

# NFI provisional estimates of timber availability in larches in woodlands in Scotland

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## Summary

This report provides forecasts of softwood availability from larches growing in Scotland from a future scenario in which all larches are felled in 2014. The methodology used to generate these forecasts is the same as that utilised for the production of the 2011 National Forest Inventory (NFI) suite of reports, but is using a different harvesting scenario. These reports are published at [www.forestry.gov.uk/inventory](http://www.forestry.gov.uk/inventory).

The estimates and forecasts provided in this report are provisional in nature and have been produced in response to the need for information on larches in south-west Scotland following outbreaks of *Phytophthora* in this region. They may be subject to revision after further quality checks on the data and the processes used to generate the estimates. If these result in substantial changes to the estimates, a revised publication will be issued.



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## Approach

The approach taken in the derivation of these results and to be used in their interpretation is described in the full suite of 2011 forecast reports which can be found at [www.forestry.gov.uk/forecast](http://www.forestry.gov.uk/forecast). Refer to the *NFI Forecasts Methodology Overview* report for a detailed description and discussion of forecasting future availability of timber from NFI field survey data and from information in the Forestry Commission's sub-compartment database (SCDB). Forecasts of timber production from conifer trees in the United Kingdom context under a range of future harvesting scenarios can be found in the *25 year forecast of softwood timber availability* report.

In the current report, however, a radically different harvesting scenario is assumed for larches in Scotland in which all larch is felled in 2014, thus illustrating the volume and size of timber from larch that is estimated will become available if such action were taken in response to Phytophthora infection of larch in Scotland. This report can be read in conjunction with the associated report entitled *NFI provisional estimates of larches in woodlands in Scotland* that provides a profile of larches in Scotland as at 31 March 2011. The data and information used for generating the results presented in the present report are the same as that used for this associated report.

## Results

The results presented in this report provide estimates of the volume, productivity in terms of volume per hectare, and the average age and size of timber that would be expected to result from felling all larch in Scotland in 2014. Information on size of harvested larch timber is provided by breaking down total volume harvested into top diameter classes of 7-20 centimetres and over 20 centimetres. Estimates of the stocked areas of larches involved in such action are also provided.

Results are presented separately for larch on Forestry Commission land and on private sector land. For the purposes of this scenario, it is assumed that the Forestry Commission do not execute any sales of land in Scotland that has standing larch. This differs from the scenarios analysed in the main NFI softwood forecast reports, which activated planned FC disposals throughout the forecast period. Results are also presented separately for European larch, hybrid larch, Japanese larch and other larches.

Results are provided for Scotland as a whole (**Tables 1 and 2, Figures 1-3**), for each of the Scottish NFI regions (**Tables 3-12, Figures 4-8**) and for each of three Phytophthora risk zones in South-West Scotland (**Tables 13-18, Figures 9-11**). Results for the Phytophthora risk zones are provided on a cumulative basis, as zone 1 alone, zones 1 and 2 combined, and zones 1, 2 and 3 combined.

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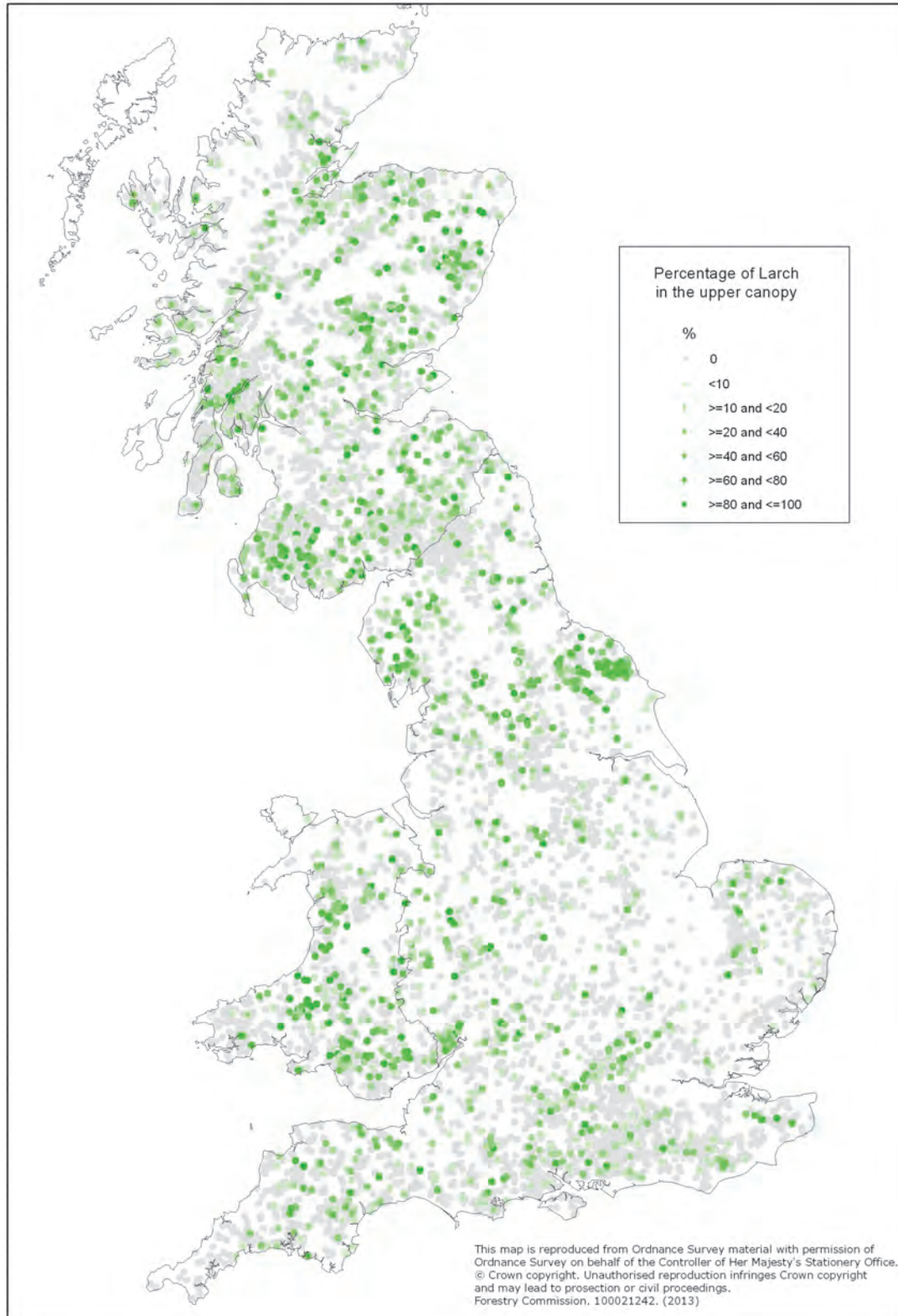
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It should be noted that, in the production summary tables (e.g. **Table 1**), the quoted estimates of average age at time of felling are calculated with reference to the area of the crop, by weighting ages of felled stands by their stocked areas. Alternative expressions of average age of the population at time of felling could be expressed, for example, in terms of the average age of stands (regardless of size), average age of trees, or average age by volume of harvested timber. Each of these versions of average age would result in different estimates. In particular, the average age by volume of harvested timber would normally be substantially higher because older crops will generally contain higher amounts of standing volume, and will therefore yield higher amounts of harvested volume per stand, tree or harvested area.

The estimates of stocked area and standing volume at time of felling may be subject to revision after further quality checks on the data and the processes used to generate the estimates. If these result in substantial changes to the estimates, a revised publication will be issued. It should be noted that these results show a small decline in the stocked area estimate for 2014 in South Scotland and its *Phytophthora* risk zones compared with the estimates for 2011 presented in *NFI provisional estimates of larches in woodlands in Scotland*. This is due to a minor variation in the method used in preparing the two reports.

