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AUTHENTICATION

We declare that this work was done under our supervision according to the procedures described herein and that the report represents a true and accurate record of the results obtained.

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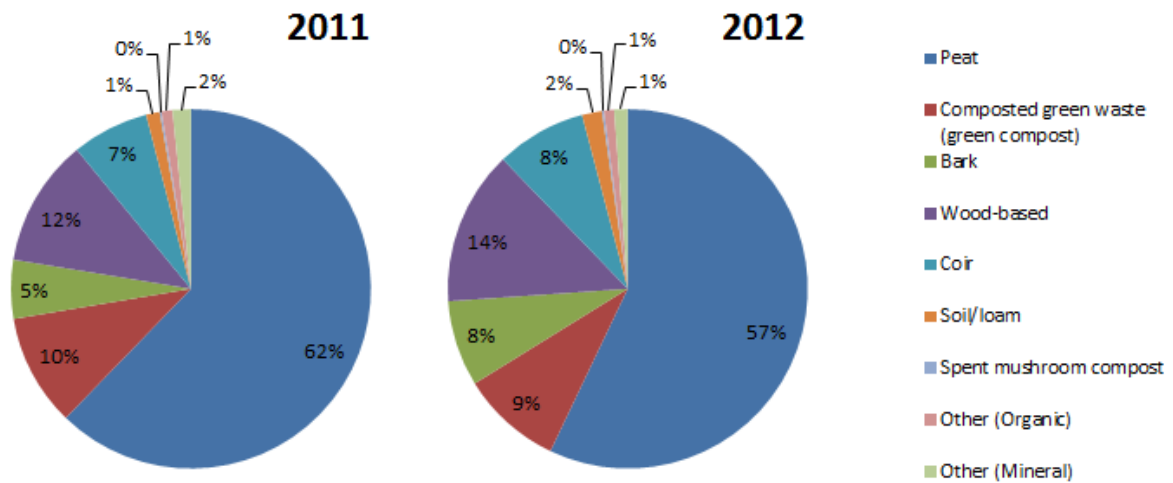
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GROWER SUMMARY

Headline

Between 2011 and 2012 the volume of growing media sold by manufacturers in the UK (including export sales) fell by 12%. Volumes for professional use fell by 7% and those for amateur use fell by 14%.

Across all sectors of the growing media market the proportion of volume accounted for by peat and green compost (CGW) fell, whilst the proportion of ingredients such as bark, coir and wood based ingredients increased.



Background

The overall aim of this project is to provide objective information of benefit to multiple stakeholders on the use of peat in UK horticulture. The research aims to measure the volume (cubic metres) of growing media (and associated volume of peat) sold by producers in the UK and for export from the UK. The project also aims to provide information on relevant trends from 2011 to 2014.

The project will provide data to the industry and other stakeholders on changes in the use of bulky components of growing media including peat over time. It will inform the Growing Media Panel on progress towards targets of eliminating all peat use in retail horticulture by 2020 and professional horticulture by 2030.

The data collection is based on information submitted by growing media manufacturers which account for the majority of UK growing media supply, whether for amateur or professional use or export. Data¹ on 2011 was collected from manufacturers between October and November 2012, and data on 2012 was collected in February and March of 2013. This report is based on these two initial waves of data collection in the project.

Previous work has been conducted by Defra to monitor the composition of growing media. The latest data available from this project relate to 2009. Differences in the sampling and methodology of these two studies mean that data are not directly comparable. However as part of the data checking for information gathered in this project the figures on the peat content of growing media have been cross referenced against data in the Defra project to 'sanity check' that the figures are broadly in line with what might be expected.

Summary

Overall sales trends 2011 to 2012

UK growing media supply for domestic use or export fell by 12% in volume overall in 2012 compared with 2011. In volume terms this equates to a fall from 4.47 m cubic metres to 3.95 m cubic metres. In terms of growing media supplied for retail (amateur use), volumes fell by 14% from 3.14 m cubic metres to 2.69 m cubic metres. For professional use the equivalent figures are a 7% fall, with volumes falling from 1.3 m cubic metres in 2011 to 1.2 m cubic metres in 2012. Production for export accounts for a very small proportion of

¹ See appendix for a copy of the form used for data collection.

overall supply (1.4% in 2012), although, a 63% increase in volumes for export was recorded in 2012 compared with 2011.

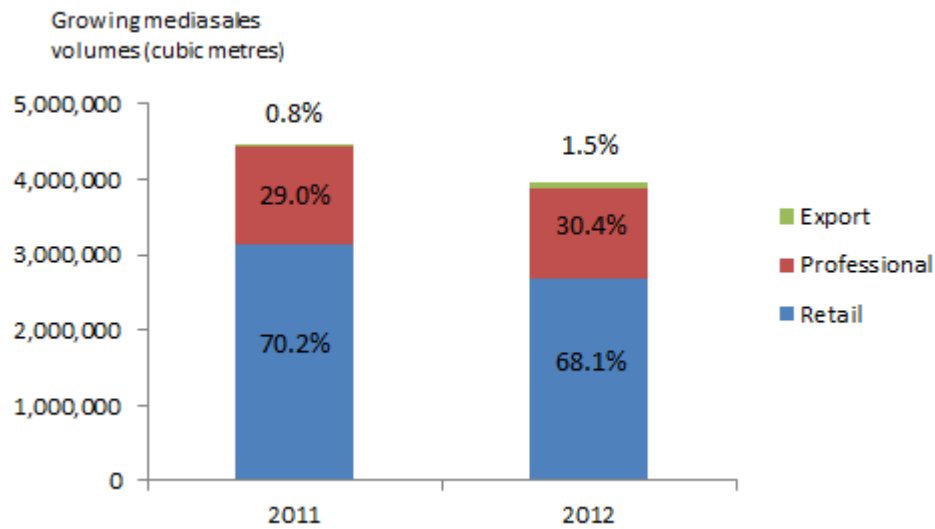


Figure 1: Proportion of volume in growing media production which goes to retail, professional and export markets 2011 and 2012

Overview of growing media supply for the retail market

As noted, supply volumes for the UK retail market were down by 14% in 2012 compared with 2011. Within this, the ‘mix’ of ingredients used for all types of growing media product changed. Overall peat and green compost² accounted for a lower proportion of the volume produced in 2012 than in 2011. The proportion of volume accounted for by bark, coir, and wood-based ingredients increased in 2012 compared with 2011.

The following charts show the change in volume (in cubic metres) of the different ingredients used in growing media for the retail market and the change in the proportion of total growing media supply accounted for by different ingredients.

² The term ‘green compost’ is used throughout this report to denote composted green waste.

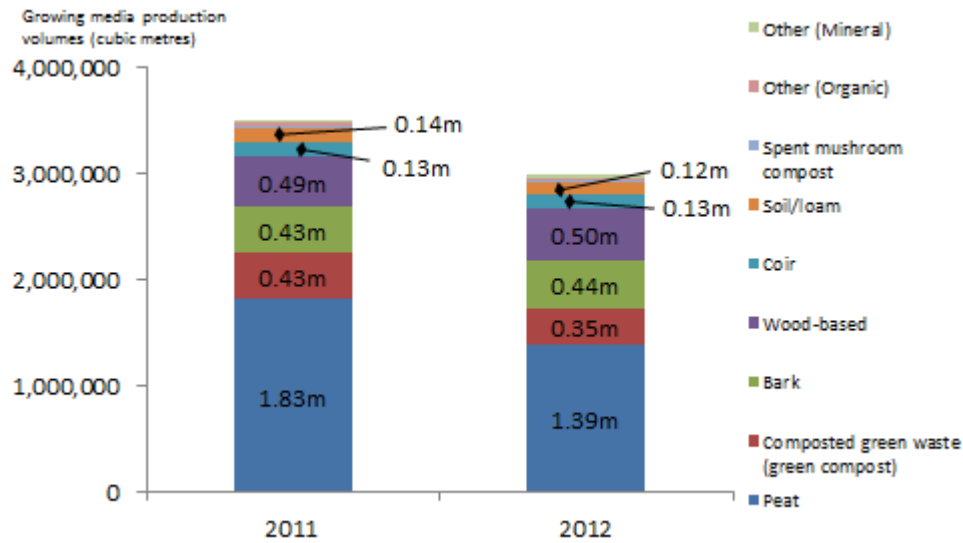


Figure 2: Volume in cubic metres of ingredients used in growing media supply for the retail market 2011 and 2012

