Project title:	Tracking Peat usage in Growing Media Production
Project number:	CP 100
Project leader:	David Denny, HTA
Report:	Annual report, June 2014
Previous report:	Annual report, 2013
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Location of project:	Theale, Reading, RG7 5AH
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Date project commenced:	1 October 2012
Date project completed (or expected completion date):	May 2015

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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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GROWER SUMMARY

Headline

Between 2011 and 2013 the volume of growing media sold by manufacturers in the UK (including export sales) fell by 18%. The fall between 2012 and 2013 was 8%. Volumes for professional use in 2013 fell by 14% compared with 2012 and those for amateur use fell by 5%.

Across all sectors of the growing media market the proportion of volume accounted for by peat has fallen over the years of the study so far. The use of wood-based and coir ingredients has increased consistently with bark and green compost accounting for broadly similar proportions of volume.

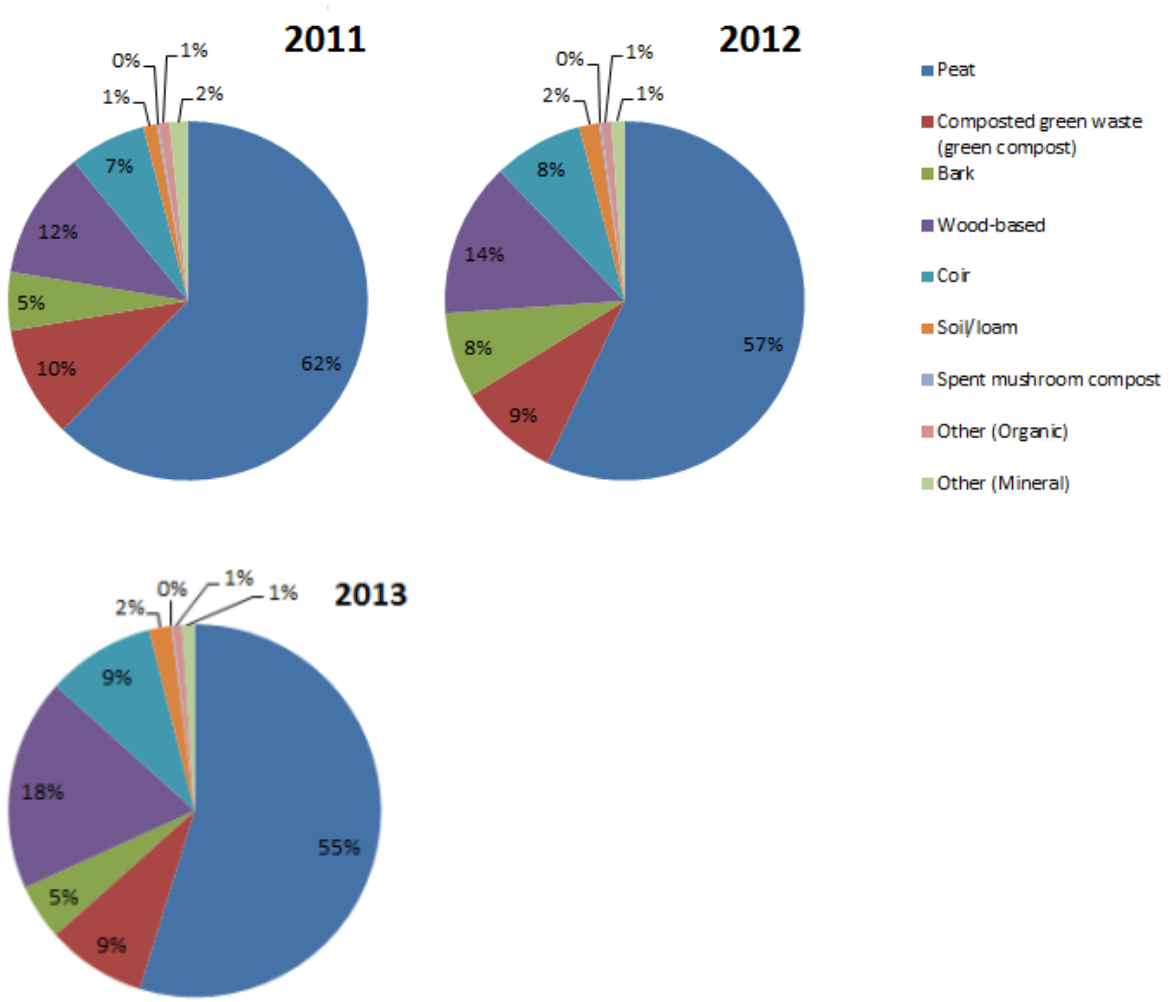

Figure 1:Summary of the proportion of overall growing media supply accounted for by different ingredients.