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**Map 1** Proportion of larch within the upper canopy of 9000 NFI sample squares



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## Scotland

**Table 1** 2014 production summary for larches in Scotland

2014 production summary		FC	Private sector	Combined
<b>Scotland</b>				
<b>All Larches</b>				
Area	000 ha	26.2	41.6	<b>67.8</b>
Volume	000 m <sup>3</sup> obs	5,276	13,685	<b>18,961</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	201	329	<b>280</b>
Average age	years	42	44	<b>43</b>
<b>Japanese larch</b>				
Area	000 ha	15.3	4.3	<b>19.6</b>
Volume	000 m <sup>3</sup> obs	3,394	971	<b>4,365</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	222	226	<b>223</b>
Average age	years	45	39	<b>44</b>
<b>Hybrid larch</b>				
Area	000 ha	7.9	27.2	<b>35.1</b>
Volume	000 m <sup>3</sup> obs	1,233	9,229	<b>10,462</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	156	339	<b>298</b>
Average age	years	31	44	<b>41</b>
<b>European larch</b>				
Area	000 ha	3.0	10.1	<b>13.1</b>
Volume	000 m <sup>3</sup> obs	649	3,482	<b>4,131</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	214	345	<b>315</b>
Average age	years	55	44	<b>47</b>
<b>Other larches</b>				
Area	000 ha	0.0	0.0	<b>0.0</b>
Volume	000 m <sup>3</sup> obs	0	0	<b>0</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	0	0	<b>0</b>
Average age	years	0	0	<b>0</b>

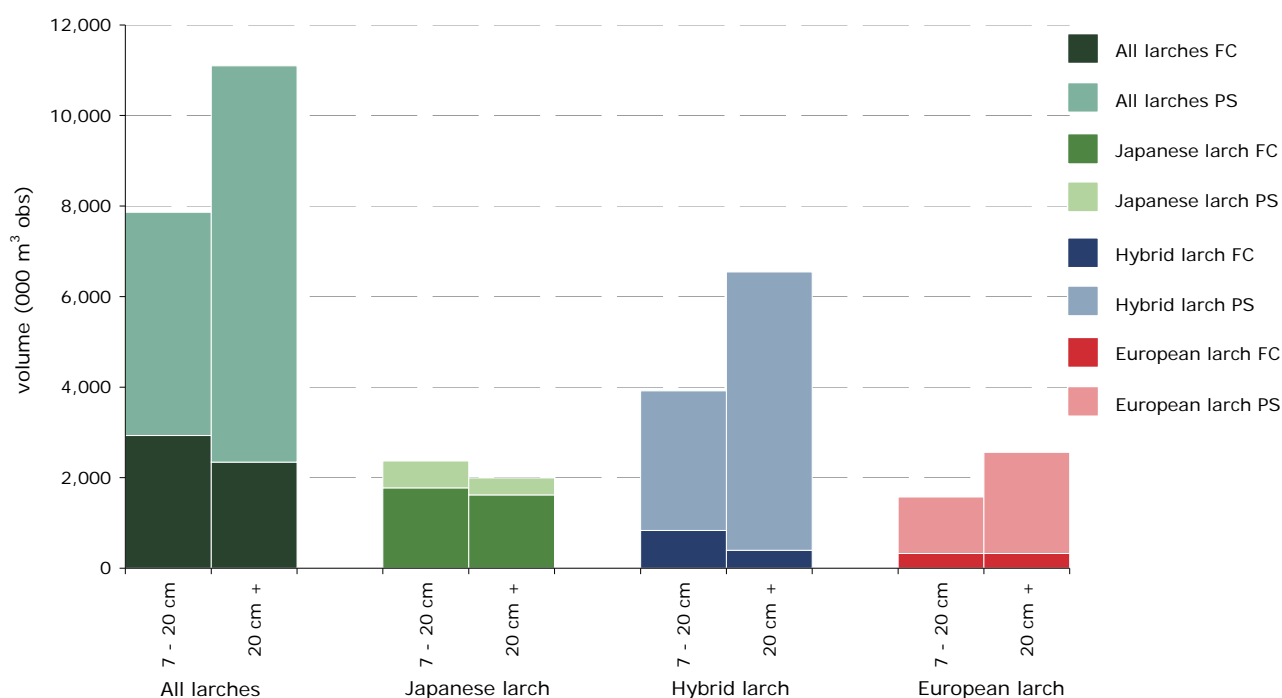


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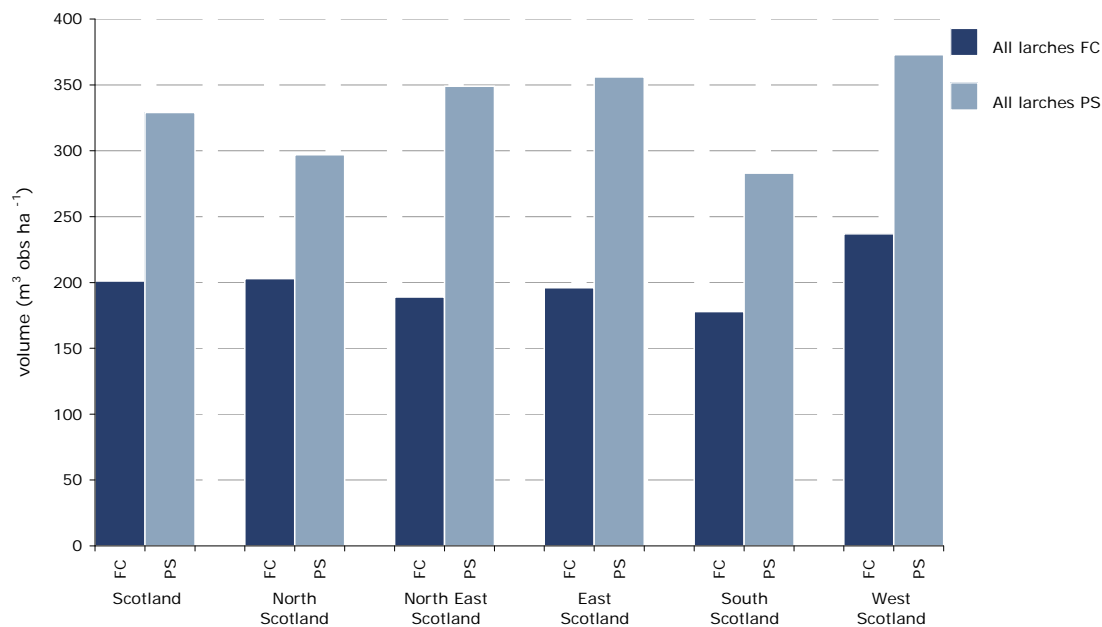
**Table 2** Forecast of larches assuming clearfell in 2014 in Scotland

Top diameter class	FC	Private sector		Total
	volume (000 m <sup>3</sup> obs)	volume (000 m <sup>3</sup> obs)	SE%	volume (000 m <sup>3</sup> obs)
<b>Scotland</b>				
<b>All Larches</b>	<b>5,276</b>	<b>13,685</b>	<b>8</b>	<b>18,961</b>
7-20 cm	2,933	4,929	9	7,863
20+ cm	2,343	8,756	10	11,098
<b>Japanese larch</b>	<b>3,394</b>	<b>971</b>	<b>26</b>	<b>4,365</b>
7-20 cm	1,774	595	26	2,369
20+ cm	1,620	376	30	1,997
<b>Hybrid larch</b>	<b>1,233</b>	<b>9,229</b>	<b>10</b>	<b>10,462</b>
7-20 cm	836	3,083	11	3,919
20+ cm	397	6,146	12	6,543
<b>European larch</b>	<b>649</b>	<b>3,482</b>	<b>17</b>	<b>4,131</b>
7-20 cm	324	1,251	18	1,574
20+ cm	325	2,231	18	2,557
<b>Other larches</b>	<b>0</b>	<b>0</b>	<b>-</b>	<b>0</b>
7-20 cm	0	0	-	0
20+ cm	0	0	-	0