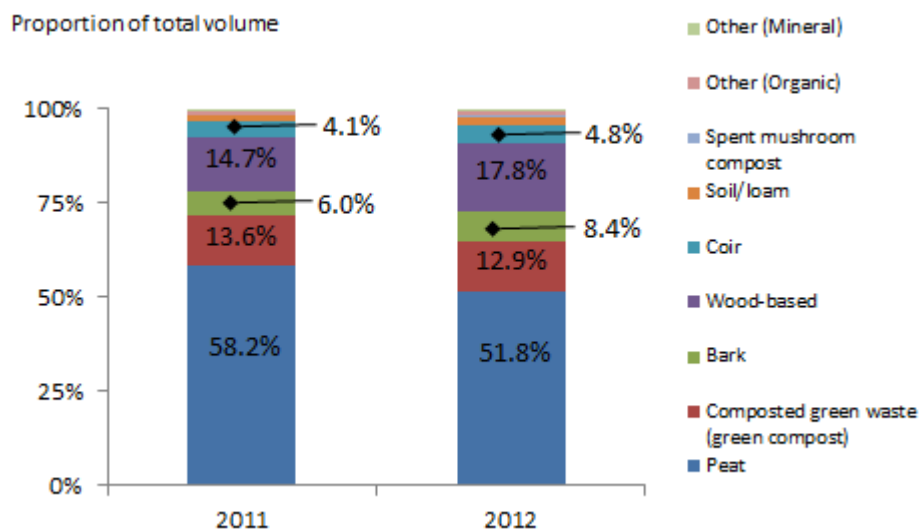


Figure 3: Proportion of ingredients used in total growing media supply for the retail market 2011 and 2012

In both absolute and proportion terms, peat use in growing media manufactured in the UK for the UK retail sector fell, as did green compost. Wood-based, bark and coir ingredients have increased in terms of the proportion of the mix they account for.

In terms of the different growing media products supplied for the UK retail market, there were some notable shifts. Within growing media containing peat, multi-purpose growing media increased its share of overall volumes supplied for UK retail. Peat-free growing media also increased its share of overall growing media sales volume. The proportion of volume accounted for retail peat also increased (albeit retail peat accounts for a very small

proportion of overall volumes). Within growing media containing peat, specific composts (e.g. sowing, potting, ericaceous, etc) as well as John Innes accounted for a lower proportion of overall volumes in 2012 than they did in 2011.

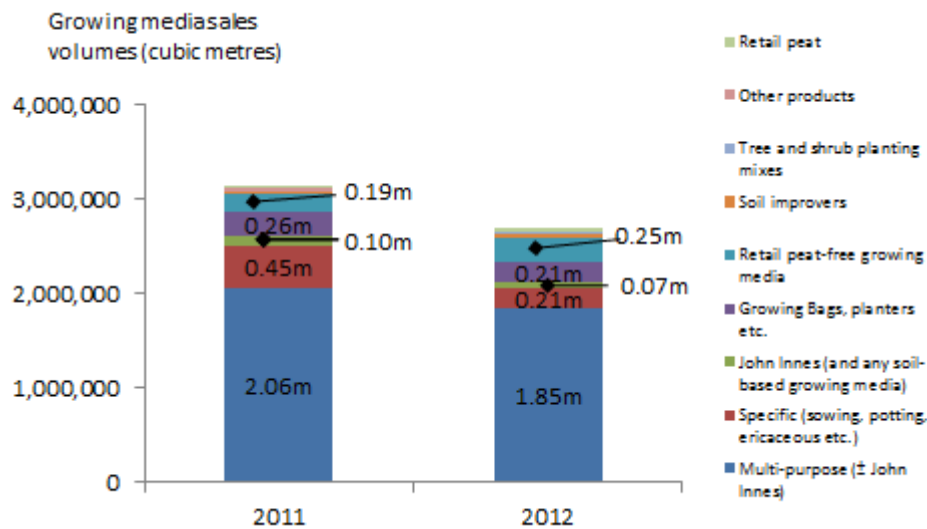


Figure 4: Volume of different growing media products supplied for the retail market 2011 and 2012

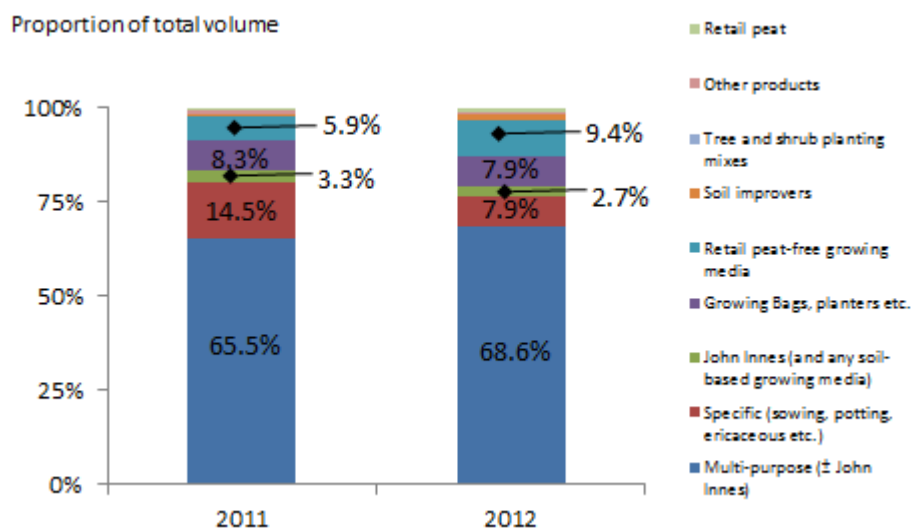


Figure 5: Proportion of overall volume of supply for the retail market accounted for by different types of growing media product 2011 and 2012

Between 2011 and 2012 there was a movement away from peat in growing media for amateur use. This shows itself both in the proportion of volume supplied that was made up of peat, and the proportion of production accounted for by peat-free growing media. Conversely the volume of product composed entirely of peat (e.g. peat bales) for retail increased, however, as of 2012 such peat products accounted for 0.9% by volume of growing media products supplied for retail.

Overview of growing media supply for the professional market

Supply volumes of growing media for professional use fell in 2012 by 7% compared with 2011 (1.2 m cubic metres compared with 1.3 m cubic metres). As in the retail market, the proportion of growing media volume made up of peat and green compost fell, whilst the proportion made up of bark, wood-based and coir increased.

The following charts show the change in volume (in cubic metres) of the different ingredients used in growing media for the professional market and the change in the proportion of total growing media supply accounted for by different ingredients.