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 the uptake of responsibly sourced growing media by the various horticulturehorticultural and retail sectors.

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. Data[1] on 2011 was collected from manufacturers between October and November 2012. Data on 2012 was collected in February and March of 2013. Data on 2013 was collected in February and March of 2014. This report is based on these three 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 2013

UK growing media supply for domestic use and export fell by 8% in volume overall in 2013 compared with 2012. In volume terms this equates to a fall from 3.95 m cubic metres to 3.65 m cubic metres. In terms of growing media supplied for retail (amateur use), volumes fell by 5% from 2.69 m cubic metres to 2.55 m cubic metres. For professional use the equivalent figures are a 14% fall, with volumes falling from 1.2 m cubic metres in 2012 to

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

1.0 m cubic metres in 2013. Production for export accounts for a very small proportion of overall supply (1.5% in 2013).

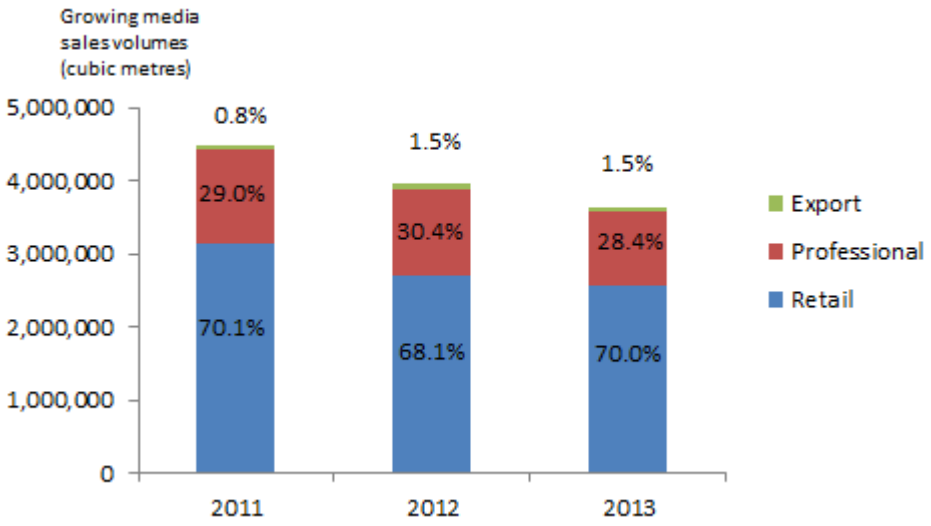

Figure 22: Proportion of volume in growing media which goes to the retail, professional and export markets 2011 and 2013[2]

Overview of growing media supply for the retail market

As noted, the volume of growing media supplied to the UK retail market fell by 5% in 2013 compared with 2012. Within this, the 'mix' of ingredients used for all types of growing media product changed. Overall peat and green compost[3] accounted for a lower proportion of the volume produced in 2013 than in 2012. The proportion of volume accounted for by wood-based ingredients in particular increased from 15% in 2011 to 18% in 2012 and reached 23% in 2013. The proportion accounted for by coir also increased from 4% in 2011 to 6% in 2012.

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] Note – figures do not total 100% in all cases due to rounding
[3] The term 'green compost' is used throughout this report to denote composted green waste.

