2015	343
2016	329
2017	287
2018	279
2019	298
2020	271

Source: Survey of UK Pellet and Briquette Production

A total of 590 thousand tonnes of feedstock was used to produce wood pellets in the UK in 2020, a 4% increase from the total for 2019 (Table 2.33).

The overall increase in feedstock reflects a change in the composition of pellets. Roundwood rose by 10% in the latest year and accounted for 57% of the feedstock in 2020 (up from 54% in 2019). Correspondingly, there was a 5% decrease in sawmill products and other feedstock.

**Table 2.33 Wood pellet feedstock, 2016-2020**

thousand tonnes<sup>2</sup>

<b>Year</b>	<b>Roundwood</b>	<b>Sawmill products<sup>1</sup></b>	<b>Total</b>
2016	377	320	697
2017	354	295	648
2018	453	226	679
2019	307	263	570
2020	339	251	590

Source: Survey of UK Pellet and Briquette Production

Note:

1. May also include wood from other sources (e.g. energy crops, arboriculture arisings and recycled wood).
2. Tonnes as delivered.

## 2.11 Experimental statistics on preservative treatment of sawnwood and round fencing

In 2020, a new question on the use of preservative treatment was added to both the Sawmill Survey and the Survey of Round Fencing Manufacturers.

In an effort to improve our statistics, the results from this initial data collection have been included in this release as Experimental Statistics and any feedback on the quality of the data or on potential scope for improvements is welcome.

42% of sawnwood and 77% of round fencing produced in the UK that was reported by respondents to the 2020 surveys was preservative treated. In addition, 27% of the preservative treated sawnwood and 92% of the preservative treated round fencing was suitable for use in ground contact.

Table 2.34 Preservative treatment of sawnwood and round fencing produced in the UK, 2020

Preservative treatment	Sawnwood	Round fencing
Percent of total production that was preservative treated	42%	77%
Percent of preservative treated production that was suitable for use in ground contact	27%	92%

Source: Sawmill Survey, Survey of Round Fencing Manufacturers

Note:

1. These figures are currently experimental statistics.
2. Figures relate to respondents to the 2020 surveys only. Respondents accounted for 2.9 million m<sup>3</sup> of sawnwood and 58 thousand green tonnes of round fencing produced in the UK in 2020.

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