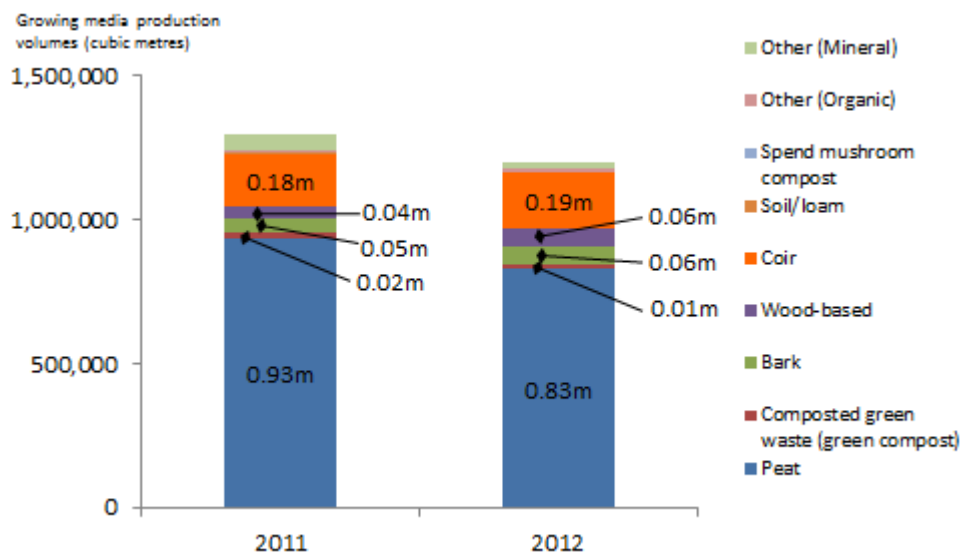


Figure 6: Volume in cubic metres of ingredients used in growing media supply for the professional use market 2011 and 2012

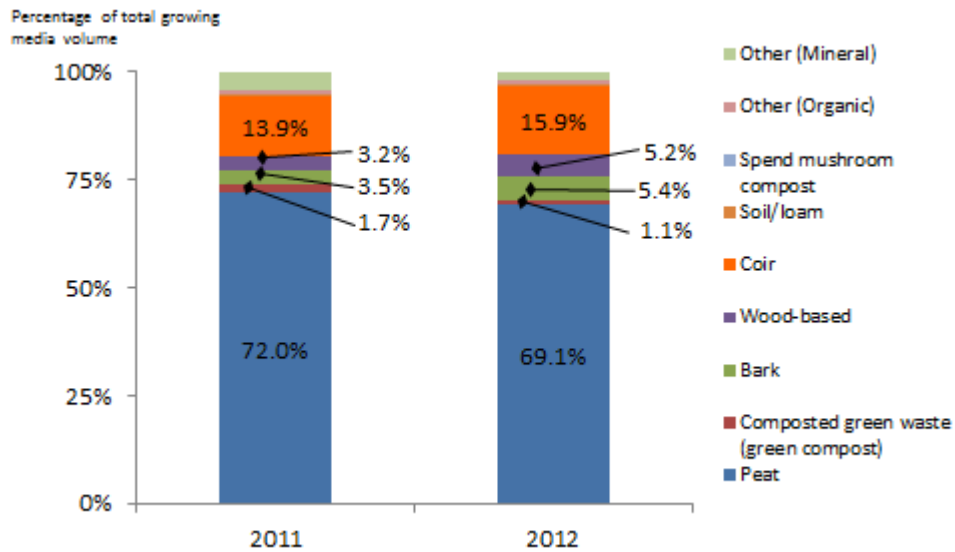


Figure 7: Proportion of ingredients used in total growing media supply for the professional use market 2011 and 2012

As in the retail sector, peat use has fallen, and the use of wood-based, coir and bark ingredients has increased. Coir now accounts for a much greater proportion of volume of overall supply for professional use than in the retail sector (15.9% compared with 4.3%). Indeed growing media for professional use (compared with growing media for retail use) relies much more on peat and coir. In growing media supplied for professional use 85% of volume is made up of peat and coir. The corresponding figure for growing media for the retail market is 57%.

In terms of the type of products supplied for the professional grower market, there are only slight movements in the proportion of volumes accounted for by different types of growing media product between 2011 and 2012. However two points worth bringing out are that the proportion of overall volume accounted for by peat products (e.g. mushroom peat and casing and peat bales) has increased whilst the proportion of overall volume accounted for by professional peat free growing media has fallen.

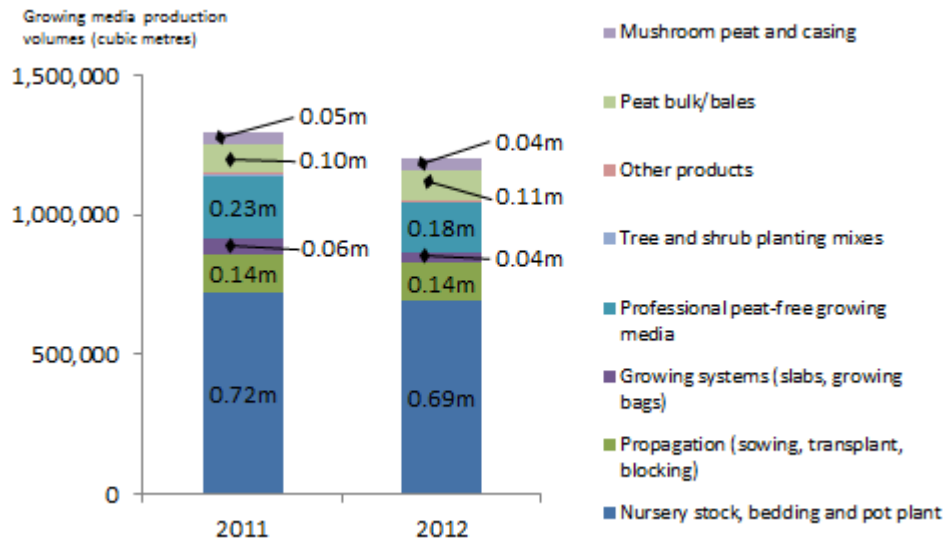


Figure 8: Volume of different growing media products supplied for the professional use market 2011 and 2012

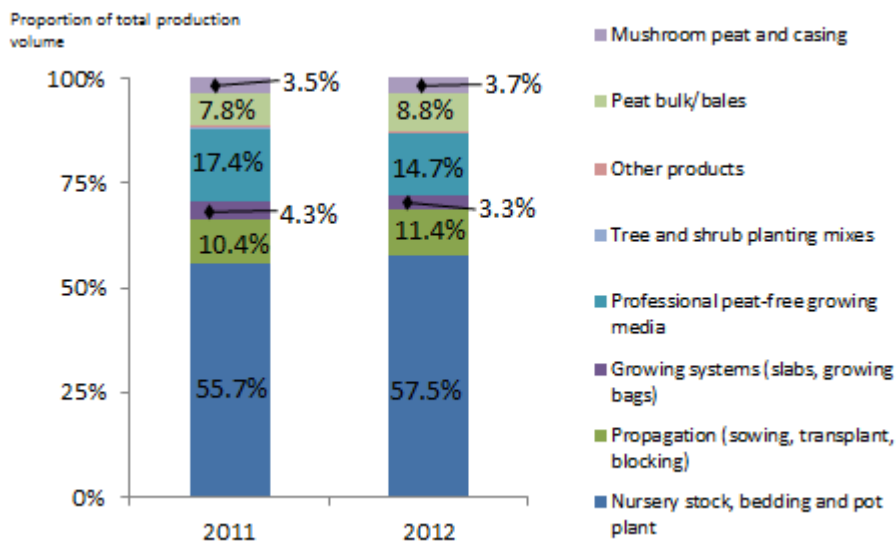


Figure 9: Proportion of overall volume of supply for the professional use market accounted for by different types of growing media product 2011 and 2012

The data collection form that manufacturers completed asked them to provide separate volume figures for growing media for bedding and pot plant, and nursery stock. Respondents did this based on the specific mixes supplied, which tend to have very different ingredients in terms of controlled release fertilisers and other components designed for these specific crops. From a manufacturer's point of view they are easily distinguishable. A similar split was reported in the Defra statistics³, but based on a different

³ Defra report SP08019 - Availability and supply of alternative materials for use in growing media to meet the UKBAP target on reduced peat use in horticulture

methodology. In summary, the approach used was to take Defra crop production statistics (e.g. the numbers of plants of different types produced), and estimate volumes of growing media that would be required to produce these volumes.

