Forest Research

Hardwood Price-size Curves

for 2024 Calendar Year

Forest Research and Grown in Britain

Funded by the UK Government through Defra's Nature for Climate Fund programme

Forest Research

Grown in Britain

The Research Agency of the Forestry Commission

Forest Research is the Research Agency of the Forestry Commission and is the leading UK organisation engaged in forestry and tree related research.

The Agency aims to support and enhance forestry and its role in sustainable development by providing innovative, high quality scientific research, data, technical support, and consultancy services.

Table of Contents

Table of Figures

Table of Tables

Glossary

Term	Definition
Beam grade	Timber suitable for structural beams in construction. Of the hardwoods included in this publication, generally only oak and sweet chestnut are used for this purpose.
First grade planking	Timber suitable for producing planking and boards that has 'a uniform appearance with few if any knots, splits or other features that would limit their use in applications where little variation in appearance is permitted' (Davies and Watt, 2005).
First grade sawlog	A sawlog that has 'a uniform appearance with few if any knots, splits or other features that would limit their use in applications where little variation in appearance is permitted' (Davies and Watt, 2005). This category is used for first grade timber from cherry and lime, and for poplar sawlogs.
Motor manual harvesting	Harvesting carried out by chainsaw operators, also known as chainsaw felling.
Nominal values	Values that have not been adjusted to account for inflation.
Roadside sale	Sales of timber after harvesting. The owner is responsible for getting the trees felled and extracting them to the side of the road, ready to take away.
Sapwood	'The outer zone of a tree underneath the bark that, when the tree is growing, contains living cells and conducts sap. Sapwood is frequently paler than the heartwood though is not clearly differentiated in all species. Sapwood has a low natural durability' (Davies and Watt, 2005).
Sawlog	The part of a tree that is of a suitable size and quality to be used to produce sawn timber.
Second grade planking	Timber suitable for producing planking and boards that has 'some knots, splits or other features that limit use where uniformity of appearance is important. Nevertheless the piece will yield areas clear of unacceptable features along

	with timber suitable for applications where some variation is acceptable’ (Davies and Watt, 2005).
Standing sale	Transaction where trees are purchased unfelled, and the buyer is responsible for felling and transportation off site.

1 Introduction

The 2024 price-size curves in this report provide an updated snapshot of prices for UK-grown hardwood species during the calendar year 2024, based on expert judgement and a limited sample of reported private sector sales and purchases of hardwood timber. They are constructed based on the same method used in the 2022 and 2023 price-size curves published by Forest Research in collaboration with Grown in Britain (GiB), adopting a mixed approach that supplements expert judgement with timber sales data collected via a survey of sellers and buyers of UK-grown hardwood.

Graham Taylor (formerly of Pryor & Rickett Silviculture), in collaboration with GiB, provided industry expertise to support the project, offering expert judgement on typical prices for different hardwood species and their variation by size grade. As with the 2022 and 2023 price-size curves, the average price estimates for 2024 are based on a similar approach to the hardwood price-size curves published by GiB in 2017 and 2018, which similarly relied on Taylor's expert judgement. Whereas the latter did not draw on survey data, where data was collected, the 2024 price-size curves (along with ones for 2022 and 2023) base low and high price estimates on transaction data from the survey of sellers and buyers of UK-grown hardwood.

The outputs provided here are based largely on expert judgement. Conservatively, we estimate that the survey results cover 1-2% of the domestic private sector hardwood market for England. The statistical outputs of these methods should not be regarded as an accurate reflection of the domestic private sector hardwood market as a whole. It is recommended to read Section 4 – 'Assumptions'.

2 Disclaimer

The following data relating to British hardwood prices (the Data) is subject to change at any time and is provided for illustrative purposes only. The Data shall not be deemed to include any warranty, assurance or representation, including but not limited to, its ongoing accuracy or completeness. In particular: (i) the interpretation and use of the Data is entirely at the discretion and risk of the user; and (ii) the user should, where appropriate, seek professional third-party advice. This disclaimer is subject to the laws of England and Wales.

Copyright of Grown in Britain Ltd and Forest Research (2025).

3 Methods

3.1 Survey data

Data was collected via SmartSurvey, with respondents asked to provide information on prices of the UK-grown hardwood products they sold or purchased. All respondents were traders of UK-grown hardwood timber (both buyers and sellers). This covers sawmills, forestry management and harvesting companies, agents, and woodland owners. The survey was conducted during January and February 2025 and received responses for 104 parcels. Survey data was extracted from SmartSurvey, then cleaned and analysed using R (R Core Team, 2025). Units were aligned by converting all responses to m^3. Where three or more sample data points were available and total volume was greater than 10 m^3, price ranges were estimated from the survey data for a product. Ranges were estimated from the 2.5^{th} and 97.5^{th} percentile, providing a range of 95% of the surveyed data prices.

3.2 Expert judgement

Expert judgement was provided by Graham Taylor (formerly of Pryor & Rickett Silviculture) based on his in-depth knowledge of UK hardwood markets, his personal involvement in sales of UK-grown hardwood across Britain, supplemented by his extensive knowledge of both the growers of and the purchasers of UK-grown hardwood, and information gathered informally from his timber market contacts over 2024 calendar year. While the robustness of estimates based upon expert judgment could be questioned on the grounds that they are likely associated with higher risks of bias compared to survey data, the estimates are contextualized within the upper and lower bounds of available survey data in the cases where sufficient survey data was available. In all but one instance (see Figure 3), expert judgment prices fell within the survey range, offering additional assurance that these estimates aligned with market conditions where comparisons were possible. Additionally, expert judgment median values were estimated independently and

prior to the survey data analysis. Whilst this cross-referencing does not eliminate the possibility of bias - particularly for species where only expert judgment estimates were available - it helps lend support to the credibility of the expert-judgement based estimates provided.

Where insufficient data was available for a product, the upper and lower range was set as +/-25% the median (expert judgement) value. In some cases, this method led to the lower range including negative values (as the estimated cost of harvesting exceeded the price for the timber). As in such cases no transaction would be expected to occur (as a woodland owner would be better off not selling the timber), negative values are rounded up to zero. In all cases, expert judgement was used to estimate the median price within the range. The source of estimates (survey versus expert judgement) is defined under each chart. For ranges based upon the survey data, all expert judgement median estimates fell within the 95% data range covered, with the exception of 'first grade beech', where the expert judgement median price was just above the 97.5th percentile. This discrepancy is likely due to relatively few observations (5) for each product category in the SmartSurvey data, with the parcels covered being atypical (Graham Taylor, pers. comm.).

Ranges for price-size curves including survey data may not be directly comparable with those based only on expert judgement, nor are they directly comparable with each other as the amount of survey data differs in each.

4 Assumptions

The following assumptions were used as a basis for expert judgement in estimating timber prices:

1. For each species, the values of each of the marketable grades and quality classes for sawlogs at a certain average tree size have been used (see Making the Grade (Davies and Watt, 2005) for further information on hardwood timber grading). These are as follows:
    a. Ash and beech – first/second grade planking lengths.
    b. Oak and sweet chestnut – first/second grade planking lengths, plus beam grade timbers.
    c. Cherry, lime, poplar, and sycamore – first/second grade sawlogs.
2. The timber sold is assumed to be defect-free, meaning they are free of stain, shake, rot, or decay.
3. Typical amounts of knots and branching that occur in trees of average size are assumed.
4. For oak and sweet chestnut, typical sapwood depth of 25-30 mm outer ring depth is assumed.
5. An average parcel size is assumed to comprise between 200 m^3 and 300 m^3 of a single species, being of a good marketable size.
6. The marketing period for timber parcels is assumed to be during the main hardwood timber season from October to March.
7. Harvesting rates assume thinning (not clear felling) in average conditions and of a reasonable scale, in accessible woodlands, somewhere in Central England.
8. Extraction distances are assumed to be less than 400 m.

9. Harvesting rates assume mechanisation where tree size currently allows the timbers to be mechanised. Larger diameter hardwood sawlog harvesting rates are based on motor manual systems.
10. Mechanised harvesting rates are those undertaken without additional motor manual support and hence imply an average quality of workmanship.
11. Harvesting rates and sale values within the curves are based on £/m^3 standing sale prices overbark. In reality most timber is harvested based upon on a tonnage rate, but variable green densities are rarely reflected in harvesting rates, hence no adjustment has been made on fresh timber density within the harvesting rates.
12. Firewood values have been subject to adjustment for green density/calorific value as this is often more reflected in the prices achieved.
13. Hardwood sawlogs are usually sold on a measured (m^3) basis and prices reflect this, with the exception of poplar, which is usually sold on a tonnage basis.
14. In all cases estimated harvesting costs are based on expert judgement.
15. The poplar harvesting rates are assumed to be more in line with those of harvested conifer, until the trees exceed mechanised harvest size.
16. A conversion factor of 1.43 is used to convert tonnes to m^3.
17. A conversion factor of 0.03605 is used to convert hoppus ft to m^3.

5 Price-size curves

The price-size curves presented in this section give an indication of the achieved overbark standing sales prices per m^3 for each hardwood species included during the 2024 calendar year. For ease of reading, the median lines have been smoothed using a simple moving average, with the original values viewable in Appendix A – Price-size curve tables. The upper and lower bound lines have not been smoothed.

5.1 Interpretation of charts

To find the estimated standing sales price in 2024 for a given species of a given average size, three steps are needed:

i) first identify the size you are interested in on the x-axis;

ii) second, trace vertically from this point until reaching the unbroken line;

iii) third, from this point on the unbroken line, trace horizontally left to find the corresponding price on the y-axis.

The same method can be used to find the lower range and upper range (which are denoted by the lighter broken lines) – see illustrative example below.

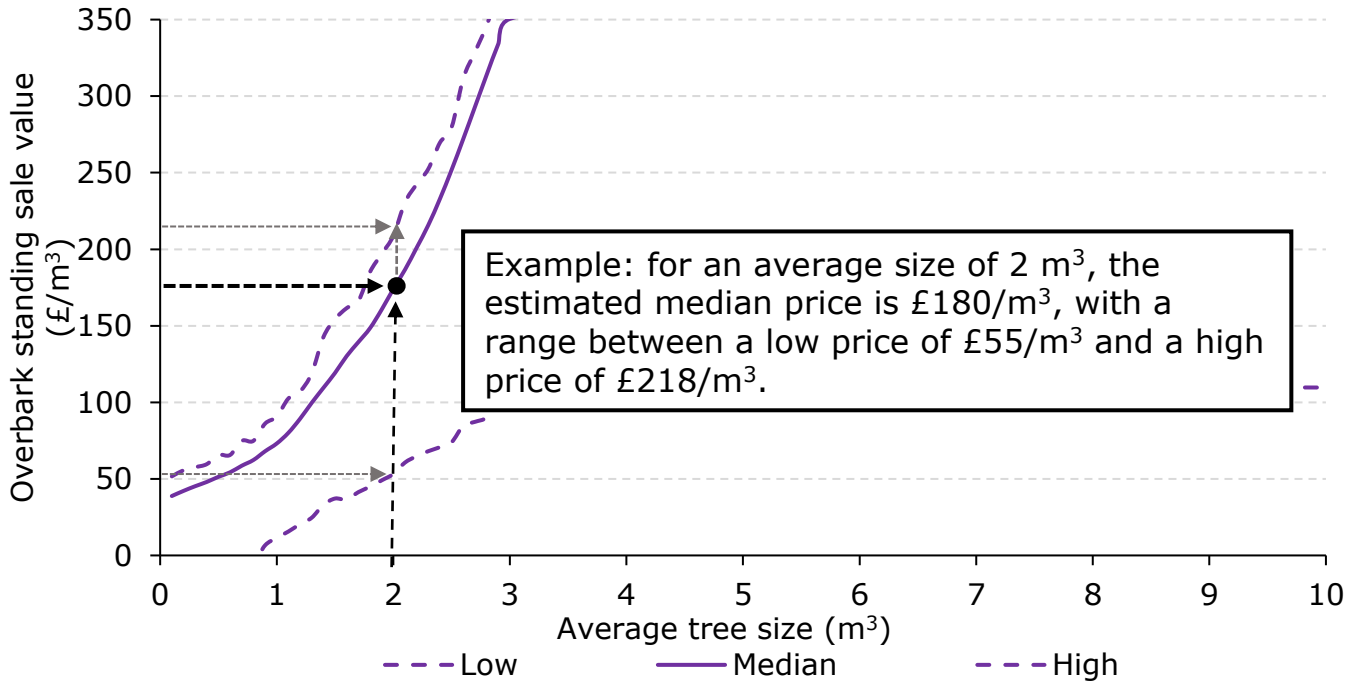


Figure 1. Illustrative example of interpreting a price-size curve chart.

