



Plant Health – international trade and controlled consignments, 2017-2021

These statistics present an analysis of international trade in plant and plant commodities¹ (including live plants, fruit, vegetables, and cereals) – covering both the financial value and the physical scale (mass) of this trade. This release also presents an analysis of the notifications of controlled commodities – i.e., where checks are carried out to ensure that traded goods meet required standards. Data cover the period 2017 to 2021 (Forestry Commission data cover 2017/18-2021/22). Geographical coverage is specified at the start of each section.

Key findings



During the period 2017-2021 the overall value of trade in plants and plant commodities increased while the overall net mass remained fairly stable. Such trends were not always linear due to the volatile nature of the trade, which can be affected by climate events, pest and disease and other factors.



In 2021, imports accounted for 91.8% of all trade value and 86.7% of net mass of trade in plants and plant commodities.



The value of trade in plants and plant commodities between the UK and the European Union increased between 2017 and 2021, whilst net mass decreased. The value and net mass of trade with non-EU countries increased over the time period.



In 2021, over 246,000 consignments of controlled material were notified to the Plant Health and Seeds Inspectorate (PHSI). This was an increase of over 100,000 consignments since 2020, driven by the introduction of plant health controls on high priority plants and plant products imported from the EU.



In 2021/22, over 4,500 consignments of controlled material were notified to the Forestry Commission. The number of consignments was higher (1,289) than in 2017/18 as was the associated volume of material (205,589m³).

¹ Includes raw products and those that can be defined as 'simply processed'. Please see the glossary at the end of this document and the associated quality and methodology report for more information.

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Introduction

Plants are environmentally, economically, and socially important, providing a vital contribution to our food and timber supply and to the rural economy. Plants also perform an essential ecosystem service in shaping the landscape and supporting biodiversity and they have been linked to improved health and wellbeing².

The globalisation of trade has facilitated an increase in the volume and diversity of plants and plant commodities which enter the UK. This trade generates economic value but also needs to be regulated (controlled), noting the links, along with other factors³, to increased risk of pest and disease. Hence plant health legislation⁴ controls the import and movement of certain plants, trees, seeds, and organic matter - such as soil - and certain plant products, including fruit, potatoes, vegetables, cut flowers, timber, foliage, and grain.

The analysis below explores both the overall UK trade in plants and plant commodities, and also the trade in controlled plant health and forestry commodities which informs the inspections undertaken by the Plant Health and Seed Inspectorate (PHSI) and the Forestry Commission (FC) to prevent plant pests and diseases from entering England and Wales, and, for Forestry Commission, Scotland⁵.

² [An Update of the Literature Supporting the Well-Being Benefits of Plants: A Review of the Emotional and Mental Health Benefits of Plants \(2019\). Journal of Environmental Horticulture. Vol. 37](#)

³ [Plant biosecurity strategy for Great Britain](#)

⁴ [Plant Health legislation for forestry](#) and [Plant health controls](#)

⁵ Plant Health is devolved thus Scotland carries out its own plant health inspections.

Please note that the three datasets explored in this publication are not directly comparable. There are key differences in how each dataset is compiled and these are outlined further in the accompanying quality and methodology report.

Experimental Statistics

This statistical release is intended as a contribution to increase the wider understanding about trade in these commodities and about plant health. It is designed to provide stakeholders, internal and external to government, with information on the patterns of trade over time for a specific set of commodities. The primary aim is to facilitate discussion and aid decision making around biosecurity.

The release is not intended for the purpose of drawing inferences as to the effectiveness of plant health and forestry inspectorates.

New statistical releases are classified as experimental statistics in order to secure feedback from users – for example about the long-term need for the information (the user value) and the technical fitness for purpose (the quality). If you have any comments or feedback on this release – or about other needs for formal statistics in policy areas of trade and biosecurity - please contact: sam.grant@defra.gov.uk. Sam Grant, Plant Health Statistics, Horizon House, Deanery Rd, Bristol BS1 5TL.

Further information on experimental statistics can be accessed here: [GSS Guidance on Experimental Statistics](#)

Impact of the coronavirus pandemic (COVID-19) and the effect of EU exit on trade in plants and plant products

It is not currently possible to ascertain what the impact of the coronavirus pandemic and EU exit has been on trade in plants and plants products. This is because trade in plants and plant products is often volatile, due to climate and other factors, and because both the coronavirus pandemic and EU exit are still having an influence.

The Office for National Statistics have published reports looking at the impacts of EU exit and the coronavirus on UK trade in goods which provides a high level picture of trade throughout 2020 and through 2021: [The impacts of EU exit and the coronavirus on UK trade in goods.](#)

For plants and plant product which require regulatory control the impact of EU exit, particularly imports from the EU to GB, will be ongoing as the UK phases in its checking regime: [Imports of plants and plant products from the EU to GB](#)

Trade in plants and plant products

Her Majesty's Revenue and Customs (HMRC) compiles statistics on commodities physically leaving and entering the UK, traded with both European Union (EU) Member States and non-EU countries. Non-EU trade is collected from customs declarations. Until 31 December 2020 EU trade

data was collected via Intrastat which covers VAT-registered businesses whose annual value of arrivals and/or dispatches exceeds a given exemption threshold⁶.

For goods moving from 1 January 2021, Great Britain (England, Scotland and Wales) to EU export statistics have been compiled directly from customs export declarations made according to the requirements of the Taxation (Cross Border Trade) Act. Intrastat survey returns, however, continued to be collected for goods exported from Northern Ireland to the EU, under the terms of the Northern Ireland Protocol. Both the GB to EU customs export declaration data and Northern Ireland (NI) Intrastat export (dispatch) data were incorporated into the overall UK to EU export dataset. As a result of the changes and differences outlined above, there was a break in the timeseries for published UK to EU export statistics from January 2021.

UK imports from EU statistics were not impacted by any change in 2021 as the Intrastat survey continued to operate for all UK (GB and NI) imports (arrivals) from the EU, to mitigate the effects of staging customs controls, and to comply with the Northern Ireland Protocol.

Throughout 2021, the introduction of temporary Staged Customs Controls allowed GB importers of non-controlled EU goods the opportunity to defer submission of the full customs declaration for up to 175 days after the movement of goods. This had a reducing effect on the number of received customs declarations for EU imports in 2021, most notably in the first few months of the year. It is not possible to distinguish which customs declarations are associated with SCC and therefore remove or adjust the trade statistics⁷.

Although not collected for plant health purposes the HMRC data does allow us to examine the patterns of trade for a sub-section of commodities, i.e., raw and simply processed plants and plant commodities, and to group these into categories. The categories covered in this release are:

- Plants and planting material. This category includes bulbs, plants for planting, forest tree seed and cut flowers.
- Food and crops. This category includes fruit, vegetables, cereals, nuts, herbs, and spices.
- Forestry: This category includes timber (unprocessed or simply processed: sliced, planed, or chipped), packing cases, casks, and barrels.

Ten additional codes have been included in the 2020 revised and 2021 provisional data to reflect changes in plant health legislation, these codes are: 07142010, 07142090, 07143000, 07144000, 07145000, 07149020, 07149090, 09021000, 09022000 and 14049000. Commodity code 25309000 has been removed. More information is provided in the accompanying dataset and the Quality and Methodology report.

The UK leaving the EU and the subsequent transition period, along with the impact of the coronavirus (COVID-19) pandemic, supply chain disruption and global recession, have caused higher levels of volatility in trade statistics in the past two years. Comparing 2022 with equivalent

⁶ Information on methodology and quality for HMRC overseas trade data can be accessed at: [Overseas trade in goods statistics methodology and quality report](#)

⁷ [Impact of trade in goods data collection changes on UK trade statistics: 2021 to 2022. Office for National Statistics](#)

2017 data provides comparisons of recent UK trade estimates with the most recent "stable" period.

Table 1: Value of trade in plants and plant commodities, 2017 to 2021, £ million

Sector ^b	Year ^a					Value change 2017 to 2021	Percentage change 2017 to 2021
	2017	2018	2019	2020(R)	2021(P,B)		
Imports							
Plants and planting material	1,045	1,003	1,005	1,012	1,166	121	11.5
Food and crops	9,857	9,742	9,987	10,572	10,194	336	3.4
Forestry	1,933	2,070	1,986	1,945	3,142	1,209	62.5
Total	12,835	12,815	12,979	13,529	14,501	1,666	13.0
Exports							
Plants and planting material	119	123	119	96	72	-47	-39.3
Food and crops	1,112	1,065	1,342	1,272	869	-243	-21.9
Forestry	170	186	189	175	348	177	104.0
Total	1,401	1,374	1,651	1,543	1,289	-113	-8.0
All trade							
Plants and planting material	1,164	1,126	1,124	1,108	1,238	74	6.4
Food and crops	10,970	10,806	11,330	11,844	11,063	93	0.8
Forestry	2,103	2,256	2,176	2,120	3,490	1,386	65.9
Total	14,237	14,188	14,629	15,072	15,790	1,553	10.9

(a) Data are calendar year

(b) more information on sectors can be found in the glossary at the end of this document.

(R) indicates revised data

(P) indicates provisional data

(B) indicates a break in the time series for exports

Source: [Overseas Trade Data, HMRC](#)

Table 1 shows the total value of trade in plants and plant commodities, by sector, between 2017 and 2021.

- The total value of trade in plants and plant commodities has shown a broad upward trend over the time period 2017 to 2021. Forestry was the only sector where the value of both imports and exports increased.
- Whilst all sectors experienced an increase in the value of imports between 2017 and 2021, forestry was the only sector to see an increase in the value of exports, which more than doubled from £170m in 2017 to £348m in 2021.
- The decreases in the value of exports of plants and planting material and of food and crops were offset by the corresponding increases in the value of imports for these sectors.