The two methodologies produce different, in fact almost opposite results from each other for the sectors in question. The Defra statistics consistently report a greater volume of growing media used in nursery stock production, and the data collection for this study show a greater volume used in bedding and pot plant production. Given the inconsistency between the two sets of figures, further investigation is taking place to understand why the two figures are at odds, and to identify any risks and assumptions in either data set that should be considered when using them. For this reason an aggregate figure only is published in this first report. However the split is available on request on a provisional basis, and we expect to be able to publish the figures on a formal basis along with a detailed discussion of the pros and cons of each method in the 2014 edition of this report.

In terms of peat use in the sector, although the proportion of professional growing media products accounted for by peat has fallen from 72% to 69.1%, peat-free growing media accounts for a lower proportion of production types in 2012 than in 2011. Peat products such as peat bales and mushroom peat account for a greater proportion of product types in 2012 than in 2011.

Overview of peat sources for growing media (amateur, professional and export use)

The following chart shows that the volume of peat from different countries which was included in 2012 growing media sales fell in comparison to 2011. This is in line with overall falling sales volumes of growing media. The exception to this was peat sourced from Northern Ireland, which 'bucked the trend'.

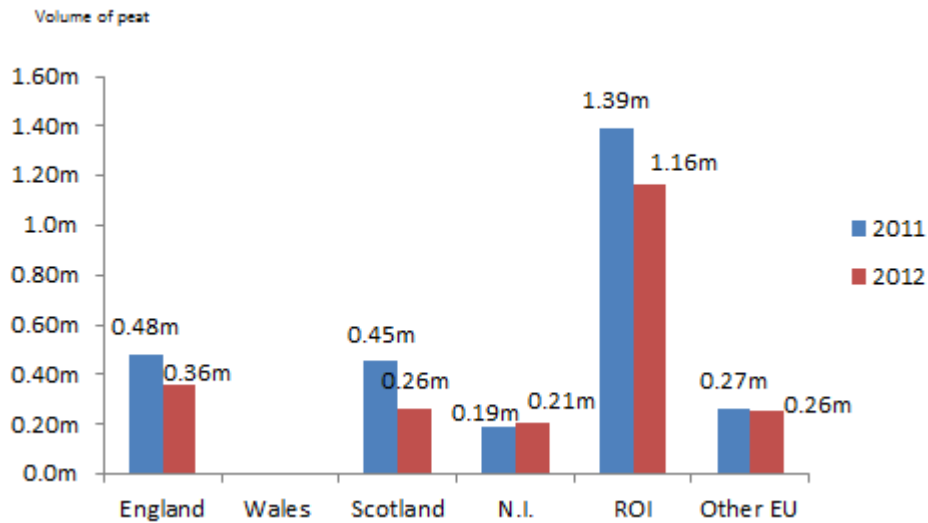


Figure 10: Volume of peat sourced from different countries for UK in growing media sold 2011 and 2012

Financial Benefits

The scope of this data gathering project does not include the provision of recommendations relating to cost reduction or financial return on investment. Such recommendations and analyses are being prepared in other work streams of the Growing Media Panel.

Action Points

Growers can use the information prepared in this report to monitor the overall use of peat and non-peat based growing media within the industry and benchmark their own business use of growing media against it.

SCIENCE SECTION

Introduction

This project is the latest stage in industry-wide efforts to monitor the use of responsibly sourced growing media in the UK. Since the early years of the last decade, Defra in partnership with growing media manufacturers has been monitoring the proportion of peat (and other bulky ingredients) used in growing media. Initially this work came from a focus on reducing peat content within growing media.

These earlier studies showed a steady fall in the proportion of peat used in growing media. Across the four sectors of the market (amateur gardeners, local authority, landscaping, and professional growers) covered by the Defra studies, the proportion of volume accounted for by peat fell from 64% to 42% between 1999 and 2009.

Peat use in the local authority and landscaping sectors accounted for under 1% of total use. In the professional growers sector the proportion of volume accounted for by peat fell from 95% to 76% between 1999 and 2009. In the amateur gardeners sector the proportion fell from 77% to 49% over the same ten year period.

More recently the debate has moved from a specific focus on peat reduction to the development and use of responsibly sourced growing media. To be able to evaluate the overall sustainability of growing media more detailed knowledge of the volume of growing media ingredients was needed. This led to the current study which collects data on specific growing media ingredients as well as peat. This work is sufficiently different from the original Defra studies to make comparisons of the two data sets qualitative only. However they will provide a robust mechanism for tracking the proportion not only of peat in growing media, but of other bulky components such as green compost, coir and bark.

Materials and Methods

Project aims

The project aims to measure the volume and composition of growing media supplied for the UK amateur and professional use markets, as well as for export from the UK. The aim is to track this in each year from 2011 to 2014. This annual report covers data collected covering 2011 and 2012.

Data collection method

Data on the volume and composition of growing media supplied was collected by means of a self-completion form (see appendix for a copy). The form was administered to 30 growing media manufacturers, and 27 forms were completed for each year. The same 27 producers provided returns for both 2011 and 2012 either on the form or by telephone interview.

The survey was commissioned and jointly funded by Defra, HDC and the Growing Media Association (a specialist group of the HTA). An independent consultant (Paul Waller Consulting) was engaged to ensure the confidentiality of information collected. Data was provided by growing media producers on a confidential basis to ensure willingness to participate and to encourage honesty in the returns provided. A form showing each respondent's 'share' of different parts of the market is provided to respondents to encourage response.

Data validation

To assess the likelihood that the bulk of growing media supply has been accounted for, the total volume of growing media supplied for retail use has been cross referenced against market value estimates collected by the HTA in consumer surveys. These surveys are prone to potential error relating to accuracy of respondent recall, sampling error, variance in the timings of fieldwork relative to calendar years etc. However they provide a useful 'sanity check' on the supply side sales figures collected in this survey.

The HTA's Garden Retail Market Analysis report shows that garden centres reported a fall in sales of growing media of 18% (in terms of value) between 2011 and 2012. Kantar Media's Target Group Index (TGI) survey which captures consumer spend on growing media estimates an 11% fall in value for similar, but not identical, periods. The primary research for this project reports a fall in volume of 14% for the retail market between 2011 and 2012, suggesting that the primary research for this project is highly likely to be valid in terms of reporting trends in the retail market for growing media. Data is not available to perform a similar validation exercise for growing media for professional use.

By cross referencing market value estimates from Kantar Media's TGI survey, an evaluation as to whether this project's methodology is likely to be providing a comprehensive and a sensible view of the growing media market can be made. The following table shows how the retail price of the 'typical 50 litre bag' of growing media can be estimated by cross

referencing the production volume figures collected as part of this project with market value estimates from the TGI survey.

Table 1: Estimated notional value of a typical 50 litre bag of growing media for retail use based on available volume and value estimates.

Year	Retail growing media supply volume ('000 cubic metres)	Media market value	Price per cubic metre	Notional retail price per 50 litre bag
2011	3,138	£461m	£147	£7.35
2012	2,689	£415m	£154	£7.72

Given that the value figures are based on consumers' reported spend, these should be seen as inclusive of VAT. The resulting figures of £7.35 and £7.72 are broadly consistent (if perhaps a little high⁴) with what is currently being charged for 50 litre bags of growing media in retail outlets, and as such provide confidence that the volume figures collected in this survey are both credible, and account for the bulk of UK production.

Results

Overall supply trends 2011 to 2012

UK growing media supply for domestic use or export fell by 12% in volume overall in 2012 compared with 2011. In volume terms this equates to a fall from 4.47 m cubic metres to 3.95 m cubic metres. In terms of growing media supplied to retail (amateur use), volumes fell by 14% from 3.14 m cubic metres to 2.69 m cubic metres. For professional use the equivalent figures are a 7% fall, with volumes falling from 1.3 m cubic metres in 2011 to 1.2 m cubic metres in 2012. Supply for export accounts for a very small proportion of overall production (1.4% in 2012), although a 63% increase in volumes for export was recorded in 2012 compared with 2011.