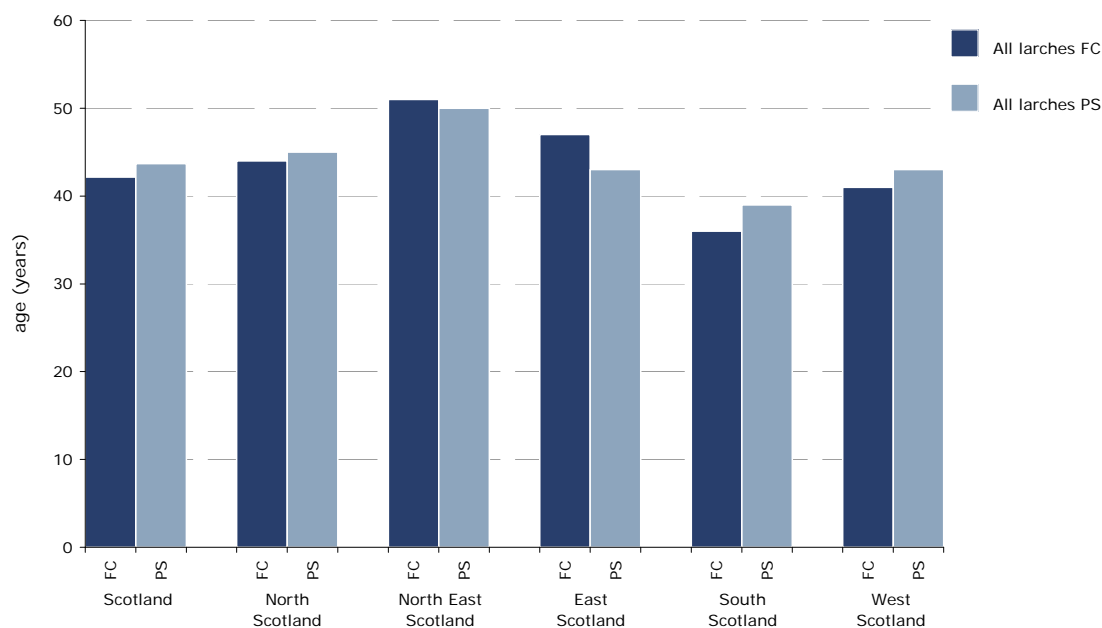
**Figure 1** Volume (000 m<sup>3</sup> obs) of larches in woodlands in Scotland at clearfell in 2014



**Figure 2** Average volume per hectare ( $\text{m}^3$  obs) of larches in woodlands in Scotland at clearfell in 2014



**Figure 3** Average age (years) of larches in woodlands of Scotland at clearfell in 2014



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## North Scotland

**Table 3** 2014 production summary for larches in North Scotland

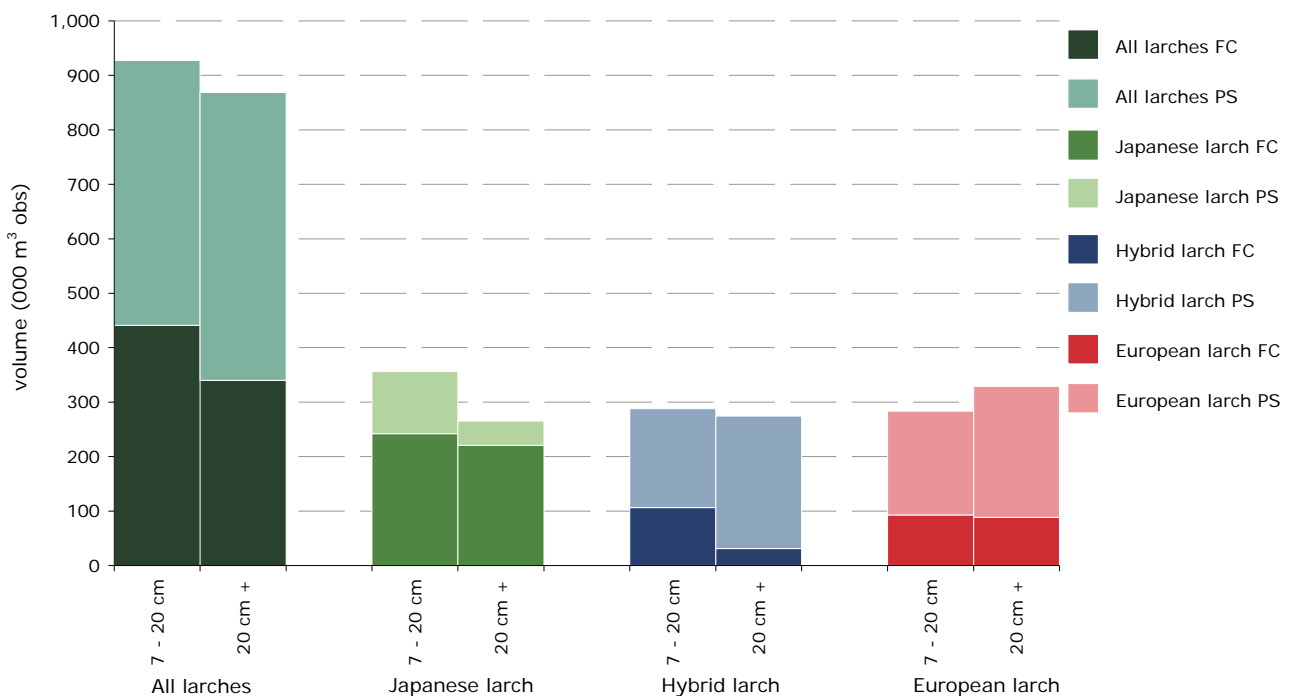
2014 production summary		FC	Private sector	Combined
<b>North Scotland</b>				
<b>All Larches</b>				
Area	000 ha	3.8	3.4	<b>7.3</b>
Volume	000 m <sup>3</sup> obs	781	1,015	<b>1,796</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	203	297	<b>247</b>
Average age	years	44	45	<b>44</b>
<b>Japanese larch</b>				
Area	000 ha	2.2	0.6	<b>2.8</b>
Volume	000 m <sup>3</sup> obs	463	158	<b>621</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	212	256	<b>222</b>
Average age	years	47	44	<b>46</b>
<b>Hybrid larch</b>				
Area	000 ha	0.9	1.5	<b>2.4</b>
Volume	000 m <sup>3</sup> obs	137	426	<b>563</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	152	278	<b>231</b>
Average age	years	31	48	<b>42</b>
<b>European larch</b>				
Area	000 ha	0.8	1.3	<b>2.0</b>
Volume	000 m <sup>3</sup> obs	181	432	<b>613</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	236	339	<b>300</b>
Average age	years	51	42	<b>45</b>
<b>Other larches</b>				
Area	000 ha	0.0	0.0	<b>0.0</b>
Volume	000 m <sup>3</sup> obs	0	0	<b>0</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	0	0	<b>0</b>
Average age	years	0	0	<b>0</b>

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**Table 4** Forecast of larches assuming clearfell in 2014 in North Scotland

Top diameter class	FC	Private sector		Total
	2014 volume (000 m <sup>3</sup> obs)	2014 volume (000 m <sup>3</sup> obs)	SE%	2014 volume (000 m <sup>3</sup> obs)
<b>North Scotland</b>				
<b>All Larches</b>	<b>781</b>	<b>1,015</b>	<b>27</b>	<b>1,796</b>
7-20 cm	441	486	27	927
20+ cm	340	529	33	869
<b>Japanese larch</b>	<b>463</b>	<b>158</b>	<b>65</b>	<b>621</b>
7-20 cm	242	113	65	356
20+ cm	221	44	71	265
<b>Hybrid larch</b>	<b>137</b>	<b>426</b>	<b>33</b>	<b>563</b>
7-20 cm	106	182	38	288
20+ cm	31	244	40	275
<b>European larch</b>	<b>181</b>	<b>432</b>	<b>52</b>	<b>613</b>
7-20 cm	93	191	48	284
20+ cm	88	241	59	329
<b>Other larches</b>	<b>0</b>	<b>0</b>	<b>-</b>	<b>0</b>
7-20 cm	0	0	-	0
20+ cm	0	0	-	0

