

Nursery Survey

2019 Edition

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Introduction

This publication provides estimates of sales of improved nursery stock by nurseries in Great Britain for the planting year October 2017 to September 2018. The figures cover sales of Sitka spruce and Scots pine to public and private sector clients in Scotland. Total sales of these species are also reported.

“Improved nursery stock” refers to genetically improved Sitka spruce and Scots pine stock raised from seed of seed orchard origin and by vegetative propagation of parent material derived from controlled crosses. These trees are predicted to grow faster and produce better timber than unimproved stock.

Figures for the planting year October 2017 to September 2018 are published for the first time in this release. Figures for earlier years are unchanged from those previously released. For further details, see the Revisions section of the Annex.

Key findings

The main findings are:

- A total of 45.1 million plants (93%) derived from improved nursery stock were sold to Scotland in 2017/18. This represents a decrease from the previous year in the number of plants sold, when 45.8 million plants sold to Scotland were from improved stock.
- Of all sales in Great Britain in 2017/18, 53.9 million plants (93%) were derived from improved nursery stock, a decrease from the 55.7 million plants sold in the previous year that were from improved stock.

Sales of nursery stock

The figures in this release have been obtained from a voluntary survey of nursery businesses in Great Britain, run on behalf of Scottish Forestry (previously Forestry Commission Scotland).

The survey was set up to monitor the level of use of improved nursery stock in Scotland annually, as part of the system for reporting progress of the Scottish Forestry Strategy.

Improved nursery stock is defined as follows:

Species	Definition
Sitka spruce: Seedlings	Seed orchard material that falls in the tested category under the UK Forest Reproductive Material Regulations. This material will have superior performance for growth rate and stem form relative to untested material.
Sitka spruce: VP	Vegetatively propagated tested 'family mixture' material (either half or full sib families). This material is derived from controlled cross-pollination and then multiplied using vegetative propagation. This stock has significant genetic gains for both quality and quantity traits.
Scots pine	Seed orchard material that falls in the tested category under the EU Forest Reproductive Material Regulations. This material will have superior performance for growth rate and stem form relative to untested material.

'Tested' means material derived from the selection of individual trees or stands that have undergone evaluation for genetic quality and have been shown to be superior, in comparison to accepted standards.

Sales of nursery stock to Scotland

An estimated total of 48.3 million Sitka spruce and Scots pine plants were sold to Scotland in 2017/18 (Table 1), comprising 41.9 million Sitka spruce plants and 6.3 million Scots pine plants. This represented a decrease in sales of Sitka spruce plants from the previous year, but an increase in Scots pine sales.

A total of 45.1 million plants (93%) derived from improved nursery stock were sold to Scotland in 2017/18. Total sales of improved stock decreased by 0.7 million plants from the 45.8 million sales estimated in the previous year.

Table 1: Sales of nursery stock¹ to Scotland, 2013/14 to 2017/18

	Sitka spruce			Scots Pine	Total
	Seedlings	VP ²	Total		
million plants					
Total stock					
2013/14	23.6	6.8	30.4	5.9	36.3
2014/15	28.5	6.0	34.5	4.7	39.3
2015/16	32.4	5.9	38.4	5.6	44.0
2016/17	36.4	7.1	43.5	5.7	49.1
2017/18	37.4	4.6	41.9	6.3	48.3
Improved stock					
2013/14	21.7	6.8	28.5	2.5	31.0
2014/15	26.6	6.0	32.7	2.3	35.0
2015/16	31.6	5.9	37.6	3.6	41.2
2016/17	34.9	7.1	42.0	3.8	45.8
2017/18	36.4	4.6	41.0	4.1	45.1
% Improved					
2013/14	92%	100%	94%	43%	85%
2014/15	93%	100%	95%	50%	89%
2015/16	98%	100%	98%	64%	94%
2016/17	96%	100%	97%	67%	93%
2017/18	98%	100%	98%	65%	93%