5.2 Ash

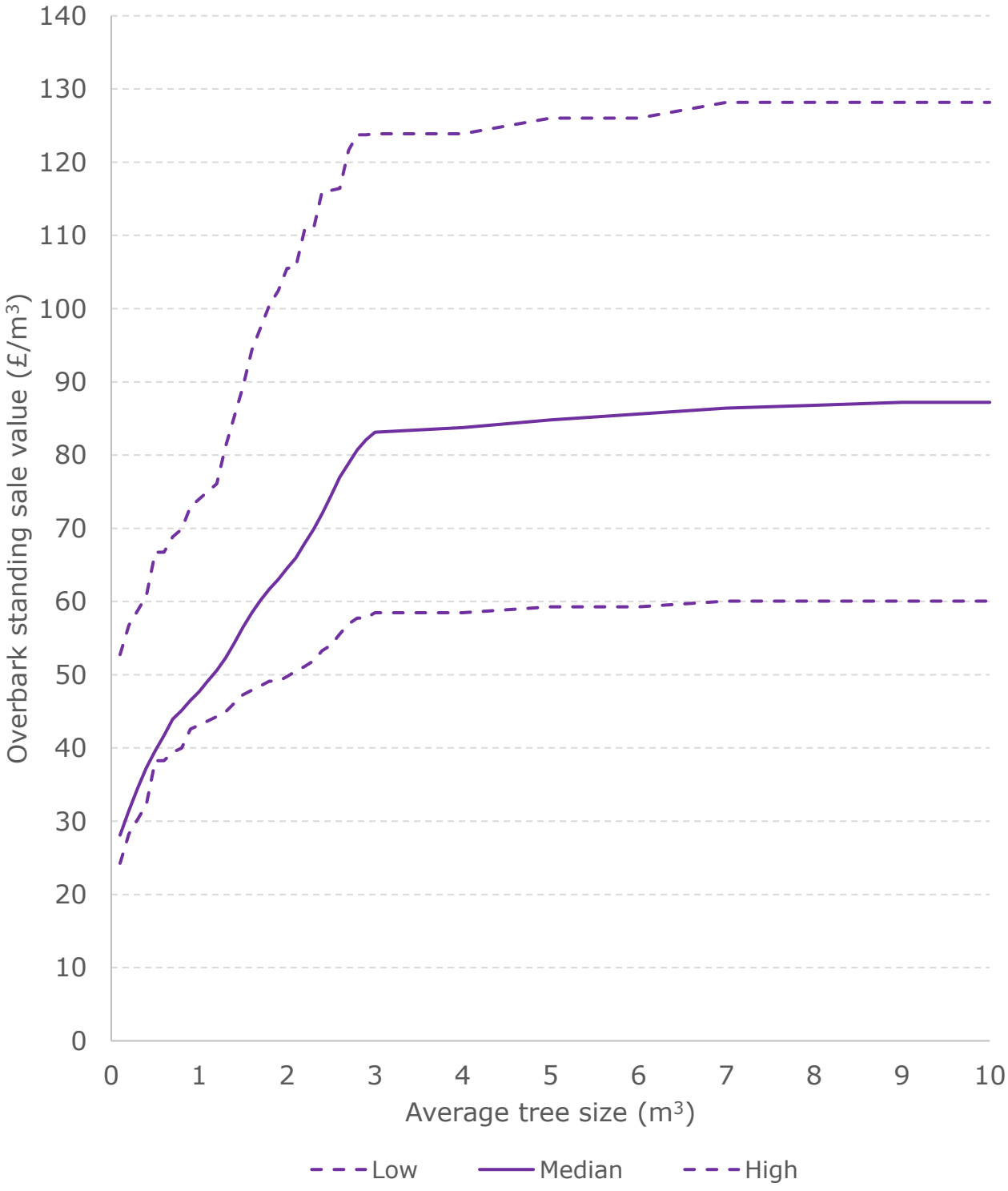


Figure 2. Ash price-size curve: standing sale price in £/m^3 at 2024 prices.
(Estimates based on survey data and expert judgement – see Appendix B.)

5.3 Beech

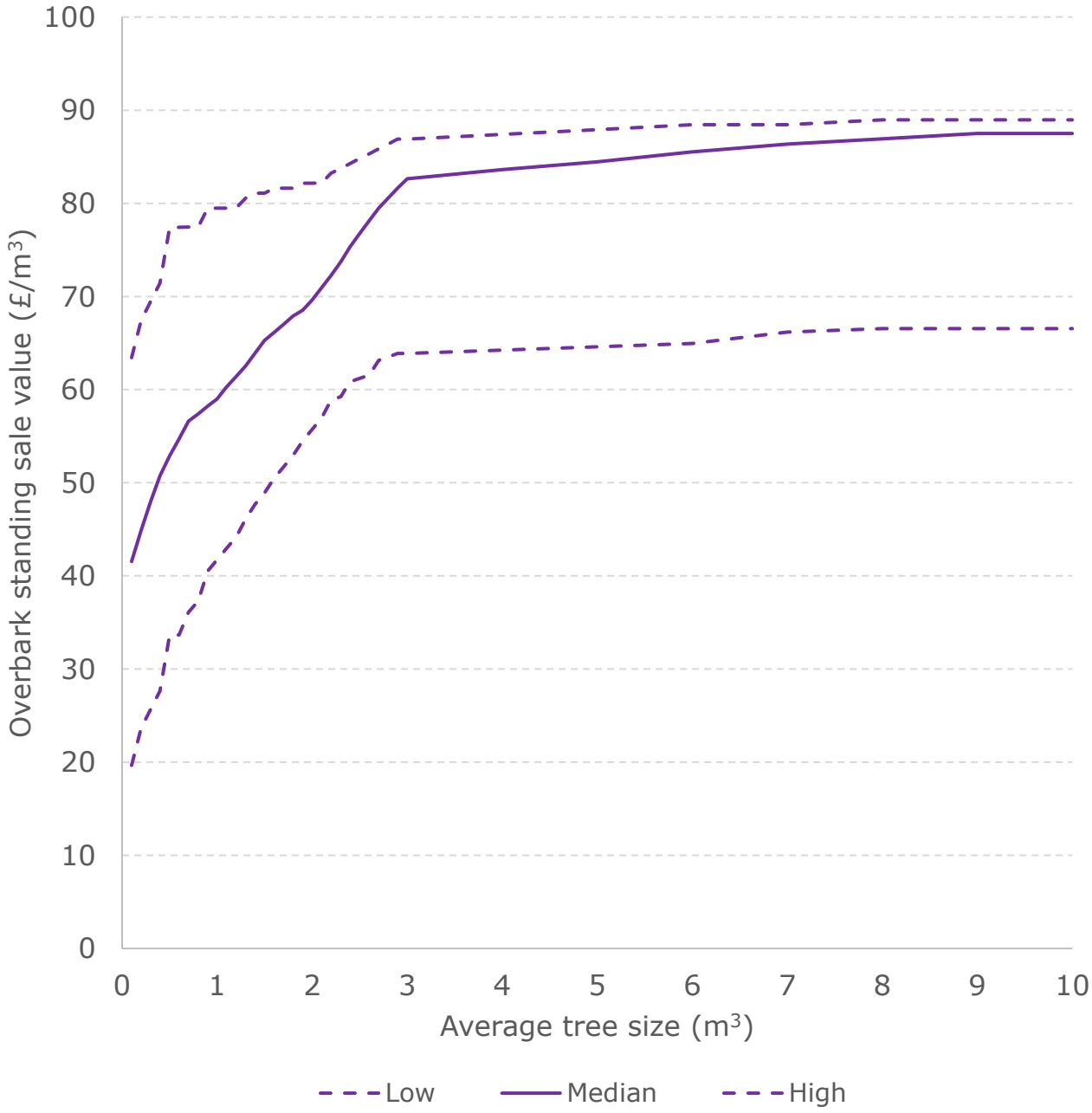


Figure 3. Beech price-size curve: standing sale price in £/m^3 at 2024 prices. (Estimates based on survey data and expert judgement – see Appendix B.)

Note: An anomaly between the median (expert judgement) and upper range (survey data) curves at larger sizes was apparent in relation to the price for 'first grade beech' from survey data (£117/m^3) being lower than the median price provided by expert judgement (£120/m^3). This discrepancy is likely due to relatively few observations in the SmartSurvey data with the parcels covered being atypical. For this reason, the expert judgement median price was used for the upper range value.