Table 2: Net mass of trade in plants and plant commodities, 2017 to 2021, '000 tonnes

Sector ^b	Year ^a					Value change 2017 to 2021	Percentage change 2017 to 2021
	2017	2018	2019	2020(R)	2021(P,B)		
Imports							
Plants and planting material	388	358	361	310	356	-32	-8.2
Food and crops	12,939	13,077	12,729	13,974	13,159	220	1.7
Forestry	4,321	4,521	4,669	4,642	5,112	791	18.3
Total	17,647	17,955	17,759	18,926	18,627	980	5.6
Exports							
Plants and planting material	55	48	50	34	25	-30	-55.3
Food and crops	3,031	2,487	4,095	3,426	1,960	-1,070	-35.3
Forestry	809	761	684	484	873	64	7.9
Total	3,895	3,296	4,828	3,944	2,858	-1,037	-26.6
All trade							
Plants and planting material	443	406	411	344	381	-62	-14.1
Food and crops	15,970	15,564	16,824	17,400	15,119	-850	-5.3
Forestry	5,130	5,281	5,353	5,126	5,985	855	16.7
Total	21,542	21,251	22,587	22,869	21,485	-57	-0.3

(a) Data are calendar year

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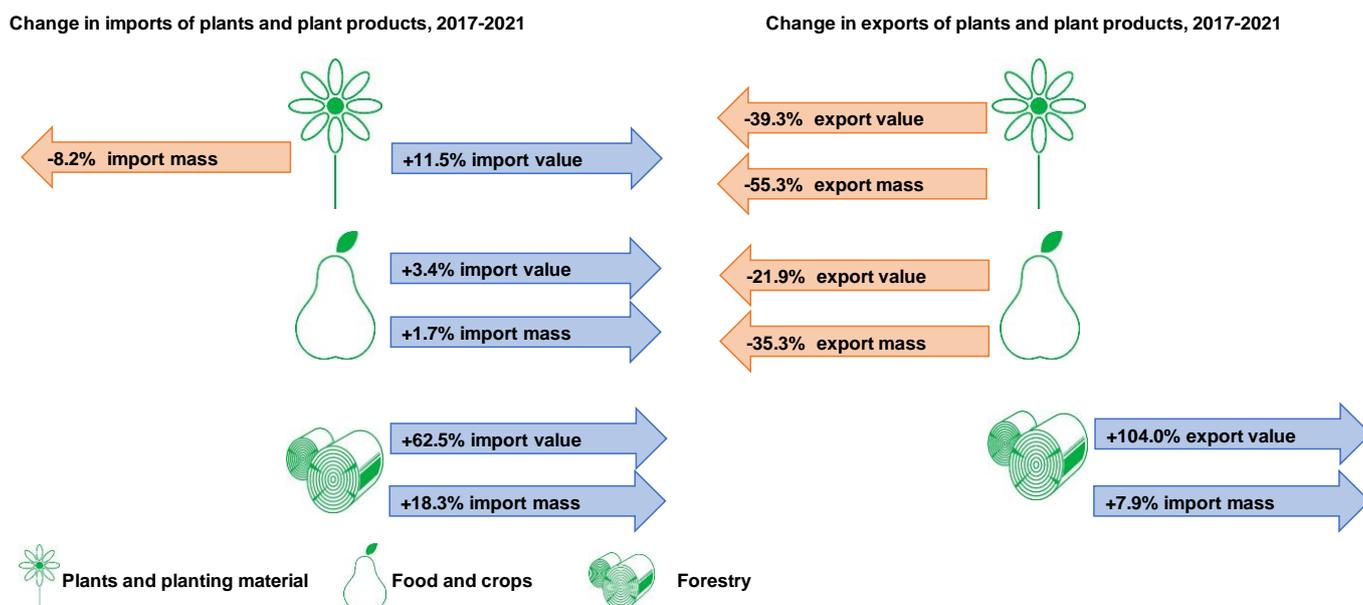
(B) indicates a break in the time series for exports

Source: [Overseas Trade Data, HMRC](#)

Table 2 shows the total net mass of trade in plants and plant commodities, by sector, between 2017 and 2021.

- The total net mass of trade in plants and plant commodities remained fairly stable between 2017 and 2021 however the overall figure masks decreases in the total net mass of plants and planting material as well as food and crops.
- As with the value of trade, forestry was the only sector to see an overall increase in net mass with import net mass increasing by 18.3% and export net mass increasing by 7.9% over the period 2017 to 2021. In 2021, the net mass of forestry exports and imports were at the highest levels of the time period.
- The net mass of exports of plants and planting material more than halved over the time period, from 55 thousand tonnes in 2017 to 25 thousand tonnes in 2021. This sector was the only one to experience a decrease in the net mass of imports (-8.2%).

Figure 1: Changes in trade of plants and plant commodities, 2017 to 2021



Source: [Overseas Trade Data, HMRC](#)

Table 3: Value of UK and EU trade in plants and plant commodities, 2017 to 2021, £ million

Sector ^b	Year ^a					Value change 2017 to 2021	Percentage change 2017 to 2021
	2017	2018	2019	2020(R)	2021(P,B)		
EU Imports							
Plants and planting material	858	811	819	849	885	27	3.2
Food and crops	4,679	4,670	4,796	5,107	4,453	-226	-4.8
Forestry	1,480	1,628	1,551	1,546	2,575	1,095	74.0
Total	7,016	7,108	7,166	7,503	7,913	896	12.8
EU Exports							
Plants and planting material	92	96	89	77	54	-39	-41.9
Food and crops	914	888	1,097	994	666	-248	-27.1
Forestry	132	147	145	140	310	178	135.3
Total	1,138	1,132	1,331	1,212	1,030	-108	-9.5
All EU trade							
Plants and planting material	950	907	908	926	939	-12	-1.2
Food and crops	5,593	5,558	5,893	6,101	5,119	-474	-8.5
Forestry	1,611	1,775	1,697	1,687	2,885	1,274	79.1
Total	8,154	8,240	8,497	8,714	8,943	788	9.7

(a) Data are calendar year

(b) more information on sectors can be found in the glossary at the end of this document.

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(P) indicates provisional data

(B) indicates a break in the time series for exports

Source: [Overseas Trade Data, HMRC](#)

Table 3 shows the value of commodities that are imported into the UK from the EU and commodities that are exported from the UK to the EU, by sector.

- The total value of trade in plants and plant commodities between the UK and the EU increased by 9.7% between 2017 and 2021 with year-on-year increases over the time period.
- The value of forestry imports from the EU increased from £1,480m to £2,575m (74.0%) between 2017 and 2021 whilst the value of forestry exports to the EU more than doubled from £132m in 2017 to £310m in 2021.

- The value of exports of plants and planting material to the EU showed a general decrease, reaching a low of £54m in 2021, whilst imports increased slightly, reaching the highest level of the time period in 2021 (£885m).
- There were decreases in both the import and export value of EU trade in food and crops over the time period, however the percentage decrease for imports (-4.8%) was much lower than for exports (-27.1%).

Table 4: Net mass of UK and EU trade in plants and plant commodities, 2017 to 2021, '000 tonnes

Sector ^b	Year ^a					Value change 2017 to 2021	Percentage change 2017 to 2021
	2017	2018	2019	2020(R)	2021(P,B)		
EU Imports							
Plants and planting material	326	293	308	266	287	-39	-12.1
Food and crops	6,338	6,376	5,609	6,472	5,887	-451	-7.1
Forestry	3,803	3,988	4,138	4,060	4,411	608	16.0
Total	10,467	10,657	10,055	10,798	10,585	118	1.1
EU Exports							
Plants and planting material	32	41	42	30	21	-11	-33.6
Food and crops	2,646	2,164	3,437	2,584	1,631	-1,015	-38.4
Forestry	723	678	594	436	808	85	11.8
Total	3,401	2,883	4,073	3,050	2,460	-941	-27.7
All EU trade							
Plants and planting material	358	334	350	296	308	-50	-14.0
Food and crops	8,984	8,540	9,046	9,056	7,518	-1,466	-16.3
Forestry	4,526	4,666	4,732	4,496	5,219	693	15.3
Total	13,868	13,540	14,128	13,848	13,045	-823	-5.9

(a) Data are calendar year

(b) more information on sectors can be found in the glossary at the end of this document.

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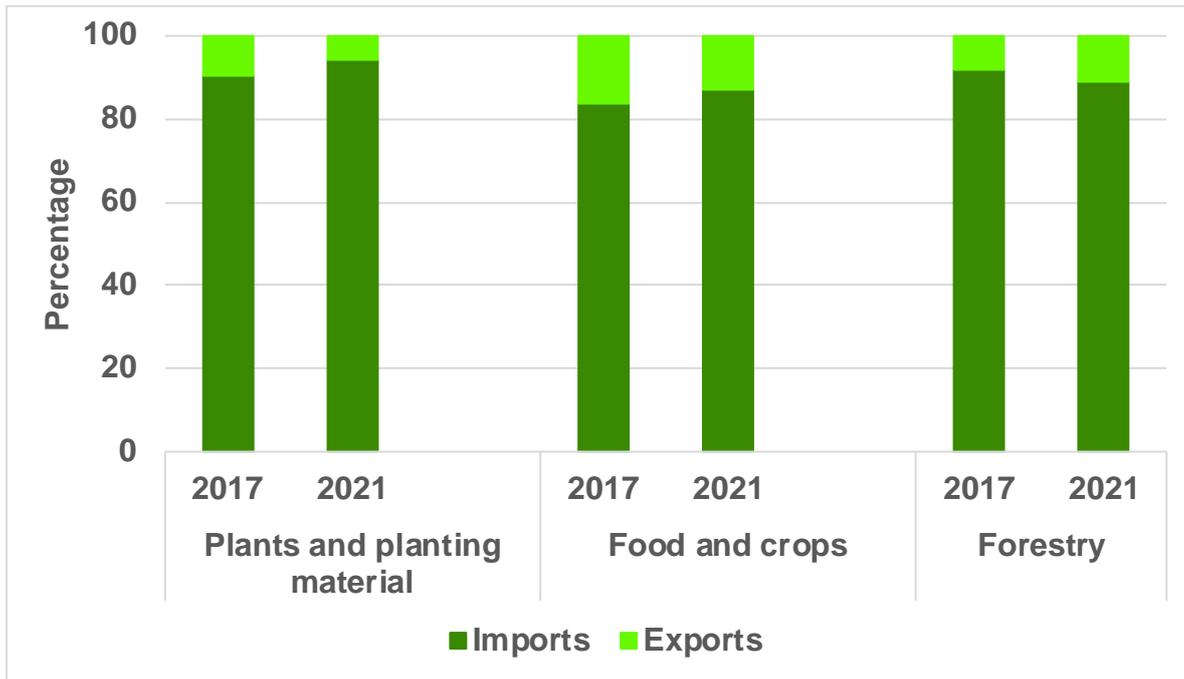
Source: [Overseas Trade Data, HMRC](#)

Table 4 shows the net mass of commodities that are imported into the UK from the EU and commodities that are exported from the UK to the EU, by sector.