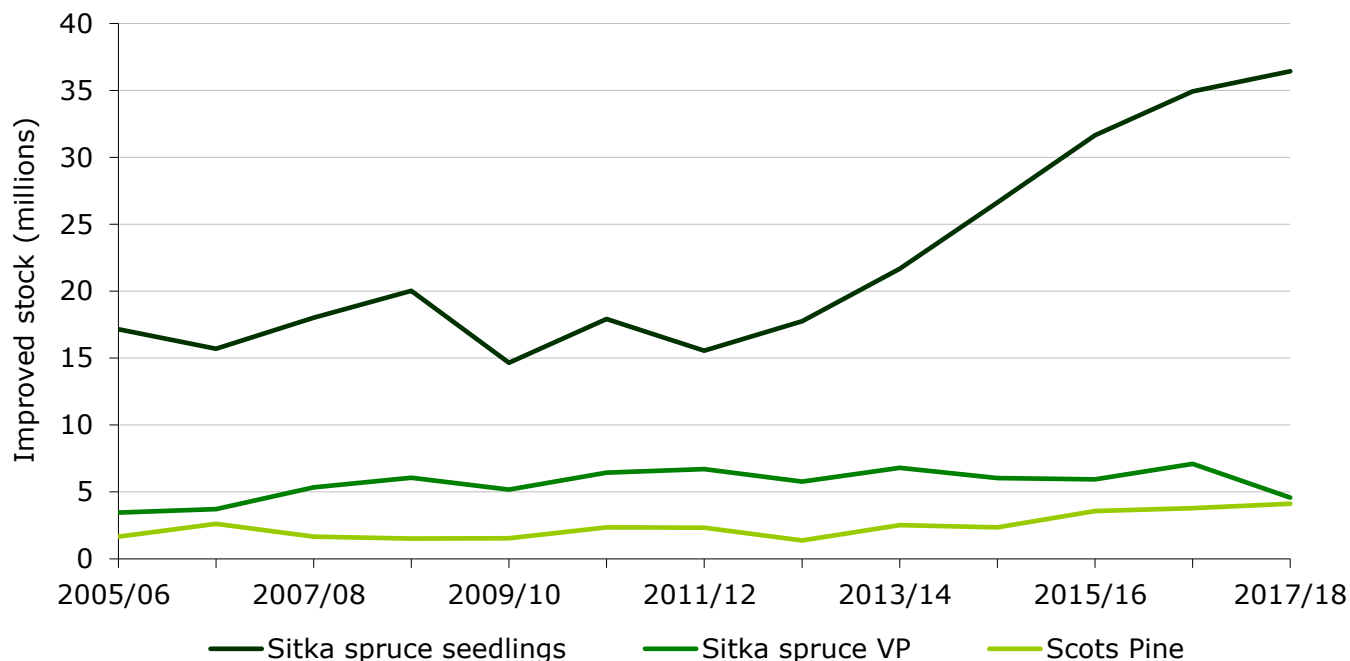
Source: Forest Research.

Note:

- (1) Results for respondents only. This is estimated to account for around 90-95% of all sales of Sitka spruce and Scots pine.
- (2) VP = vegetative propagation.
- (3) Years are planting years, running from October to September.
- (4) A longer time series, showing results back to the 2005/06 planting year, is available in the accompanying data tables to this release.
- (5) A temporary reduction in capacity at Forestry Commission nurseries has led to a drop in Sitka spruce production in 2017/18.

Figure 1 presents the sales of improved nursery stock to Scotland since the 2005/06 planting season. Sales of Sitka spruce seedlings have more than doubled since 2011-12. Sales of Scots Pine have also increased over most of this period.

Figure 1: Sales of improved stock to Scotland, 2005/06 to 2017/18



Source: Forest Research.

Note:

- (1) Results for respondents only. This is estimated to account for around 90-95% of all sales of Sitka spruce and Scots pine.
- (2) VP = vegetative propagation.
- (3) Years are planting years, running from October to September.
- (4) A temporary reduction in capacity at Forestry Commission nurseries has led to a drop in Sitka spruce production in 2017/18.

Total sales of nursery stock in Great Britain

Total sales (covering all of Great Britain) accounted for an estimated 57.8 million Sitka spruce and Scots pine plants in 2017/18 (Table 2), comprising 49.8 million Sitka spruce plants and 8.0 million Scots pine plants. This represented a decrease in sales of Sitka spruce plants from the previous year, but an increase in Scots pine sales.