5.4 Cherry

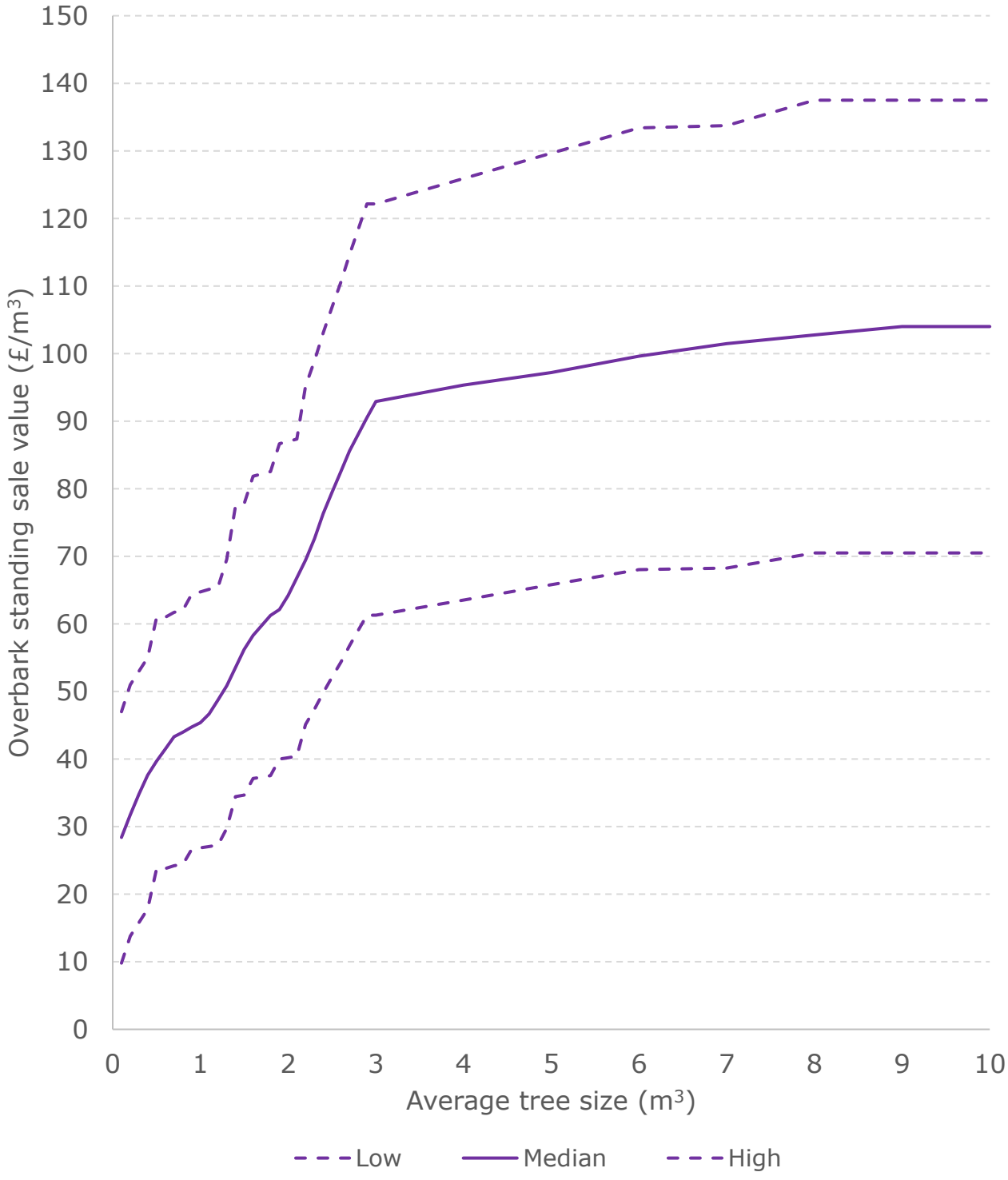


Figure 4. Cherry price-size curve: standing sale price in £/m³ at 2024 prices.
(Estimates based on expert judgement – see Appendix B.)

5.5 Lime

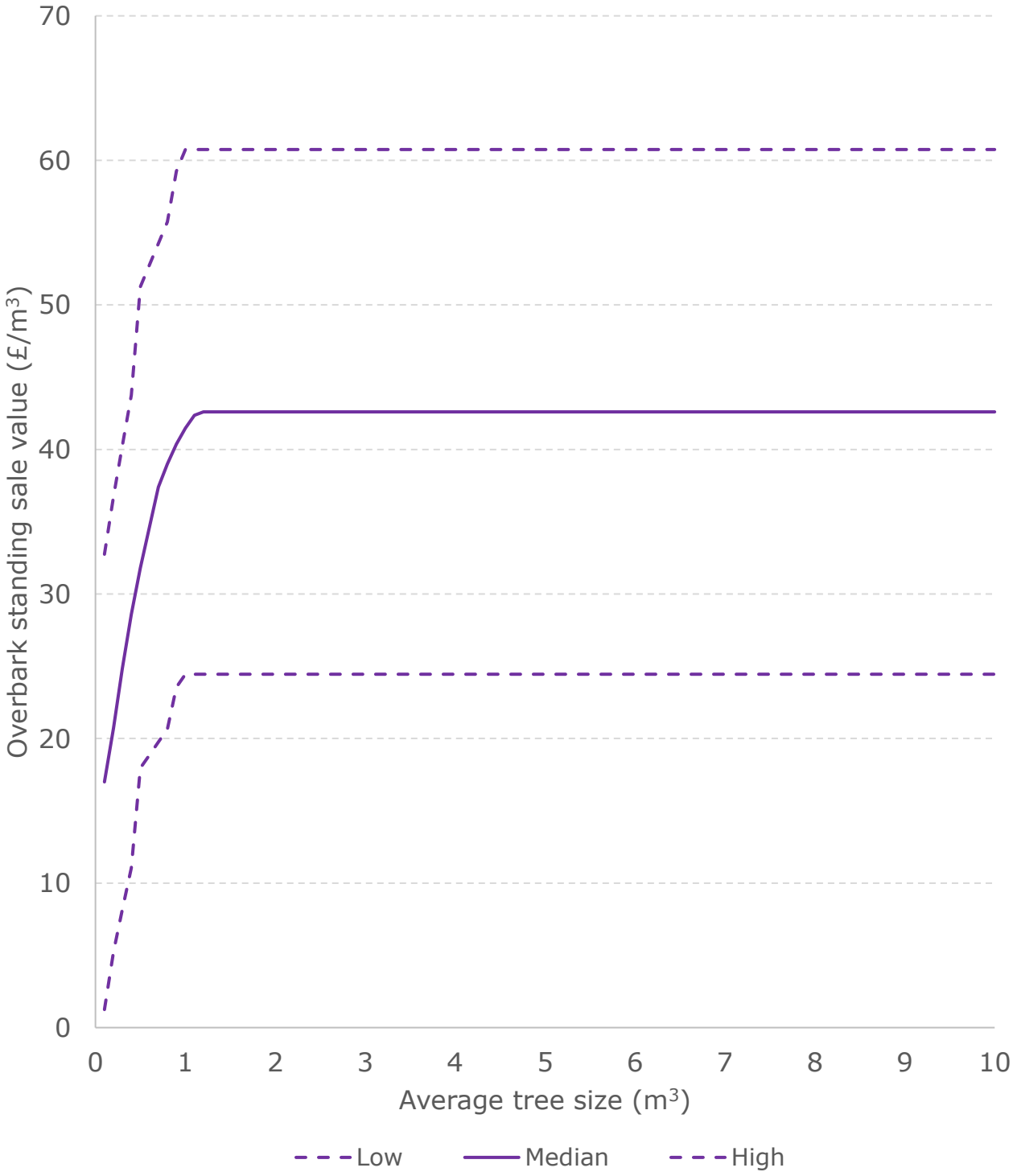


Figure 5. Lime price-size curve: standing sale price in £/m³ at 2024 prices.
(Estimates based on expert judgement – see Appendix B.)

5.6 Oak

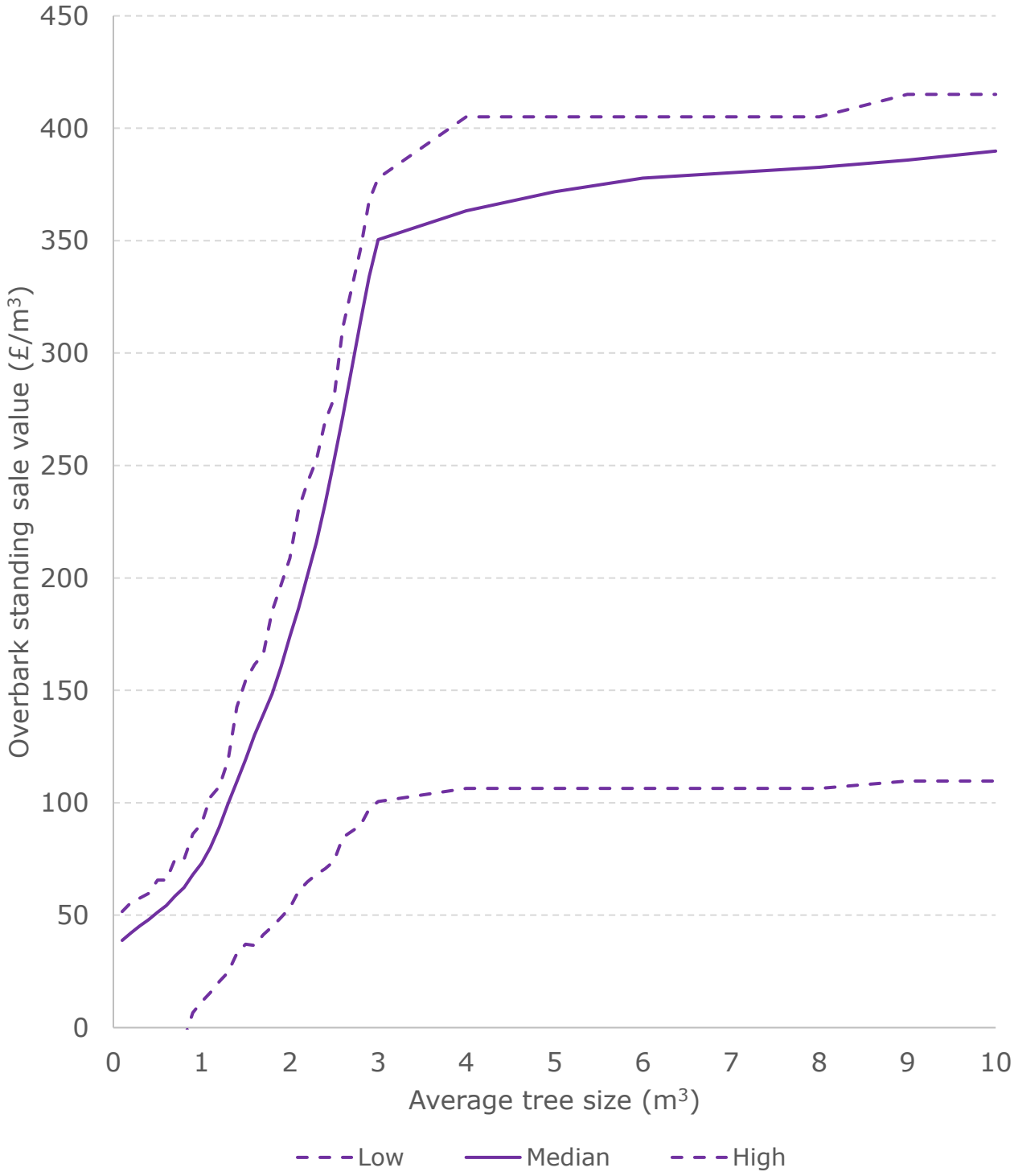


Figure 6. Oak price-size curve: standing sale price in £/m^3 at 2024 prices.
(Estimates based on survey data and expert judgement – see Appendix B.)

