

Forestry Statistics 2021

Chapter 1: Woodland Area & Planting

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Introduction

This chapter contains information on:

- UK woodland area;
- certified woodland area;
- areas of new planting and restocking; and
- felling.

Estimates for England, Wales, Scotland and Northern Ireland are included in addition to UK totals. International comparisons are provided 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 on woodland area and certified woodland area at March 2021 and on new planting and restocking for the period 2020-2021 were previously published in "Provisional Woodland Statistics: 2021 edition", released on 17 June 2021. Some figures for woodland area at March 2021 and planting in 2020-2021 have been revised from those previously published. For further details on revisions, see the Woodland Areas and Planting section of the Sources chapter.

A copy of all woodland area and planting tables, along with longer time series (where available) can be accessed in spreadsheet format from the Data Downloads web page at www.forestresearch.gov.uk/statistics/data-downloads/.

Key findings

The main findings are:

- The area of woodland in the UK at 31 March 2021 is estimated to be 3.2 million hectares. This represents 13% of the total land area in the UK, 10% in England, 15% in Wales, 19% in Scotland and 9% in Northern Ireland.
- Of the total UK woodland area, 0.86 million hectares (27%) is owned or managed by Forestry England, Forestry and Land Scotland, Natural Resources Wales or the Northern Ireland Forest Service.
- The total certified woodland area in the UK at 31 March 2021 is 1.41 million hectares, including all Forestry England/ Forestry and Land Scotland/ Natural Resources Wales/ Forest Service woodland. Overall, 44% of the UK woodland area is certified.
- 13.3 thousand hectares of new woodland were created in the UK in 2020-2021, with conifers accounting for 55% of this area.

1.1 Woodland Area

Woodland is defined in UK forestry statistics as land under stands of trees with a minimum area of 0.5 hectares (0.1 hectares in Northern Ireland) and a canopy cover of at least 20%, or having the potential to achieve this. The definition relates to land use, rather than land cover, so integral open space and felled areas that are awaiting restocking are included as woodland. Further information, including how this UK definition compares with the international definition of woodland, is provided in the Sources chapter.

Statistics on woodland area are used to inform government policy and resource allocation, to provide context to UK forestry and land management issues and are reported to international organisations. They are also used in the compilation of natural capital accounts.

Increases in woodland area result from the creation of new woodland. This can be achieved through new planting or by natural colonisation of trees. Further information is available in the section on new planting.

Decreases in woodland area result from the conversion of woodland to other land uses. Regulatory approval is usually required before trees can be felled. Felling approval will normally require the area to be restocked, but there are some cases in which trees may be permanently removed, generally for environmental reasons. The permanent removal of trees may also be authorised under planning regulations, to enable development.

Most public sector woodland is managed by Forestry England (FE), Forestry and Land Scotland (FLS), Natural Resources Wales (NRW) and the Forest Service (FS) in Northern Ireland. Other public sector woodland (e.g. owned by local authorities) is included with privately owned woodland as "private sector" in this release.

The Natural Resources Wales woodland areas relate to the Welsh Government Woodland Estate. There is approximately 900 hectares of woodland on National

Nature Reserves and other land managed by Natural Resources Wales that is not included in the Natural Resources Wales figures.

1.1.1 Area of Woodland: 2021

The area of woodland in the UK at 31 March 2021 is estimated to be 3.2 million hectares (Table 1.1). Of this total, 1.5 million hectares (46%) is in Scotland, 1.3 million hectares (41%) is in England, 0.3 million hectares (10%) is in Wales and 0.1 million hectares (4%) is in Northern Ireland.

0.86 million hectares of woodland in the UK (27%) is owned or managed by Forestry England, Forestry and Land Scotland, Natural Resources Wales or the Forest Service (in Northern Ireland).

Conifers account for around one half (51%) of the UK woodland area, although this proportion varies from around one quarter (26%) in England to around three quarters (74%) in Scotland.

Table 1.1 Area of woodland by ownership & forest type at 31 March 2021

Forest type & ownership ^{1,2}	England	Wales	Scotland	Northern Ireland	UK
Conifers					
FE/FLS/NRW/FS	150	96	426	55	728
Private sector woodland	192	56	662	8	917
Total	342	152	1,088	64	1,645
Broadleaves ⁵					
FE/FLS/NRW/FS	62	19	41	7	129
Private sector woodland	917	140	350	48	1,455
Total	979	158	392	55	1,584
Total					
FE/FLS/NRW/FS	212	115	467	62	856
Private sector woodland	1,109	195	1,012	56	2,372
Total	1,320	310	1,480	119	3,229

Source: Forestry Commission, Forestry England, Scottish Forestry, Forestry and Land Scotland, Natural Resources Wales, Forest Service, National Forest Inventory.

Notes:

- 1. FE: Forestry England, FLS: Forestry and Land Scotland, NRW: Natural Resources Wales, FS: Forest Service (Northern Ireland). NRW estimates only relate to the Welsh Government Woodland Estate (WGWE).
- 2. Private sector: all other woodland. Includes woodland managed by NRW outside the WGWE, other publicly owned woodland (e.g. owned by local authorities) and privately-owned woodland.
- 3. Figures for England, Wales and Scotland are based on data obtained from the National Forest Inventory and adjusted for new planting, but at present no adjustment is made for woodland recently converted to another land use. Further information on how the figures have been estimated is available in the Annex.
- 4. Figures for Northern Ireland are obtained from the Northern Ireland Woodland Register.
- 5. Broadleaves include coppice and coppice with standards.

1.1.2 Area of Woodland: changes over time

The 3.2 million hectares of woodland in the UK in 2021 (Table 1.1) represents 13% of the total land area. This comprises 10% in England, 15% in Wales, 19% in Scotland and 9% in Northern Ireland (Table 1.2).

Table 1.2 Woodland area in the United Kingdom

percent of land area1

Year	England	Wales	Scotland	Northern Ireland	UK
1086 ²	~15				
c1350 ²	~10		~4		
17thC ^{2,3}	~8		~4	~1.5	
1905 ³	5.2	4.2	4.5	1.1	4.7
1924	5.1	5.0	5.6	1.0	5.0
1947 ³	5.8	6.2	6.6	1.7	5.9
1965	6.8	9.7	8.4	3.1	7.4
1980	7.3	11.6	11.8	4.9	9.0
1995-99	8.4	13.8	16.4	6.0	11.3
1998 ⁴	9.5	14.4	16.7	6.0	12.0
2021 ^{5,6}	10.1	15.0	19.0	8.6	13.3

Source: Forestry Commission, Forestry England, Scottish Forestry, Forestry and Land Scotland, Welsh Government, Natural Resources Wales, Forest Service, National Forest Inventory.

Notes:

- 1. Percentage of the total surface area excluding inland water. The total surface areas, excluding inland water, are taken from the UK Standard Area Measurements (published by the Office for National Statistics).
- 2. Estimates for England and Scotland before 1905 come from a variety of sources, including the Domesday Survey of England, Scottish Woodland History (TC Smout ed, 1997) and Roy maps c1750.
- 3. For Northern Ireland, 17th century figure is estimate for all Ireland, 1905 figure is estimate for Province of Ulster 1908, 1947 figure assumes no change from 1939-40 Census.

- 4. 1998 figures shown for England, Wales and Scotland have been revised from those originally published to produce estimates that are consistent with subsequent data from the National Forest Inventory.
- 5. Figures for England, Wales and Scotland are based on data obtained from the National Forest Inventory (NFI) and adjusted for new planting, but at present no adjustment is made for woodland recently converted to another land use. Further information on how the figures have been estimated is available in the Sources chapter.
- 6. Figures for Northern Ireland are obtained from the Northern Ireland Woodland Register.
- 7. .. Denotes data not available.

Figure 1.1 shows woodland area by country since 1998. Woodland area in the UK has risen by around 300 thousand hectares since 1998, an increase of 11% over the period.

Figure 1.1 Area of woodland, 1998-2021

Source: Forestry Commission, Forestry England, Scottish Forestry, Forestry and Land Scotland, Welsh Government, Natural Resources Wales, Forest Service, National Forest Inventory.