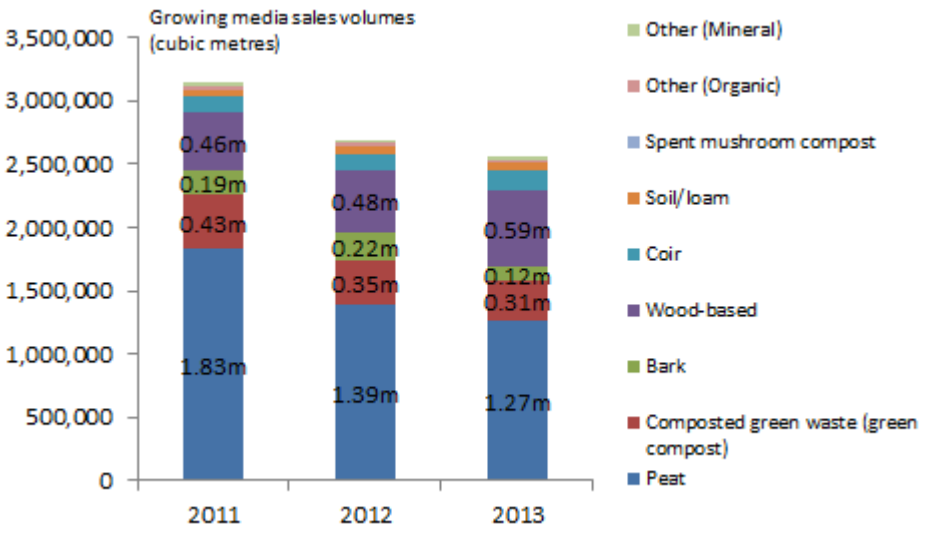

Figure 33: Volume in cubic metres of ingredients used in the growing media supply to the retail market 2011 to 2013

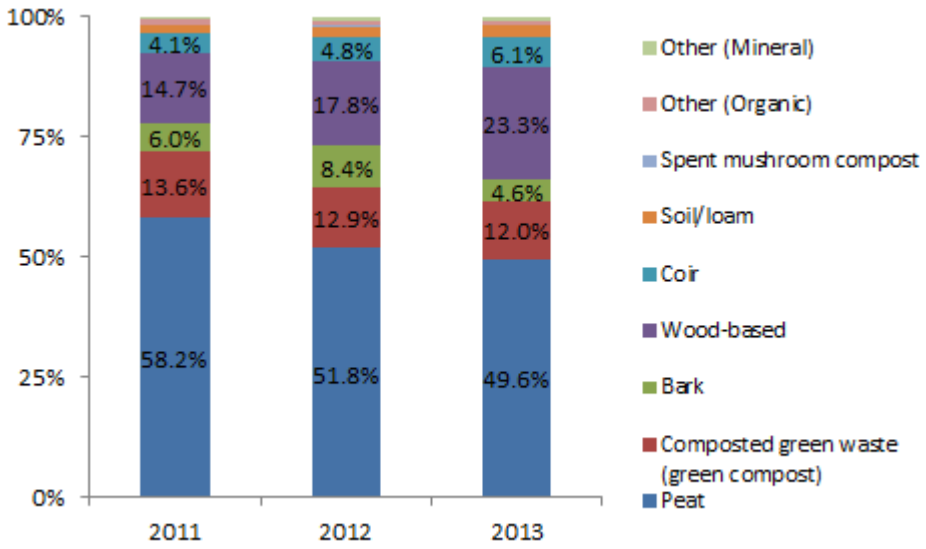

Figure 44: Proportion of ingredients used in the total growing media supply to the retail market 2011 to 2013

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 and coir ingredients have increased in terms of the proportion of the mix they account for. Bark has fallen back in terms of the proportion of volume it accounts for after a rise in 2012.

In terms of the different growing media products supplied for the UK retail market, there were some shifts. Within growing media containing peat, multi-purpose growing media

increased its share of overall volumes supplied for UK retail consistently between 2011 and 2013 from 71% of volume in 2011 to 81% of volume in 2013. Peat-free growing media accounted for 9% of total volumes of growing media supplied into retail, a very similar but slightly reduced proportion when compared with 2012. This compares with 2011's 6% figure. The proportion of volume accounted for by retail peat stayed at approximately similar levels to 2012, accounting for less than 1% of volume supplied to the sector.