⁴ We might expect this for a variety of reasons including margins of error on compost spend surveys.

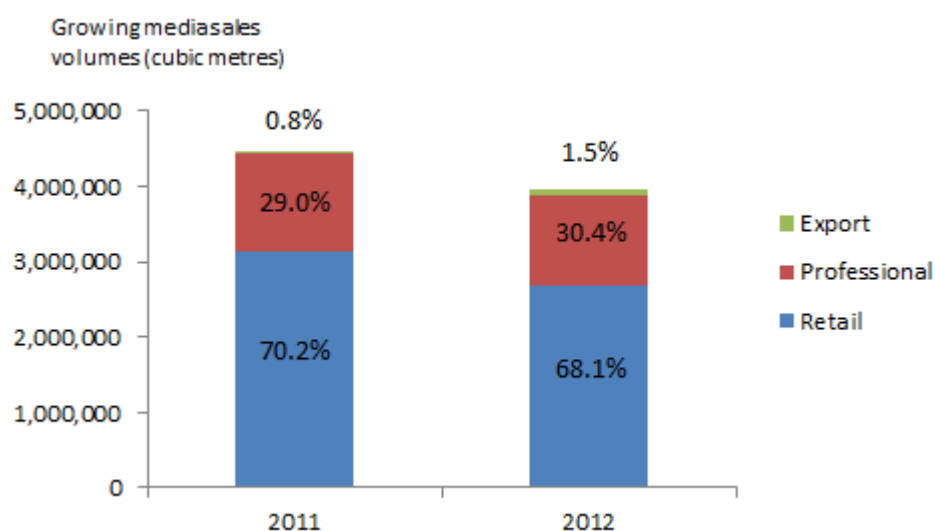


Figure 11: Proportion of volume in growing media supply which goes to retail, professional and export markets 2011 and 2012

Table 2: Volume of growing media supply which goes to retail, professional and export markets 2011 and 2012 ('000 cubic metres)

Year	Total supply volume	For export	For professional use market	For amateur use/retail market
2011	4,472	36	1,298	3,138
2012	3,949	59	1,201	2,689

Growing media supply for the retail market

As noted, supply volumes for the UK retail market were down by 14% in 2012 compared with 2011. Within this, the 'mix' of ingredients used for all types of growing media product changed. Overall peat and green compost accounted for a lower proportion of the volume produced in 2012 than in 2011. The proportion of volume accounted for by bark, coir, and wood-based ingredients increased in 2012 compared with 2011.

The following charts show the change in volume (in cubic metres) of the different ingredients used in growing media for the retail market and the change in the proportion of total growing media production accounted for by different ingredients.

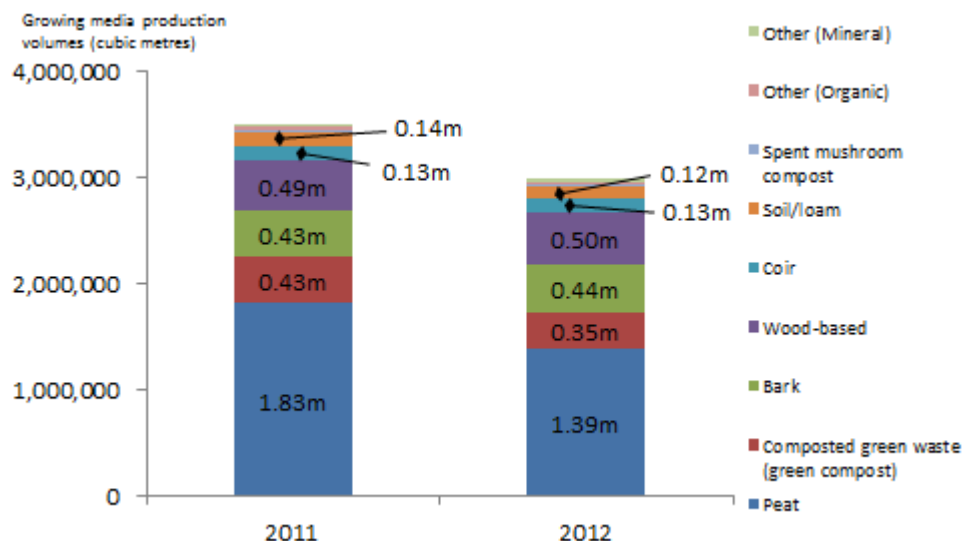


Figure 12: Volume in cubic metres of ingredients used in growing media supply for the retail market 2011 and 2012

Table 3: Volume in cubic metres of ingredients used in growing media supply for the retail market 2011 and 2012

Ingredient	2011	2012
Peat	1,826,291	1,392,165
Green compost	428,150	346,334
Bark	189,273	224,866
Wood-based	460,960	478,369
Coir	128,551	128,479
Soil/loam	47,340	63,504
Spent mushroom compost	7,689	7,002
Other (Organic)	31,157	26,793
Other (Mineral)	18,688	21,139

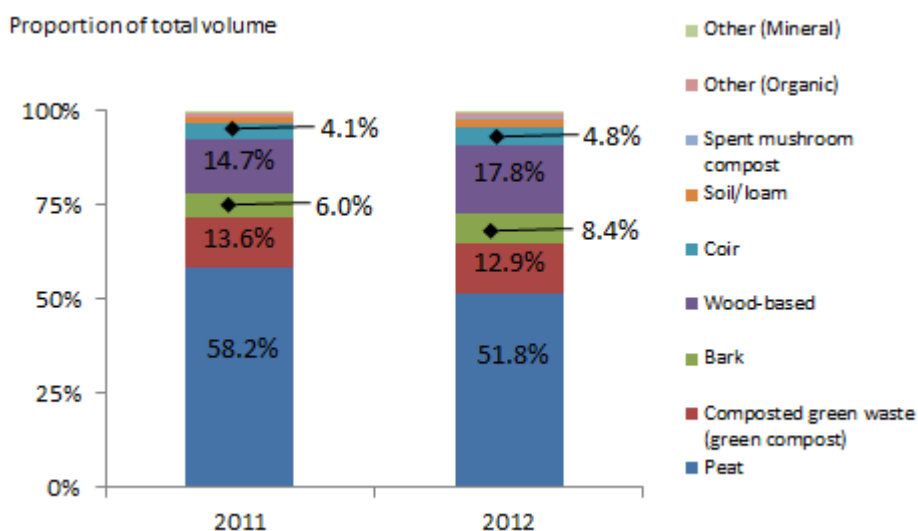


Figure 13: Proportion of ingredients used in total growing media supply for the retail market 2011 and 2012

In both absolute and proportion terms, peat use in growing media supplied to the UK retail sector fell, as did green compost. Wood-based, bark and coir ingredients have increased in terms of the proportion of the mix they account for.

In terms of the different growing media products supplied for the UK retail market, there were some notable shifts. Within growing media that includes peat, multi-purpose growing media slightly increased its share of overall volumes produced for UK retail. Peat-free growing media also increased its share of overall sales volume. The proportion of volume accounted for by retail peat also increased (albeit retail peat accounts for a very small proportion of overall volumes). Within growing media containing peat, specific composts (e.g. sowing, potting, ericaceous, etc) as well as John Innes accounted for a lower proportion of overall volume in 2012 than they did in 2011.