5.7 Poplar

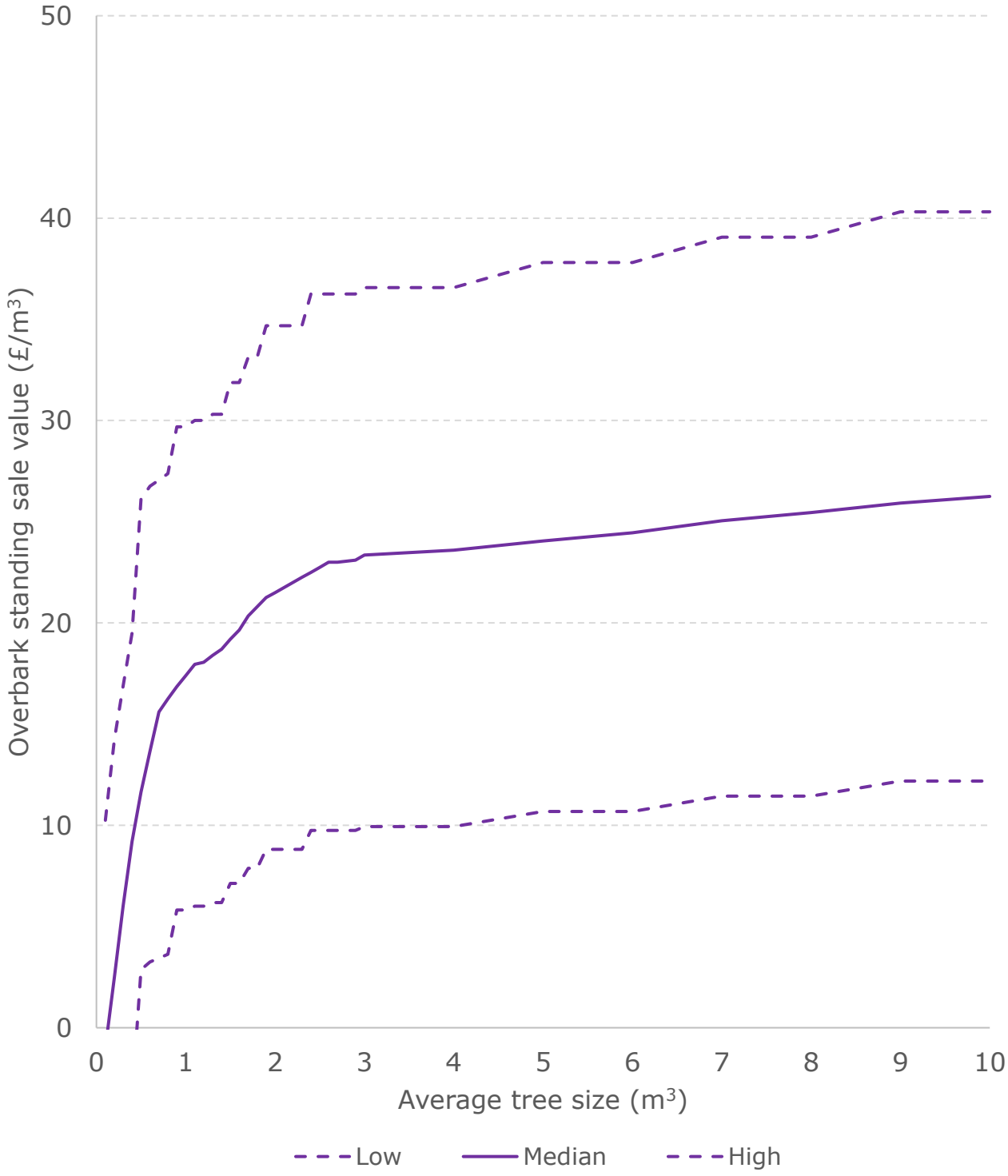


Figure 7. Poplar price-size curve: standing sale price in £/m^3 at 2024 prices.
(Estimates based on expert judgement – see Appendix B.)

5.8 Sweet chestnut

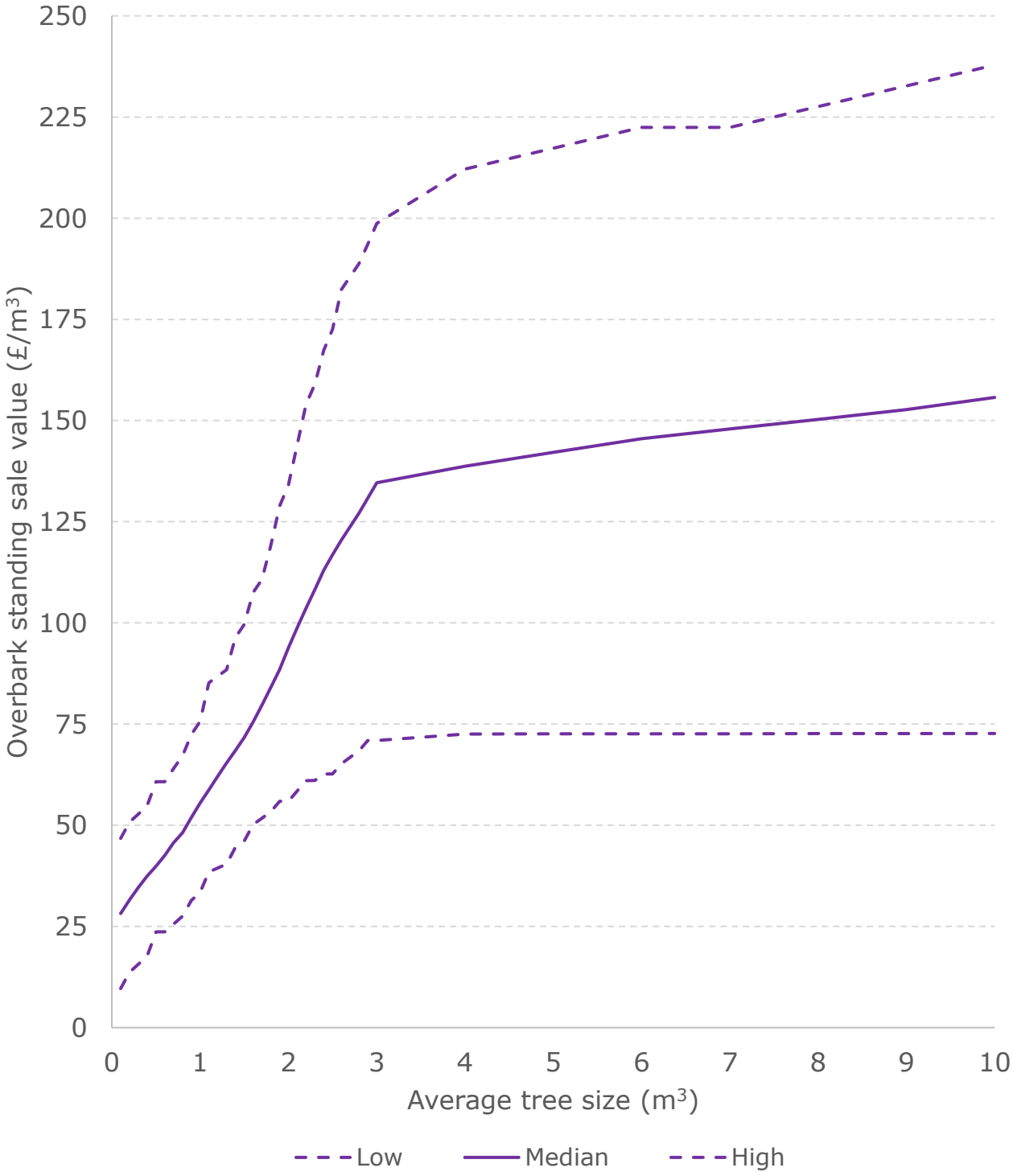


Figure 8. Sweet chestnut price-size curve: standing sale price in £/m³ at 2024 prices. (Estimates based on survey data and expert judgement – see Appendix B.)

5.9 Sycamore

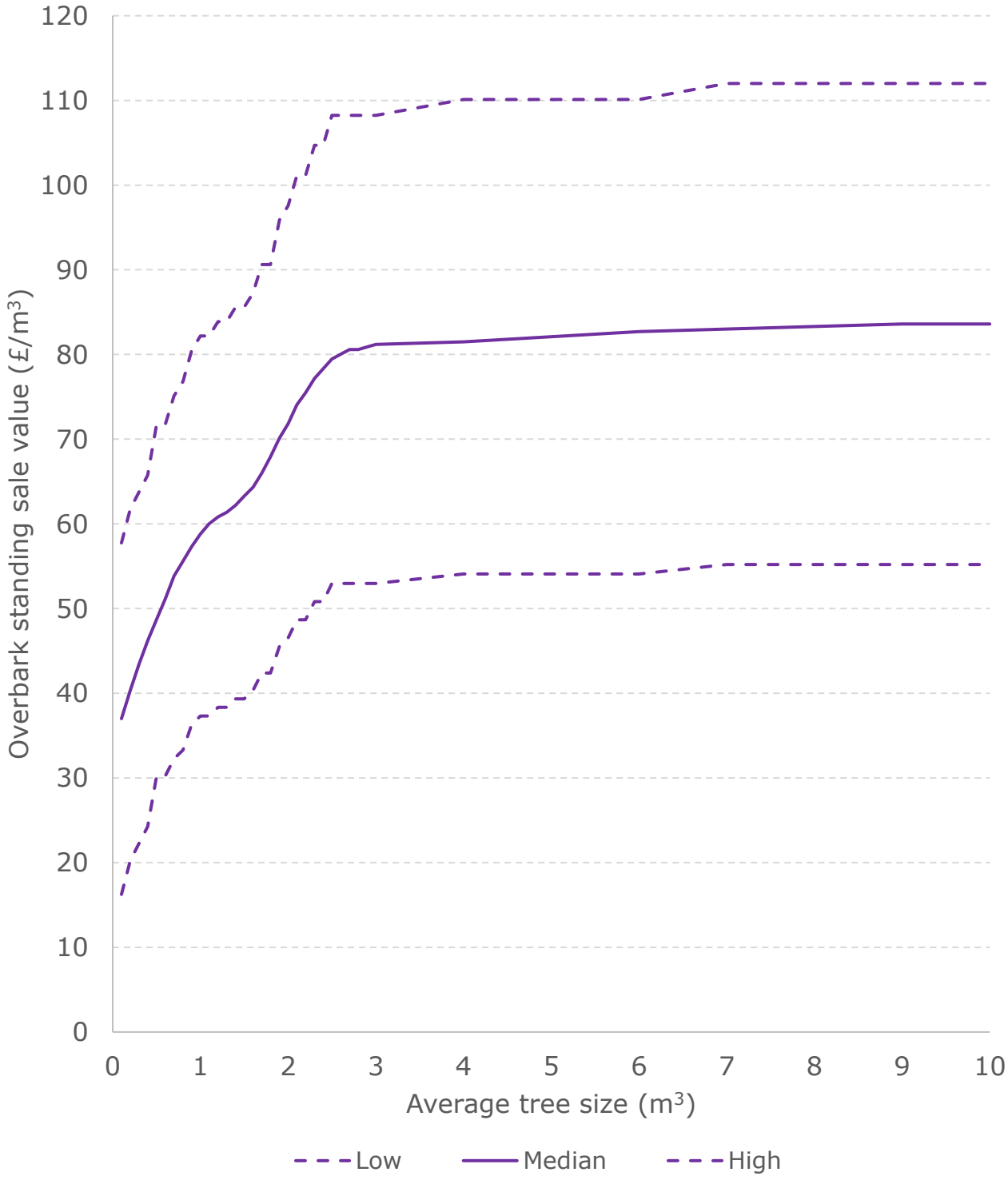


Figure 9. Sycamore chestnut price-size curve: standing sale price in £/m^3 at 2024 prices. (Estimates based on expert judgement – see Appendix B.)