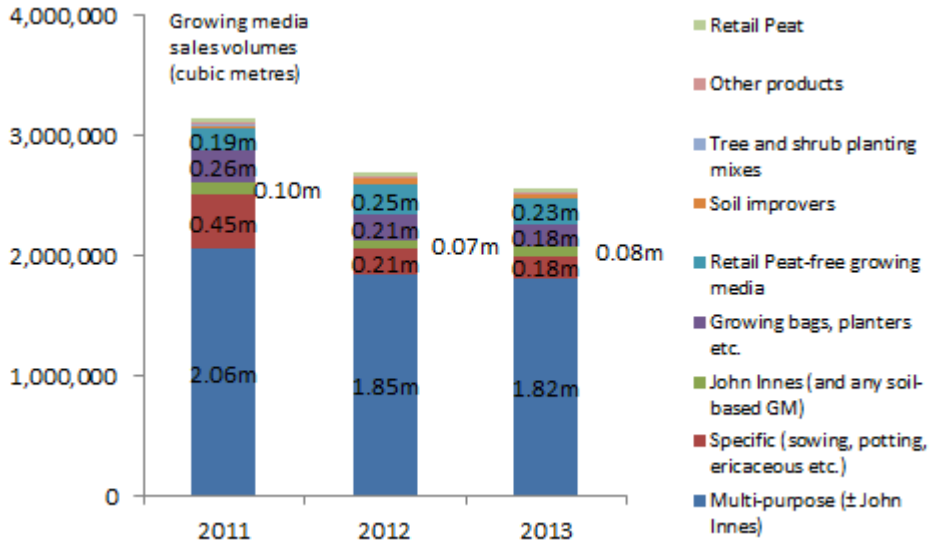

Figure 55: Volume of different growing media products supplied to the retail market 2011 to 2013

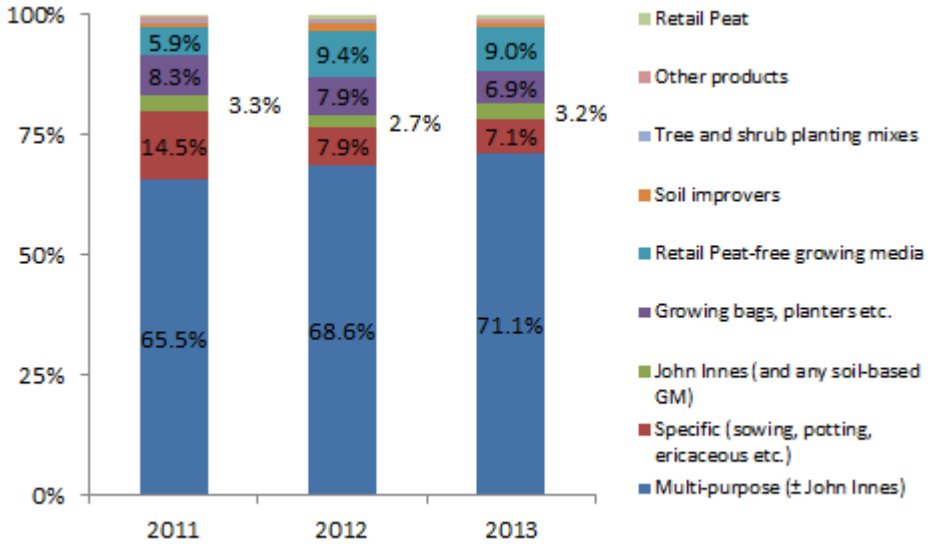

Figure 66: Proportion of overall volume of supply to the retail market accounted for by the different types of growing media product 2011 to 2013

Between 2011 and 2013 there has been 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. The volume of product composed entirely of peat (e.g. peat bales) for retail has stayed roughly consistent at less than 1% of total volume supplied for retail.

Overview of growing media supply for the professional market

The volume of growing media supplied for professional use fell in 2013 by 14% compared with 2012 (1.2 m cubic metres compared with 1.0 m cubic metres). As in the retail market, the proportion of growing media volume made up of peat fell, whilst the proportion made up of bark, wood-based and coir increased for the second year in a row.

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.

