

Nursery Survey

2020 Edition

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Coverage:

Great Britain

Geographical breakdown:

Scotland

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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 2018 to September 2019. 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.

The figures in this release have been obtained from a voluntary survey of nursery businesses in Great Britain, run on behalf of Scottish Forestry, to monitor the level of improved nursery stock.

“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 2018 to September 2019 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 49.3 million plants (93%) derived from improved nursery stock were sold to Scotland in 2018/19. This represents an increase from the previous year in the number of plants sold, when 45.1 million plants sold to Scotland were from improved stock.
- Of all sales in Great Britain in 2018/19, 63.7 million plants (94%) were derived from improved nursery stock, an increase from the 53.9 million plants sold in the previous year that were from improved stock.

Improved nursery stock

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.

Sales of nursery stock to Scotland

An estimated total of 53.0 million Sitka spruce and Scots pine plants were sold to Scotland in 2018/19 (Table 1), comprising 44.3 million Sitka spruce plants and 8.7 million Scots pine plants. This represents an increase in sales of both Sitka spruce (6%) and Scots pine (37%) from the previous year.

A total of 49.3 million plants (93%) derived from improved nursery stock were sold to Scotland in 2018/19. Total sales of improved stock increased by 10% from the 45.1 million sales estimated in the previous year.

Table 1: Sales of nursery stock¹ to Scotland, 2014/15 to 2018/19
million plants

	Sitka Spruce Seedlings	Sitka Spruce VP ²	Sitka Spruce Total	Scots Pine	Total
Total stock					
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
2018/19	36.9	7.3	44.3	8.7	53.0
Improved stock					
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
2018/19	36.2	7.3	43.5	5.8	49.3
% Improved					
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%
2018/19	98%	100%	98%	67%	93%

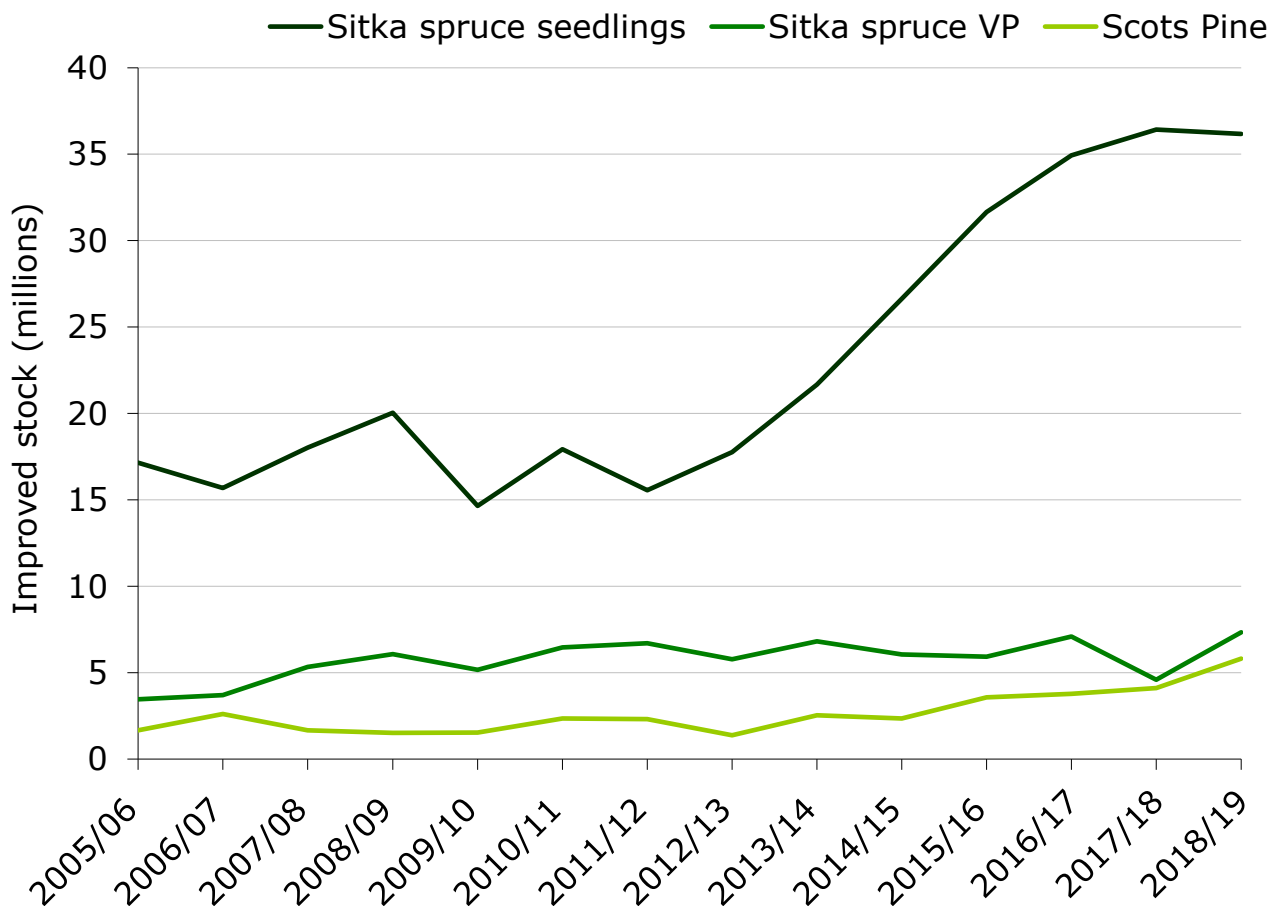
Source: Forest Research.