Notes:

- Woodland areas for England, Wales and Scotland shown in this figure are based on data from the National Forest Inventory. The trends shown take account of areas of new planting and identifiable permanent woodland loss. Areas of woodland loss that are not yet identifiable (e.g. conversion of woodland for the restoration of open habitats) are not accounted for. Further information on the National Forest Inventory is available at www.forestresearch.gov.uk/tools-and-resources/national-forest-inventory/.
- 2. Figures for 1998 to 2009 for England, Wales and Scotland were revised from those initially published, to produce results that are consistent with the National Forest Inventory and enable comparisons over time.

1.1.3 Woodland area by ownership

Forestry England, Forestry and Land Scotland, Natural Resources Wales and the Forest Service in Northern Ireland owned or managed 27% of the total woodland area in the UK in 2021 (Table 1.3). This proportion ranged from 16% of the woodland area in England to 53% in Northern Ireland.

Table 1.3 Area of woodland in the UK by ownership, 2017-2021

thousand hectares

Ownership	England	Wales	Scotland	Northern Ireland	UK
FE/FLS/NRW/FS woodland ¹					
2017	214	117	469	62	863
2018	214	117	470	62	863
2019	215	117	470	62	864
2020	215	117	470	62	864
2021	212	115	467	62	856
Private sector woodland ²					
2017	1,092	191	968	50	2,301
2018	1,093	192	976	50	2,311
2019	1,101	193	989	51	2,334
2020	1,104	193	999	56	2,352
2021	1,109	195	1,012	56	2,372
Total woodland					
2017	1,306	308	1,438	112	3,164
2018	1,307	309	1,446	113	3,175
2019	1,316	310	1,459	113	3,198
2020	1,318	310	1,469	118	3,216
2021	1,320	310	1,480	119	3,229

Source: Forestry Commission, Forestry England, Scottish Forestry, Forestry and Land Scotland, Welsh Government, Natural Resources Wales, Forest Service, National Forest Inventory.

Notes:

- 1. FE: Forestry England, FLS: Forestry and Land Scotland, NRW: Natural Resources Wales, FS: Forest Service (Northern Ireland). NRW estimates only relate to woodland formerly owned/managed by FC Wales.
- 2. Private sector: all other woodland. Includes woodland managed by NRW outside the WGWE, other publicly owned woodland (e.g. owned by local authorities) and privately owned woodland.
- 3. Figures for England, Wales and Scotland are based on data obtained from the National Forest Inventory (NFI) and adjusted for new planting, but at present no adjustment is made for woodland recently converted to another land use. Further information on how the figures have been estimated is available in the Sources chapter.
- 4. Northern Ireland figures are obtained from the Northern Ireland Woodland Register.
- 5. There may be a delay between changes in woodland ownership occurring and the changes being reflected in the statistics.
- 6. Areas as at 31 March.

1.2 Certified woodland area

Certified woodland in the UK has been independently audited against the UK Woodland Assurance Standard. Forestry certification schemes are owned by international non-governmental organisations and exist to promote good forest practice. They offer product labels to demonstrate that wood or wood products come from well-managed forests.

Figures for certified woodland areas are often used as an indicator of sustainable forest management. However, it should be noted that woodland that is not certified may also be managed sustainably.

Most changes to the certified woodland area figures over time are a result of new areas being certified or certificates not being renewed upon expiry. Temporary changes can also occur if there is a time lag between expiry and renewal.

Statistics on certified timber are provided in Chapter 2.

- 1.41 million hectares of woodland in the UK were certified in March 2021 (Table
- 1.4). This represented 44% of the total UK woodland area, 24% in England, 47% in Wales, 60% in Scotland and 55% in Northern Ireland.

Table 1.4 Woodland area certified, March 2021

Ownership	England	Wales	Scotland	Northern Ireland	UK
FE/FLS/NRW/FS woodland ¹	212	115	467	62	856
Private sector woodland ²	103	30	419	3	554
Total woodland area certified	314	145	886	65	1,411

Source: Forest Stewardship Council, Programme for the Endorsement of Forest Certification, Forestry England, Forestry and Land Scotland, Natural Resources Wales, Forest Service. Notes:

- FE: Forestry England, FLS: Forestry and Land Scotland, NRW: Natural Resources Wales, FS: Forest Service (Northern Ireland). NRW estimates only relate to the Welsh Government Woodland Estate (WGWE).
- 2. Private sector: all other woodland. Includes woodland managed by NRW outside the WGWE, other publicly owned woodland (e.g. owned by local authorities) and privately owned woodland.
- 3. Areas as at 31 March 2021.
- 4. All certified woodland in 2021 is certified under the Forest Stewardship Council (FSC) scheme or the Programme for the Endorsement of Forest Certification (PEFC) scheme, with many woodlands certified under both schemes.
- 5. The estimates are based on UK data published by FSC and PEFC, supplemented by data from individual certificates and other sources. Where possible, figures are for the woodland area certified, rather than the land area certified.
- 6. All Forestry England/Forestry and Land Scotland/ Natural Resources Wales WGWE/Forest Service woodland is certified. The Forestry England/Forestry and Land Scotland/ Welsh Government Woodland Estate /Forest Service areas are the latest areas, as shown in Table 1.1, rather than the areas shown on certificates.

Data: Longer time series of the above table are available from the Data Downloads webpage.

Figure 1.2 presents certified woodland area by country since December 2001. This shows an increase in certified woodland area of around 350 thousand hectares (33%) since December 2001, with most of this increasing occurring in the early 2000s.

The 1.41 million hectares of certified woodland in the UK at March 2021 represents a 1% increase on the previous year.

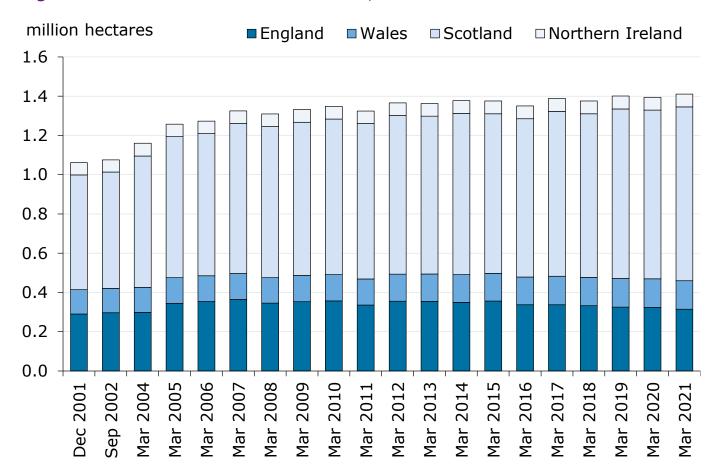


Figure 1.2 Area of certified woodland, 2001-2021

Source: Forest Stewardship Council, Programme for the Endorsement of Forest Certification, Forestry England, Forestry and Land Scotland, Natural Resources Wales, Forest Service. Notes:

- 1. All certified woodland is certified under the Forest Stewardship Council (FSC) scheme or the Programme for the Endorsement of Forest Certification (PEFC) scheme, with many woodlands certified under both schemes.
- 2. The estimates are based on UK data published by FSC and PEFC, supplemented by data from individual certificates and other sources. Where possible, figures are for the woodland area certified, rather than the land area certified.
- 3. Figures for earlier years were revised for consistency with results from the National Forest Inventory.

1.3 Land use

Not all land that is owned or managed by Forestry England, Forestry and Land Scotland, Natural Resources Wales and the Forest Service in Northern Ireland is woodland; other land uses include agricultural land, mountain areas and moorland.

The woodland areas and land areas shown for Natural Resources Wales relate to the Welsh Government Woodland Estate. There is approximately 900 hectares of woodland on National Nature Reserves and other land managed by Natural Resources Wales that is not included in the Natural Resources Wales figures.

Woodland accounted for 79% of all Forestry England/ Forestry and Land Scotland/ Natural Resources Wales/ Forest Service Northern Ireland land in the UK at 31 March 2021 (Table 1.5). This proportion was highest in Wales (93%) and lowest in Scotland (74%).