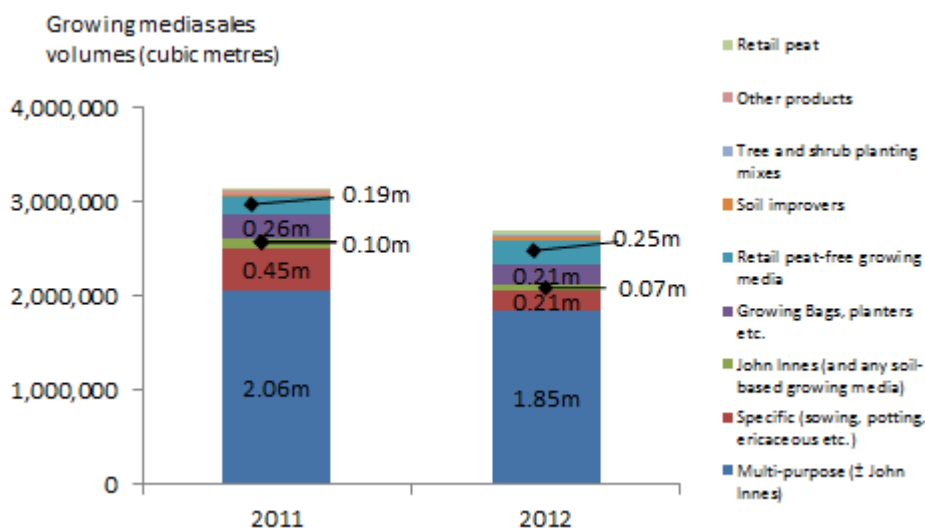


Figure 14: Volume of different growing media products supplied for the retail market 2011 and 2012

Table 4: Volume in cubic metres of different growing media products supplied for the retail market 2011 and 2012

Growing media product type	2011	2012
Multi-purpose (± John Innes)	2,055,883	1,845,020
Specific (sowing, potting, ericaceous etc.)	454,656	213,000
John Innes (and any soil-based growing media)	103,751	71,783
Growing bags, planters etc.	261,233	212,747
Retail peat-free growing media	186,279	251,847
Soil improvers	20,532	46,742
Tree and shrub planting mixes	8,420	7,978
Other products	26,359	15,689
Retail Peat (sold as 'peat')	20,984	23,845

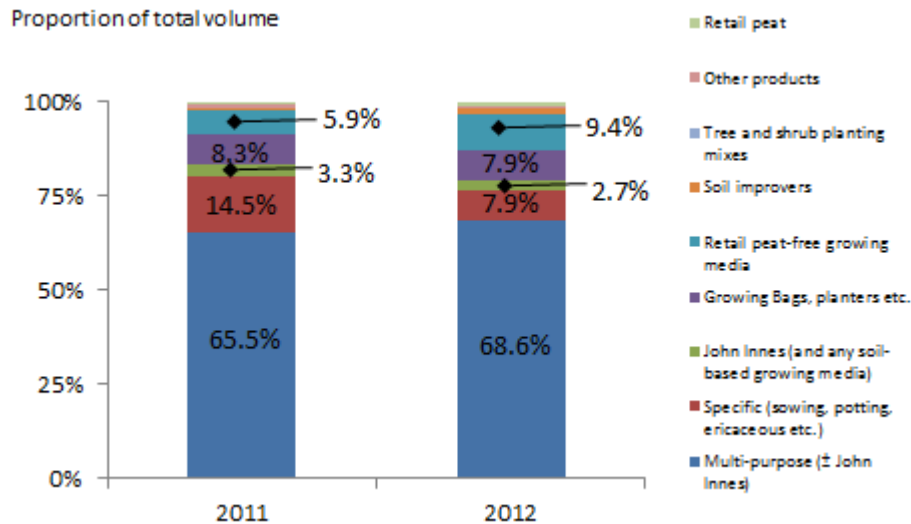


Figure 15: Proportion of overall volume of supply for the retail market accounted for by different types of growing media product 2011 and 2012

Between 2011 and 2012 there was a movement away from peat in growing media for amateur use. This shows itself both in the proportion of volume supplied that was made up of peat, and the proportion of production accounted for by peat free growing media. Conversely the volume of product composed entirely of peat (e.g. peat bales) for retail increased, however as of 2012 such peat products accounted for 0.9% by volume of growing media products produced for retail.

Growing media supply for the professional market

Supply volumes of growing media for professional use fell in 2012 by 7% compared with 2011 (1.2 m cubic metres compared with 1.3 m cubic metres). As in the retail market, the proportion of growing media volume made up of peat and green compost fell, while the proportion made up of bark, wood-based and coir increased.

The following charts show the change in volume (in cubic metres) of the different ingredients used in growing media for the professional market and the change in the proportion of total growing media supply accounted for by different ingredients.

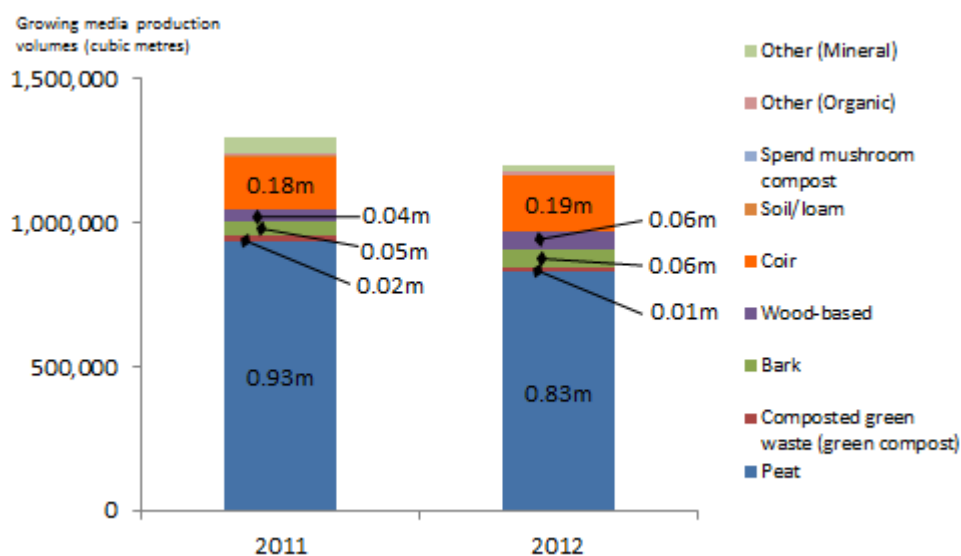


Figure 16: Volume in cubic metres of ingredients used in growing media supply for the professional use market 2011 and 2012

Figure 20: Volume in cubic metres of ingredients used in growing media supply for the professional market 2011 and 2012

Ingredient	2011	2012
Peat	934,363	830,179
Green compost	22,235	12,934
Bark	45,253	64,531
Wood-based	41,632	62,882
Coir	180,246	191,496
Soil/loam	6,796	4,144
Spent mushroom compost	38	0
Other (Organic)	12,281	8,910
Other (Mineral)	54,827	26,106

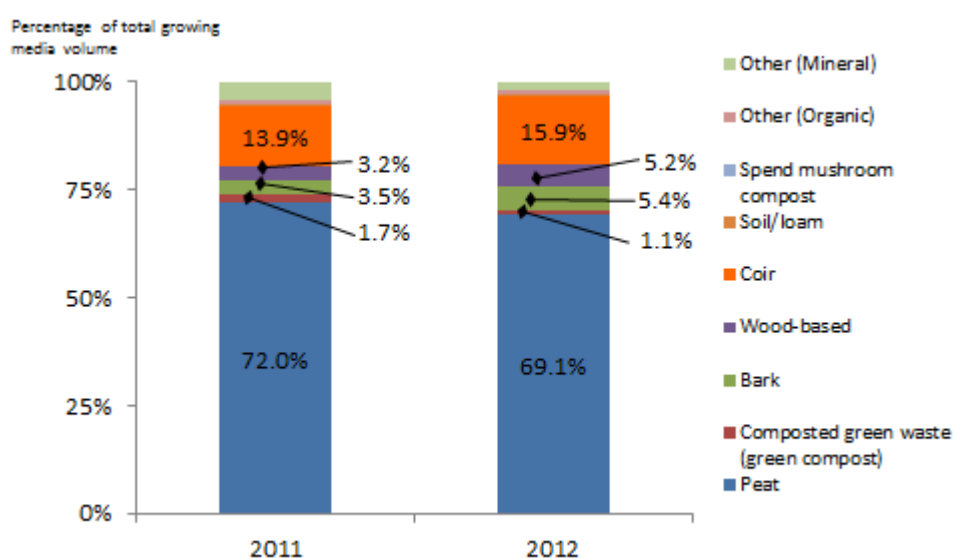


Figure 17: Proportion of ingredients used in total growing media supply for the professional use market 2011 and 2012

As in the retail sector, peat use has fallen, and the use of wood-based, coir and bark ingredients has increased. Coir now accounts for a much greater proportion of volume of overall production for professional use than in the retail sector (15.9% compared with 4.8%). Indeed growing media for professional use (compared with growing media for retail use) relies much more on peat and coir. In growing media produced for professional use 85% of volume is made up of peat and coir. The corresponding figure for growing media supplied to the retail market is 57%.