6 Hardwood market insights

There was a softening of the non-firewood hardwood timber market in 2024 as prices weakened slightly. This was a result of general reductions in economic activity and reduced confidence, reportedly due to the higher uncertainty associated with a change in Government. In addition, the building sector faced weather and labour pressures, reducing demand for structural and higher-quality timber used for interior construction work. There was also reduced market demand from those who typically buy products from UK hardwood sawmills for purposes such as bespoke individual building projects, heritage projects, and the fine furniture trade. As demand slackened, average prices fell slightly over the year. The fall in hardwood timber prices have been more marked in the second half of the year, reducing the overall average for the year, with many of the higher grades of ash, sycamore, and sweet chestnut having lower prices than those in 2022 to 2023 (Graham Taylor, pers comms.).

Firewood prices remained high throughout 2024, with material for the firewood and biomass markets continuing to be in demand. Prices seem to have stabilised for the moment compared to the increases seen between 2022 and 2023 (Graham Taylor, pers comms.).

Standing sales prices across the board have been moderated due to a rise in harvesting costs, which have continued to increase. This can largely be attributed to increased expenses associated with machinery and fuel (Graham Taylor, pers comms.).

6.1 Comparison of 2024 hardwood price-size curves with those from 2023, 2022, 2018 and 2017

The following charts directly compare the expert judgement (median) price-size curves estimated for each year stated. Whilst the methodology used in 2024 is the same as for 2023 and 2022, and broadly the same as for 2018 and 2017, the

sources and quantity of sales data that expert judgement is based on will differ. Any observed differences should be regarded as illustrative with no suggestion that observed differences between each year are statistically significant.

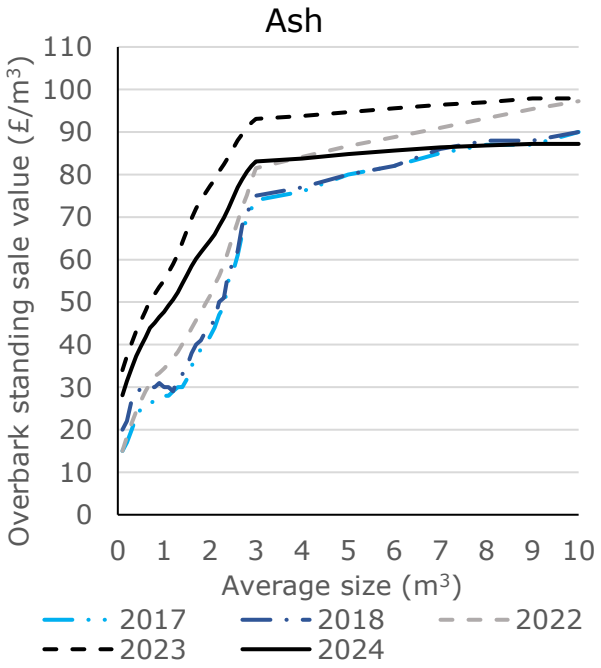


Figure 10. Ash median standing sale values by average size, grouped by year (nominal values).

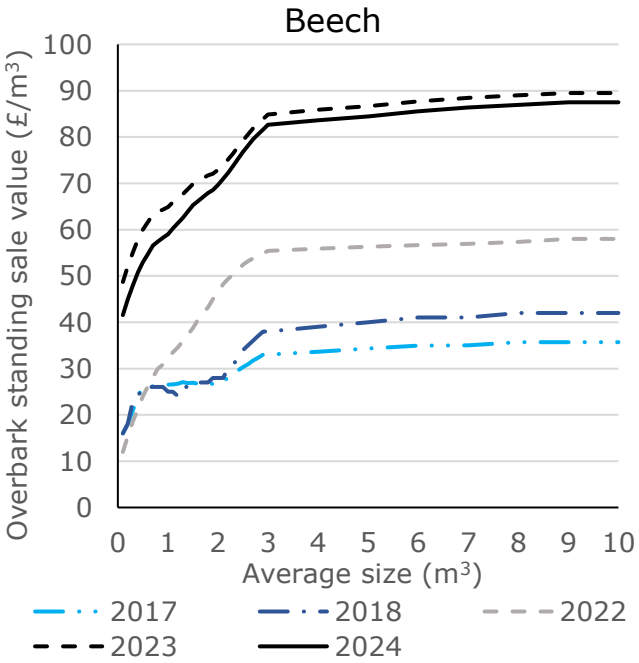


Figure 11. Beech median standing sale values by average size, grouped by year (nominal values).

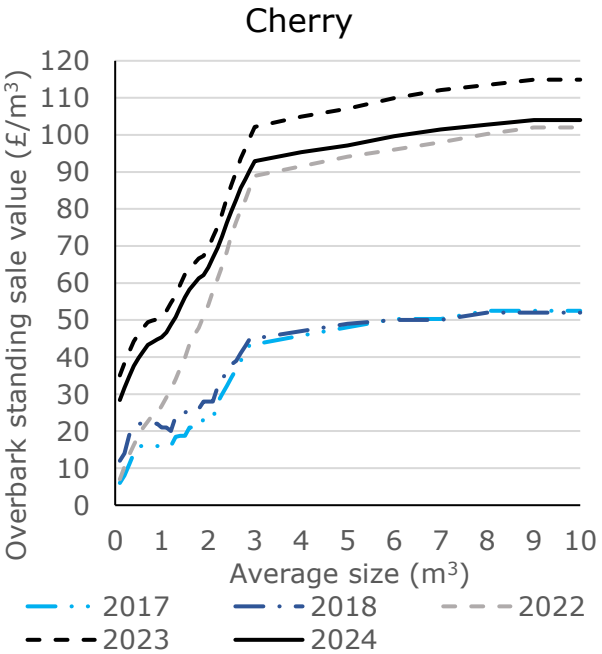


Figure 12. Cherry median standing sale values by average size, grouped by year (nominal values).

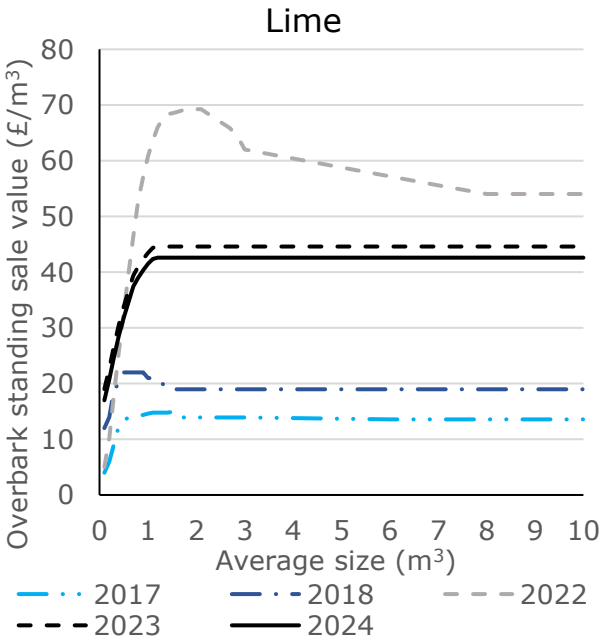


Figure 13. Lime median standing sale values by average size, grouped by year (nominal values).

Note: Data collected for 2017 and 2018 used a different methodology to data collected from 2022 onwards.

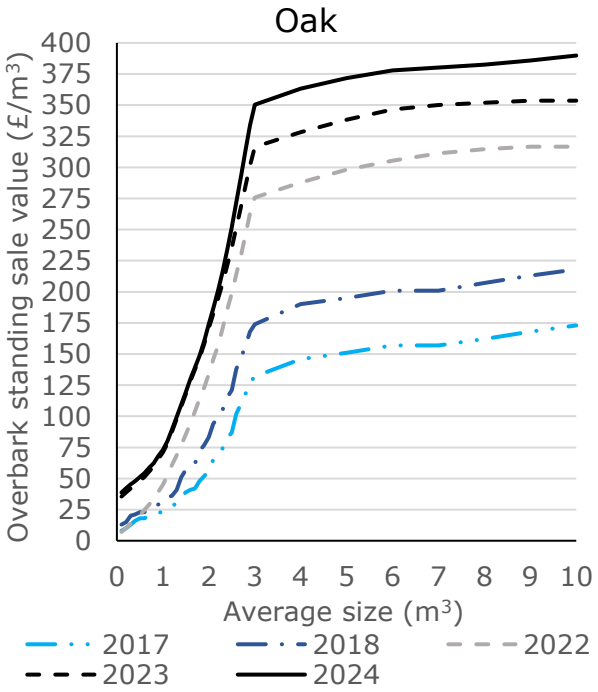


Figure 14. Oak median standing sale values by average size, grouped by year (nominal values).

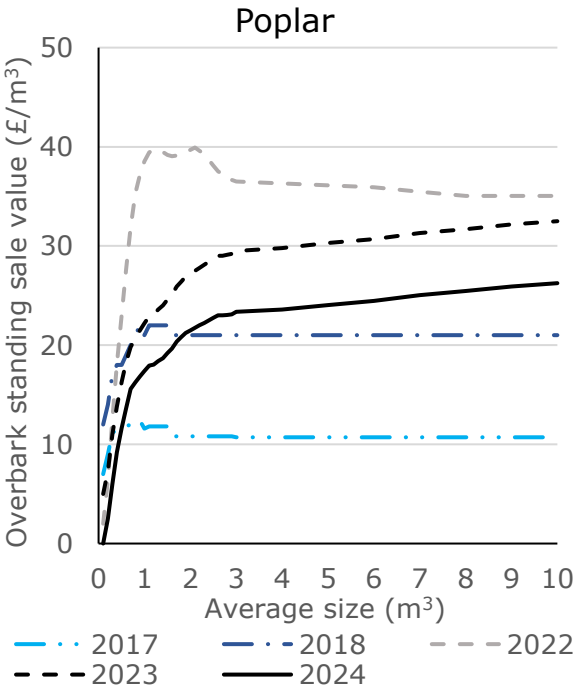


Figure 15. Poplar median standing sale values by average size, grouped by year (nominal values).

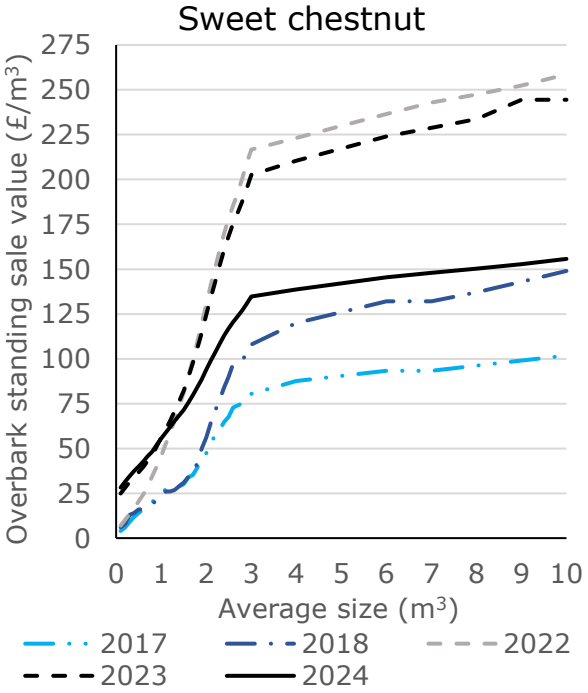


Figure 16. Sweet chestnut median standing sale values by average size, grouped by year (nominal values).