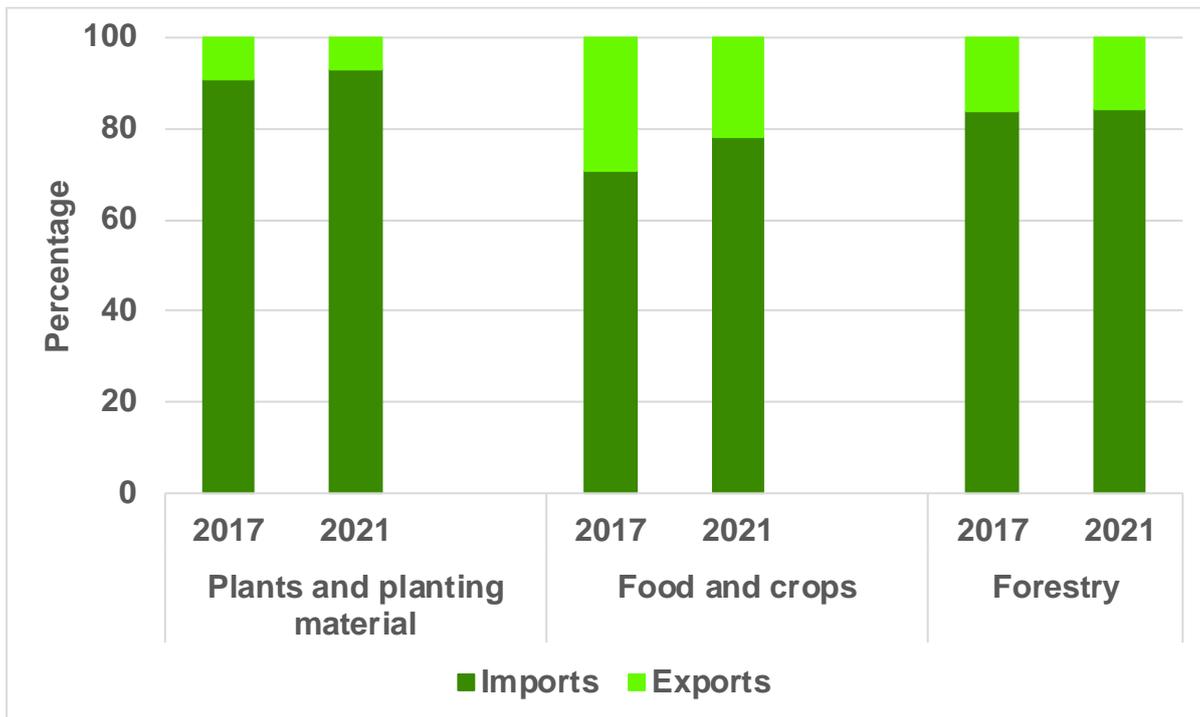
- Overall, the net mass of trade in plants and plant commodities between the UK and the EU decreased from 13,868 thousand tonnes in 2017 to 13,045 thousand tonnes in 2021. Whilst the overall amount of net mass for imports remained fairly stable, exports decreased by 27.7%.
- At the sector level, trade with the EU in plants and plant commodities broadly followed the pattern seen for value. The exception to this was the net mass of imports of plants and planting material from the EU which decreased by 12.1% despite a small increase in value.
- As with value (table 3), the net mass of trade with the EU in forestry commodities increased for both imports and exports however these increases were proportionally smaller than for value at 16.0% for import mass (74.0% for import value) and 11.8% for export mass (135.3% for export value).

Chart 1a and 1b: Distribution of UK and EU trade in plants and plant commodities, 2017 to 2021

1a. Value



1b. Net mass



Data are calendar year

2021 figures are provisional

Source: [Overseas Trade Data, HMRC](#)

- Imports accounted for between 70% and 94% of UK-EU trade in terms of both value and net mass during the period 2017 to 2021.

- The proportion of EU trade value that was imports was highest for plants and planting material, increasing from 90.3 per cent in 2017 to 94.3 per cent in 2021. The corresponding import net mass for this sector also increased, from 91.0 per cent in 2017 to 93.1 per cent in 2021.
- The proportion of EU trade value that was imports was lowest for food and crops at 87.0 per cent in 2021 however this was an increase from 83.7 per cent in 2017. The proportion of net mass that was imports for this sector increased from 70.5 per cent in 2017 to 78.3 per cent in 2021.

Table 5: Value of UK and non-EU trade in plants and plant commodities, 2017 to 2021, £ million

Sector ^b	Year ^a					Value change 2017 to 2021	Percentage change 2017 to 2021
	2017	2018	2019	2020(R)	2021(P)		
Non-EU Imports							
Plants and planting material	187	193	186	163	281	94	50.0
Food and crops	5,178	5,072	5,191	5,465	5,741	563	10.9
Forestry	453	442	435	399	567	114	25.1
Total	5,819	5,706	5,812	6,027	6,589	770	13.2
Non-EU Exports							
Plants and planting material	26	27	30	19	18	-8	-30.3
Food and crops	199	176	246	277	203	4	2.1
Forestry	39	39	44	35	37	-1	-3.1
Total	263	241	320	331	258	-5	-1.9
All non-EU trade							
Plants and planting material	213	219	216	182	299	86	40.1
Food and crops	5,377	5,248	5,437	5,743	5,944	567	10.5
Forestry	492	481	479	434	604	112	22.9
Total	6,082	5,948	6,132	6,358	6,847	765	12.6

(a) Data are calendar year

(b) more information on sectors can be found in the glossary at the end of this document.

(R) indicates revised data

(P) indicates provisional data

Source: [Overseas Trade Data, HMRC](#)

Table 5 shows the value of commodities that are imported into the UK from countries outside of the EU and commodities that are exported from the UK to these non-EU countries, by sector.

- The total value of non-EU trade increased between 2017 and 2021 (12.6%) however exports decreased slightly over the time period (-1.9%) and particularly between 2020 and 2021 (-21.9%).
- Between 2017 and 2021 the value of non-EU imports of plants and planting material increased by 50.0% whilst the export value decreased by 30.3%. In contrast, the value of non-EU exports of both food and crops and forestry in 2021 changed by less than 4% compared to 2017.
- Between 2020 and 2021 the largest increase in the value of non-EU imports was plants and planting material (72.4%) and the largest decrease in non-EU exports was food and crops (-26.9%) showing increased volatility in this time period.

Table 6: Net mass of UK and non-EU trade in plants and plant commodities, 2017 to 2021, '000 tonnes

Sector ^b	Year ^a					Value change 2017 to 2021	Percentage change 2017 to 2021
	2017	2018	2019	2020(R)	2021(P)		
Non-EU Imports							
Plants and planting material	62	65	53	44	69	8	12.2
Food and crops	6,601	6,700	7,120	7,501	7,272	672	10.2
Forestry	517	532	531	582	701	183	35.4
Total	7,180	7,298	7,703	8,128	8,042	862	12.0
Non-EU Exports							
Plants and planting material	23	7	8	3	3	-20	-86.0
Food and crops	385	323	658	842	329	-55	-14.4
Forestry	86	83	89	49	65	-21	-24.6
Total	494	413	755	894	397	-96	-19.5
All non-EU trade							
Plants and planting material	85	72	61	47	72	-12	-14.3
Food and crops	6,986	7,024	7,778	8,343	7,602	616	8.8
Forestry	604	615	620	631	766	162	26.8
Total	7,674	7,711	8,459	9,021	8,440	766	10.0

(a) Data are calendar year

(b) more information on sectors can be found in the glossary at the end of this document.

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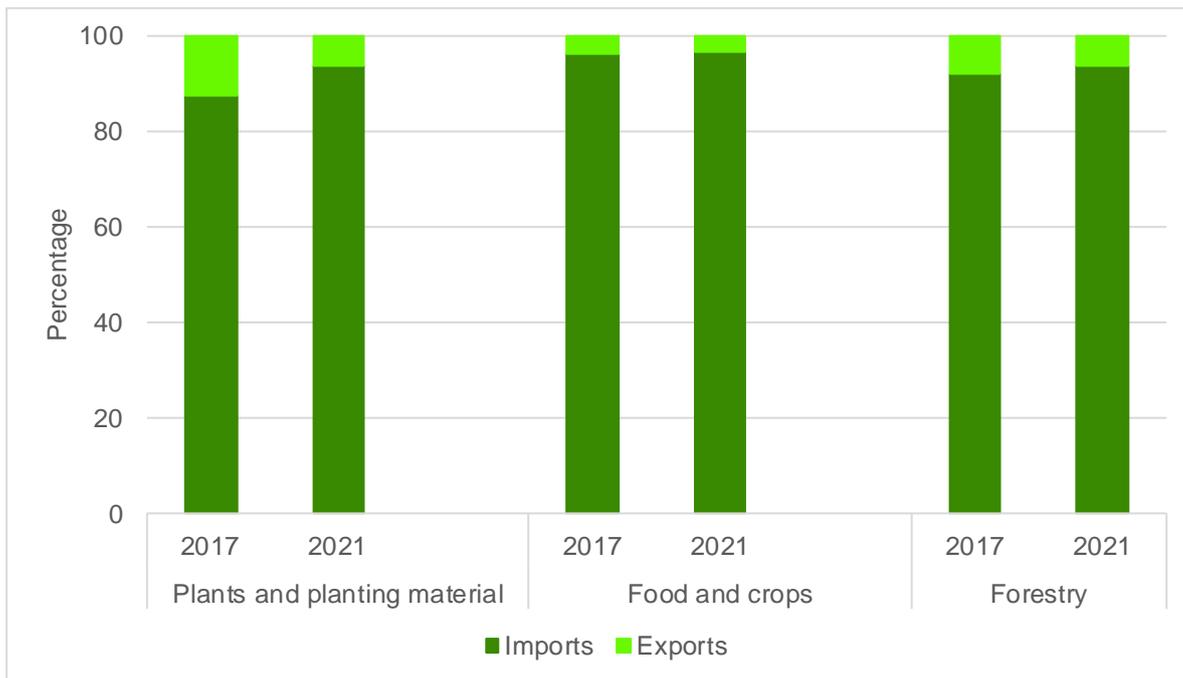
Source: [Overseas Trade Data, HMRC](#)

Table 6 shows the net mass of commodities that are imported into the UK from countries outside of the EU and commodities that are exported from the UK to these non-EU countries, by sector.