Table 1.5 Land use of FE, FLS, NRW and FS¹, 2017-2021

Land use	England	Wales	Scotland	Northern Ireland	UK
Woodland					
2017	214	117	469	62	863
2018	214	117	470	62	863
2019	215	117	470	62	864
2020	215	117	470	62	864
2021	212	115	467	62	856
Other Land ²					
2017	39	7	169	13	227
2018	39	6	169	13	227
2019	38	6	164	13	221
2020	38	6	164	13	221
2021	41	6	168	13	228
Total land area					
2017	253	124	638	75	1,090
2018	253	123	639	75	1,090
2019	253	123	634	75	1,085
2020	253	123	634	75	1,085
2021	253	121	636	75	1,085

Source: Forestry England, Forestry and Land Scotland, Natural Resources Wales, Forest Service. Notes:

- FE: Forestry England, FLS: Forestry and Land Scotland, NRW: Natural Resources Wales, FS: Forest Service (Northern Ireland). NRW estimates only relate to the Welsh Government Woodland Estate (WGWE).
- 2. "Other land" includes agricultural land and areas of moorland and mountain.
- 3. There may be a delay between changes in woodland ownership occurring and the changes being reflected in the statistics.
- 4. The reduction in the area of public woodland in Wales relates to a change in how institutional arrangements for land around Lake Vyrnwy are accounted for. See note 9, page 105 of Natural Resources Wales Annual Accounts 2018/19 for further information on the status of this land.
- 5. Areas as at 31 March.

1.4 National Forest Inventory

This section contains interim results from the National Forest Inventory (NFI). The statistics are based on field survey data combined with information from the NFI woodland map, which is a spatial representation of woodland areas in Great Britain.

Figures presented in this chapter are interim estimates at 31 March 2012, published in the NFI "50-year forecast of softwood timber availability" and "50-year forecast of hardwood timber availability" reports, released in April 2014. Both reports are available at www.forestresearch.gov.uk/tools-and-resources/national-forest-inventory/.

The figures presented in Tables 1.6 to 1.9 (and Figures 1.3, 1.4a and 1.4b) relate to stocked areas. These differ from the woodland areas presented in earlier tables, as stocked areas exclude felled areas and (for private sector land) areas of integral open space.

The figures on growing stock presented in Tables 1.10 and 1.11 form the basis for the softwood and hardwood availability forecasts (see Tables 2.4a and 2.4b).

Further information on the National Forest Inventory is available at www.forestresearch.gov.uk/tools-and-resources/national-forest-inventory/.

1.4.1 Woodland area by age: conifers

Table 1.6 presents the area of conifers, broken down by age class, ownership and country.

61% of the coniferous woodland area in Great Britain was occupied by stands of 40 years old or younger (Table 1.6c). A further 9% of stands were aged over 60 years.

Table 1.6a Stocked woodland area in GB under FE/ FLS/ NRW ownership by age class: conifers

Age class (years)	England	Wales	Scotland	Great Britain
0-20	33	24	76	134
21-40	38	25	145	208
41-60	39	25	111	176
61-80	12	7	25	44
81-100	4	1	6	11
100+	1	0	3	4
All age classes	128	82	367	576

See table 1.6c for information on sources and notes.

Table 1.6b Stocked woodland area in GB under private sector ownership by age class: conifers

thousand hectares

Age class (years)	England	Wales	Scotland	Great Britain
0-20	17	8	126	151
21-40	54	22	231	306
41-60	83	15	116	214
61-80	19	1	18	38
81-100	3	2	6	11
100+	3	1	9	12
All age classes	179	47	505	732

See table 1.6c for information on sources and notes.

Table 1.6c Total stocked woodland area in GB by age class: conifers thousand hectares

Age class (years)	England	Wales	Scotland	Great Britain
0-20	51	32	202	285
21-40	92	46	376	514
41-60	123	39	227	389
61-80	31	8	43	82
81-100	7	2	12	22
100+	3	1	12	16
All age classes	307	129	872	1,308

Source (table 1.6a, 1.6b & 1.6c): National Forest Inventory: 50-year forecast of softwood availability (Forestry Commission, April 2014), (supporting data).

Notes:

- 1. FE: Forestry England, FLS: Forestry and Land Scotland, NRW: Natural Resources Wales. NRW estimates only relate to the Welsh Government Woodland Estate (WGWE).
- 2. Private sector: all other woodland. Includes woodland managed by NRW outside the WGWE, other publicly owned woodland (e.g. owned by local authorities) and privately-owned woodland.
- 3. Stocked area only: excludes felled areas and (for private sector land) open space.
- 4. Areas at 31 March 2012.

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

1.4.2 Woodland area by age: broadleaves

Table 1.7 presents the area of broadleaves, broken down by age class, ownership and country.

Around one half (53%) of the broadleaved area was occupied by stands of 40 years old or younger (Table 1.7c). More than one quarter (28%) of stands were aged over 60 years.

Table 1.7a Stocked woodland area in GB under FE/ FLS/ NRW¹ ownership by age class: broadleaves

Age class (years)	England	Wales	Scotland	Great Britain
0-20	8	7	11	25
21-40	6	2	5	13
41-60	13	2	4	19
61-80	13	2	4	19
81-100	4	1	2	7
100+	10	3	5	18
All age classes	54	16	32	102

See table 1.7c for information on sources and notes.

Table 1.7b Stocked woodland area in GB under private sector² ownership by age class: broadleaves

thousand hectares

Age class (years)	England	Wales	Scotland	Great Britain
0-20	217	30	84	332
21-40	227	33	84	344
41-60	145	22	58	225
61-80	117	15	22	154
81-100	92	11	9	112
100+	51	10	7	67
All age classes	849	121	265	1,235

See table 1.7c for information on sources and notes.

Table 1.7c Total stocked woodland area in GB by age class: broadleaves thousand hectares

Age class (years)	England	Wales	Scotland	Great Britain
0-20	225	37	95	357
21-40	232	36	90	357
41-60	157	24	63	244
61-80	130	17	26	173
81-100	97	12	11	119
100+	61	12	12	85
All age classes	902	137	297	1,337

Source (table 1.7a, 1.7b & 1.7c): National Forest Inventory: 50-year forecast of hardwood availability (Forestry Commission, April 2014), (supporting data).

Notes:

- 1. FE: Forestry England, FLS: Forestry and Land Scotland, NRW: Natural Resources Wales. NRW estimates only relate to the Welsh Government Woodland Estate (WGWE).
- 2. Private sector: all other woodland. Includes woodland managed by NRW outside the WGWE, other publicly owned woodland (e.g. owned by local authorities) and privately-owned woodland.
- 3. Stocked area only: excludes felled areas and (for private sector land) open space.
- 4. Areas at 31 March 2012.

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

1.4.3 Woodland area by age: Summary.

Figure 1.3 presents the age profile of woodland in Great Britain for conifers and for broadleaves. It shows that broadleaves are more evenly distributed across the age classes than conifers.

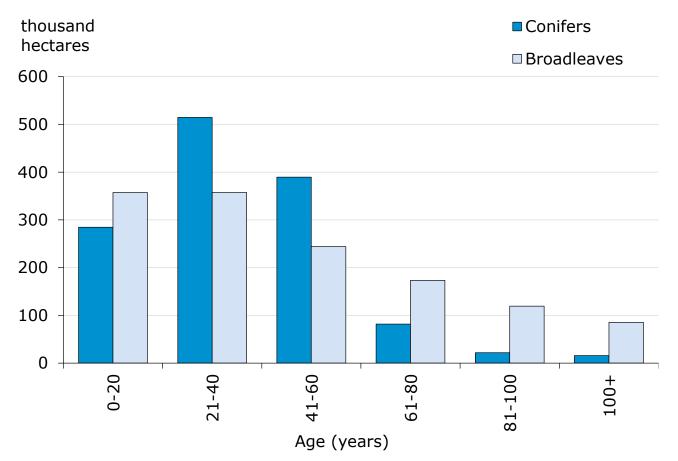


Figure 1.3 Age profile of woodland in GB

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

Notes:

- 1. Stocked area only: excludes felled areas and (for private sector land) open space.
- 2. Areas at 31 March 2012.

1.4.4 Woodland area by species: conifers

Table 1.8 presents the area of conifers, broken down by principal species, ownership and country.

Sitka spruce accounts for around one half (51%) of the conifer area in Great Britain (Table 1.8c), followed by Scots pine (17%) and larches (10%). Sitka spruce is less dominant in England, accounting for just one quarter (26%) of the conifer area there.