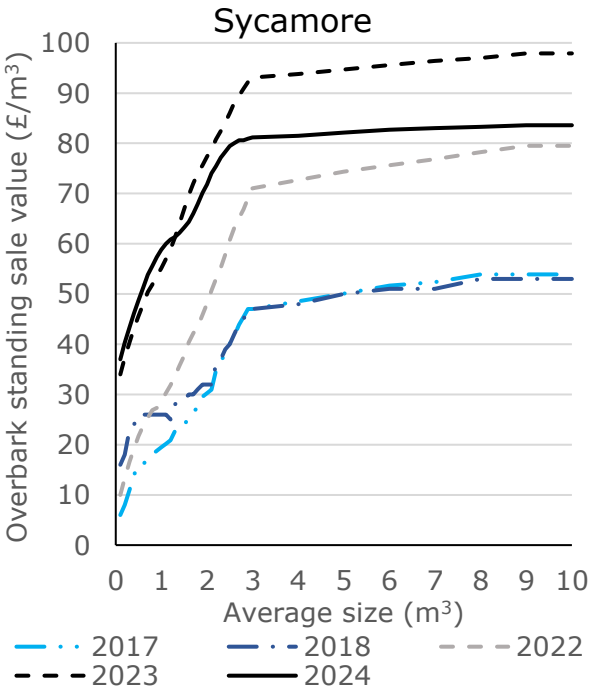


Figure 17. Sycamore median standing sale values by average size, grouped by year (nominal values).

Note: Data collected for 2017 and 2018 used a different methodology to data collected from 2022 onwards.

Appendix A – Price-size curve tables

Table 1. Ash price-size curve table.

Average tree size	Product assortment proportions				Selling roadside		Standing sale
Average size m^3	Firewood	Second	First	Prime/ niche	Roadside value £/m^3	Harvest £/m^3	Standing value £/m^3
0.1	100%	0%	0%	0%	74	46	28
0.2	100%	0%	0%	0%	74	42	32
0.3	100%	0%	0%	0%	74	40	34
0.4	100%	0%	0%	0%	74	38	36
0.5	100%	0%	0%	0%	74	32	42
0.6	100%	0%	0%	0%	74	32	42
0.7	90%	10%	0%	0%	76	32	44
0.8	85%	15%	0%	0%	76	32	44
0.9	80%	20%	0%	0%	77	30	47
1	75%	25%	0%	0%	78	30	48
1.1	70%	30%	0%	0%	79	30	49
1.2	65%	35%	0%	0%	80	30	50
1.3	60%	30%	10%	0%	82	30	52
1.4	50%	35%	15%	0%	84	30	54
1.5	40%	40%	20%	0%	87	30	57
1.6	35%	35%	30%	0%	89	30	59
1.7	30%	35%	35%	0%	90	30	60
1.8	25%	35%	40%	0%	92	30	62
1.9	25%	30%	45%	0%	93	30	63
2	20%	30%	50%	0%	94	30	64
2.1	20%	30%	45%	5%	96	30	66
2.2	15%	25%	55%	5%	98	30	68
2.3	15%	25%	50%	10%	99	30	69
2.4	10%	20%	55%	15%	103	30	73
2.5	10%	20%	50%	20%	104	30	74
2.6	10%	20%	40%	30%	106	30	76
2.7	5%	15%	45%	35%	110	30	80
2.8	5%	10%	45%	40%	112	30	82
2.9	5%	10%	45%	40%	112	30	82
3	5%	10%	40%	45%	113	30	83
4	5%	10%	40%	45%	113	30	83
5	5%	5%	40%	50%	115	30	85
6	5%	5%	40%	50%	115	30	85
7	5%	0%	40%	55%	117	30	87
8	5%	0%	40%	55%	117	30	87
9	5%	0%	40%	55%	117	30	87
10	5%	0%	40%	55%	117	30	87

Table 2. Beech price-size curve table.

Average tree size	Product assortment proportions			Selling roadside		Standing sale
Average size m^3	Firewood	Second	First	Roadside value £/m^3	Harvest £/m^3	Standing value £/m^3
0.1	100%	0%	0%	88	46	42
0.2	100%	0%	0%	88	42	46
0.3	100%	0%	0%	88	40	48
0.4	100%	0%	0%	88	38	50
0.5	100%	0%	0%	88	32	56
0.6	100%	0%	0%	88	32	56
0.7	90%	10%	0%	88	32	56
0.8	85%	15%	0%	89	32	57
0.9	80%	20%	0%	89	30	59
1	75%	25%	0%	89	30	59
1.1	70%	30%	0%	90	30	60
1.2	65%	35%	0%	90	30	60
1.3	60%	30%	10%	93	30	63
1.4	55%	30%	15%	95	30	65
1.5	50%	35%	15%	95	30	65
1.6	45%	35%	20%	97	30	67
1.7	40%	40%	20%	97	30	67
1.8	35%	45%	20%	97	30	67
1.9	30%	45%	25%	99	30	69
2	25%	50%	25%	99	30	69
2.1	20%	55%	25%	100	30	70
2.2	15%	50%	35%	103	30	73
2.3	15%	45%	40%	104	30	74
2.4	10%	45%	45%	106	30	76
2.5	10%	40%	50%	107	30	77
2.6	10%	35%	55%	108	30	78
2.7	5%	35%	60%	110	30	80
2.8	5%	30%	65%	111	30	81
2.9	5%	25%	70%	112	30	82
3	5%	25%	70%	112	30	82
4	5%	20%	75%	113	30	83
5	5%	15%	80%	115	30	85
6	5%	10%	85%	116	30	86
7	0%	15%	85%	116	30	86
8	0%	10%	90%	118	30	88
9	0%	10%	90%	118	30	88
10	0%	10%	90%	118	30	88

Table 3. Cherry price-size curve table.

Average tree size	Product assortment proportions			Selling roadside		Standing sale
Average size m^3	Firewood	Second	First	Roadside value £/m^3	Harvest £/m^3	Standing value £/m^3
0.1	100%	0%	0%	74	46	28
0.2	100%	0%	0%	74	42	32
0.3	100%	0%	0%	74	40	34
0.4	100%	0%	0%	74	38	36
0.5	100%	0%	0%	74	32	42
0.6	100%	0%	0%	74	32	42
0.7	90%	10%	0%	75	32	43
0.8	85%	15%	0%	75	32	43
0.9	80%	20%	0%	76	30	46
1	75%	25%	0%	76	30	46
1.1	70%	30%	0%	76	30	46
1.2	65%	35%	0%	76	30	46
1.3	60%	35%	5%	80	30	50
1.4	55%	30%	15%	86	30	56
1.5	50%	35%	15%	86	30	56
1.6	45%	35%	20%	89	30	59
1.7	40%	40%	20%	90	30	60
1.8	35%	45%	20%	90	30	60
1.9	30%	45%	25%	93	30	63
2	25%	50%	25%	94	30	64
2.1	20%	55%	25%	94	30	64
2.2	15%	50%	35%	100	30	70
2.3	15%	45%	40%	103	30	73
2.4	10%	45%	45%	106	30	76
2.5	10%	40%	50%	109	30	79
2.6	10%	35%	55%	112	30	82
2.7	5%	35%	60%	116	30	86
2.8	5%	30%	65%	119	30	89
2.9	5%	25%	70%	122	30	92
3	5%	25%	70%	122	30	92
4	5%	20%	75%	125	30	95
5	5%	15%	80%	128	30	98
6	5%	10%	85%	131	30	101
7	0%	15%	85%	131	30	101
8	0%	10%	90%	134	30	104
9	0%	10%	90%	134	30	104
10	0%	10%	90%	134	30	104

Table 4. Lime price-size curve table.

Average tree size	Product assortment proportions		Selling roadside		Standing sale
Average size m^3	Firewood	Sawlog A/B	Roadside value £/m^3	Harvest £/m^3	Standing value £/m^3
0.1	100%	0%	63	46	17
0.2	100%	0%	63	42	21
0.3	90%	10%	64	40	24
0.4	80%	20%	65	38	27
0.5	70%	30%	67	32	35
0.6	60%	40%	68	32	36
0.7	50%	50%	69	32	37
0.8	40%	60%	70	32	38
0.9	30%	70%	71	30	41
1	20%	80%	73	30	43
1.1	20%	80%	73	30	43
1.2	20%	80%	73	30	43
1.3	20%	80%	73	30	43
1.4	20%	80%	73	30	43
1.5	20%	80%	73	30	43
1.6	20%	80%	73	30	43
1.7	20%	80%	73	30	43
1.8	20%	80%	73	30	43
1.9	20%	80%	73	30	43
2	20%	80%	73	30	43
2.1	20%	80%	73	30	43
2.2	20%	80%	73	30	43
2.3	20%	80%	73	30	43
2.4	20%	80%	73	30	43
2.5	20%	80%	73	30	43
2.6	20%	80%	73	30	43
2.7	20%	80%	73	30	43
2.8	20%	80%	73	30	43
2.9	20%	80%	73	30	43
3	20%	80%	73	30	43
4	20%	80%	73	30	43
5	20%	80%	73	30	43
6	20%	80%	73	30	43
7	20%	80%	73	30	43
8	20%	80%	73	30	43
9	20%	80%	73	30	43
10	20%	80%	73	30	43

Table 5. Oak price-size curve table.

Average tree size	Product assortment proportions				Selling roadside		Standing sale
Average size m^3	Firewood	Fence	Beam	Planking	Roadside value £/m^3	Harvest £/m^3	Standing value £/m^3
0.1	100%	0%	0%	0%	85	46	39
0.2	100%	0%	0%	0%	85	42	43
0.3	100%	0%	0%	0%	85	40	45
0.4	100%	0%	0%	0%	85	38	47
0.5	100%	0%	0%	0%	85	32	53
0.6	100%	0%	0%	0%	85	32	53
0.7	90%	10%	0%	0%	92	32	60
0.8	90%	10%	0%	0%	92	32	60
0.9	80%	20%	0%	0%	98	30	68
1	75%	25%	0%	0%	102	30	72
1.1	70%	25%	5%	0%	111	30	81
1.2	65%	30%	5%	0%	115	30	85
1.3	60%	30%	10%	0%	124	30	94
1.4	50%	30%	20%	0%	144	30	114
1.5	45%	30%	25%	0%	154	30	124
1.6	45%	25%	30%	0%	160	30	130
1.7	40%	30%	30%	0%	164	30	134
1.8	35%	25%	40%	0%	180	30	150
1.9	30%	25%	45%	0%	189	30	159
2	25%	25%	50%	0%	199	30	169
2.1	20%	25%	50%	5%	221	30	191
2.2	15%	25%	55%	5%	231	30	201
2.3	15%	25%	50%	10%	243	30	213
2.4	15%	20%	50%	15%	261	30	231
2.5	15%	20%	45%	20%	273	30	243
2.6	10%	20%	40%	30%	307	30	277
2.7	10%	15%	40%	35%	325	30	295
2.8	10%	10%	40%	40%	344	30	314
2.9	5%	10%	40%	45%	365	30	335
3	5%	10%	35%	50%	377	30	347
4	5%	5%	30%	60%	408	30	378
5	5%	5%	30%	60%	408	30	378
6	5%	5%	30%	60%	408	30	378
7	5%	5%	30%	60%	408	30	378
8	5%	5%	30%	60%	408	30	378
9	5%	5%	25%	65%	420	30	390
10	5%	5%	25%	65%	420	30	390

Table 6. Poplar price-size curve table.