A total of 53.9 million plants (93% of all sales) in 2017/18 were derived from improved nursery stock, a decrease from the 55.7 million plants sold in the previous year.

Table 2: Total sales (all GB) of nursery stock¹, 2013/14 to 2017/18

	Sitka spruce			Scots Pine	million plants
	Seedlings	VP ²	Total		Total
Total stock					
2013/14	27.8	10.2	37.9	7.2	45.1
2014/15	32.6	8.9	41.5	5.7	47.3
2015/16	40.0	8.1	48.1	7.0	55.1
2016/17	43.4	9.1	52.5	6.8	59.2
2017/18	44.3	5.5	49.8	8.0	57.8
Improved stock					
2013/14	25.6	10.2	35.7	3.7	39.5
2014/15	30.9	8.9	39.9	3.3	43.2
2015/16	39.1	8.1	47.2	4.9	52.1
2016/17	41.9	9.1	51.0	4.7	55.7
2017/18	43.3	5.5	48.7	5.2	53.9
% Improved					
2013/14	92%	100%	94%	52%	88%
2014/15	95%	100%	96%	58%	91%
2015/16	98%	100%	98%	70%	94%
2016/17	97%	100%	97%	70%	94%
2017/18	98%	100%	98%	64%	93%

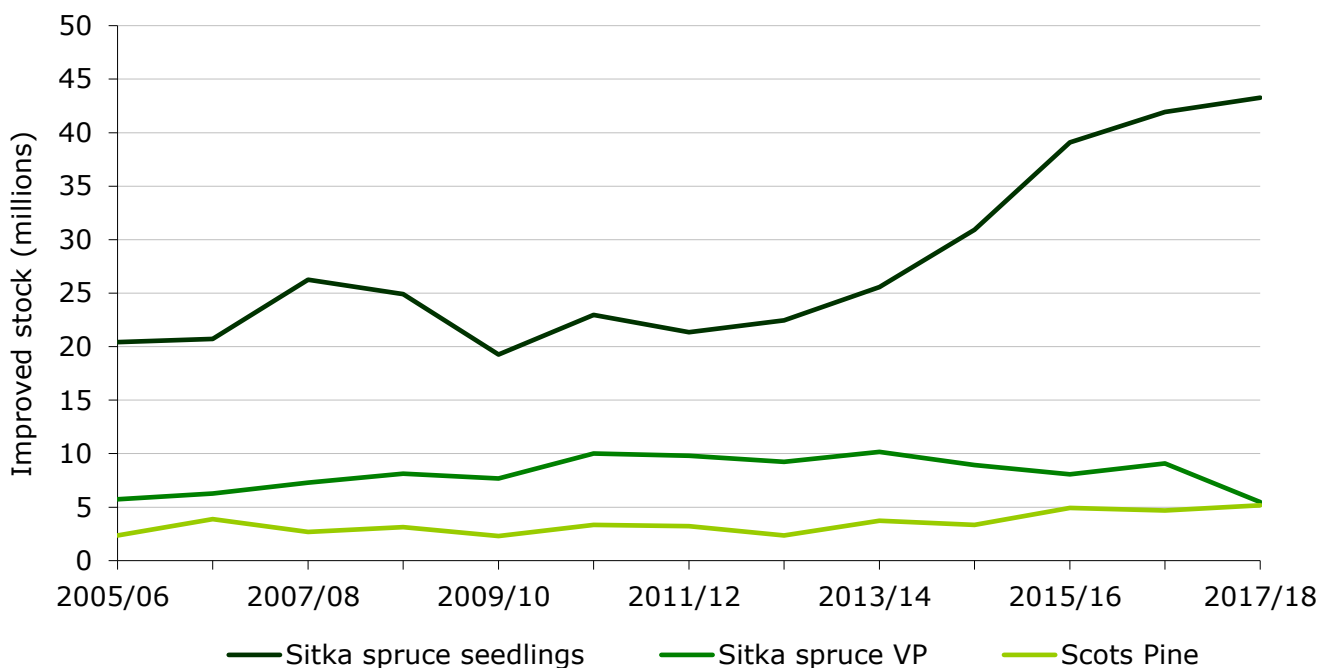
Source: Forest Research.