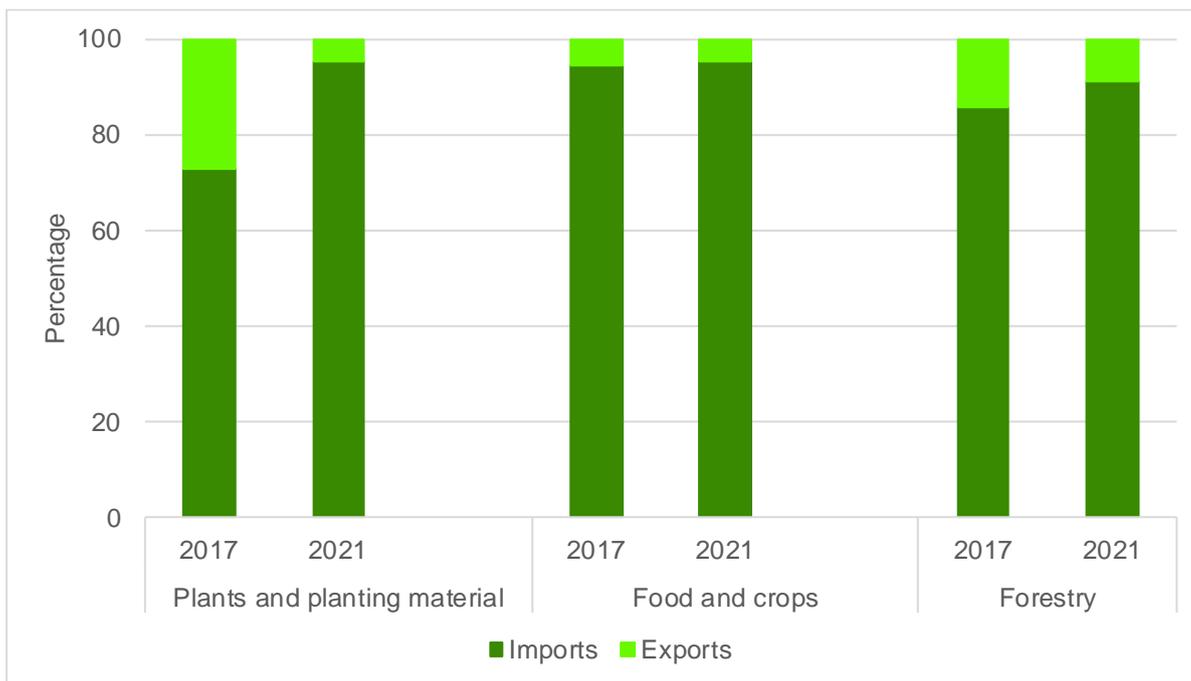
- Overall, the net mass of the non-EU trade in plants and plant commodities increased from 7,674 thousand tonnes in 2017 to 8,440 thousand tonnes in 2021 (10.0%). At the sector level all sectors saw an increase in the net mass of imports over the time period and all saw a decrease in the net mass of exports between 2017 and 2021.
- The net mass of non-EU exports of plants and planting material experienced the largest percentage change with a decrease of 86.0% over the time period, however there was no decrease in net mass between 2020 and 2021.
- The net mass of non-EU imports of forestry commodities increased by 35.4% over the time period, with a 20.4% rise between 2020 and 2021. For exports, a decrease of 24.6% overall contrasted with an increase of 33.5% between 2020 and 2021.
- Between 2020 and 2021 the largest increase in the net mass of non-EU imports was plants and planting material (56.4%) and the largest decrease in non-EU exports was food and crops (-60.9%) showing increased volatility in this time period and reflecting the pattern seen with value (table 5).

Chart 2a and 2b: Distribution of UK and non-EU trade in plants and plant commodities, 2017-2021

2a. Value



2b. Net mass



Data are calendar year

2021 figures are provisional

Source: [Overseas Trade Data, HMRC](#)

- Imports accounted for the majority of trade between the UK and countries outside of the EU in terms of both value and net mass.
- Imports accounted for between 87% and 97% of all non-EU trade value in each sector in 2017. In 2020 imports as a proportion of the trade value in a sector had increased for all

sectors with plants and planting material seeing the largest increase at 6.2 percentage points and food and crops seeing the smallest at 0.3 percentage points.

- For net mass the proportion of non-EU trade that was imports increased by 22.6 percentage points between 2017 and 2021 for plants and planting material with other sectors seeing much smaller increases of 5.8 percentage points for forestry and 1.2 percentage points for food and crops.

Figure 2: Changes in trade of plants and plant commodities between 2017 and 2021, by broad region of trade



Source: [Overseas Trade Data, HMRC](#)

Controlled Commodities

The Plant Health and Seed Inspectorate (PHSI) implements and enforces plant health policy in England and in Wales (on behalf of the Welsh Government). The Forestry Commission (FC) implements and enforces plant health policy in England and Scotland, and in Wales via Natural Resources Wales (NRW).

PHSI and FC carry out inspections of controlled plant materials, including plants for planting. The controls of such materials differ according to the species - and what quarantine organisms they may carry – but may include phytosanitary certificates, plant passports and/or physical inspection. More detailed information covering the activities of the inspection services is available in the Multi Annual National Control Plan reports⁸.

Under EU legislation plants, fruit, vegetables, and plant material from outside the EU fall into 3 categories: ‘unrestricted’, ‘controlled’, and ‘prohibited’ material. Plant passports facilitate the movement of controlled commodities within the EU area whilst inspections of relevant businesses are carried out ‘in field’, generally between 2 and 4 times per year. Commodities imported from outside of the EU area need to be declared on entry to the EU and can then move freely across the EU area. In December 2019 the EU introduced new legislation pertaining to plants and plant products. Implementing Regulation (EU) 2019/2072 and its Annexes replaced the Annexes of

⁸ [Food Standards Agency - Multi-Annual National Control Plan](#)

Directive 2000/29/EC⁹. Implementing Regulation (EU) 2019/2072 covers more plants and plant commodities than the previous legislation.

Now that the UK has left the EU new legislation is in place¹⁰ and, following the end of the transition period (31 December 2020), there are new processes for importing plants and plant products, including wood and wood products, from the EU. These are detailed in the [Guidance on importing and exporting plants and plant products from 1 January 2021](#).

Under the new UK legislation plants, fruit, vegetables, cut flowers, soil and other regulated objects (for example, machinery) fall into 5 categories of phytosanitary control:

1. 'Prohibited' - Can only bring into Great Britain if a scientific research license or derogation is obtained.
2. 'Prohibited (pending risk assessment)' – material you can only bring into Great Britain if risk assessed by Defra. (Exclusions apply).
3. 'Regulated and notifiable' – material you can only bring into Great Britain if accompanied by a phytosanitary certificate and advanced notification of landing.
4. 'Regulated' – material you can only bring into Great Britain if accompanied by a phytosanitary certificate. After applicants complete a customs entry, a small number of these consignments may need advanced notification on CHIEF (Customs Handling of Import and Export Freight).
5. 'Unregulated' – material you can bring into Great Britain without a phytosanitary certificate or advanced notification.

A small number of commodities have been deregulated and no longer require a phytosanitary certificate¹¹.

Great Britain (England, Scotland, and Wales) has adopted a phased approach to plant health controls for plants and plant products imported from the European Union (EU). This phased approach started in January 2021 and is proposed to be completed by the end of 2023¹².

The analysis below focuses on consignments of commodities classed as controlled and arriving at points of entry in Great Britain (England and Wales for PHSI, England, Wales, and Scotland for FC). These consignments are subject to inspection activities ranging from document checks to physical inspections. The level of checks required for different types of commodities varies but the highest risk commodities are subject to full checks (100%). In addition, emergency measures¹³ can be introduced which may restrict trade due to changes in import requirements.

Controlled commodities are a subset of the trade analysis shown above (which also includes unrestricted commodities); however, data are not comparable to that provided by HMRC due to differences in measurement units, geographies, and purpose. More information can be found in the accompanying quality and methodology report.

⁹ [New Plant Health rules](#)

¹⁰ [The Plant Health \(Phytosanitary Conditions\) \(Amendment\) \(EU Exit\) Regulations 2020](#)

¹¹ [EU exit guidance, Plant Health Portal, Defra](#)

¹² [Import Requirements Review Q&A, Defra](#)

¹³ [EU emergency control measures by species](#)

Plant Health and Seed Inspectorate

The Plant Health and Seed Inspectorate (PHSI) is part of the Animal and Plant Health Agency (APHA) and implements and enforces plant health policy in England, and in Wales on behalf of the Welsh Government. PHSI carry out inspections of plants, seeds, bulbs, cut flowers, planting materials, fruits, and vegetables and used agricultural machinery.

It is important to note that changes in the number of consignments may be influenced by changes in trade patterns as well as by legislative changes. Factors which can contribute to changes in trade patterns include climate events, changes in market demand, social unrest or change, pest outbreaks etc. Controls may be applied to any number of countries where there is a pest risk but additionally countries may apply self-prohibition if they are aware of a pest issue in their country. Where self-prohibition is applied there are no formal reporting routes and often information cannot be confirmed.

Some key bans thought to have affected imports to the UK were:

- Ghana: Capsicum L., Lagenaria Ser., Luffa Mill., Momordica L. and Solanum L., other than *S. lycopersicum* L. were banned from 13/10/2017 until 31/12/2017.
- Trade in fresh curry leaves was stopped from 26/04/2014 due to countries outside of the EU being unable to meet EU requirements. Israel now fulfils the necessary requirements.