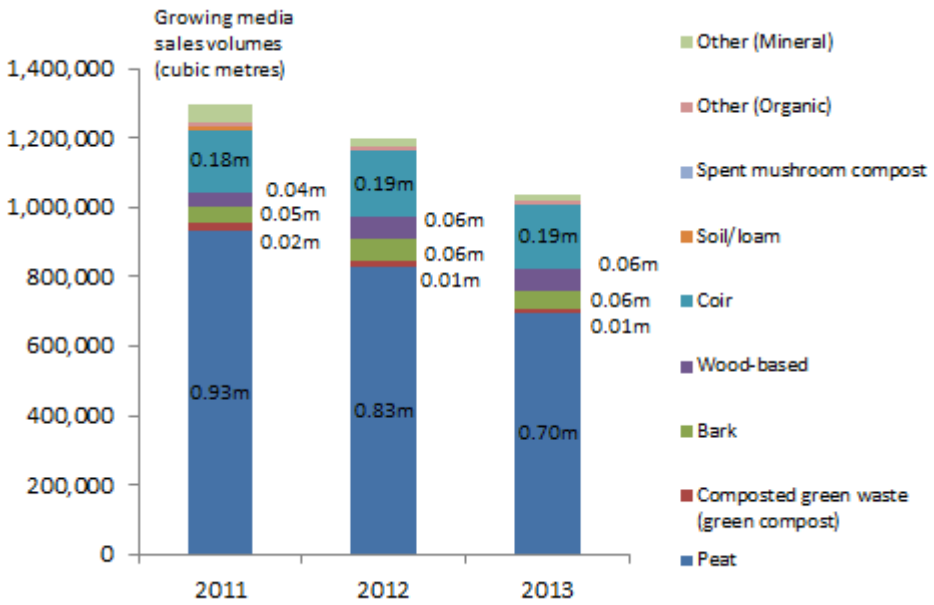

Figure 77: Volume in cubic metres of ingredients used in the growing media supply to the professional use market 2011 to 2013

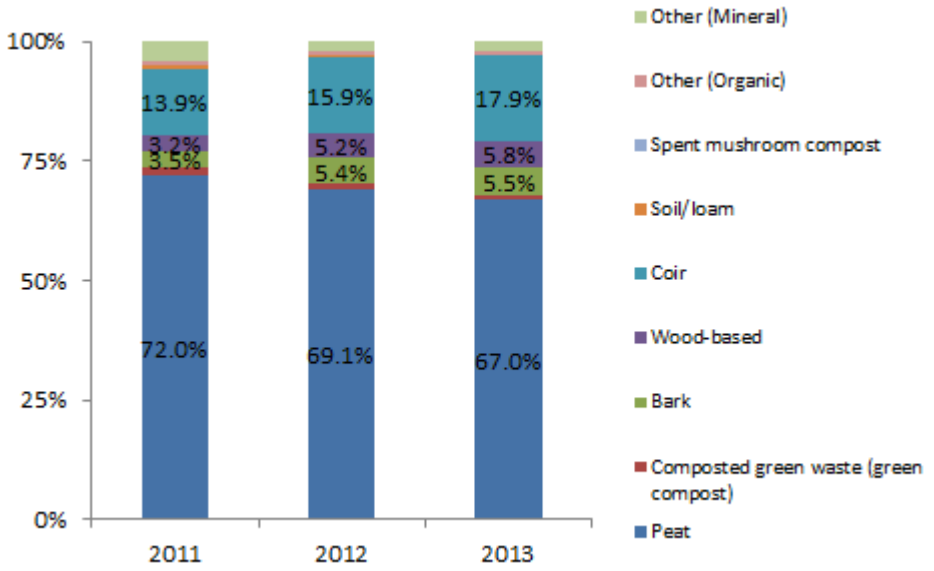

Figure 88: Proportion of ingredients used in the total growing media supply to the professional use market 2011 to 2013

As in the retail sector, peat use fell, while the use of wood-based, coir and bark ingredients increased. Coir now accounts for a much greater proportion of the volume supplied into the professional market than into the retail market (17.9% compared with 6.1%). Indeed growing media for professional use (compared with growing media for retail use) relies much more on peat and coir. In the case of growing media supplied for professional use, 85% of the volume is made up of peat and coir. The corresponding figure for growing media supplied into the retail market is 56%.