**Figure 4** Volume (000 m<sup>3</sup> obs) of larches in woodlands in North Scotland at clearfell in 2014



## North East Scotland

**Table 5** 2014 production summary for larches in North East Scotland

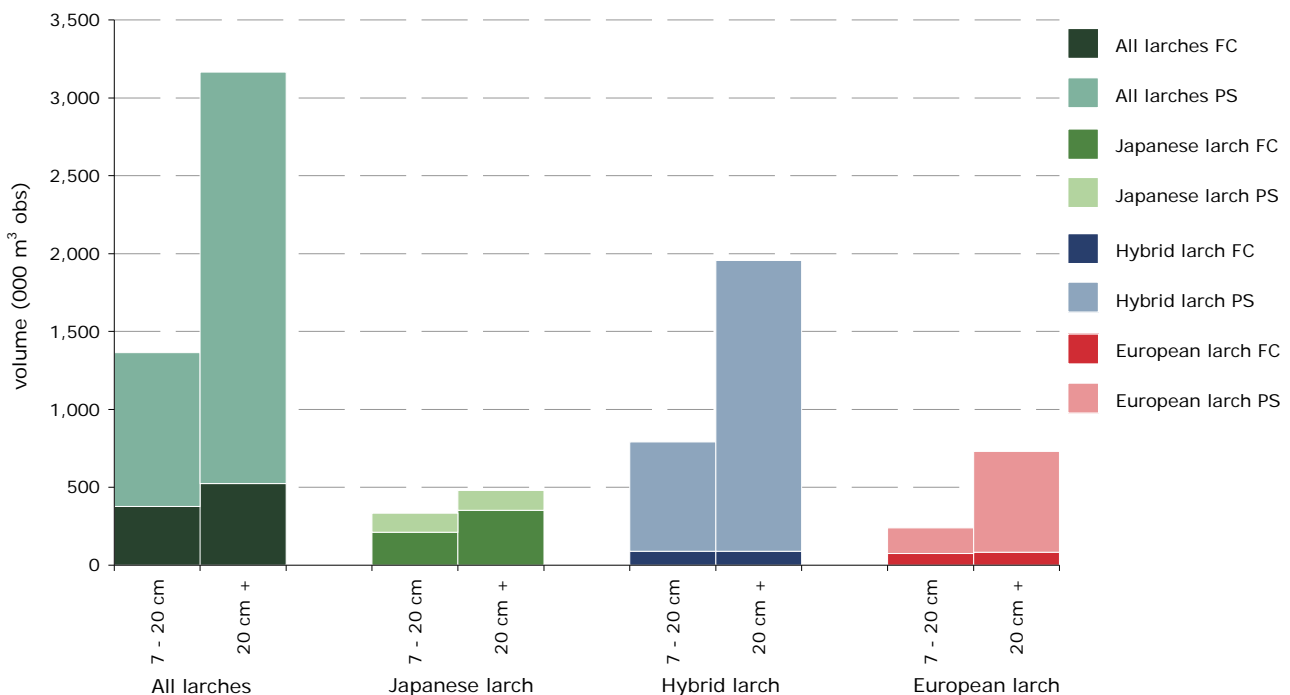
2014 production summary		FC	Private sector	Combined
<b>North East Scotland</b>				
<b>All Larches</b>				
Area	000 ha	4.8	10.4	<b>15.2</b>
Volume	000 m <sup>3</sup> obs	901	3,628	<b>4,529</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	189	349	<b>299</b>
Average age	years	51	50	<b>50</b>
<b>Japanese larch</b>				
Area	000 ha	2.7	0.8	<b>3.4</b>
Volume	000 m <sup>3</sup> obs	564	250	<b>813</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	211	323	<b>236</b>
Average age	years	55	67	<b>58</b>
<b>Hybrid larch</b>				
Area	000 ha	1.3	7.4	<b>8.6</b>
Volume	000 m <sup>3</sup> obs	179	2,568	<b>2,747</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	142	349	<b>319</b>
Average age	years	36	47	<b>45</b>
<b>European larch</b>				
Area	000 ha	0.8	2.3	<b>3.1</b>
Volume	000 m <sup>3</sup> obs	159	810	<b>969</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	191	359	<b>314</b>
Average age	years	62	52	<b>55</b>
<b>Other larches</b>				
Area	000 ha	0.0	0.0	<b>0.0</b>
Volume	000 m <sup>3</sup> obs	0	0	<b>0</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	0	0	<b>0</b>
Average age	years	0	0	<b>0</b>

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**Table 6** Forecast of larches assuming clearfell in 2014 in North East Scotland

Top diameter class	FC	Private sector		Total
	2014 volume (000 m <sup>3</sup> obs)	2014 volume (000 m <sup>3</sup> obs)	SE%	2014 volume (000 m <sup>3</sup> obs)
<b>North East Scotland</b>				
<b>All Larches</b>	<b>901</b>	<b>3,628</b>	<b>18</b>	<b>4,529</b>
7-20 cm	376	988	21	1,364
20+ cm	525	2,641	19	3,165
<b>Japanese larch</b>	<b>564</b>	<b>250</b>	<b>65</b>	<b>813</b>
7-20 cm	212	122	69	334
20+ cm	352	128	63	480
<b>Hybrid larch</b>	<b>179</b>	<b>2,568</b>	<b>22</b>	<b>2,747</b>
7-20 cm	89	702	26	791
20+ cm	89	1,867	24	1,956
<b>European larch</b>	<b>159</b>	<b>810</b>	<b>35</b>	<b>969</b>
7-20 cm	75	164	37	239
20+ cm	84	646	37	730
<b>Other larches</b>	<b>0</b>	<b>0</b>	<b>-</b>	<b>0</b>
7-20 cm	0	0	-	0
20+ cm	0	0	-	0

**Figure 5** Volume (000 m<sup>3</sup> obs) of larches in woodlands in North East Scotland at clearfell in 2014



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## East Scotland

**Table 7** 2014 production summary for larches in East Scotland

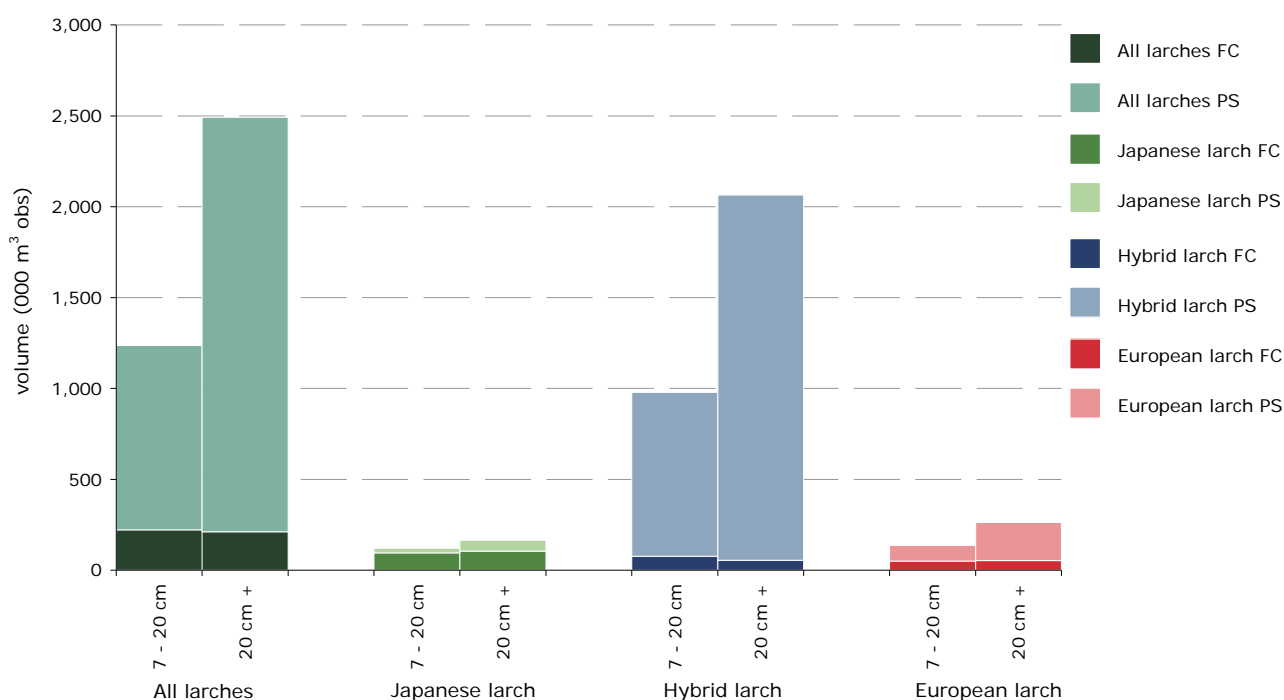
2014 production summary		FC	Private sector	Combined
<b>East Scotland</b>				
<b>All Larches</b>				
Area	000 ha	2.2	9.3	<b>11.5</b>
Volume	000 m <sup>3</sup> obs	433	3,296	<b>3,729</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	196	356	<b>325</b>
Average age	years	47	43	<b>44</b>
<b>Japanese larch</b>				
Area	000 ha	0.9	0.2	<b>1.0</b>
Volume	000 m <sup>3</sup> obs	200	85	<b>285</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	228	540	<b>276</b>
Average age	years	52	57	<b>53</b>
<b>Hybrid larch</b>				
Area	000 ha	0.7	8.0	<b>8.7</b>
Volume	000 m <sup>3</sup> obs	130	2,913	<b>3,043</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	189	365	<b>351</b>
Average age	years	43	43	<b>43</b>
<b>European larch</b>				
Area	000 ha	0.6	1.1	<b>1.8</b>
Volume	000 m <sup>3</sup> obs	102	295	<b>398</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	159	266	<b>227</b>
Average age	years	45	39	<b>41</b>
<b>Other larches</b>				
Area	000 ha	0.0	0.0	<b>0.0</b>
Volume	000 m <sup>3</sup> obs	0	0	<b>0</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	0	0	<b>0</b>
Average age	years	0	0	<b>0</b>