Table 1.8a Stocked woodland area in GB under FE/FLS/NRW¹ ownership by principal species: conifers

thousand hectares

Principal species	England	Wales	Scotland	Great Britain
Sitka spruce	49	50	225	323
Scots pine	17	2	45	64
Corsican pine	27	2	2	30
Norway spruce	7	5	11	23
Larches	10	12	26	48
Douglas fir	10	5	5	20
Lodgepole pine	4	3	49	56
Other conifers	5	3	3	11
All conifers	128	82	367	576

See table 1.8c for information on sources and notes.

Table 1.8b Stocked woodland area in GB under private sector² ownership by principal species: conifers

Principal species	England	Wales	Scotland	Great Britain
Sitka spruce	32	27	282	341
Scots pine	45	1	109	154
Corsican pine	14	0	1	15
Norway spruce	21	3	15	38
Larches	30	8	39	78
Douglas fir	15	3	7	25
Lodgepole pine	3	1	39	44
Other conifers	19	2	8	29
All conifers	179	47	505	732

See table 1.8c for information on sources and notes.

Table 1.8c Total stocked woodland area in GB by principal species: conifers

thousand hectares

Principal species	England	Wales	Scotland	Great Britain
Sitka spruce	80	77	507	665
Scots pine	61	3	154	218
Corsican pine	40	2	3	46
Norway spruce	27	8	25	61
Larches	40	20	66	126
Douglas fir	25	9	12	46
Lodgepole pine	8	4	88	100
Other conifers	24	5	11	40
All conifers	307	129	872	1,308

Source (table 1.8a, 1.8b & 1.8c): National Forest Inventory: 50-year forecast of softwood availability (Forestry Commission, April 2014).

Notes:

- 1. FE: Forestry England, FLS: Forestry and Land Scotland, NRW: Natural Resources Wales. NRW estimates only relate to the Welsh Government Woodland Estate (WGWE).
- 2. Private sector: all other woodland. Includes woodland managed by NRW outside the WGWE, other publicly owned woodland (e.g. owned by local authorities) and privately-owned woodland.
- 3. Stocked area only: excludes felled areas and (for private sector land) open space.
- 4. Areas at 31 March 2012.

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

1.4.5 Woodland area by species: broadleaves

Table 1.9 presents the area of broadleaves, broken down by principal species, ownership and country.

The most commonly occurring broadleaved species in Great Britain are birch (accounting for 18% of broadleaf woodland), oak (16%) and ash (12%) (Table 1.9c). Birch is more dominant in Scotland, accounting for 43% of the broadleaf area there.

Table 1.9a Stocked woodland area in GB under FE/FLS/NRW¹ ownership by principal species: broadleaves

Principal species	England	Wales	Scotland	Great Britain
Oak	16	3	3	21
Beech	13	2	1	15
Sycamore	1	0	0	2
Ash	3	1	0	4
Birch	6	2	11	19
Sweet chestnut	1	0	0	1
Hazel	0	0	0	1
Hawthorn	0	0	0	0
Alder	1	0	1	1
Willow	0	0	0	0
Other broadleaves	14	9	15	38
All broadleaves	54	16	32	102

See table 1.9c for information on sources and notes.

Table 1.9b Stocked woodland area in GB under private sector² ownership by principal species: broadleaves

Principal species	England	Wales	Scotland	Great Britain
Oak	151	23	23	198
Beech	59	5	15	78
Sycamore	74	9	21	105
Ash	120	18	15	153
Birch	90	11	116	217
Sweet chestnut	28	0	0	28
Hazel	64	14	8	86
Hawthorn	57	8	8	73
Alder	30	10	16	56
Willow	41	11	13	65
Other broadleaves	133	12	29	174
All broadleaves	849	121	265	1,235

See table 1.9c for information on sources and notes.

Table 1.9c Total stocked woodland area in GB by principal species: broadleaves

Principal species	England	Wales	Scotland	Great Britain
Oak	167	26	26	219
Beech	72	6	15	94
Sycamore	75	9	22	106
Ash	123	19	16	157
Birch	96	12	128	236
Sweet chestnut	28	0	0	29
Hazel	65	14	8	87
Hawthorn	57	8	8	73
Alder	31	10	17	58
Willow	41	11	13	65
Other broadleaves	146	21	44	212
All broadleaves	902	137	297	1,337

Source (table 1.9a, 1.9b & 1.9c): National Forest Inventory: 50-year forecast of hardwood availability (Forestry Commission, April 2014).

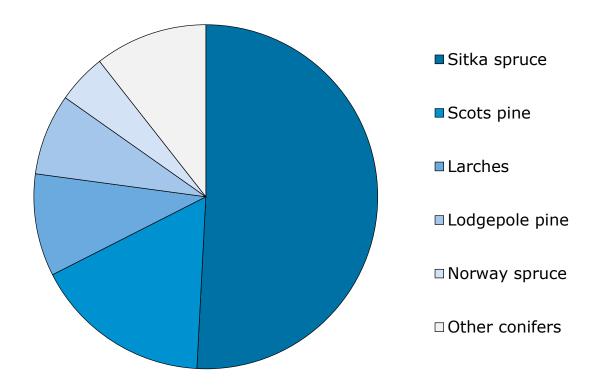
Notes:

- 1. FE: Forestry England, FLS: Forestry and Land Scotland, NRW: Natural Resources Wales. NRW estimates only relate to the Welsh Government Woodland Estate (WGWE).
- 2. Private sector: all other woodland. Includes woodland managed by NRW outside the WGWE, other publicly owned woodland (e.g. owned by local authorities) and privately-owned woodland.
- 3. Stocked area only: excludes felled areas and (for private sector land) open space.
- 4. Areas at 31 March 2012.

1.4.6 Woodland area by species: summary

Figures 1.4a and 1.4b show that, whilst the conifer area is dominated by a small number of species (Sitka spruce and Scots pine together account for around two thirds of the conifer area), broadleaves are more varied.

Figure 1.4a Principal tree species in GB by stocked area: Conifers



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

Notes:

- 1. Stocked area only: excludes felled areas and (for private sector land) open space.
- 2. Areas at 31 March 2012.

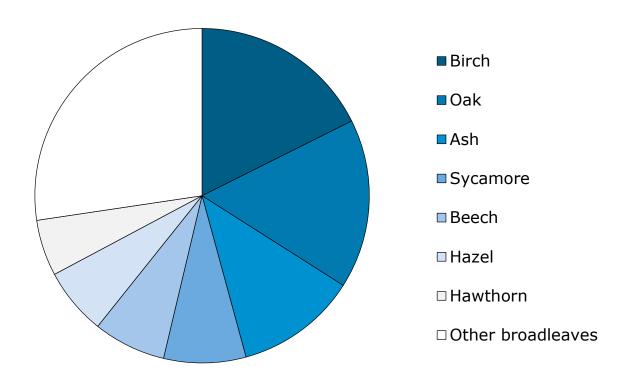


Figure 1.4b Principal tree species in GB by stocked area: Broadleaves

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

Notes:

- 1. Stocked area only: excludes felled areas and (for private sector land) open space.
- 2. Areas at 31 March 2012.

1.4.7 Growing stock by species: conifers

Growing stock is the volume of timber in living trees. It is also often referred to as the standing volume.

Table 1.10 presents the volume of coniferous growing stock, broken down by principal species, ownership and country.

The total volume of coniferous growing stock in Great Britain in 2012 was 355 million m³ overbark standing (Table 1.10c).

Sitka spruce accounted for around one half (51%) of the conifer growing stock, followed by Scots pine (15%) and larches (10%). This largely reflects the distribution of species by area (see Table 1.8c).

Table 1.10a Growing stock in GB under FE/FLS/NRW¹ ownership by principal species: conifers

million m³ overbark standing

Principal species	England	Wales	Scotland	Great Britain
Sitka spruce	8.9	11.1	52.1	72.0
Scots pine	4.0	0.5	8.8	13.3
Corsican pine	5.5	0.6	0.4	6.4
Norway spruce	1.7	1.5	3.5	6.7
Larches	1.7	2.7	4.8	9.2
Douglas fir	2.7	1.3	1.4	5.4
Lodgepole pine	0.8	0.6	8.2	9.6
Other conifers	1.5	1.1	1.0	3.6
All conifers	26.8	19.4	80.2	126.4

See table 1.10c for information on sources and notes.