Note:

1. Results for respondents only. This is estimated to account for around 95% of all sales of Sitka spruce and Scots pine in each of the years shown in the table.
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.

Figure 1 presents the sales of improved nursery stock to Scotland since the 2005/06 planting season. Sales of improved Sitka spruce seedlings have more than doubled since 2011/12. Sales of improved Scots Pine have increased each year since the 2012/13 planting year.

Figure 1: Sales of improved stock to Scotland, 2005/06 to 2018/19



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.

Total sales of nursery stock in Great Britain

Total sales (covering all of Great Britain) accounted for an estimated 67.4 million Sitka spruce and Scots pine plants in 2018/19 (Table 2), comprising 57.3 million Sitka spruce plants and 10.1 million Scots pine plants. This represents an increase in sales of both Sitka spruce (15%) and Scots pine (25%) from the previous year.

A total of 63.7 million plants (94% of all sales) in 2018/19 were derived from improved nursery stock, an increase of 18% from the 53.9 million plants sold in the previous year.

Table 2: Total sales (all GB) of nursery stock¹, 2014/15 to 2018/19
million plants

	Sitka Spruce Seedlings	Sitka Spruce VP ²	Sitka Spruce Total	Scots Pine	Total
Total stock					
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
2018/19	49.3	8.0	57.3	10.1	67.4
Improved stock					
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
2018/19	48.5	8.0	56.5	7.2	63.7
% Improved					
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%
2018/19	98%	100%	99%	71%	94%