# NFI Provisional Report

**Table 8** Forecast of larches assuming clearfell in 2014 in East Scotland

Top diameter class	FC	Private sector		Total
	2014 volume (000 m <sup>3</sup> obs)	2014 volume (000 m <sup>3</sup> obs)	SE%	2014 volume (000 m <sup>3</sup> obs)
<b>East Scotland</b>				
<b>All Larches</b>	<b>433</b>	<b>3,296</b>	<b>16</b>	<b>3,729</b>
7-20 cm	222	1,014	15	1,236
20+ cm	211	2,282	19	2,493
<b>Japanese larch</b>	<b>200</b>	<b>85</b>	<b>96</b>	<b>285</b>
7-20 cm	95	26	89	121
20+ cm	105	60	100	164
<b>Hybrid larch</b>	<b>130</b>	<b>2,913</b>	<b>18</b>	<b>3,043</b>
7-20 cm	76	903	17	978
20+ cm	54	2,010	21	2,065
<b>European larch</b>	<b>102</b>	<b>295</b>	<b>51</b>	<b>398</b>
7-20 cm	50	86	49	136
20+ cm	52	210	56	262
<b>Other larches</b>	<b>0</b>	<b>0</b>	<b>-</b>	<b>0</b>
7-20 cm	0	0	-	0
20+ cm	0	0	-	0

**Figure 6** Volume (000 m<sup>3</sup> obs) of larches in woodlands in East Scotland at clearfell in 2014





## South Scotland

**Table 9** 2014 production summary for larches in South Scotland

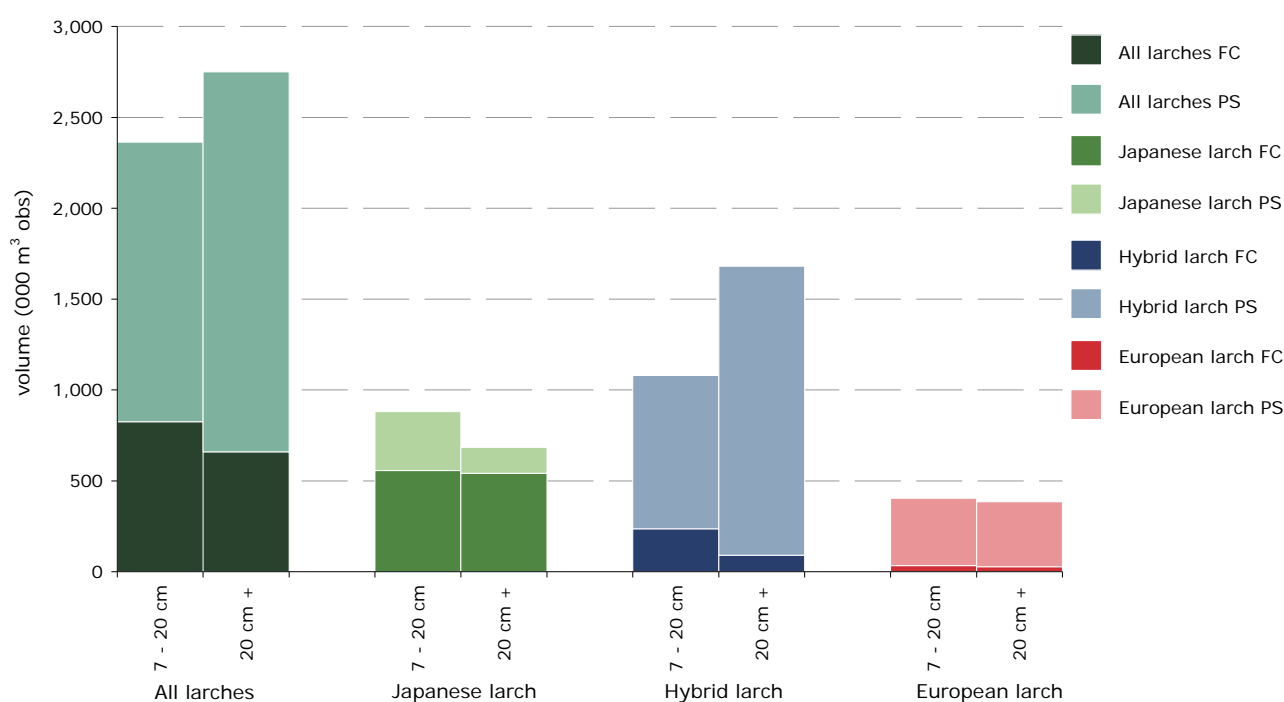
2014 production summary		FC	Private sector	Combined
<b>South Scotland</b>				
<b>All Larches</b>				
Area	000 ha	8.3	12.8	<b>21.2</b>
Volume	000 m <sup>3</sup> obs	1,485	3,629	<b>5,114</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	178	283	<b>242</b>
Average age	years	36	39	<b>38</b>
<b>Japanese larch</b>				
Area	000 ha	5.3	2.6	<b>7.9</b>
Volume	000 m <sup>3</sup> obs	1,098	467	<b>1,564</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	207	176	<b>197</b>
Average age	years	41	29	<b>37</b>
<b>Hybrid larch</b>				
Area	000 ha	2.8	7.9	<b>10.6</b>
Volume	000 m <sup>3</sup> obs	326	2,434	<b>2,761</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	119	309	<b>260</b>
Average age	years	25	42	<b>38</b>
<b>European larch</b>				
Area	000 ha	0.3	2.3	<b>2.6</b>
Volume	000 m <sup>3</sup> obs	61	728	<b>789</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	215	313	<b>302</b>
Average age	years	55	39	<b>41</b>
<b>Other larches</b>				
Area	000 ha	0.0	0.0	<b>0.0</b>
Volume	000 m <sup>3</sup> obs	0	0	<b>0</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	0	0	<b>0</b>
Average age	years	0	0	<b>0</b>

# NFI Provisional Report

**Table 10** Forecast of larches assuming clearfell in 2014 in South Scotland

Top diameter class	FC	Private sector		Total
	2014 volume (000 m <sup>3</sup> obs)	2014 volume (000 m <sup>3</sup> obs)	SE%	2014 volume (000 m <sup>3</sup> obs)
<b>South Scotland</b>				
<b>All Larches</b>	<b>1,485</b>	<b>3,629</b>	<b>16</b>	<b>5,114</b>
7-20 cm	825	1,539	16	2,364
20+ cm	659	2,090	20	2,750
<b>Japanese larch</b>	<b>1,098</b>	<b>467</b>	<b>29</b>	<b>1,564</b>
7-20 cm	557	324	33	880
20+ cm	541	143	26	684
<b>Hybrid larch</b>	<b>326</b>	<b>2,434</b>	<b>21</b>	<b>2,761</b>
7-20 cm	236	844	20	1,080
20+ cm	91	1,590	25	1,681
<b>European larch</b>	<b>61</b>	<b>728</b>	<b>36</b>	<b>789</b>
7-20 cm	33	371	42	404
20+ cm	28	357	38	385
<b>Other larches</b>	<b>0</b>	<b>0</b>	<b>-</b>	<b>0</b>
7-20 cm	0	0	-	0
20+ cm	0	0	-	0