Table 1.10b Growing stock in GB under private sector² ownership by principal species: conifers

million m³ overbark standing

Principal species	England	Wales	Scotland	Great Britain
Sitka spruce	11.4	9.5	88.0	108.9
Scots pine	14.7	0.3	24.5	39.4
Corsican pine	4.7	0.2	0.3	5.3
Norway spruce	7.1	1.3	5.9	14.4
Larches	10.7	3.3	12.3	26.3
Douglas fir	6.4	1.6	3.5	11.5
Lodgepole pine	1.0	0.3	7.4	8.7
Other conifers	7.6	1.1	3.0	11.7
All conifers	63.7	17.9	146.7	228.4

See table 1.10c for information on sources and notes.

Table 1.10c Total growing stock in GB by principal species: conifers

million m³ overbark standing

Principal species	England	Wales	Scotland	Great Britain
Sitka spruce	20.3	20.6	140.0	180.9
Scots pine	18.6	0.8	33.3	52.7
Corsican pine	10.2	0.8	0.7	11.7
Norway spruce	8.8	2.8	9.4	21.1
Larches	12.4	6.0	17.1	35.6
Douglas fir	9.1	2.9	4.9	16.9
Lodgepole pine	1.8	0.9	15.5	18.3
Other conifers	9.1	2.2	4.1	15.4
All conifers	90.5	37.4	226.9	354.7

Source (table 1.10a, 1.10b & 1.10c): National Forest Inventory: 50-year forecast of softwood availability (Forestry Commission, April 2014).

Notes:

- 1. FE: Forestry England, FLS: Forestry and Land Scotland, NRW: Natural Resources Wales. NRW estimates only relate to the Welsh Government Woodland Estate (WGWE)
- 2. Private sector: all other woodland. Includes woodland managed by NRW outside the WGWE, other publicly owned woodland (e.g. owned by local authorities) and privately-owned woodland.
- 3. Areas at 31 March 2012.

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

1.4.8 Growing stock by species: broadleaves

Table 1.11 presents the volume of broadleaved growing stock, broken down by principal species, ownership and country.

The total volume of broadleaved growing stock in Great Britain in 2012 was 245 million m³ overbark standing (Table 1.11c).

Oak (28%), ash (16%) and beech (12%) accounted for the majority of the broadleaved volume. To some extent, this reflects the distribution of species by area (see Table 1.11c).

Table 1.11a Growing stock in GB under FE/FLS/NRW¹ ownership by principal species: broadleaves

million m³ overbark standing

Principal species	England	Wales	Scotland	Great Britain
Oak	3.3	0.5	0.6	4.4
Beech	2.8	0.4	0.1	3.4
Sycamore	0.1	0.0	0.0	0.2
Ash	0.4	0.1	0.0	0.5
Birch	0.5	0.1	1.7	2.3
Sweet chestnut	0.1	0.0	0.0	0.1
Hazel	0.0	0.0	0.0	0.1
Hawthorn	0.0	0.0	0.0	0.0
Alder	0.1	0.0	0.1	0.2
Willow	0.0	0.0	0.0	0.0
Other broadleaves	1.3	0.8	1.2	3.3
All broadleaves	8.7	1.9	3.9	14.5

See table 1.11c for information on sources and notes.

Table 1.11b Growing stock in GB under private sector² ownership by principal species: broadleaves

million m³ overbark standing

Principal species	England	Wales	Scotland	Great Britain
Oak	51.7	7.7	5.6	65.0
Beech	19.8	1.6	5.2	26.6
Sycamore	16.2	2.4	4.8	23.4
Ash	30.1	6.9	2.8	39.8
Birch	11.3	1.2	8.5	20.9
Sweet chestnut	7.7	0.2	0.0	7.9
Hazel	5.0	0.9	0.4	6.4
Hawthorn	2.8	0.4	0.3	3.4
Alder	6.8	2.1	1.9	10.8
Willow	4.9	0.8	0.9	6.5
Other broadleaves	16.0	1.1	2.6	19.6
All broadleaves	172.3	25.4	32.9	230.6

See table 1.11c for information on sources and notes.

Table 1.11c Total growing stock in GB by principal species: broadleaves million m³ overbark standing

Principal species	England	Wales	Scotland	Great Britain
Oak	55.0	8.1	6.3	69.4
Beech	22.6	2.0	5.3	29.9
Sycamore	16.4	2.4	4.9	23.6
Ash	30.5	7.0	2.8	40.3
Birch	11.8	1.3	10.1	23.2
Sweet chestnut	7.8	0.2	0.0	8.0
Hazel	5.1	0.9	0.5	6.5
Hawthorn	2.8	0.4	0.3	3.4
Alder	6.9	2.2	1.9	11.0
Willow	4.9	0.8	0.9	6.5
Other broadleaves	17.2	1.8	3.8	22.9
All broadleaves	181.0	27.3	36.8	245.1

Source (table 1.11a, 1.11b & 1.11c): National Forest Inventory: 50-year forecast of hardwood availability (Forestry Commission, April 2014).

Notes:

- 1. FE: Forestry England, FLS: Forestry and Land Scotland, NRW: Natural Resources Wales. NRW estimates only relate to the Welsh Government Woodland Estate (WGWE).
- 2. Private sector: all other woodland. Includes woodland managed by NRW outside the WGWE, other publicly owned woodland (e.g. owned by local authorities) and privately-owned woodland.
- 3. Areas at 31 March 2012.

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

1.5 Area of Farm Woodland

Agricultural Censuses run by Defra (Department for Environment, Food and Rural Affairs) and the devolved administrations collect annual information on the land-use of farms. Table 1.12 below shows the area of woodland on farms.

The area of farm woodland in the UK has increased from 0.8 million hectares in 2011 to 1.1 million hectares in 2021 (Table 1.12). Just over one half (51%) of all farm woodland was in Scotland in 2021, with a further 36% in England, 11% in Wales and the remaining 2% in Northern Ireland.

Table 1.12 Area of farm woodland, 2011-2020

thousand hectares

Year	England	Wales	Scotland	Northern Ireland	UK
2011	305	44	426	11	786
2012	308	63	445	11	827
2013	325	63	467	10	865
2014	331	76	479	11	897
2015	348	78	524	11	961
2016	370	89	502	16	978
2017	369	93	560	16	1,037
2018	372	97	532	16	1,016
2019	379	109	529	16	1,033
2020	385	121	546	17	1,069

Source: June Agricultural Census - Defra, The Scottish Government, Welsh Government, Northern Ireland Executive.

- 1. Changes in the area of farm woodland over time indicate a change in the area of farm land that is reported as woodland and do not necessarily indicate a change in woodland area.
- 2. Figures include estimates for farm woodland that is not in receipt of grant aid.

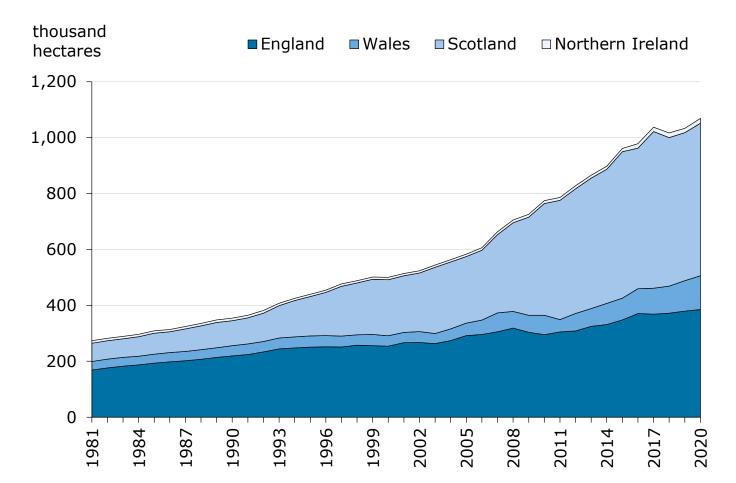


Figure 1.5 Area of farm woodland, 1981-2021

Source: June Agricultural Census - Defra, The Scottish Government, Welsh Government, Northern Ireland Executive.