Average tree size	Product assortment proportions			Selling roadside		Standing sale
Average size m^3	Biomass	Sawlog A/B	Prime/niche	Roadside value £/m^3	Harvest £/m^3	Standing value £/m^3
0.1	100%	0%	0%	45	46	0
0.2	100%	0%	0%	45	42	3
0.3	90%	10%	0%	46	40	6
0.4	80%	20%	0%	46	38	8
0.5	70%	30%	0%	47	32	15
0.6	60%	40%	0%	47	32	15
0.7	55%	45%	0%	47	32	15
0.8	50%	50%	0%	48	32	16
0.9	45%	55%	0%	48	30	18
1	45%	55%	0%	48	30	18
1.1	40%	60%	0%	48	30	18
1.2	40%	60%	0%	48	30	18
1.3	35%	65%	0%	48	30	18
1.4	35%	65%	0%	48	30	18
1.5	30%	65%	5%	50	30	20
1.6	30%	65%	5%	50	30	20
1.7	30%	60%	10%	51	30	21
1.8	30%	60%	10%	51	30	21
1.9	25%	60%	15%	52	30	22
2	25%	60%	15%	52	30	22
2.1	25%	60%	15%	52	30	22
2.2	25%	60%	15%	52	30	22
2.3	25%	60%	15%	52	30	22
2.4	20%	60%	20%	53	30	23
2.5	20%	60%	20%	53	30	23
2.6	20%	60%	20%	53	30	23
2.7	20%	60%	20%	53	30	23
2.8	20%	60%	20%	53	30	23
2.9	20%	60%	20%	53	30	23
3	15%	65%	20%	53	30	23
4	15%	65%	20%	53	30	23
5	15%	60%	25%	54	30	24
6	15%	60%	25%	54	30	24
7	15%	55%	30%	55	30	25
8	15%	55%	30%	55	30	25
9	15%	50%	35%	56	30	26
10	15%	50%	35%	56	30	26

Table 7. Sweet chestnut price-size curve table.

Average tree size	Product assortment proportions				Selling roadside		Standing sale
Average size m^3	Firewood	Fencing	Second planking	First planking	Roadside value £/m^3	Harvest £/m^3	Standing value £/m^3
0.1	100%	0%	0%	0%	74	46	28
0.2	100%	0%	0%	0%	74	42	32
0.3	100%	0%	0%	0%	74	40	34
0.4	100%	0%	0%	0%	74	38	36
0.5	100%	0%	0%	0%	74	32	42
0.6	100%	0%	0%	0%	74	32	42
0.7	90%	10%	0%	0%	77	32	45
0.8	80%	20%	0%	0%	79	32	47
0.9	70%	30%	0%	0%	82	30	52
1	60%	40%	0%	0%	85	30	55
1.1	50%	40%	10%	0%	91	30	61
1.2	45%	45%	10%	0%	92	30	62
1.3	40%	50%	10%	0%	94	30	64
1.4	35%	45%	20%	0%	99	30	69
1.5	35%	40%	25%	0%	101	30	71
1.6	30%	35%	35%	0%	106	30	76
1.7	30%	30%	40%	0%	108	30	78
1.8	30%	25%	40%	5%	113	30	83
1.9	25%	25%	40%	10%	120	30	90
2	25%	25%	35%	15%	123	30	93
2.1	20%	25%	35%	20%	129	30	99
2.2	15%	25%	35%	25%	135	30	105
2.3	15%	25%	30%	30%	138	30	108
2.4	15%	20%	30%	35%	143	30	113
2.5	15%	20%	25%	40%	146	30	116
2.6	10%	20%	25%	45%	152	30	122
2.7	10%	15%	30%	45%	154	30	124
2.8	10%	10%	35%	45%	156	30	126
2.9	5%	10%	40%	45%	160	30	130
3	5%	10%	35%	50%	163	30	133
4	5%	5%	30%	60%	171	30	141
5	5%	5%	25%	65%	174	30	144
6	5%	5%	20%	70%	177	30	147
7	5%	5%	20%	70%	177	30	147
8	5%	5%	15%	75%	180	30	150
9	5%	5%	10%	80%	183	30	153
10	5%	5%	5%	85%	186	30	156

Table 8. Sycamore price-size curve table.

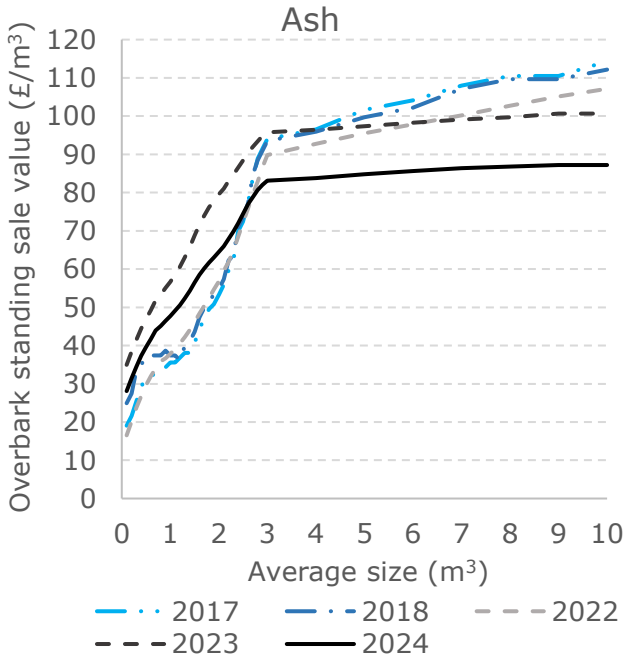
Average tree size	Product assortment proportions			Selling roadside		Standing sale
Average size m^3	Firewood	Sawlog A/B	Prime/niche	Roadside value £/m^3	Harvest £/m^3	Standing value £/m^3
0.1	100%	0%	0%	83	46	37
0.2	100%	0%	0%	83	42	41
0.3	100%	0%	0%	83	40	43
0.4	100%	0%	0%	83	38	45
0.5	100%	0%	0%	83	32	51
0.6	100%	0%	0%	83	32	51
0.7	90%	10%	0%	86	32	54
0.8	85%	15%	0%	87	32	55
0.9	80%	20%	0%	88	30	58
1	75%	25%	0%	90	30	60
1.1	75%	25%	0%	90	30	60
1.2	70%	30%	0%	91	30	61
1.3	70%	30%	0%	91	30	61
1.4	65%	35%	0%	92	30	62
1.5	65%	35%	0%	92	30	62
1.6	60%	40%	0%	94	30	64
1.7	50%	50%	0%	97	30	67
1.8	50%	50%	0%	97	30	67
1.9	40%	55%	5%	101	30	71
2	35%	60%	5%	102	30	72
2.1	30%	60%	10%	105	30	75
2.2	30%	60%	10%	105	30	75
2.3	25%	60%	15%	108	30	78
2.4	25%	60%	15%	108	30	78
2.5	20%	60%	20%	111	30	81
2.6	20%	60%	20%	111	30	81
2.7	20%	60%	20%	111	30	81
2.8	20%	60%	20%	111	30	81
2.9	20%	60%	20%	111	30	81
3	20%	60%	20%	111	30	81
4	20%	55%	25%	112	30	82
5	20%	55%	25%	112	30	82
6	20%	55%	25%	112	30	82
7	20%	50%	30%	114	30	84
8	20%	50%	30%	114	30	84
9	20%	50%	30%	114	30	84
10	20%	50%	30%	114	30	84

Appendix B – Data table: Prices

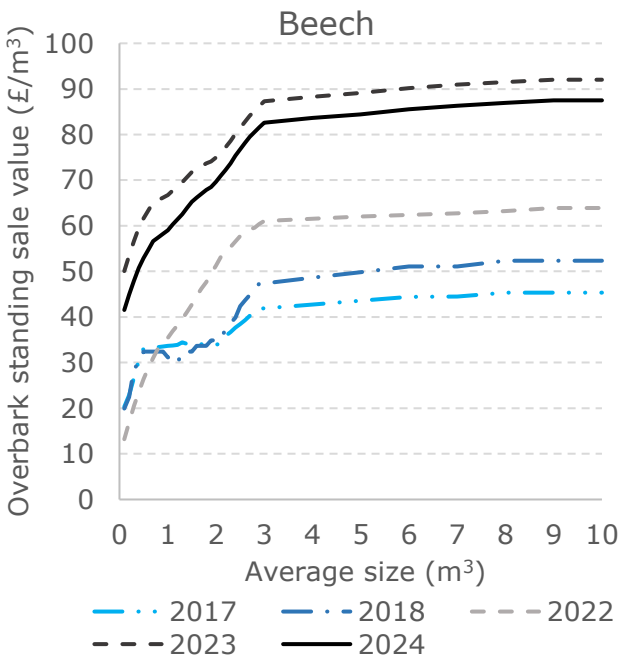
Table 9. Table of timber product price data and sources of data.

Species: Product	Expert price (£)	Lower estimate (£)	Upper estimate (£)	Type	Number of parcels	Total volume in survey (m^3)
Ash: Firewood	74.1	70.25	98.75	Survey Data	3	493
Ash: Second grade	90	81.78	119.73	Survey Data	10	644
Ash: First grade	105	82.30	159.65	Survey Data	21	839
Ash: Prime/niche	130			Expert Opinion	N/A	N/A
Beech: Firewood	88			Expert Opinion	N/A	N/A
Beech: Second grade	95	89.98	109.63	Survey Data	4	272
Beech: First grade	120	97.28	117.42	Survey Data	5	263
Cherry: Firewood	74			Expert Opinion	N/A	N/A
Cherry: Second grade	80			Expert Opinion	N/A	N/A
Cherry: First grade	140			Expert Opinion	N/A	N/A
Lime: Firewood	63			Expert Opinion	N/A	N/A
Lime: Sawlog A/B	75			Expert Opinion	N/A	N/A
Oak: Firewood	85	17.24	97.62	Survey Data	3	559
Oak: Fence	152			Expert Opinion	N/A	N/A
Oak: Beam	280	100.80	333.68	Survey Data	29	1788
Oak: Planking	520	166.00	534.26	Survey Data	27	473
Poplar: Biomass	45			Expert Opinion	N/A	N/A
Poplar: Sawlog A/B	50			Expert Opinion	N/A	N/A
Poplar: Prime/niche	70			Expert Opinion	N/A	N/A
Sweet chestnut: Firewood	74			Expert Opinion	N/A	N/A
Sweet chestnut: Fencing	100			Expert Opinion	N/A	N/A
Sweet chestnut: Second planking	140	106.39	188.38	Survey Data	4	115
Sweet chestnut: First planking	200	106.85	291.22	Survey Data	5	70
Sycamore: Firewood	83			Expert Opinion	N/A	N/A
Sycamore: Sawlog A/B	110			Expert Opinion	N/A	N/A
Sycamore: Prime/niche	140			Expert Opinion	N/A	N/A