New controls being introduced may also impact trade patterns. For example:

- Decision 2014/78 required all imports of Capsicum to become regulated as from 1 Oct 2014. The decision also included the application of controls on some other commodities.
- EU Directive 2017/1279 required tomatoes originating from all third countries (outside the EU but including Canary Islands, Ceuta, Melilla and the French Overseas Departments) and pomegranates originating from countries of the African continent, Cape Verde, Saint Helena, Madagascar, La Reunion, Mauritius and Israel to be imported with a phytosanitary certificate.
- Decision 2019/523 added controls on fruits of Kiwi, Papaya, Strawberry, Avocado, Rubus, Grapes and used agricultural machinery
- Decision 2019/1598 added controls on maize.
- Commission Implementing Regulation 2019/2072 implemented on 14 December 2019 as part of Smarter Rules for Safer Food package which increased the scope of regulated material to include all living plant material other than Fruits of *Ananas comosus*, *Cocos nucifera*, *Durio zibethinus*, *Musa* and *Phoenix dactylifera*.
- Following the departure from the EU, the Plant Health (Phytosanitary Conditions) (Amendment) (EU Exit) Regulations 2020 implemented on 1 January 2021 amended 2019/2072 increasing the range of exempt material to include fruits of *Actinidia*, *Fortunella*, *Poncirus*, *Diospyros*, *Gossypium*, *Mangifera*, *Passiflora*, *Psidium* and fruit and leaves of *Citrus* and *Leaves of Murraya*.

- There has been self-imposed bans from Thailand, Bangladesh and Vietnam. These can be very limited (for example to one exporter) or more general.

Table 7: Number of controlled consignments, by commodity type, England and Wales, 2017 to 2021

Year ^a	Commodity type ^b				Total
	Plants and planting material	Fruit	Vegetables	Other commodities	
2017	27,534	47,919	24,550	2,196	102,199
2018	27,948	55,280	23,478	2,474	109,180
2019 ^c	25,777	60,204	23,581	3,078	112,640
2020(B)	22,043	79,286	41,651	3,131	146,111
2021(B) ^d	124,946	66,095	51,865	3,496	246,402
Value change 2017-2021	97,412	18,176	27,315	1,300	144,203
Percentage change 2017-2021	353.8	37.9	111.3	59.2	141.1

a. Data are calendar year.

b. See glossary for information on commodity types.

c. EU plant health regulation and official controls regulation were implemented in the EU and the UK on 14th December 2019.

d. Following the UK's exit from the EU, GB specific legislation has been introduced and there has been a phasing in of plant health controls. From January 2021 all regulated and notifiable high priority plants and plant products imported from the EU have been subject to plant health controls. Additionally, some commodities have been deregulated.

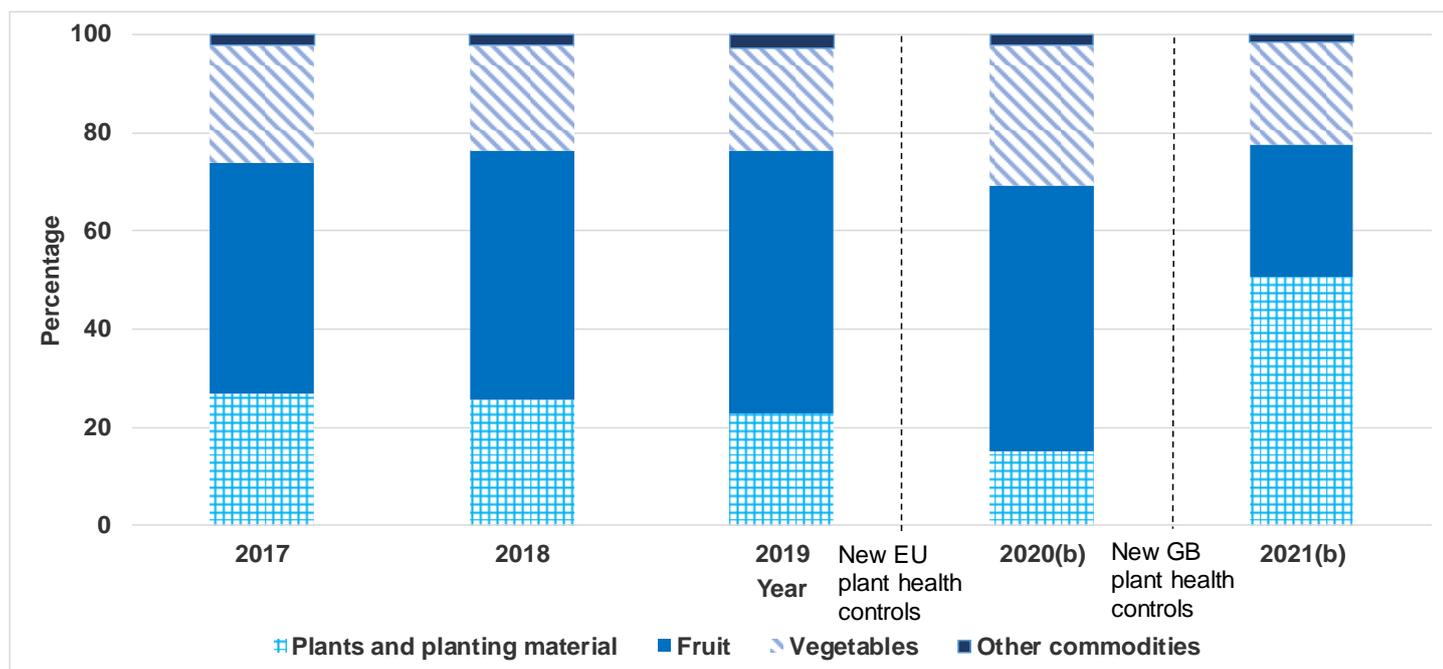
(B) indicates a break in the time series

Source: Plant Health and Seeds Inspectorate

Table 7 shows the number of controlled consignments notified to PHSI, by commodity type. From 1 January 2021 imports of high priority controlled material from Europe have had to be notified. This, along with other changes in legislation over the past three years, means that data are not comparable across the time period.

- The majority of the increase in notified consignments has followed key legislative changes; in 2020 following the implementation of new EU plant health regulations and in 2021 following the end of the transition period of the UK exiting the EU.
- Since 1 January 2021 high priority plants and plant products imported from the EU have had to be notified to the PHSI. The impact of this can be seen in the increase of controlled consignments in the plants and planting material category where notifications are over 5 times higher in 2021 than in 2020.
- After peaking at 79,286 controlled consignments in 2020, the number of controlled consignments of fruit decreased to 66,095 in 2021. Fruit was the only category where this decrease was seen. It is possible that this decrease was driven by the deregulation of a number of fruits however other factors such as COVID restrictions, issues in the supply chain or low yields could also be present.

Chart 3: Controlled consignments by commodity type, England and Wales, 2017 to 2021



Data are calendar year and cover England and Wales.
See glossary for information on commodity types.
Source: Plant Health and Seeds Inspectorate

- During the early years of the time period, plants and planting material accounted for between 22% and 27% of all notified commodities. This decreased to 15% in 2020 before increasing to 51% in 2021 following the introduction of GB regulations and the phasing in of controls which meant plants and planting material imported from the EU needed to be notified.
- In contrast, notified consignments of fruit, which was the largest group of commodities throughout the time period decreased to 27% in 2021. Several fruits were deregulated with the introduction of GB regulations.

Table 8: Number of controlled consignments, by region of origin, England and Wales, 2017 to 2021

Year ^a	Region ^b						Total
	Africa	Americas	Asia	Europe	Oceania	Unknown	
2017	54,998	21,354	23,361	121	2,365	-	102,199
2018	59,315	22,980	23,520	1,076	2,289	-	109,180
2019 ^c	60,099	26,241	22,990	1,279	2,031	-	112,640
2020(B)	77,825	32,592	32,581	1,186	1,927	-	146,111
2021(B) ^d	88,423	29,453	36,910	90,133	1,473	10	246,402
Value change 2017-2021	33,425	8,099	13,549	90,012	-892	10	144,203
Percentage change 2017-2021	60.8	37.9	58.0	74,390.1	-37.7	-	141.1

a. Data are calendar year.

b. Table uses [UNSD geographies](#).

c. EU plant health regulation and official controls regulation were implemented in the EU and the UK on 14th December 2019.

d. Following the UK's exit from the EU, GB specific legislation has been introduced and there has been a phasing in of plant health controls. From January 2021 all regulated and notifiable high priority plants and plant products imported from the EU have been subject to plant health controls. Additionally, some commodities have been deregulated.

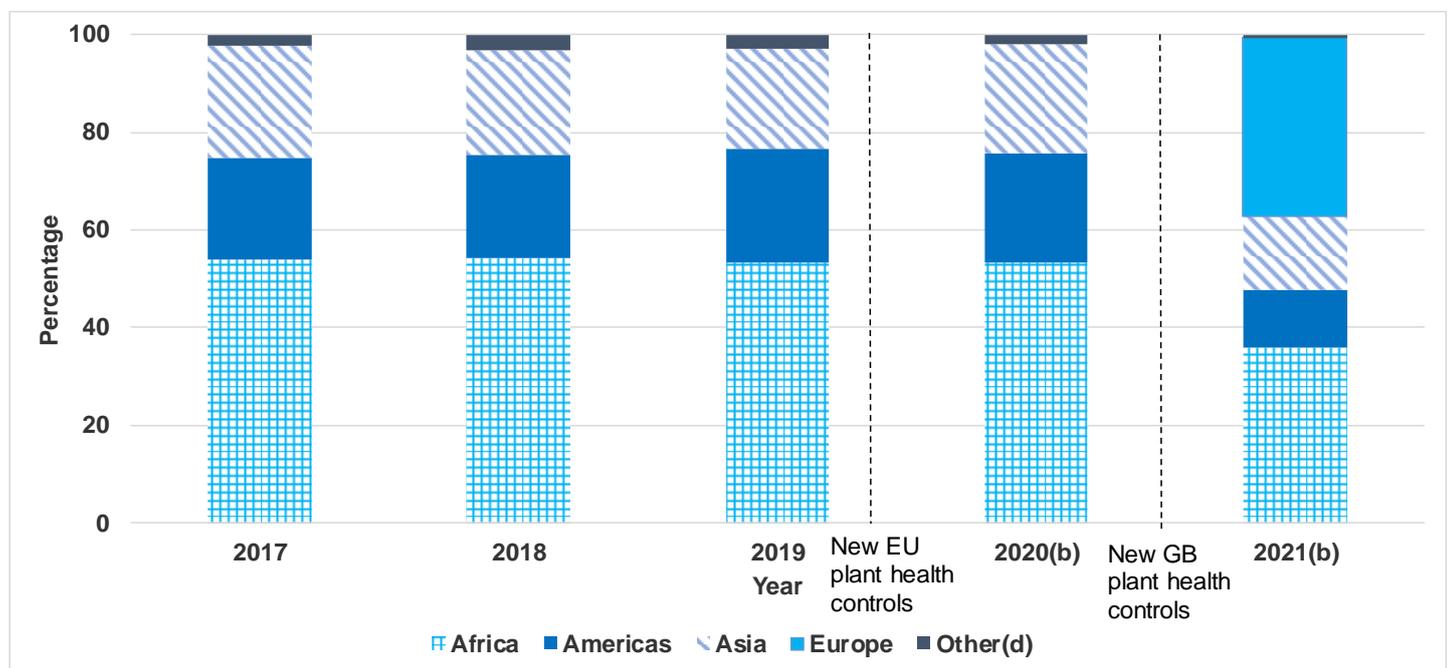
(B) indicates a break in the time series

Source: Plant Health and Seeds Inspectorate.