- 1. Changes in the area of farm woodland over time indicate a change in the area of farm land that is reported as woodland and do not necessarily indicate a change in woodland area.
- 2. Figures include estimates for farm woodland that is not in receipt of grant aid.

1.6 New planting and publicly funded restocking

1.6.1 New planting

New planting is the creation of new areas of woodland by planting trees on land that was not previously woodland. The statistics presented here also include new woodland that is created by natural colonisation of trees (where known). Statistics on new planting are used to inform government policy and resource allocation and are used in producing annual estimates of woodland area.

There are a number of factors that can affect the level of new planting in the UK. These include:

- choices by landowners reflecting their own motivation and needs;
- the costs and availability of land for conversion to woodland;
- the availability of grants for new planting, the level of grant payments available and the awareness of grants among potential recipients;
- the tax benefits available from owning woodland;
- expected future markets for wood products such as timber and woodfuel;
- income from payments for ecosystem services, particularly carbon storage;
- national and local initiatives, for example on biodiversity, green infrastructure and water management.

13.3 thousand hectares of new woodland were created in the UK in 2020-2021 (Table 1.13a). Conifers accounted for 55% of the new planting area in 2020-2021.

Table 1.13a New planting by forest type

thousand hectares

Year (ending 31/3)	England	Wales	Scotland	Northern Ireland	UK
Conifers					
2016-17	0.10	0.17	3.22	0.08	3.56
2017-18	0.24	0.10	4.68	0.11	5.13
2018-19	0.42	0.32	7.27	0.10	8.12
2019-20	0.24	0.04	7.43	0.06	7.77
2020-21	0.18	0.08	6.94	0.07	7.27
Broadleaves					
2016-17	1.05	0.24	1.54	0.13	2.96
2017-18	1.26	0.10	2.46	0.10	3.92
2018-19	1.00	0.35	3.94	0.14	5.42
2019-20	2.10	0.04	3.61	0.14	5.90
2020-21	1.87	0.21	3.72	0.22	6.02
Total					
2016-17	1.15	0.41	4.76	0.21	6.52
2017-18	1.50	0.20	7.14	0.21	9.05
2018-19	1.42	0.67	11.21	0.24	13.54
2019-20	2.34	0.08	11.05	0.20	13.66
2020-21	2.06	0.29	10.66	0.28	13.29

Source: Forestry Commission, Forestry England, Scottish Forestry, Forestry and Land Scotland, Welsh Government, Forest Service, grant schemes.

- 1. Private sector new planting figures are based on grant-supported new planting and (where possible) with estimates for areas planted without grant aid.
- 2. Figures for grant-aided planting relate to areas for which grants were paid during the year.
- 3. Estimates for areas planted without grant aid are believed to be under-reported and, as a result, the reported figures are likely to under-estimate the true level of planting activity. For England, woodland planting funded by sources other than the Countryside Stewardship Woodland Creation Grant, the Woodland Carbon Fund and the HS2 Woodland Fund include planting supported by the Woodland Trust, by the Environment Agency, by Natural England and land acquired by the

National Forest Company. For Scotland, a small amount of new planting without grant aid was included for 2016-17 and 2018-19 to 2019-20.

- 4. The planting season lies both sides of 31 March, and the weather can cause planting to be advanced or delayed.
- 5. Includes woodland formed by natural colonisation (where known).

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

In 2020-2021 most new planting (95%) took place on private sector land (Table 1.13b).

Table 1.13b New planting by ownership

thousand hectares

Year (ending 31/3)	England	Wales	Scotland	Northern Ireland	UK
FC/FLS/NRW/FS					
2016-17	0.02	0.00	1.06	0.00	1.08
2017-18	0.00	0.00	0.87	0.00	0.87
2018-19	0.03	0.00	1.03	0.00	1.06
2019-20	0.10	0.00	0.27	0.05	0.42
2020-21	0.01	0.06	0.57	0.00	0.64
Private sector					
2016-17	1.13	0.41	3.70	0.21	5.45
2017-18	1.50	0.20	6.27	0.21	8.18
2018-19	1.39	0.67	10.19	0.24	12.48
2019-20	2.24	0.08	10.78	0.15	13.24
2020-21	2.04	0.23	10.09	0.28	12.65
Total					
2016-17	1.15	0.41	4.76	0.21	6.52
2017-18	1.50	0.20	7.14	0.21	9.05
2018-19	1.42	0.67	11.21	0.24	13.54
2019-20	2.34	0.08	11.05	0.20	13.66
2020-21	2.06	0.29	10.66	0.28	13.29

Source: Forestry Commission, Forestry England, Scottish Forestry, Forestry and Land Scotland, Welsh Government, Forest Service, grant schemes.

- 1. FE: Forestry England, FLS: Forestry and Land Scotland, NRW: Natural Resources Wales, FS: Forest Service (Northern Ireland).
- 2. Private sector: all other woodland. Includes other publicly owned woodland (e.g. owned by local authorities) and privately-owned woodland.
- 3. Private sector new planting figures are based on grant-supported new planting and (where possible) with estimates for areas planted without grant aid.
- 4. Figures for grant-aided planting relate to areas for which grants were paid during the year.
- 5. Estimates for areas planted without grant aid are believed to be under-reported and, as a result, the reported figures are likely to under-estimate the true level of planting activity. For England,

woodland planting funded by sources other than the Countryside Stewardship Woodland Creation Grant, the Woodland Carbon Fund and the HS2 Woodland Fund include planting supported by the Woodland Trust, by the Environment Agency, by Natural England and land acquired by the National Forest Company. For Scotland, a small amount of new planting without grant aid was included 2016-17 and 2018-19 to 2019-20.

- 6. The planting season lies both sides of 31 March, and the weather can cause planting to be advanced or delayed.
- 7. Includes woodland formed by natural colonisation (where known).

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

Figure 1.6 shows areas of new planting by country since the year ending March 1976. Trends in new planting rates have been influenced by changes to the incentives available to land owners (in the form of grants) and the availability of land for planting.

In the last 10 years, areas of new planting in the UK have ranged from under 6 thousand hectares to around 13 thousand hectares.

At 13.3 thousand hectares in 2020-2021, the current level of new planting in the UK is 3% lower than the level reported in 2019-2020.

For further information, see the New Planting and Restocking section of the Sources chapter.

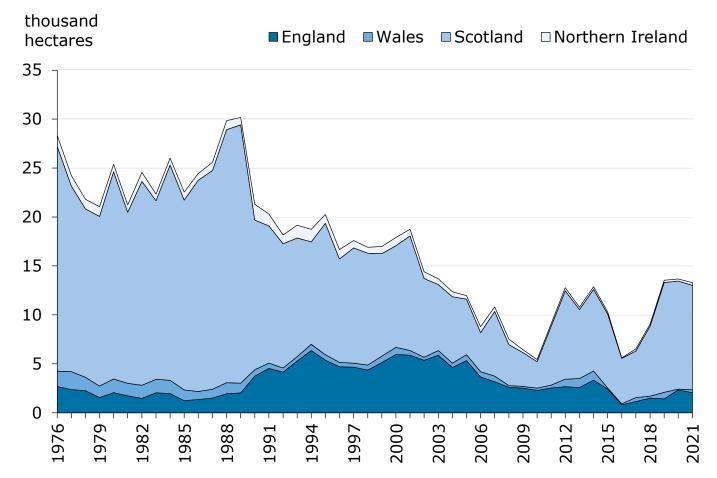


Figure 1.6 New planting in the UK, 1976-2021

Source: Forestry Commission, Forestry England, Scottish Forestry, Forestry and Land Scotland, Welsh Government, Forest Service, grant schemes.

- 1. Private sector figures are based on grant-supported new planting and (where possible) with estimates for areas planted without grant aid.
- 2. Figures for grant-aided planting relate to areas for which grants were paid during the year.
- 3. Estimates for areas planted without grant aid are believed to be under-reported and, as a result, the reported figures are likely to under-estimate the true level of planting activity. For England, woodland planting funded by sources other than the Countryside Stewardship Woodland Creation Grant, the Woodland Carbon Fund and the HS2 Woodland Fund include planting supported by the Woodland Trust, by the Environment Agency, by Natural England and land acquired by the National Forest Company. For Scotland, a small amount of new planting without grant aid was included for 2016-17 and 2018-19 to 2019-2020.
- 4. The planting season lies both sides of 31 March, and the weather can cause planting to be advanced or delayed.
- 5. Includes woodland formed by natural colonisation (where known).