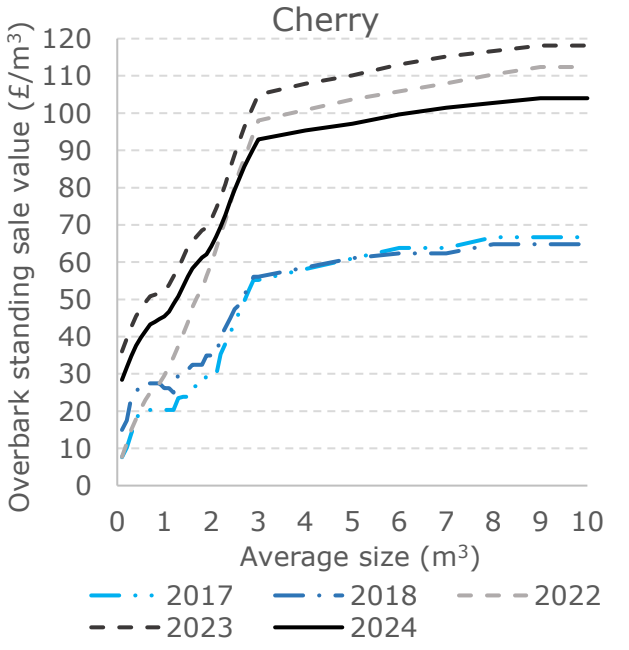
Appendix C – Historical price-size curves in real terms (2024 prices)



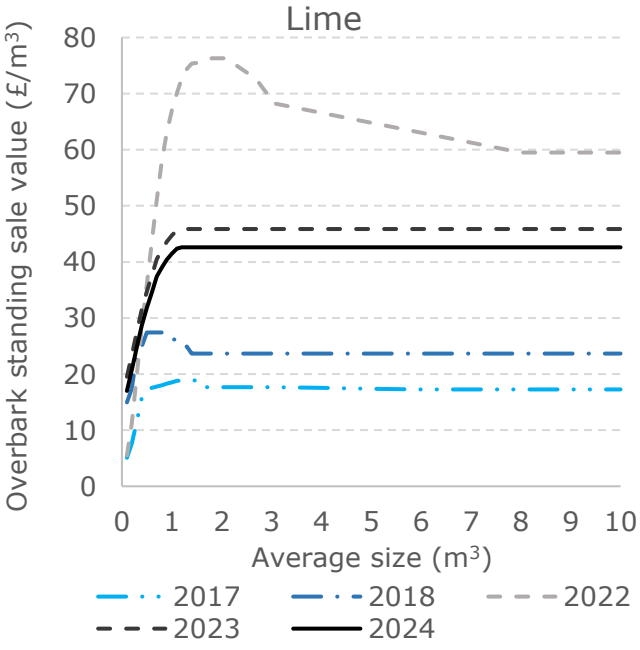
Ash median standing sale value by average size, grouped by year (real values 2024 prices).



Beech median standing sale values by average size, grouped by year (real values 2024 prices).

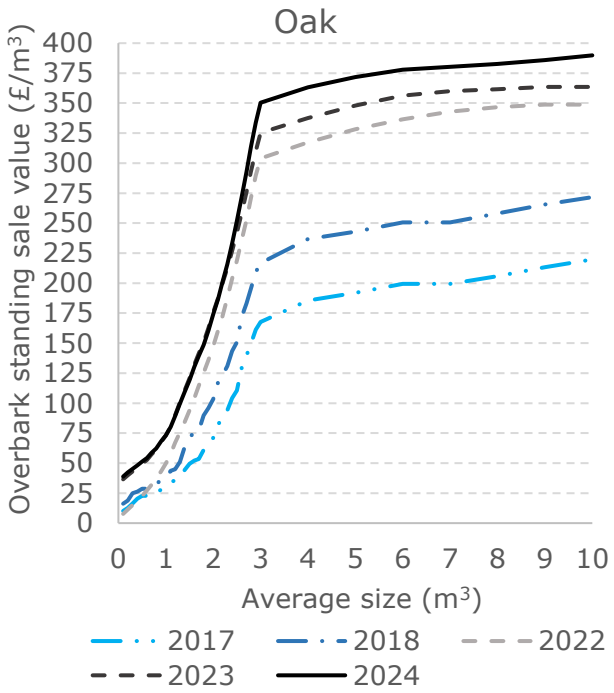


Cherry median standing sale values by average size, grouped by year (real values 2024 prices).

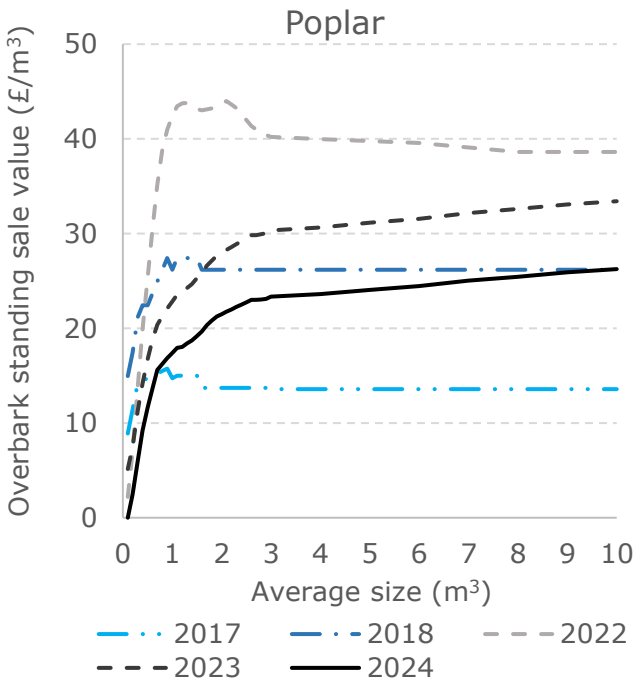


Lime median standing sale values by average size, grouped by year (real values 2024 prices).

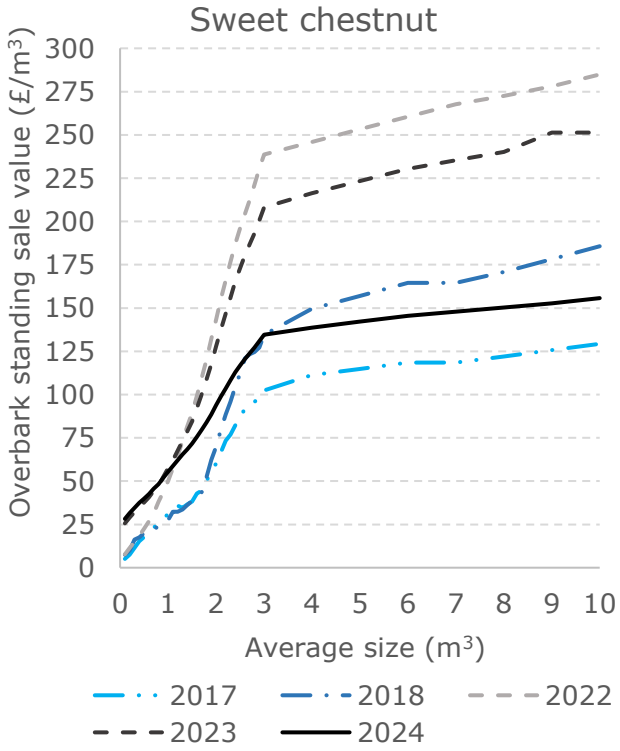
Note: Data collected for 2017 and 2018 used a different methodology to data from 2022 onwards. Real values calculated using UK government deflator (HM Treasury, 2025).



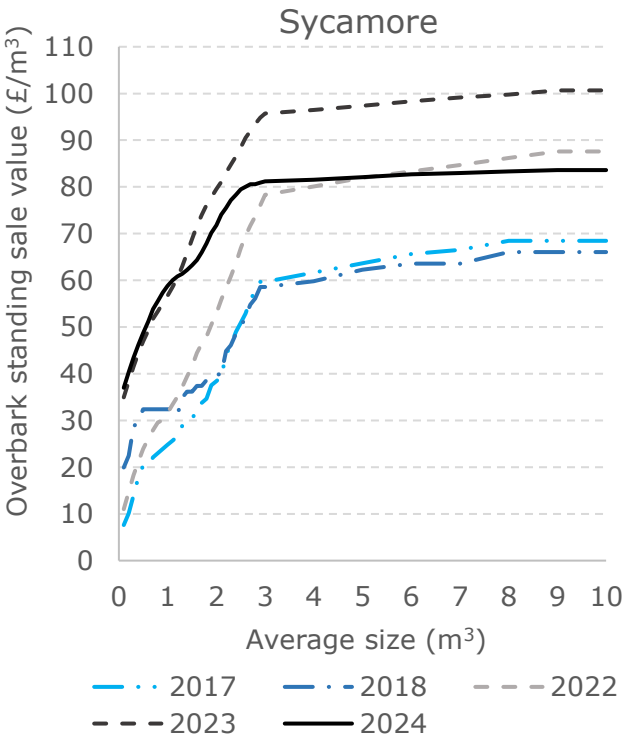
Oak median standing sale values by average size, grouped by year (real values 2024 prices).



Poplar median standing sale values by average size, grouped by year (real values 2024 prices).



Sweet chestnut median standing sale values by average size, grouped by year (real values 2024 prices).



Sycamore median standing sale values by average size, grouped by year (real values 2024 prices).

Note: Data collected for 2017 and 2018 used a different methodology to data from 2022 onwards. Real values calculated using UK government deflator (HM Treasury, 2025).

References

Davies, I. and Watt, G.R. (2005) *Making the grade: a guide to appearance grading UK grown hardwood timber*. Edinburgh: Arcamedia.

HM Treasury (2025) *GDP deflators at market prices, and money GDP*. Available at: https://www.gov.uk/government/collections/gdp-deflators-at-market-prices-and-money-gdp (Accessed: 17 February 2024).

R Core Team (2025) 'R: A Language and Environment for Statistical Computing'. Vienna, Austria: R Foundation for Statistical Computing. Available at: https://www.R-project.org/.

Acknowledgements

We would like to thank the many individuals and organisations who helped with this project: Grown in Britain for their collaboration in running the surveys and providing key inputs to the overall approach taken; and Graham Taylor MBE (formerly of Pryor & Rickett Silviculture) for providing a wealth of expertise on the UK hardwood market – including most of the material in the 'market insights' section. We would also like to sincerely thank the participants in the data collection survey for sparing their time to provide us with the data underpinning many of the results presented.

Alice Holt Lodge
Farnham
Surrey, GU10 4LH, UK
Tel: **0300 067 5600**

Northern Research Station
Roslin
Midlothian, EH25 9SY, UK
Tel: **0300 067 5900**

Forest Research in Wales
Environment Centre Wales
Deiniol Road, Bangor
Gwynedd, LL57 2UW, UK
Tel: **0300 067 5774**

info@forestresearch.gov.uk
www.forestresearch.gov.uk

Forest Research will consider all requests to make the content of our documents available in alternative formats.

Please send any such requests to: research.info@forestresearch.gov.uk

© Crown copyright 2025