**Figure 7** Volume (000 m<sup>3</sup> obs) of larches in woodlands in South Scotland at clearfell in 2014



## West Scotland

**Table 11** 2014 production summary for larches in West Scotland

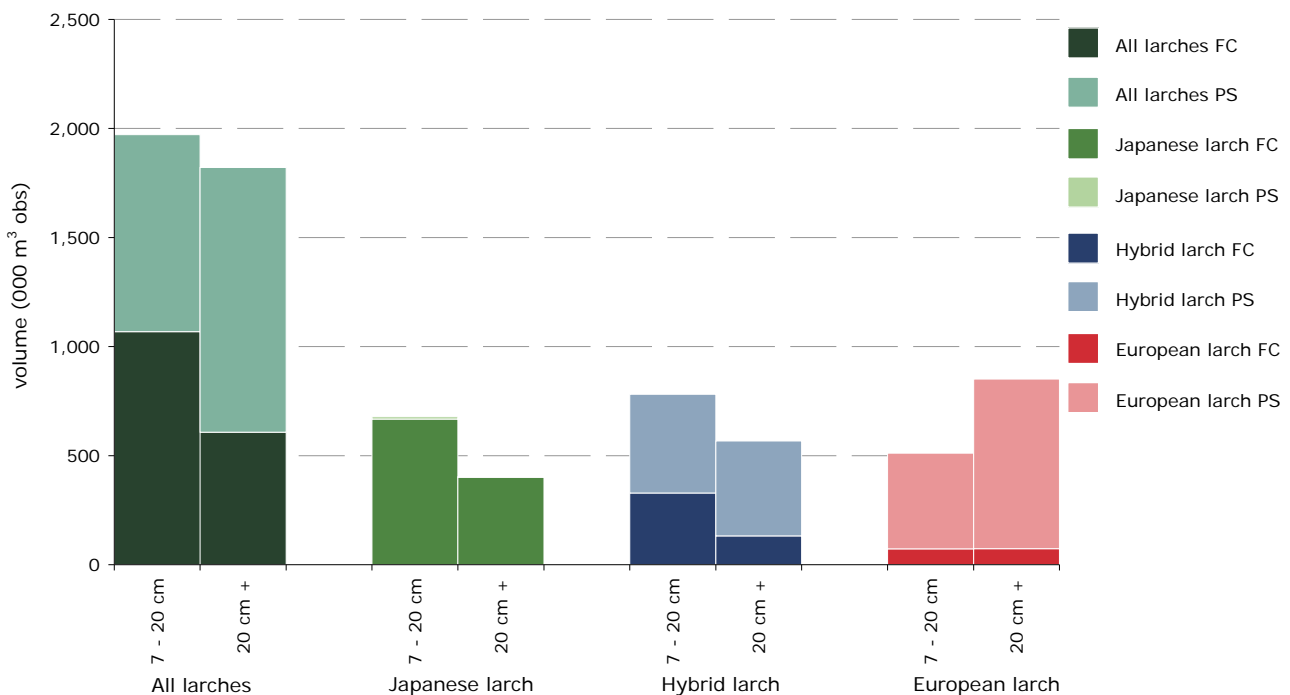
2014 production summary		FC	Private sector	Combined
<b>West Scotland</b>				
<b>All Larches</b>				
Area	000 ha	7.1	5.7	<b>12.8</b>
Volume	000 m <sup>3</sup> obs	1,676	2,117	<b>3,793</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	237	373	<b>297</b>
Average age	years	41	43	<b>42</b>
<b>Japanese larch</b>				
Area	000 ha	4.3	0.1	<b>4.4</b>
Volume	000 m <sup>3</sup> obs	1,069	12	<b>1,081</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	251	122	<b>248</b>
Average age	years	43	24	<b>43</b>
<b>Hybrid larch</b>				
Area	000 ha	2.3	2.5	<b>4.8</b>
Volume	000 m <sup>3</sup> obs	461	888	<b>1,349</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	198	361	<b>282</b>
Average age	years	33	43	<b>38</b>
<b>European larch</b>				
Area	000 ha	0.5	3.1	<b>3.6</b>
Volume	000 m <sup>3</sup> obs	147	1,216	<b>1,363</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	289	390	<b>376</b>
Average age	years	65	44	<b>47</b>
<b>Other larches</b>				
Area	000 ha	0.0	0.0	<b>0.0</b>
Volume	000 m <sup>3</sup> obs	0	0	<b>0</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	0	0	<b>0</b>
Average age	years	0	0	<b>0</b>

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**Table 12** Forecast of larches assuming clearfell in 2014 in West Scotland

Top diameter class	FC	Private sector		Total
	2014 volume (000 m <sup>3</sup> obs)	2014 volume (000 m <sup>3</sup> obs)	SE%	2014 volume (000 m <sup>3</sup> obs)
<b>West Scotland</b>				
<b>All Larches</b>	<b>1,676</b>	<b>2,117</b>	<b>20</b>	<b>3,793</b>
7-20 cm	1,069	902	22	1,971
20+ cm	608	1,214	23	1,822
<b>Japanese larch</b>	<b>1,069</b>	<b>12</b>	<b>86</b>	<b>1,081</b>
7-20 cm	667	11	84	678
20+ cm	402	2	102	403
<b>Hybrid larch</b>	<b>461</b>	<b>888</b>	<b>32</b>	<b>1,349</b>
7-20 cm	329	453	37	782
20+ cm	132	435	38	567
<b>European larch</b>	<b>147</b>	<b>1,216</b>	<b>27</b>	<b>1,363</b>
7-20 cm	73	439	25	511
20+ cm	74	777	30	851
<b>Other larches</b>	<b>0</b>	<b>0</b>	<b>-</b>	<b>0</b>
7-20 cm	0	0	-	0
20+ cm	0	0	-	0

**Figure 8** Volume (000 m<sup>3</sup> obs) of larches in woodlands in West Scotland at clearfell in 2014



## South-west Scotland

The estimates presented in this report for the *Phytophthora* risk zones in south-west Scotland are provided on a cumulative basis, as zone 1 alone, zones 1 and 2 combined, and finally zones 1, 2 and 3 combined.