In terms of the type of products supplied into the professional grower market, the proportion of the volume accounted for by mixes for bedding plants, pot plants and nursery stock increased consistently over the three years of the study to date. The proportion of the volume supplied accounted for by peat-free growing media increased in 2013 to 16.7% from 14.7%, albeit this is still a lower proportion of the overall volume than in 2011 (17.4%).

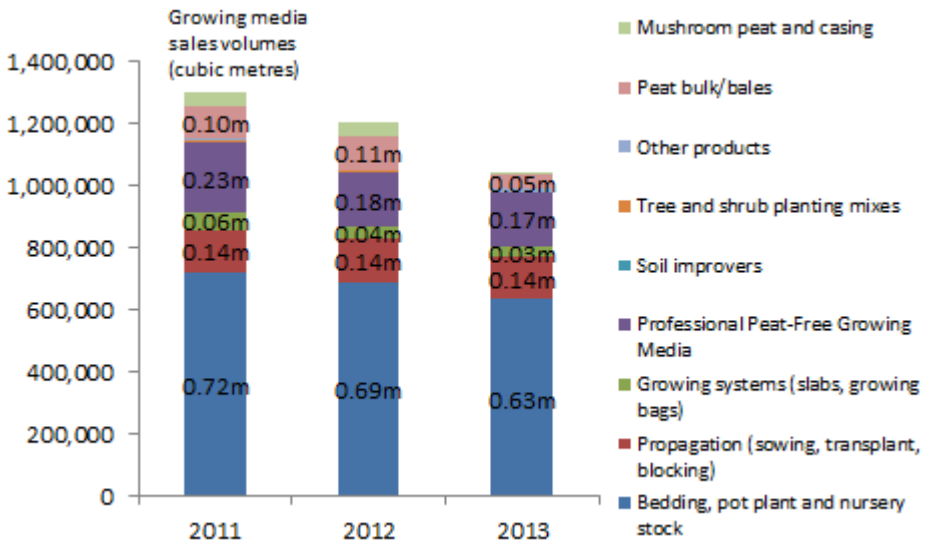

Figure 99: Volume of different growing media products supplied to the professional use market 2011 to 2013

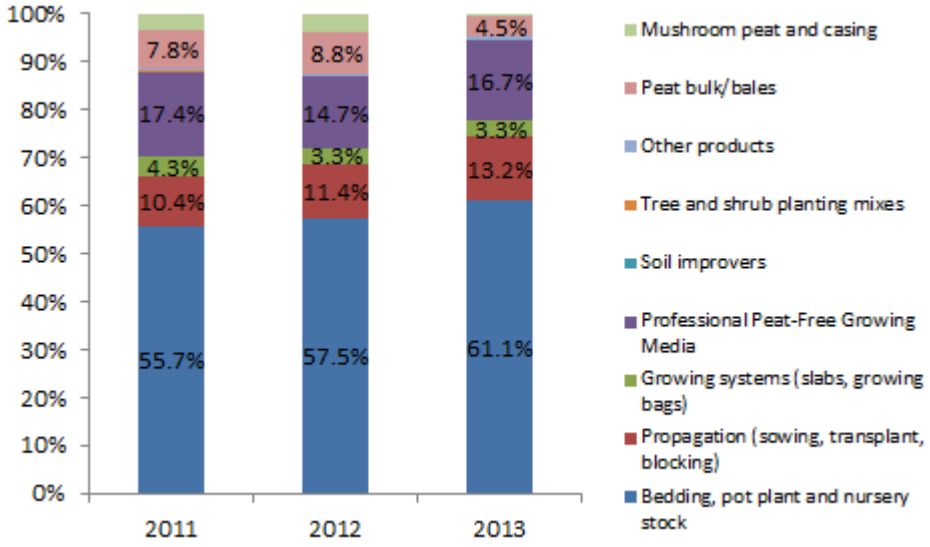

Figure 1010: Proportion of the overall volume of supply to the professional use market accounted for by different types of growing media product 2011 to 2013

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

distinguishable. A sector attribution was also reported in Defra statistics[4], 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 for the sectors in question. The Defra statistics consistently reported a greater volume of growing media used in nursery stock production, while the data collection for this study showed 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 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'pros' and 'cons' of each method in the final edition of this report in 2015 when more data is available.