Note:

- (1) Results for respondents only. This is estimated to account for around 90-95% of all sales of Sitka spruce and Scots pine.
- (2) VP = vegetative propagation.
- (3) Years are planting years, running from October to September.
- (4) A longer time series, showing results back to the 2005/06 planting year, is available in the accompanying data tables to this release.
- (5) A temporary reduction in capacity at Forestry Commission nurseries has led to a drop in Sitka spruce production in 2017/18.

Figure 2 shows the total sales for all Great Britain of improved stock. As for sales of improved nursery stock to Scotland (shown in Figure 1), total sales of improved Sitka spruce seedlings have increased since 2011-12. Sales of improved Scots Pine have also increased in recent years.

Figure 2: Total sales (all GB) of improved stock, 2005/06 to 2017/18



Source: Forest Research.

Note:

- (1) Results for respondents only. This is estimated to account for around 90-95% of all sales of Sitka spruce and Scots pine.
- (2) VP = vegetative propagation.
- (3) Years are planting years, running from October to September.
- (4) A temporary reduction in capacity at Forestry Commission nurseries has led to a drop in Sitka spruce production in 2017/18.

Annex

Introduction

This annex provides background information on the nursery survey statistics presented in this release. It covers the data sources and methodology used to produce the statistics, information on quality measures and on any revisions to historic data and links to further information.

Glossary

Conifers Trees with needles and cones, such as spruce, pine and larch.

Great Britain (GB) England, Wales and Scotland.

Improved nursery stock Genetically improved Sitka spruce and Scots pine stock raised from seed of seed orchard origin and by vegetative propagation of parent material derived from controlled crosses. Further detailed information is provided on page 4 of this release.

Planting year Twelve month period running from October to September.

Scots pine Species of coniferous tree, native to Great Britain.

Seed orchard Orchard where trees are grown for seed production rather than timber.

Seedling Young tree grown from seed, prior to being transplanted or planted out in the forest.

Sitka spruce Species of coniferous tree, not native to Great Britain.

Vegetative propagation (VP) Reproduction by cuttings, layering or grafting and not involving fertilisation.

Data Sources and Methodology

The figures in this release have been obtained from a voluntary survey of nursery businesses in Great Britain, run on behalf of Scottish Forestry (previously Forestry Commission Scotland). The survey was set up to monitor the level of use of improved nursery stock in Scotland annually, as part of the system for reporting progress of the Scottish Forestry Strategy. The Scottish Forestry Strategy is available at <https://forestry.gov.scot/forestry-strategy>.

The results relate to respondents only; no estimates have been made for non-respondents to the survey (in years when a 100% response rate has not been achieved) or for businesses not covered by the survey. It is estimated that the respondents in 2012/13

have accounted for around 90% of all sales of Sitka spruce and Scots pine, whilst respondents in other years have accounted for around 95% of total sales.

Quality

For the 2017/18 survey, questionnaires were issued to a total of 12 nurseries (including the 3 Forestry Commission/ Forestry and Land Scotland nurseries). A total of 12 responses were received, giving a response rate of 100%.

Further quality information on FC Official Statistics is available at:

www.forestresearch.gov.uk/tools-and-resources/statistics/about-our-statistics/code-of-practice/quality-of-official-statistics/.

Revisions

Figures for the planting year 2017/18 are published for the first time in this release. Figures for earlier years have not been revised.

The Forestry Commission's revisions policy sets out how revisions and errors to these statistics are dealt with, and can be found at:

<https://www.forestresearch.gov.uk/documents/4355/FCrevisions.pdf>.

Further information

The assistance of the Confederation of Forest Industries (Confor) and the nursery trade in the running of this survey and the provision of data are gratefully acknowledged.

Figures in tables have been independently rounded, so may not add to the totals shown.

Statistics on areas of new planting and publicly funded restocking are available on a financial year basis and are released twice a year. Provisional figures are released in "Provisional Woodland Statistics" (previously "Woodland Area, Planting and Public Funded Restocking") in early June. Final figures are released in Forestry Statistics at the end of September.

Release schedule

Results for the planting year 2018/19 are expected to be published in September 2020.

Official Statistics

This is an Official Statistics publication. For more information about Official Statistics and the UK Statistics Authority visit www.statisticsauthority.gov.uk.