**Map 2** *Phytophthora* zones in south-west Scotland



## South-west Scotland (zone 1)

**Table 13** 2014 production summary for larches in south-west Scotland (zone 1)

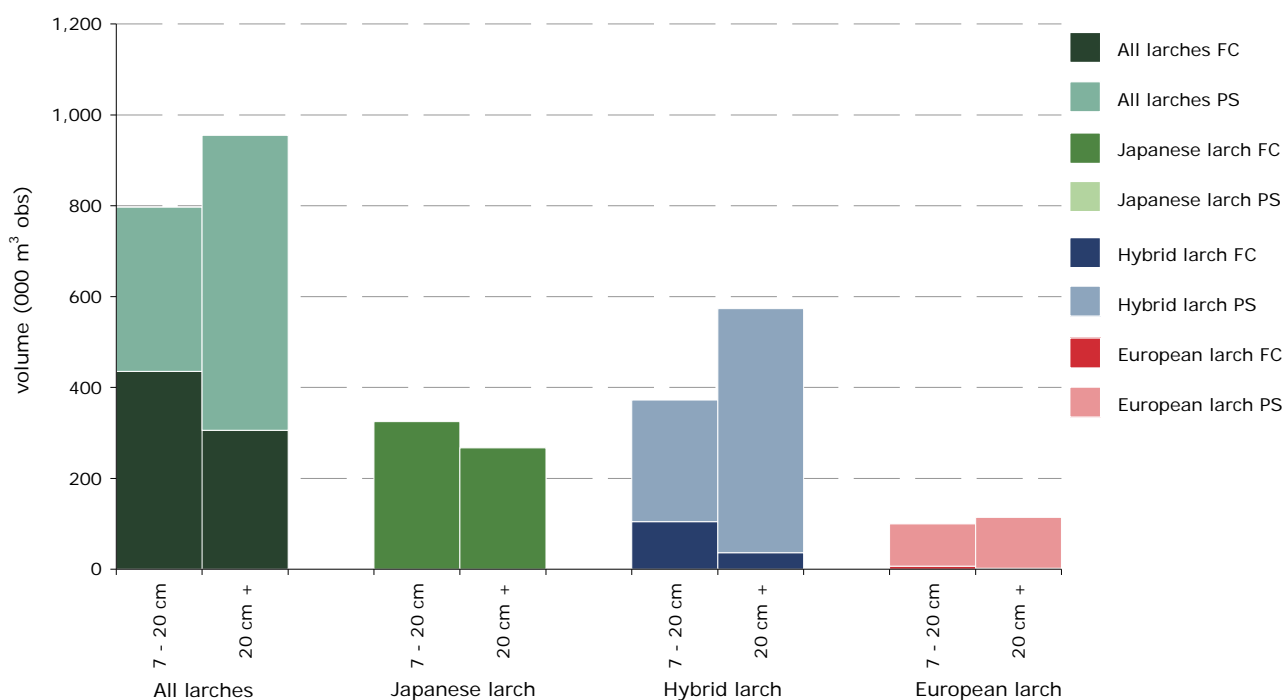
2014 production summary		FC	Private sector	Combined
<b>South-west Scotland (zone 1)</b>				
<b>All Larches</b>				
Area	000 ha	4.2	2.5	<b>6.6</b>
Volume	000 m <sup>3</sup> obs	741	1,010	<b>1,751</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	177	411	<b>264</b>
Average age	years	35	42	<b>38</b>
<b>Japanese larch</b>				
Area	000 ha	2.9	0.0	<b>2.9</b>
Volume	000 m <sup>3</sup> obs	592	0	<b>592</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	206	0	<b>206</b>
Average age	years	39	0	<b>39</b>
<b>Hybrid larch</b>				
Area	000 ha	1.2	1.7	<b>2.9</b>
Volume	000 m <sup>3</sup> obs	141	805	<b>946</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	114	474	<b>323</b>
Average age	years	25	42	<b>35</b>
<b>European larch</b>				
Area	000 ha	0.1	0.8	<b>0.8</b>
Volume	000 m <sup>3</sup> obs	8	205	<b>214</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	118	271	<b>258</b>
Average age	years	35	43	<b>42</b>
<b>Other larches</b>				
Area	000 ha	0.0	0.0	<b>0.0</b>
Volume	000 m <sup>3</sup> obs	0	0	<b>0</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	0	0	<b>0</b>
Average age	years	0	0	<b>0</b>

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**Table 14** Forecast of larches assuming clearfell in 2014 in south-west Scotland (zone 1)

Top diameter class	FC	Private sector		Total
	2014 volume (000 m <sup>3</sup> obs)	2014 volume (000 m <sup>3</sup> obs)	SE%	2014 volume (000 m <sup>3</sup> obs)
<b>South-west Scotland (zone 1)</b>				
<b>All Larches</b>	<b>741</b>	<b>1,010</b>	<b>38</b>	<b>1,751</b>
7-20 cm	435	361	38	797
20+ cm	306	649	43	955
<b>Japanese larch</b>	<b>592</b>	<b>0</b>	<b>-</b>	<b>592</b>
7-20 cm	325	0	-	325
20+ cm	267	0	-	267
<b>Hybrid larch</b>	<b>141</b>	<b>805</b>	<b>45</b>	<b>946</b>
7-20 cm	104	268	43	372
20+ cm	36	537	51	573
<b>European larch</b>	<b>8</b>	<b>205</b>	<b>66</b>	<b>214</b>
7-20 cm	6	93	85	100
20+ cm	2	112	57	114
<b>Other larches</b>	<b>0</b>	<b>0</b>	<b>-</b>	<b>0</b>
7-20 cm	0	0	-	0
20+ cm	0	0	-	0

**Figure 9** Volume (000 m<sup>3</sup> obs) of larches in woodlands in south-west Scotland (zone 1) at clearfell in 2014





## South-west Scotland (zones 1 + 2)

**Table 15** 2014 production summary for larches in south-west Scotland (zones 1 + 2)

2014 production summary		FC	Private sector	Combined
<b>South-west Scotland (zones 1+2)</b>				
<b>All Larches</b>				
Area	000 ha	5.3	4.6	<b>9.9</b>
Volume	000 m <sup>3</sup> obs	924	1,618	<b>2,542</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	176	350	<b>257</b>
Average age	years	34	40	<b>37</b>
<b>Japanese larch</b>				
Area	000 ha	3.5	0.0	<b>3.6</b>
Volume	000 m <sup>3</sup> obs	721	8	<b>728</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	204	203	<b>204</b>
Average age	years	39	32	<b>39</b>
<b>Hybrid larch</b>				
Area	000 ha	1.6	3.4	<b>5.1</b>
Volume	000 m <sup>3</sup> obs	191	1,270	<b>1,462</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	116	372	<b>289</b>
Average age	years	24	40	<b>35</b>
<b>European larch</b>				
Area	000 ha	0.1	1.2	<b>1.3</b>
Volume	000 m <sup>3</sup> obs	12	340	<b>352</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	136	291	<b>280</b>
Average age	years	43	41	<b>41</b>
<b>Other larches</b>				
Area	000 ha	0.0	0.0	<b>0.0</b>
Volume	000 m <sup>3</sup> obs	0	0	<b>0</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	0	0	<b>0</b>
Average age	years	0	0	<b>0</b>

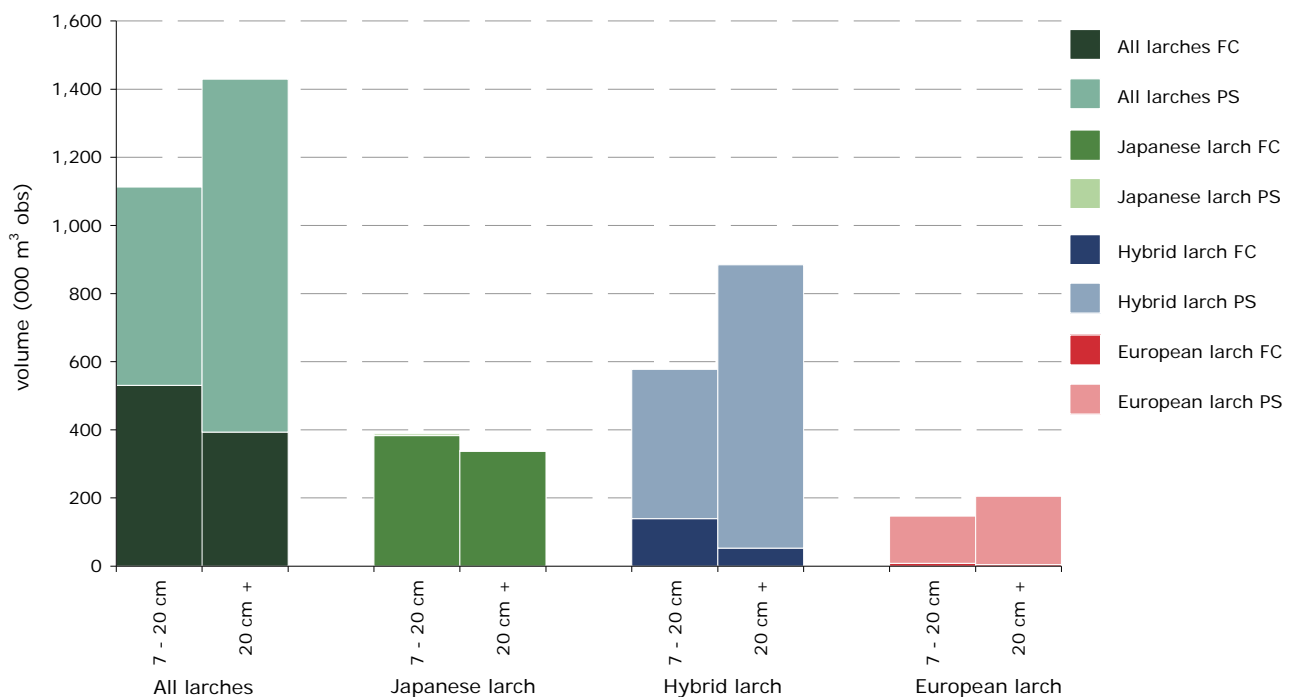


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**Table 16** Forecast of larches assuming clearfell in 2014 in south-west Scotland (zones 1 + 2)