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 the overall falling sales volumesvolume of growing media. The exception to this was peat sourced from outside the UK and Republic of Ireland, whichremained at a relatively constant volume in contrast with falling volumes of peat sourced from within the UK and Ireland.

[4] *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*

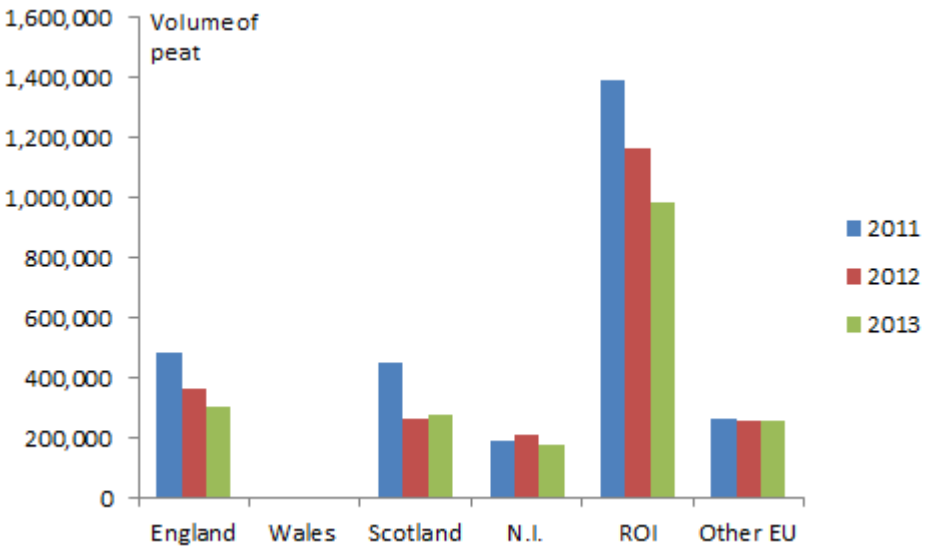

Figure 1111: Volume of peat sourced from different countries for UK growing media sold 2011 to 2013

A third year of data has permitted the correlation between rainfall and the proportion of the subsequent year's growing media volume which is accounted for by peat to be examined. The following chart shows the proportion of peat in overall volumes of growing media (red line) and the total amount of rainfall in the preceding year (blue) between May and September (inclusive) the main peat harvesting months. The chart shows an inverse relationship between the two:, as the amount of rain increases the percentage of growing media volume accounted for by peat decreases. This is probably a result of the wet weather conditions adversely affecting the making peat harvest, difficult resulting in a need to cover any shortfall with other materials.

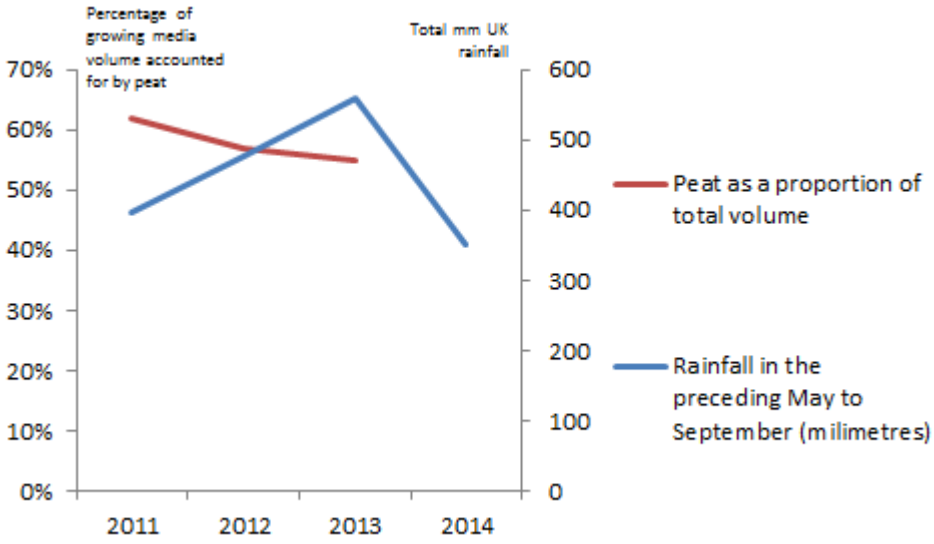

Figure 1212: Correlation between peat as a proportion of growing media supplied with rainfall in May to September of the preceding year