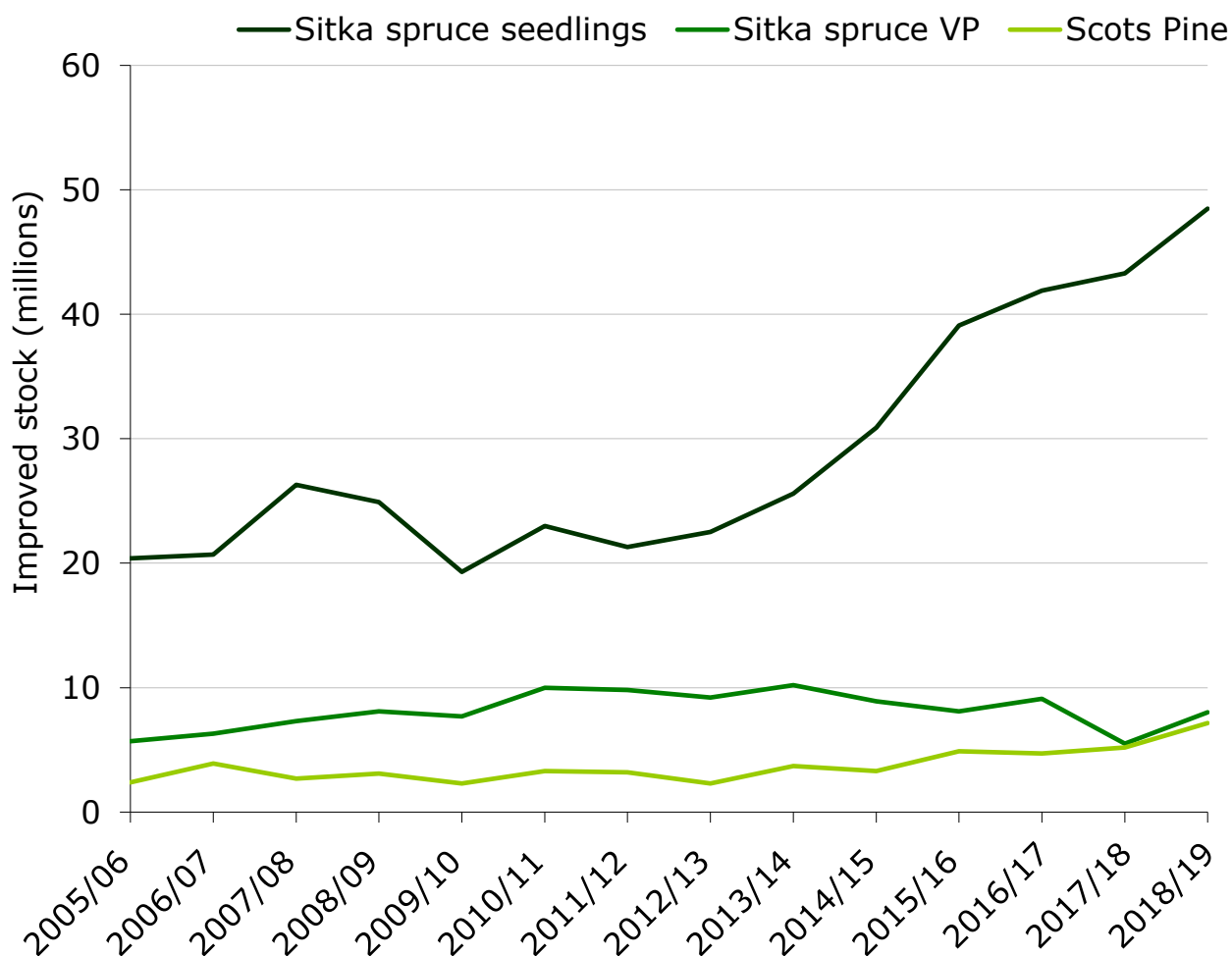
Source: Forest Research.

Note:

1. Results for respondents only. This is estimated to account for around 95% of all sales of Sitka spruce and Scots pine in each of the years shown in the table.
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.

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 increased each year since the 2012/13 planting year.

Figure 2: Total sales (all GB) of improved stock, 2005/06 to 2018/19



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.

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.

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 2018/19 survey, questionnaires were issued to a total of 13 nurseries (including the 3 Forestry Commission/ Forestry and Land Scotland nurseries). A total of 13 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 2018/19 are published for the first time in this release. Figures for earlier years have not been revised.

Our 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" in early June. Final figures are released in Forestry Statistics at the end of September.

Release schedule

Results for the planting year 2019/20 are expected to be published in September 2021.

Official Statistics

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