Top diameter class	FC	Private sector		Total
	2014 volume (000 m <sup>3</sup> obs)	2014 volume (000 m <sup>3</sup> obs)	SE%	2014 volume (000 m <sup>3</sup> obs)
<b>South-west Scotland (zones 1+2)</b>				
<b>All Larches</b>	<b>924</b>	<b>1,618</b>	<b>30</b>	<b>2,542</b>
7-20 cm	531	582	30	1,113
20+ cm	394	1,036	34	1,429
<b>Japanese larch</b>	<b>721</b>	<b>8</b>	<b>87</b>	<b>728</b>
7-20 cm	384	5	80	388
20+ cm	337	3	101	340
<b>Hybrid larch</b>	<b>191</b>	<b>1,270</b>	<b>36</b>	<b>1,462</b>
7-20 cm	139	439	34	578
20+ cm	52	832	42	884
<b>European larch</b>	<b>12</b>	<b>340</b>	<b>53</b>	<b>352</b>
7-20 cm	8	138	69	147
20+ cm	4	201	49	205
<b>Other larches</b>	<b>0</b>	<b>0</b>	<b>-</b>	<b>0</b>
7-20 cm	0	0	-	0
20+ cm	0	0	-	0

**Figure 10** Volume (000 m<sup>3</sup> obs) of larches in woodlands in south-west Scotland (zones 1 + 2) at clearfell in 2014



## South-west Scotland (zones 1 + 2 + 3)

**Table 17** 2014 production summary for larches in south-west Scotland (zones 1 + 2 + 3)

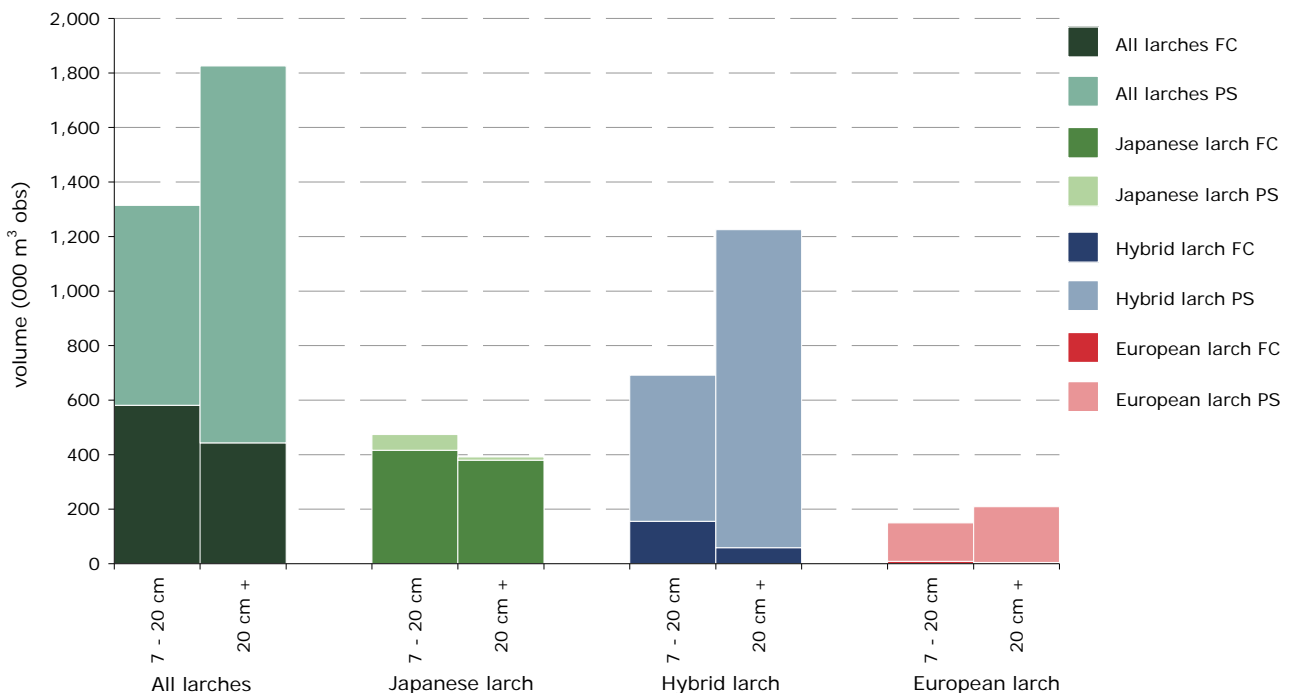
2014 production summary		FC	Private sector	Combined
<b>South-west Scotland (zones 1+2+3)</b>				
<b>All Larches</b>				
Area	000 ha	5.8	6.4	<b>12.3</b>
Volume	000 m <sup>3</sup> obs	1,024	2,117	<b>3,141</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	176	329	<b>256</b>
Average age	years	34	37	<b>36</b>
<b>Japanese larch</b>				
Area	000 ha	3.9	0.3	<b>4.1</b>
Volume	000 m <sup>3</sup> obs	796	69	<b>866</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	207	243	<b>209</b>
Average age	years	39	28	<b>38</b>
<b>Hybrid larch</b>				
Area	000 ha	1.9	5.0	<b>6.8</b>
Volume	000 m <sup>3</sup> obs	214	1,702	<b>1,917</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	115	343	<b>281</b>
Average age	years	23	37	<b>33</b>
<b>European larch</b>				
Area	000 ha	0.1	1.2	<b>1.3</b>
Volume	000 m <sup>3</sup> obs	13	345	<b>358</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	140	292	<b>281</b>
Average age	years	44	41	<b>41</b>
<b>Other larches</b>				
Area	000 ha	0.0	0.0	<b>0.0</b>
Volume	000 m <sup>3</sup> obs	0	0	<b>0</b>
Volume per hectare	m <sup>3</sup> obs ha <sup>-1</sup>	0	0	<b>0</b>
Average age	years	0	0	<b>0</b>

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**Table 18** Forecast of larches assuming clearfell in 2014 in south-west Scotland (zones 1 + 2 + 3)

Top diameter class	FC	Private sector		Total
	2014 volume (000 m <sup>3</sup> obs)	2014 volume (000 m <sup>3</sup> obs)	SE%	2014 volume (000 m <sup>3</sup> obs)
<b>South-west Scotland (zones 1+2+3)</b>				
<b>All Larches</b>	<b>1,024</b>	<b>2,117</b>	<b>26</b>	<b>3,141</b>
7-20 cm	581	734	26	1,315
20+ cm	443	1,383	31	1,826
<b>Japanese larch</b>	<b>796</b>	<b>69</b>	<b>88</b>	<b>866</b>
7-20 cm	417	57	90	474
20+ cm	380	12	78	392
<b>Hybrid larch</b>	<b>214</b>	<b>1,702</b>	<b>31</b>	<b>1,917</b>
7-20 cm	156	536	30	692
20+ cm	59	1,167	36	1,225
<b>European larch</b>	<b>13</b>	<b>345</b>	<b>53</b>	<b>358</b>
7-20 cm	9	141	68	149
20+ cm	5	204	49	209
<b>Other larches</b>	<b>0</b>	<b>0</b>	<b>-</b>	<b>0</b>
7-20 cm	0	0	-	0
20+ cm	0	0	-	0

**Figure 11** Volume (000 m<sup>3</sup> obs) of larches in woodlands in south-west Scotland (zones 1 + 2 + 3) at clearfell in 2014



## NFI national reports and papers

The principal themes reported on for the 2011 woodland profile and future forecasts are:

GB 2011 preliminary estimates of broadleaved species

GB 2011 standing coniferous timber volume

UK 25-year forecast of softwood availability

GB 25-year forecast of coniferous standing volume and increment

Each theme has a series of associated reports, papers and data, tailored for different audiences and uses. All the documents and data can be found on the NFI website

[www.forestry.gov.uk/inventory](http://www.forestry.gov.uk/inventory).

## Glossary

A glossary of terms is presented in the full suite of forecast reports which can be found at [www.forestry.gov.uk/forecast](http://www.forestry.gov.uk/forecast).

## Official Statistics

This is an Official Statistics publication. More information about Official Statistics and the UK Statistics Authority is available at [www.statisticsauthority.gov.uk](http://www.statisticsauthority.gov.uk)

National Forest Inventory Statistician: Alan Brewer