In terms of the type of products produced for the professional grower market, there are only slight movements in the proportion of volumes accounted for by different types of growing media product between 2011 and 2012. However two points worth bringing out are that the proportion of overall volume accounted for by peat products (e.g. mushroom peat and casing and casing and peat bales) has increased whilst the proportion of overall volume accounted for by professional peat-free growing media has fallen.

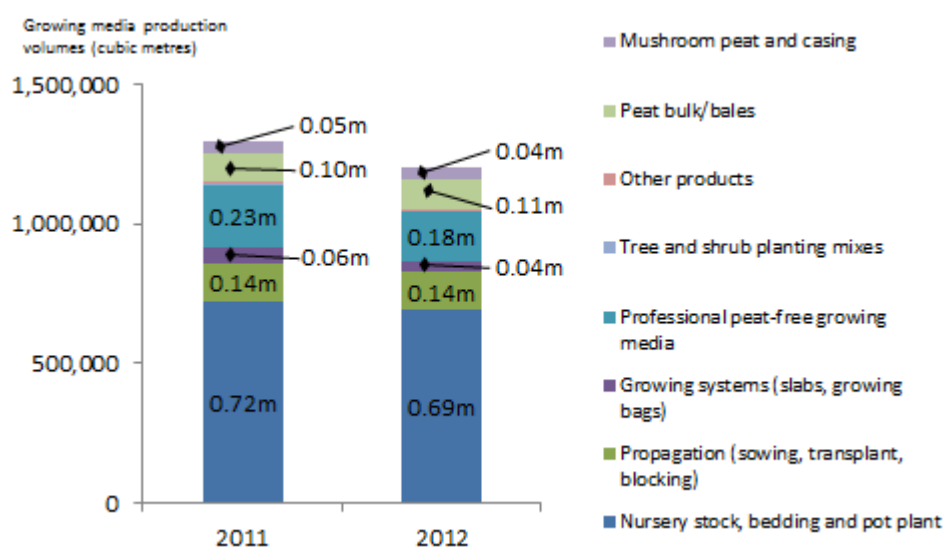


Figure 18: Volume of different growing media products supplied to the professional use market 2011 and 2012

Table 6: Volume in cubic metres of ingredients used in growing media supply for the professional use market 2011 and 2012

Product type	2011	2012
Nursery stock, bedding and pot plant	722,168	690,128
Propagation (sowing, transplant, blocking)	135,270	136,723
Growing systems (slabs, growing bags)	56,227	39,942
Professional peat-free growing media	226,031	176,931
Soil improvers	0	0
Tree and shrub planting mixes	2,727	1,986
Other products	8,024	5,855
Peat bulk/bales	101,448	105,658
Mushroom peat and casing	45,778	43,959

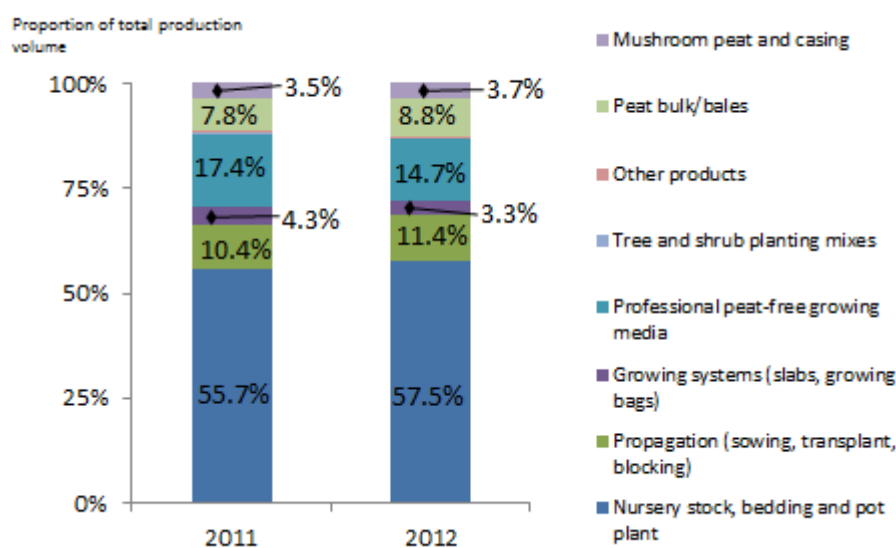


Figure 19: Proportion of overall volume of supply for the professional use market accounted for by different types of growing media product 2011 and 2012

The data collection form that manufacturers completed asked them to provide separate volume figures for growing media for bedding and pot plant, and nursery stock. Respondents did this based on the specific mixes supplied, which tend to have very different ingredients in terms of controlled release fertilisers and other components designed for these specific crops. From a manufacturer's point of view they are easily distinguishable. A similar split was reported in the Defra statistics⁵, but based on a different methodology. In summary, the approach used was to take Defra crop production statistics (e.g. the numbers of plants of different types produced), and estimate volumes of growing media that would be required to produce these volumes.

The two methodologies produce different, in fact almost opposite results from each other. The Defra statistics consistently report a greater volume of growing media used in nursery stock production, and the data collection for this study show a greater volume used in bedding and pot plant production. Given the inconsistency between the two sets of figures, further investigation is taking place to understand why the two figures are at odds, and to identify any risks and assumptions in either data set that should be considered when using them. For this reason an aggregate figure only is published in this first report. However the split is available on request on a provisional basis, and we expect to be able to publish the

⁵ Defra report SP08019 - Availability and supply of alternative materials for use in growing media to meet the UKBAP target on reduced peat use in horticulture

figures on a formal basis along with a detailed discussion of the pros and cons of each method in the 2014 edition of this report.

In terms of peat use in the sector, the proportion of professional growing media products accounted for by peat has fallen from 72% to 69.1%, peat free growing media accounts for a lower proportion of supplied product types (by volume) in 2012 than in 2011. Peat products such as peat bales and mushroom peat also account for a greater proportion of product types supplied (by volume) in 2012 than in 2011.

Peat sourced for growing media (amateur, professional and export use)

The following chart shows that the volume of peat from different countries which was included in 2012 growing media sales fell in comparison to 2011.