Table 8 shows the number of controlled consignments notified to PHSI, by region of origin. From 1 January 2021 imports of high priority controlled material from Europe have had to be notified so the most recent data is not directly comparable to previous years.

- The total number of controlled consignments increased from 146,111 in 2020 to 246,402 in 2021. The majority of this increase (around 89,000 consignments) can be attributed to the requirement for EU countries to notify GB of imports of high priority plants and plant commodities.
- Between 2020 and 2021 controlled consignments originating in the Americas and Oceania decreased. Additionally, Oceania was the only region to show a decrease in controlled consignments over the time period 2017 to 2021.
- Controlled consignments from Africa and Asia increased to their highest levels of the time period in 2021 however the increase between 2020 and 2021 was lower than between 2019 and 2020 when the EU plant health regulation and official controls were implemented.

Chart 4: Controlled consignments by region of origin, England and Wales, 2017 to 2021



Data are calendar year.

Chart uses [UNSD geographies](#).

Source: Plant Health and Seeds Inspectorate.

- Controlled consignments originating in Africa represented over half of all controlled consignments in each year shown until 2021 when the requirement to notify high priority plants and plant products from the EU was implemented.

- Although the requirement to notify low priority plants and plant products from the EU has not yet been implemented, controlled consignments originating in the Europe accounted for over one third of all notified consignments in 2021, around the same proportion as controlled consignments from Africa.

Forestry Commission

The Forestry Commission (FC) are responsible for inspections of timber, including sawn timber, wood shavings, wood chips, sawdust, controlled firewood¹⁴ and prefabricated buildings made of wood being imported to England, Scotland and Wales. The Forestry Commission are also responsible for inspections of wood packaging¹⁵ however this trade is not covered in this release.

It is important to note that changes in the number of consignments may be influenced by changes in trade patterns as well as by legislative changes. Factors which can contribute to changes in trade patterns include climate events, changes in market demand, social unrest or change, pest outbreaks etc. Controls may be applied to any number of countries where there is a pest risk but additionally countries may apply self-prohibition if they are aware of a pest issue in their country.

The war in Ukraine is having a major impact on bulk imports of sawn conifer timber from Russia. In the last few months of the 2021/22 financial year these imports have been replaced uncontrolled imports from the EU. This impact is ongoing.

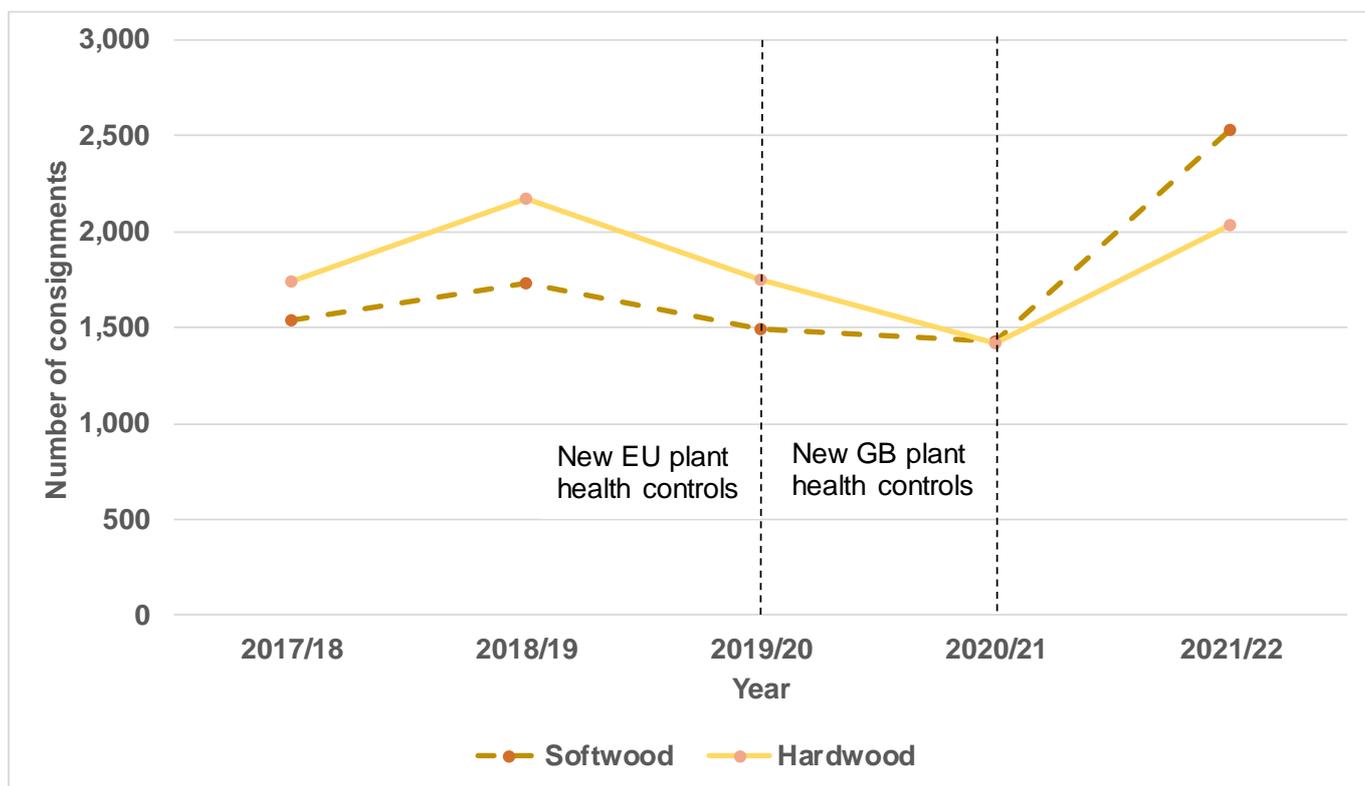
An additional group of commodities are included in the data covering 2021/22. These are wood shavings, wood chips, sawdust and 'other' (mainly oak barrel imports) and the measurement unit is kilograms rather than cubic metres. These data have not been included in the charts below but are included in the tables.

¹⁴ [Guidance on importing firewood](#)

¹⁵ [Guidance on importing or exporting wood packaging material](#)

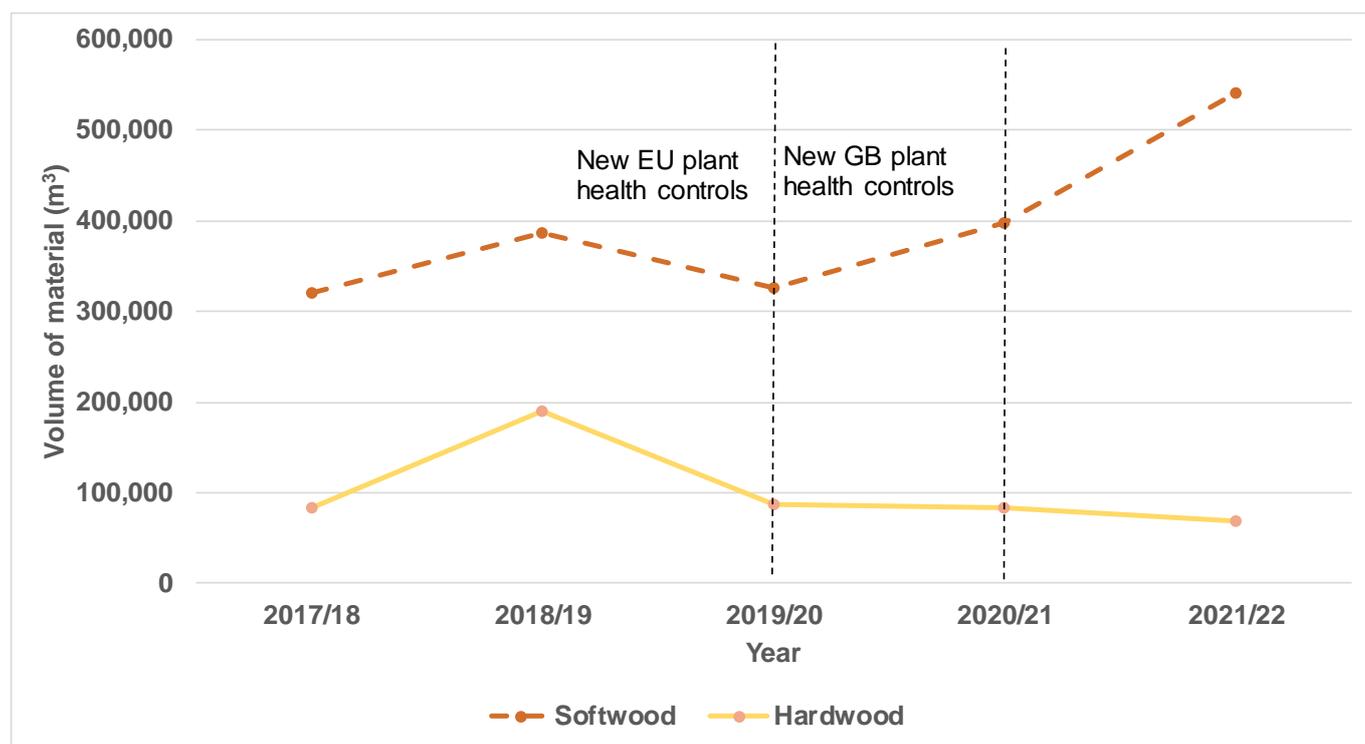
Chart 5a and 5b: Number of controlled consignments by timber type, England, Scotland and Wales, 2017/18 to 2021/22

5a Number of consignments



Please note that chart 5b only contains volumes of commodities recorded in cubic metres. In 2021/22, import data also contained entries of new commodities which are recorded in kilograms. These new commodities' masses are included in the tables below but not in charts as only one data point is available.