1.6.2 Publicly funded restocking

Restocking is the replacement of trees on areas of woodland that have been felled; this can be done either through replanting or natural regeneration. The statistics presented here include felled areas that have been restocked by both natural regeneration and replanting.

As restocking takes place on woodland that has been previously harvested and it is a condition of most felling licences that the area is restocked, restocking rates are mainly driven by harvesting levels (with a time lag, usually of around 2 years, between harvesting and restocking). Figures for timber harvesting (wood production) are available in the UK-Grown Timber chapter.

Economic factors, including grant rates, may have some effect on the species choice at restocking. In addition, the precise timing of restocking may be affected by weather conditions.

This release only covers publicly funded restocking, that is:

- restocking of Forestry England/ Forestry and Land Scotland/ Natural Resources Wales/ Forest Service woodland and
- grant aided restocking of private sector woodland.

Grant support for restocking in Scotland has been limited since 2008. The Forestry Grant Scheme was launched in Scotland in March 2015 and does include support for restocking in most but not all circumstances. As a result, grant-aided restocking does not represent all private sector restocking in Scotland. It is therefore likely that conifer restocking in Scotland in recent years is under-reported in this release and other statistics

Grant support in England is now provided by the Countryside Stewardship scheme, which opened for applications in early 2016. Funding for restocking under Countryside Stewardship is only available under limited circumstances (through the tree health grant). The restoration (and restocking with native species) of PAWS (plantations on ancient woodland sites) is also supported by the HS2 Woodland

Fund. No estimate has been made for restocking in England that is no longer supported by grants and therefore restocking in England in recent years is underreported in this release and other statistics.

A total of 14.1 thousand hectares of publicly funded restocking were reported in the UK in 2020-2021 (Table 1.14a).

Table 1.14a Publicly funded restocking by forest type

thousand hectares

	l .				
Year (ending 31/3)	England	Wales	Scotland	Northern Ireland	UK
Conifers					
2016-17	2.03	1.16	9.09	1.15	13.42
2017-18	1.58	0.97	8.14	0.85	11.53
2018-19	1.26	1.04	9.12	0.72	12.14
2019-20	2.11	0.92	8.19	0.69	11.91
2020-21	1.76	1.16	7.96	0.62	11.51
Broadleaves					
2016-17	0.97	0.54	1.99	0.17	3.66
2017-18	0.47	0.70	1.52	0.08	2.77
2018-19	0.39	0.66	2.07	0.11	3.23
2019-20	0.63	0.58	1.69	0.03	2.92
2020-21	0.65	0.68	1.21	0.02	2.56
Total					
2016-17	3.00	1.70	11.07	1.31	17.09
2017-18	2.04	1.67	9.66	0.94	14.30
2018-19	1.65	1.70	11.19	0.83	15.37
2019-20	2.74	1.50	9.88	0.71	14.83
2020-21	2.42	1.85	9.17	0.64	14.07

Source: Forestry Commission, Forestry England, Scottish Forestry, Forestry and Land Scotland, Welsh Government, Forest Service, grant schemes.

Notes:

1. Private sector figures are based on areas for which grants were paid during the year.

- 2. Estimates of areas planted without grant aid are also included (where possible) up to 2009-10, but no estimates are available since then. As a result, the reported figures are likely to underestimate the true level of planting activity.
- 3. The planting season lies both sides of 31 March, and the weather can cause planting to be advanced or delayed.
- 4. Includes woodland restocked by natural regeneration (where known).
- 5. Restocking by natural regeneration in non-clearfell areas may be under-represented.

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

Table 1.14b Publicly funded restocking by ownership

thousand hectares

Year (ending 31/3)	England	Wales	Scotland	Northern Ireland	UK
FC/FLS/NRW/FS					
2016-17	2.39	1.44	6.67	1.25	11.74
2017-18	2.04	1.55	5.78	0.86	10.23
2018-19	1.57	1.22	7.15	0.79	10.72
2019-20	2.48	1.48	5.35	0.62	9.93
2020-21	1.98	1.67	5.00	0.60	9.26
Private sector					
2016-17	0.61	0.26	4.41	0.06	5.34
2017-18	0.00	0.12	3.87	0.08	4.07
2018-19	0.08	0.48	4.05	0.04	4.65
2019-20	0.26	0.02	4.52	0.09	4.89
2020-21	0.43	0.18	4.16	0.04	4.81
Total					
2016-17	3.00	1.70	11.07	1.31	17.09
2017-18	2.04	1.67	9.66	0.94	14.30
2018-19	1.65	1.70	11.19	0.83	15.37
2019-20	2.74	1.50	9.88	0.71	14.83
2020-21	2.42	1.85	9.17	0.64	14.07

Source: Forestry Commission, Forestry England, Scottish Forestry, Forestry and Land Scotland, Welsh Government, Forest Service, grant schemes.

- 1. FE: Forestry England, FLS: Forestry and Land Scotland, NRW: Natural Resources Wales, FS: Forest Service (Northern Ireland).
- 2. Private sector: all other woodland. Includes other publicly owned woodland (e.g. owned by local authorities) and privately-owned woodland.
- 3. Private sector figures are based on areas for which grants were paid during the year.
- 4. Estimates of areas planted without grant aid are also included (where possible) up to 2009-10, but no estimates are available since then. As a result, the reported figures are likely to underestimate the true level of planting activity.

- 5. The planting season lies both sides of 31 March, and the weather can cause planting to be advanced or delayed.
- 6. Includes woodland restocked by natural regeneration (where known).
- 7. Restocking by natural regeneration in non-clearfell areas may be under-represented.

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

Figure 1.7 shows reported areas of restocking by country since the year ending March 1976. It indicates an increase in restocking rates during the period. Over the same period, there has been a general increase in UK wood production (see UK-Grown Timber chapter).

The reported area of restocking fell significantly after a peak of 19 thousand hectares in 2006-07. This followed changes to grant support for restocking in Scotland, that resulted in some non-grant aided Sitka spruce restocking being excluded from the estimates.

The chart shows a dip in the area of restocking in 2015-16, following changes to grant schemes across the UK. Reported restocking has continued to fall in England, where grant aid is now only available in very limited circumstances. The reported area of publicly funded restocking in the UK in 2020-21 represents a 5% decrease from the previous year. For further information, see the New Planting and Restocking section of the Sources chapter.

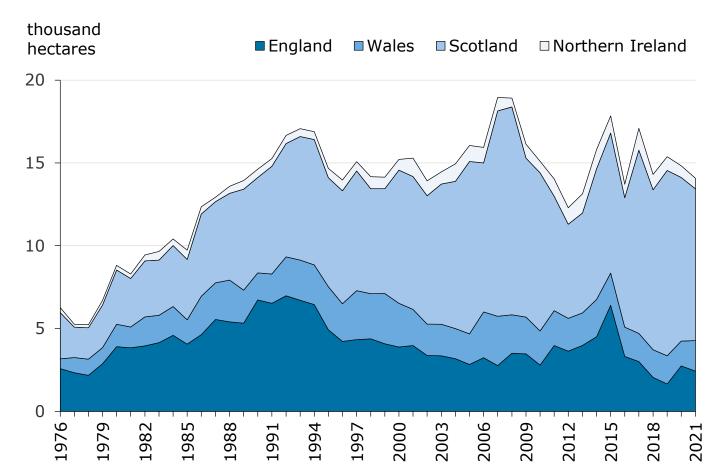


Figure 1.7 Restocking in the UK, 1976-2021

Source: Forestry Commission, Forestry England, Scottish Forestry, Forestry and Land Scotland, Natural Resources Wales, Forest Service, grant schemes.