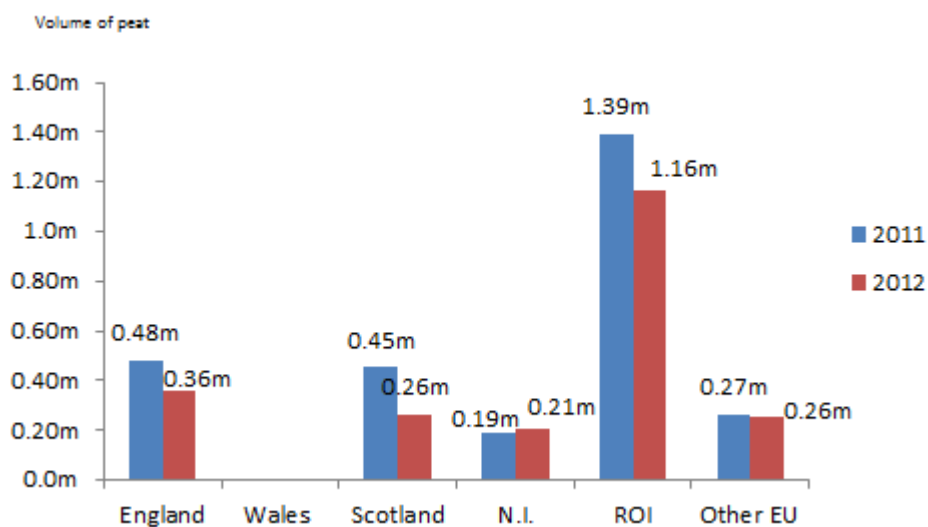


Figure 20: Volume of peat sourced from different countries for UK in growing media supplied 2011 and 2012

Within this overall picture, there is some variance between where peat for amateur use is sourced and where peat for professional use is sourced. The following chart shows where the peat used in growing media for amateur and professional markets comes from. In both cases the Republic of Ireland is the main source of peat. A greater proportion of peat for professional use comes from Scotland than from is the case for amateur use.

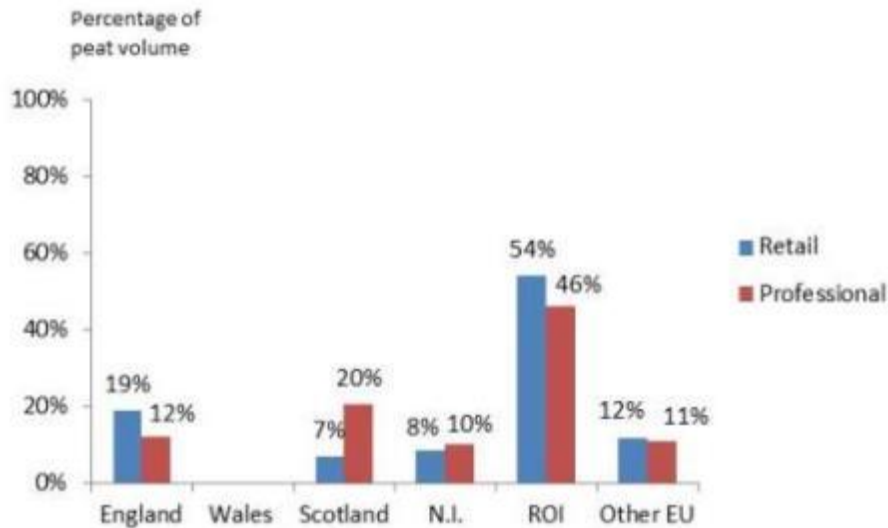


Figure 21: The origin of peat used in growing media for amateur and professional use by volume 2012

Looked at as a time series, there are only minor changes in the proportion of peat coming from different countries. Across the retail and professional sectors, the proportion of peat coming from 'other EU countries' (e.g. not the UK or Republic of Ireland) increased slightly. We need to note that this is against a backdrop of overall falls in peat as a proportion of these growing media volumes. In absolute terms, the volume of peat sourced from other EU countries for growing media supplied to retail, professional and export markets fell from 265,342 cubic metres in 2011 to 255,776 cubic metres in 2012.

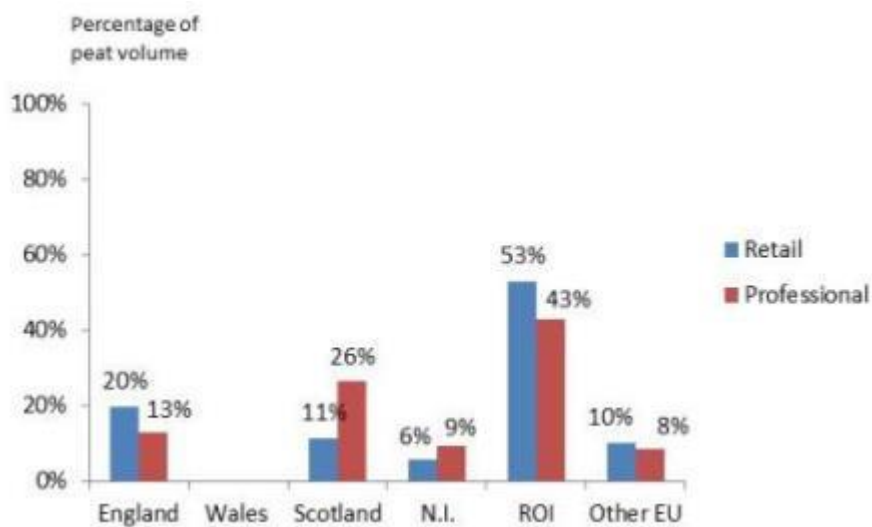


Figure 22: The origin of peat used in growing media for amateur and professional use by volume 2011

Discussion

These findings show that there are movements in the overall volume of growing media supply, and changes in the proportion of ingredients. Overall peat supply fell between 2011 and 2012 in absolute terms, and also in percentage terms of overall volumes supplied.

Within growing media for the retail market, the proportion of total supply accounted for by peat free growing media products increased. Taken together with the fall in overall peat use this suggests progress towards the 2020 peat elimination target. The sustainability credentials of peat alternatives such as coir and wood-based materials is being assessed as a result of the work of project 4 of the Sustainable Growing Media Task Force to provide a holistic view of the impact of any such trend on the sustainability of growing media.

In growing media for professional use, the proportion of peat in overall supply volumes fell. However, use of near-100% peat products such as peat bales increased, whilst use of professional peat-free growing media products fell.

Conclusions

Growing media supply volumes fell in 2012 most likely due to poor weather driving low consumer demand. As such the volume of most ingredients in growing media supplied for retail, professional and export markets fell in 2012 compared with 2011. However there were notable shifts in the mix of ingredients of what was supplied in 2012 compared with 2011. In supply for the amateur market, the proportion of peat and green compost going into all product types fell, and appears to have been replaced by bark, wood-based and coir ingredients. The proportion of total supply for the retail market accounted for by peat-free growing media also increased, suggesting that there is real underlying movement away from peat use in the retail/amateur use sector of the market, possibly driven by choice editing and/or increasing acceptance of peat free products among consumers and/or retailers. Annual variations in the availability of different type of ingredient also need to be kept in mind, and specifically the wet weather which affected peat extraction may be a factor in the reduced proportion of peat in growing media between 2011 and 2012.

In growing media supplied for professional use, the proportion of volume accounted for by peat declined. But the amount of near-100% peat products supplied for the professional market increased in 2012, and the proportion of total supply accounted for by peat-free products fell.

This suggests that for the professional sector (where choice editing may not be as viable an option for driving behavior change as in the retail/amateur use market), there may be movement towards peat reduction in growing media formulation. This may be driven by several factors including but not necessarily limited to the expiry of permission to extract peat from certain sites of special scientific interest as well as price, availability, demand and performance drivers. Until more data is available we will not be able to tell whether this is a trend or an anomaly.

Knowledge and Technology Transfer

This report is publicly available on the HDC website, and is available to members of the Sustainable Growing Media Task Force. Additionally an article covering the key findings of the report is scheduled to be published in the September 2013 edition of *HDC News* magazine. A presentation will also be made at the BOPP Technical Seminar 'Creating a Sustainable Future for Ornamentals' on 19 September 2013.

Appendices

The appendix to this document contains the data tables for 2011 and 2012 detailing the volume of ingredients produced for different types of amateur and professional use growing media for use in the UK or for export. This is recorded in the format of the data collection sheet supplied to respondents in this study. The data form also details the source country of any peat used in these products. The appendix is in an Excel spreadsheet format.