5b. Volume of material



Data are financial year.

- The number of controlled consignments of hardwood fluctuated over the time period. The increase seen between 2020/21 and 2021/22 was driven by the new requirement for EU countries to notify imports of regulated commodities and by the recovery of hardwood imports from outside the EU which had fallen to their lowest value of the time period in 2020/21.
- The number of controlled consignments of softwood also increased over the time period with the sharpest increase seen between 2020/21 and 2021/22. Like hardwood imports, this increase was driven by the new requirement for EU countries to notify imports of regulated commodities and by the recovery of softwood imports from some countries outside of the EU. When there are issues with supply, traders may seek to import unregulated softwood to meet market demand.
- Despite the increase in consignments, the volume of material (m³) associated with hardwood consignments decreased over the time period. This decreased was not offset by the increased reporting requirements affecting EU countries.

Table 9: Controlled consignments of softwood, by region of origin, England, Scotland and Wales, 2017/18 to 2021/22^a

	Year ^a					Value change 2017/18- 2021/22	Percentage change 2017/18- 2021/22
	2017/18	2018/19	2019/20 ^(B) ^c	2020/21 ^(B) ^d	2021/22		
Number of consignments							
Africa	0	4	8	4	7	7	z
Asia	15	13	17	13	4	-11	-73.3
Oceania	21	49	63	27	27	6	28.6
Central and South America	32	41	41	28	39	7	21.9
North America	1,108	1,036	860	815	1,043	-65	-5.9
Europe ^d	367	592	503	542	1,411	1,044	284.5
Total	1,543	1,735	1,492	1,429	2,531	988	64.0
Volume of notified product (m³)							
Africa	0	200	400	159	341	341	z
Asia	532	392	1,128	986	241	-291	-54.7
Oceania	876	2,629	2,997	1,266	1,156	280	32.0
Central and South America	2,574	4,162	3,472	2,634	3,216	642	24.9
North America	58,041	53,315	56,189	42,484	64,637	6,596	11.4
Europe	257,789	326,675	262,494	351,125	470,899	213,110	82.7
Total	319,812	387,373	326,680	398,654	540,490	220,678	69.0
Mass of notified product (kg)							
Europe/Africa/North America	x	x	x	x	1,622,732	z	z
Total	x	x	x	x	1,622,732	z	z

(B) indicates a break in the time series.

x indicates data are not available.

z indicates data are not applicable.

a. Table uses UNSD geographies

b. Data are financial year.

c. EU plant health regulation and official controls regulation were implemented in the EU and the UK on 14th December 2019.

d. Following the UK's exit from the EU, GB specific legislation has been introduced and there has been a phasing in of plant health controls. From January 2021 all regulated and notifiable high priority plants and plant products imported from the EU have been subject to plant health controls. Additionally, some commodities have been deregulated.

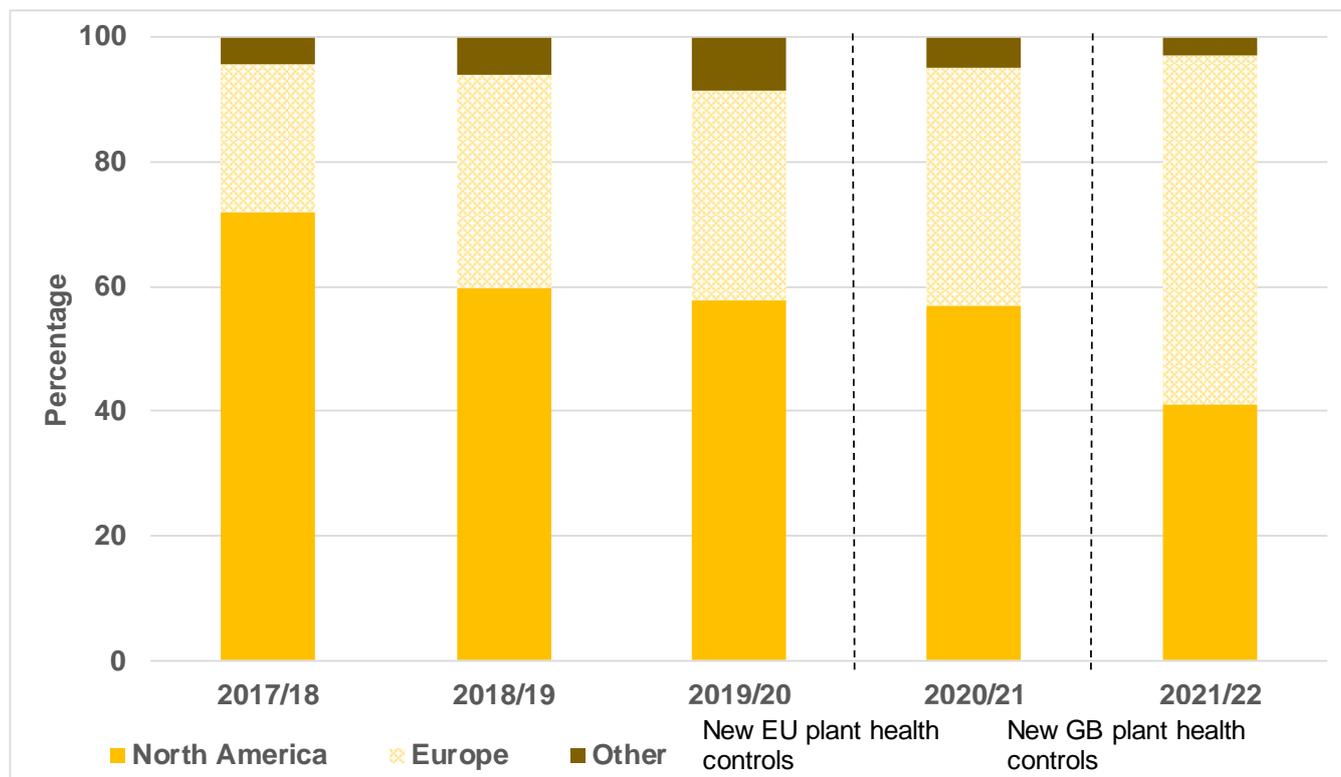
Source: Forestry Commission

Table 9 shows the number of controlled consignments of softwood and the associated volume of material notified to FC, by region of origin. From 1 January 2021 imports of high priority controlled material from Europe have had to be notified so the most recent data is not directly comparable to previous years.

- The requirement for EU countries to notify Forestry Commission of timber imports is reflected in the increase in the number and volume of softwood consignments from Europe in 2021/22. Prior to 2021/22 North America had the greatest number of notified consignments each year.
- In 2021/22 the number of consignments from Europe was more than double than in 2020/21 whilst the volume of material increased to a lesser degree, a third higher than in 2020/21. These additional imports were mostly conifer kindling which is imported in smaller consignments.
- The number of softwood consignments imported from Asia (-73.3%) and from North America (-5.9%) decreased over the time period but only Asia had a corresponding drop in the volume of material imported (-54.7%). The volume of imported material from North America increased by 11.4% suggesting a smaller number of larger consignments.

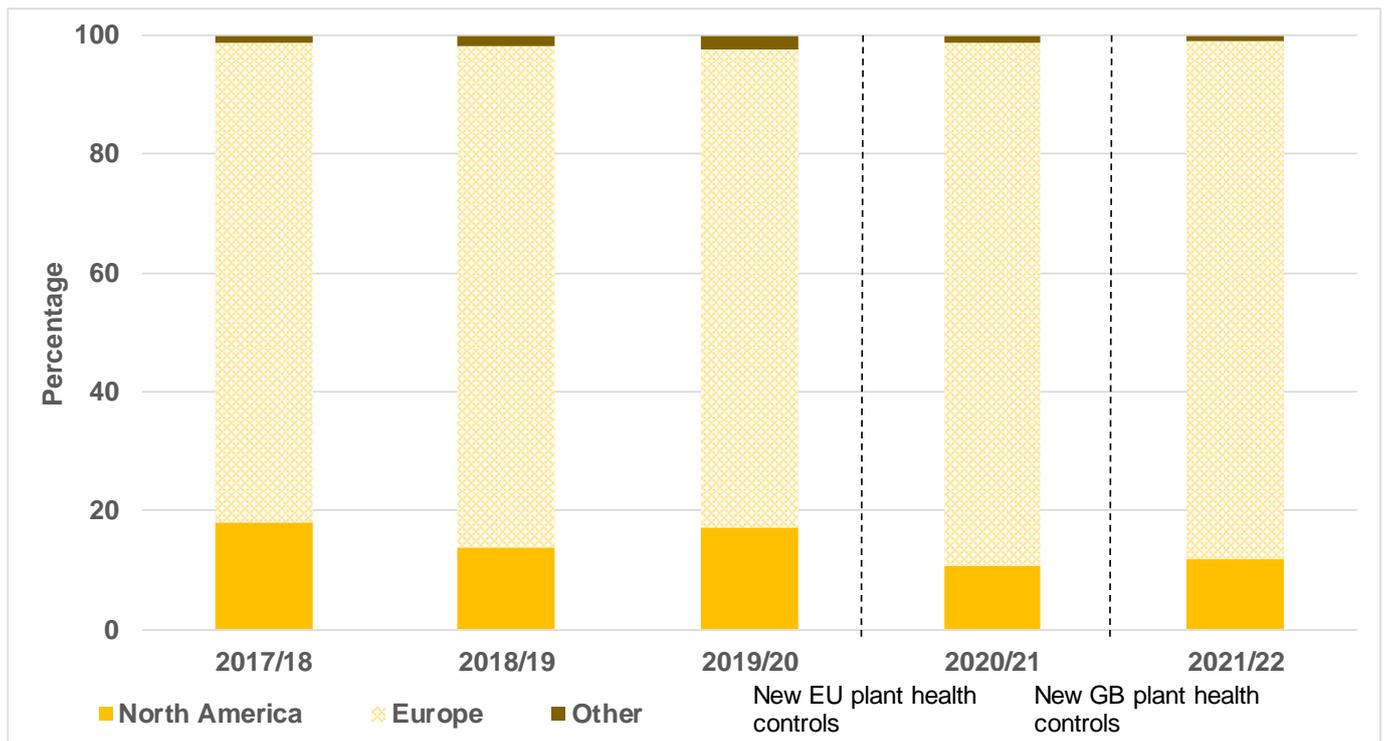
Chart 6a and 6b: Softwood consignments and volume, by region of origin, England, Scotland and Wales, 2017/18 to 2021/22