- 1. Private sector figures are based on areas for which grants were paid during the year.
- 2. Estimates of areas planted without grant aid are also included (where possible) up to 2009-10, but no estimates are available since then. As a result, the reported figures are likely to underestimate the true level of planting activity.
- 3. The planting season lies both sides of 31 March and the weather can cause planting to be advanced or delayed.
- 4. Includes woodland restocked by natural regeneration.
- 5. Restocking by natural regeneration in non-clearfell areas may be under-represented.

1.7 Felling

Felling

Approval for the felling (cutting down) of trees in the UK is granted through felling licences issued by the Forestry Commission, Scottish Forestry, Natural Resources Wales or the Forest Service in Northern Ireland.

Felling licences may be conditional (where felling approval is granted subject to replanting) or unconditional (where tree felling is approved without the requirement to replant). Unconditional licences are routinely issued for silvicultural thinning operations and in these cases no woodland loss takes place. However, an unconditional felling licence without the requirement to replant may be issued if there are overriding environmental considerations, for example to enable the restoration of important habitats.

The removal of trees may also be authorised under planning regulations, to enable development (including for windfarms). In this case, a felling licence is not required.

The removal of trees might also be required through a Statutory Plant Health Notice (SPHN). A SPHN may require the felling and destruction of infected trees or containment of infested material on site, and is issued by the Forestry Commission, Scottish Forestry, Natural Resources Wales or the Forest Service to prevent the spread of pests and diseases. Similar actions are also required within the public woodland estate managed by these organisations. There is no legal requirement for woodland to be restocked after felling under a SPHN.

Since 2010/2011, SPHNs have mainly been issued to attempt to slow down the spread of Phytophthora ramorum, first found in the UK in 2002 on viburnum, and in 2009 on Japanese larch, a significant sporulating host resulting in a dramatic upsurge in the disease.

Statutory felling of infected P. ramorum infected larch does not apply within the designated P. ramorum management zone in south west Scotland where the high levels of infection and proportion of larch in the area make this unfeasible. However, felling licences are still required, and movement licences are required to stop spread out of this area. In Wales' P. ramorum Core Disease Zone SPHNs are still served to contain material on site, but felling still requires a felling licence.

Further information on felling and Statutory Plant Health Notices is provided in the Sources chapter.

Woodland loss

Information on unconditional felling licences that do not relate to thinning may be seen as an indication of the level of woodland loss on land that is not owned or managed by Forestry England, Forestry and Land Scotland, Natural Resources Wales or the Forest Service. However, the data relates only to felling licences issued, so does not provide information on whether the felling actually took place (or the timing of the felling). In addition, felling licences do not cover woodland loss that is authorised under planning regulations.

The National Forest Inventory report "Preliminary estimates of the changes in canopy cover in British woodlands between 2006 and 2015" (August 2016) has reported:

- 3.3 thousand hectares of observed permanent woodland loss between 2006 and 2015;
- a further 0.7 thousand hectares of ground under development and 0.2 thousand hectares of newly established habitats;
- 69% of the clearfelled area observed in 2006 had been restocked by 2012, leaving around 33.9 thousand hectares of woodlands in transition and open areas;

 63% of the area observed as clearfelled between 2006 and 2009 had been restocked by 2012, leaving around 28.6 thousand hectares of woodlands in transition and open areas.

These are interim estimates that are likely to underestimate the final position; updated estimates will be available when results from the NFI second cycle field survey are released.

Further information is available in the report at <u>www.forestresearch.gov.uk/tools-and-resources/national-forest-inventory/</u>

1.7.1 Felling licences

Table 1.15 shows the area covered by unconditional felling licences issued by the Forestry Commission, Scottish Forestry and Natural Resources Wales in the last 10 years. The figures do not include unconditional felling licences issued to permit thinning of woodlands. The table covers woodland in England, Scotland and Wales that is not owned or managed by Forestry England, Forestry and Land Scotland or Natural Resources Wales only; it does not cover felling that is exempt from felling licence approval (such as authorisations for felling under planning regulations, felling required under a Statutory Plant Health Notice or felling that is approved on condition that the area is restocked).

A total of 0.3 thousand hectares of woodland in Scotland and 0.4 thousand hectares in Wales was covered by unconditional felling licences (with no requirement to restock) in the year to March 2021.

Table 1.15 Area of private sector woodland covered by unconditional felling licences^{1,2}, 2011-2012 to 2020-2021

thousand hectares

Year	England	Wales	Scotland	Great Britain
2011-12	0.6	0.0	0.1	0.7
2012-13	0.3	0.3	0.2	0.9
2013-14	0.4	0.1	0.1	0.6
2014-15	0.2	0.0	0.1	0.3
2015-16	0.2	0.1	0.2	0.5
2016-17	0.2	0.0	0.0	0.2
2017-18	0.2	0.0	0.0	0.2
2018-19	0.7	0.1	0.0	0.8
2019-20	0.3	0.1	0.3	0.6
2020-21		0.4	0.3	

Source: Forestry Commission, Scottish Forestry, Natural Resources Wales Notes:

- 1. Felling licences issued in the period. Excludes areas exempt from felling licence approval and licences issued for thinning.
- 2. From April 2019 Felling Permissions, issued under the Forestry and Land Management Act (Scotland) 2018, have replaced Felling Licences in Scotland.
- 3. .. denotes data unavailable.

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

1.7.2 Statutory Plant Health Notices

Table 1.16a shows the number of sites where a Statutory Plant Health Notice has been served in the UK between 2011-2012 and 2020-2021. For Scotland, the figures now show the number of Statutory Plant Health Notices issued, rather than number of sites.

All woodland, including sites owned or managed by Forestry England, Forestry and Land Scotland, Natural Resources Wales or the Forest Service in Northern Ireland are covered. As Statutory Plant Health Notices are not issued in the Phytophthora ramorum management zone in south west Scotland, the figures presented here do not cover all felling of infected larch.

A total of 646 sites were served with Statutory Plant Health Notices between April 2020 and March 2021.

Table 1.16a Number of sites where a Statutory Plant Health Notice has been served 2011-2012 to 2020-2021

Year	England	Wales	Scotland	Northern Ireland	UK
2011-12	131	90	15	16	252
2012-13	168	89	44	15	316
2013-14	244	272	55	28	599
2014-15	140	71	17	17	245
2015-16	73	57	32	3	165
2016-17	75	53	65	0	193
2017-18	43	153	70	14	280
2018-19	136	215	284	0	635
2019-20	44	205	199	0	448
2020-21	183	177	284	2	646

Source: Forestry Commission, Scottish Forestry, Natural Resources Wales, Forest Service.

Note:

- 1. The number of sites where infection of larch by Phytophthora ramorum has been confirmed, or where there is sufficient suspicion of infection and a Statutory Plant Health Notice has been served on the landowner. For Scotland, figures relate to the number of Statutory Plant Health Notices issued.
- 2. Excludes felling within the Phytophthora ramorum management zone in south west Scotland, where Statutory Plant Health Notices are not issued.

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

Areas requiring felling under Statutory Plant Health Notices totalled 4.6 thousand hectares in 2020-21 (Table 1.16b). Of the area to be felled in 2020-2021, 41% was in Scotland, 30% in Wales, 29% in England and 1% in Northern Ireland.

Table 1.16b Felling areas under Statutory Plant Health Notices, 2011-2012 to 2020-2021

thousand hectares

Year	England	Wales	Scotland ²	Northern Ireland	UK
2011-12	0.5	0.5	0.1	0.1	1.1
2012-13	0.5	1.5	0.3	0.2	2.5
2013-14	0.8	4.6	0.3	0.5	6.1
2014-15	0.3	0.4	0.1	0.0	0.8
2015-16	0.1	1.5	0.9	0.0	2.6
2016-17	0.3	0.2	0.2	0.0	0.7
2017-18	0.1	1.3	0.3	0.1	1.7
2018-19	0.6	1.9	1.4	0.0	3.9
2019-20	0.3	1.5	1.0	0.0	2.8
2020-21	1.3	1.3	1.8	0.0	4.5

Source: Forestry Commission, Scottish Forestry, Natural Resources Wales, Forest Service.

Note:

- 1. The area that is required to be felled within the Statutory Plant Health Notice.
- 2. Felling areas in Scotland relate to larch only.
- 3. Excludes felling within the Phytophthora ramorum management zone in south west Scotland, where Statutory Plant Health Notices are not issued.

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

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