6a. Softwood consignments



Please note that chart 6b only contains volumes of commodities recorded in cubic metres. In 2021/22 import data also contained entries of new commodities which are recorded in kilograms. These new commodities' masses are included in the tables below but not in charts as only one data point is available

6b. Softwood volume



Data are financial year.
 Chart uses UNSD geographies.
 Source: Forestry Commission

- Prior to 2021/22 over half of all softwood consignments arrived from North America (57% to 72%) however in 2021/22 the greatest proportion of consignments arrived from Europe (55.7%). Throughout the time period the volume of softwood material imported from Europe was consistently higher than for North America.
- Following the introduction of GB plant health legislation and the requirement for EU countries to notify FC of regulated commodities, the proportion of softwood material imported from Europe increased to 87.1% in 2021/22. The proportion of consignments imported from Europe increased from 23.8% to 55.7% over the time period.
- The proportion of all controlled softwood consignments that originated in North America decreased by 30.6 percentage points between 2017/18 and 2021/22 whilst the volume of softwood material decreased by 6.2 percentage points.

Table 10: Controlled consignments of hardwood, by region of origin, England, Scotland and Wales, 2017/18 to 2021/22

	Year ^b					Value change 2017/18- 2021/22	Percentage change 2017/18- 2021/22
	2017/18	2018/19	2019/20 ^(B) ^c	2020/21 ^(B) ^d	2021/22		
Number of consignments							
North America	1,737	2,164	1,734	1,411	1,822	85	4.9
Europe/Asia	c	11	20	9	216	z	z
Total	1,737	2,175	1,754	1,420	2,038	301	17.3
Volume of notified product (m³)							
North America	83,472	189,544	84,980	83,113	58,670	-24,802	-29.7
Europe/Asia	c	793	1,253	443	9,713	z	z
Total	83,472	190,337	86,233	83,556	68,383	-15,089	-18.1
Mass of notified product (kg)							
North America	x	x	x	x	30,973	z	z
Total	x	x	x	x	30,973	z	z

(B) indicates a break in the time series.

x indicates data are not available.

z indicates data are not applicable.

a. Data are financial year.

b. Tables uses UNSD geographies.

c. EU plant health regulation and official controls regulation were implemented in the EU and the UK on 14th December 2019.

d. Following the UKs exit from the EU, GB specific legislation has been introduced and there has been a phasing in of plant health controls. From January 2021 all regulated and notifiable high priority plants and plant products imported from the EU have been subject to plant health controls. Additionally, some commodities have been deregulated.

Source: Forestry Commission

Table 10 shows the number of controlled consignments of hardwood and the volume of material, notified to FC, by region of origin. From 1 January 2021 imports of high priority controlled material from Europe have had to be notified so the most recent data is not directly comparable to previous years.

- The total number of hardwood consignments increased from 1,737 to 2,038 (17.3%) between 2017/18 and 2021/22 however the volume of controlled hardwood decreased from 83,472m³ to 68,383m³ (-18.1%). Most of the increase in consignments was following the requirement for EU countries to notify imports as generally EU consignments are smaller than consignments from outside the EU.
- The number of hardwood consignments imported from North America increased (4.9%) however the associated volume of material decreased (-29.7%).
- There was a noticeable decrease in the volume of hardwood material imported from Europe in 2020/21 compared to 2019/20 and 2021/22. However, following the implementation of the requirement for EU countries to notify imports figures for Europe/Asia were far higher than in previous years, particularly for volume.

Table 11: Controlled consignments of oak and ash timber, England, Scotland and Wales, 2017/18 to 2021/22

	Year ^a					Value change 2017/18- 2021/22	Percentage change 2017/18- 2021/22
	2017/18	2018/19	2019/20 ^(B) ^c	2020/21 ^(B) ^d	2021/22		
Number of consignments							
Ash	285	335	240	131	302	17	6
Oak	1,330	1,562	1,227	1,003	1,246	-84	-6
Total	1,615	1,897	1,467	1,134	1,548	-67	-4
Volume of notified product (m³)							
Ash	10,537	11,531	22,128	4,589	12,405	1,868	18
Oak	41,524	140,852	38,330	68,310	38,087	-3,437	-8
Total	52,061	152,383	60,458	72,899	50,492	-1,569	-3
Mass of notified product (kg)							
Ash	x	x	x	x	0	z	z
Oak	x	x	x	x	5,663	z	z
Total	x	x	x	x	5,663	z	z

(B) indicates a break in the time series.

x indicates data are not available.

z indicates data are not applicable.

a. Data are financial year.

b. EU plant health regulation and official controls regulation were implemented in the EU and the UK on 14th December 2019.

c. Following the UK's exit from the EU, GB specific legislation has been introduced and there has been a phasing in of plant health controls. From January 2021 all regulated and notifiable high priority plants and plant products imported from the EU have been subject to plant health controls. Additionally, some commodities have been deregulated.

Source: Forestry Commission

Ash from all third countries became controlled 2021, prior to this, ash originating in Canada, China, Japan, Mongolia, North Korea, South Korea, Russia, Taiwan, Europe and the USA was controlled. Oak originating in Canada, China, Japan, North Korea, South Korea, Russia, Taiwan, Turkey, Taiwan, USA and Vietnam is controlled.

- Oak and Ash accounted for 76.0% of all controlled hardwood consignments in 2020/21, having decreased from 93.0% in 2017/18. These two species accounted for 73.8% of the volume of controlled hardwood in 2021/22, an increase from 62.4% in 2017/18.
- Both the number of oak consignments and the associated volume decreased over the time period with 84 fewer consignments and 3,437m³ less material in 2021/22 compared to 2017/18.
- Oak accounted for 80.5% of controlled consignments of ash and oak, and 75.4% of the volume of material in 2021/22, a decrease of 1.9 percentage points in consignments and 4.3 percentage points for volume since 2017/18.

Glossary¹⁶

Commodity: A type of plant, plant product, or other article being moved for trade or other purpose [FAO, 1990; revised ICPM, 2001]

Consignment: A quantity of plants, plant products or other articles being moved from one country to another and covered, when required, by a single phytosanitary certificate (a consignment may be composed of one or more commodities or lots) [FAO, 1990; revised ICPM, 2001]. For PHSI data a consignment is a commodity type declared on a phytosanitary certificate. Some phytosanitary certificates will cover more than one commodity type and so the number of consignments declared will be more than the number of phytosanitary certificates.

Controlled plant products: plants and plant commodities which are required to undergo checks for pest and disease on crossing a customs border. For countries within the European Union (EU) this means upon entry to the EU, and this applied to GB trade until the UK exited the EU on 31 December 2020.

Country of origin: Country where the plants were grown [FAO, 1990; revised CEPM, 1996; CEPM, 1999]

Customs declaration: an official document that lists and gives details of goods that are being imported or exported. In legal terms, a customs declaration is the act whereby a person indicates the wish to place goods under a given customs procedure. This legal procedure is described in the Union Customs Code (UCC) (Articles 5 (12) and 158 to 187)¹⁷.

Exports (HMRC trade data): the country of destination as declared at the time of export. However, where goods can be traded while in transit (e.g., grain and crude oil), this may not necessarily be the final destination of the goods.

Food and crops: commodities traded for the primary purpose of human consumption.

Forestry: timber and wood commodities but not live trees.

Fruit: the sweet and fleshy product of a tree or other plant that contains seed and can be eaten as food.

Hardwood: timber from broadleaved trees.

Imports (HMRC trade data): The country from which the goods were originally dispatched to the UK without any commercial transaction in any intermediate country (either with or without breaking bulk in the course of transport). This is not necessarily the country of origin, manufacture or the last country from which the goods were shipped to the UK.

Inspection: Official visual examination of plants, plant products or other regulated articles to determine if pests are present or to determine compliance with phytosanitary regulations [FAO, 1990; revised FAO, 1995; formerly “inspect”].

¹⁶ Some definitions are taken from [ISPM 5 Glossary of phytosanitary terms](#)

¹⁷ [Union Customs Code](#)

Non-EU European countries: Countries outside of the European Union but geographically part of Europe¹⁸.

'Other' commodities: plants and parts of plants (including seeds and fruits) used primarily in perfumery or pharmacy or for insecticidal, fungicidal or similar purposes.

Phytosanitary certificate: An official paper document or its official electronic equivalent, consistent with the model certificates of the IPPC, attesting that a consignment meets phytosanitary import requirements [FAO, 1990; revised CPM, 2012]

Plants and plant commodities: goods including plants, trees, bulbs, seeds, fruit, vegetables and timber. Commodities are included if they are (1) raw plant products or (2) simply processed, i.e., processed in a manner that would not, in theory, remove the pest and disease risk.

Plants and planting material: live or dormant plants, seeds, bulbs or tubers of plants and trees and cut flowers.

Simple processing: Simple processing can include peeling, grinding, chopping and debarking but excludes cooking, fermenting and preservation in liquid. For further information please see International Standards for Phytosanitary Measures; ISPM No. 32; Categorisation of commodities according to their pest risk (2009)¹⁹.

Softwood: timber from coniferous trees.

Vegetable: A plant or part of a plant used as food, such as a cabbage, potato, turnip, or bean.

¹⁸ [List of non-EU countries](#)

¹⁹ [International standards for phytosanitary measures. ISPM No. 32](#)