Financial benefits

The scope of this specific 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 the growing media ingredients used 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 to 2013.

Data collection method

Data on the volume and composition of growing media supplied was collected by means of a self-completion survey form (see appendix for a copy). The form was sent out to 30 growing media manufacturers, and 27 forms were completed and received for each year. The same 27 manufacturers provided returns for both 2011 and 2012 either via the form or by telephone interview. In 2013, one manufacturer dropped out of the study, however the volume of growing media produced by them during 2011 and 2012 was not significant. Given the very low likelihood of this exclusion having a difference on overall trends, no adjustments have been made in this interim report. This respondent will be re-contacted in the final year of the project with the aim of including their data in the final report, but failing this their data will be excluded to provide exact like-for-like comparisons over the study in the final report.

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 manufacturers on a confidential basis to ensure willingness to participate and to encourage 'openness' in the returns provided. A report providing detail of each respondent's 'share' of different parts of the market was provided to encourage response.

Data validation

To assess the likelihood that the bulk of the 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.

Kantar Media's Target Group Index (TGI) survey which captures consumer spend on growing media estimates an 11% fall in value for consumer spending on compost between 2011 and 2012, with a further fall of 5% between 2012 and 2013. The primary research for this project reports a fall in volume of 14% for the retail market between 2011 and 2012 and a fall of 5% between 2012 and 2013, suggesting that the primary research for this project is 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 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. An important point to note here is that the price we arrive at is for a *statistically typical* 50 litre bag of growing media, not for (for instance) the typical 50 litre bag of growing media one might see for sale. Such a statistically typical 50 litre bag would in theory contain around 4.5 litres (9%) of peat-free media, around 35.5 (71%) litres of multi-purpose media, around 1.5 litres (3%) of John Innes, and so forth. These different types of growing media all have varying retail price points per litre. For instance a 50 litre bag of multi-purpose may be around £5 to £6 per bag (e.g. 10p to 12p per litre), but citrus, orchid or cactus compost may be offered in 20 litre packs sold at around £4 per bag (e.g. 20p per litre). Given that multi-purpose medias is usually the lowest price per litre retail product, we should expect that the price of the statistically typical 50 litre bag of media will exceed the retail price of the typical 50 litre bag of multi-purpose growing media (because it incorporates the higher prices per litre of other types of growing media). As a systematic study of average price points per litre of different products (taking account of different retail channels' pricing and discounting, variations driven by bag size, etc.) is beyond the scope of this project, the data should be taken only as a 'sanity check' for a broadly sensible figure. Visits to garden centres and DIY stores to check the prices of different growing media were undertaken as part of the validation work.

Table 1: Estimated notional value of a statistically 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)	Growing Media market value	Price per cubic metre	Notional retail price per statistically typical 50 litre bag
2011	3,138	£461m	£147	£7.35
2012	2,689	£415m	£154	£7.72
2013	2,555	£395m	£155	£7.75

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, £7.72 and £7.75 are broadly consistent with what we might expect, 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 sales trends 2011 to 2013

The UK growing media supply for domestic use or export fell by 8% in volume overall in 2013 compared with 2012. In volume terms this equates to a fall from 3.95 m cubic metres to 3.65 m cubic metres. In terms of growing media supplied for retail (amateur use), volumes fell by 5% from 2.69 m cubic metres to 2.55 m cubic metres. For professional use volumes fell by 14% from 1.2 m cubic metres in 2012 to 1.0 m cubic metres in 2013. Production for export accounts for a very small proportion of overall supply (1.5% in 2013).

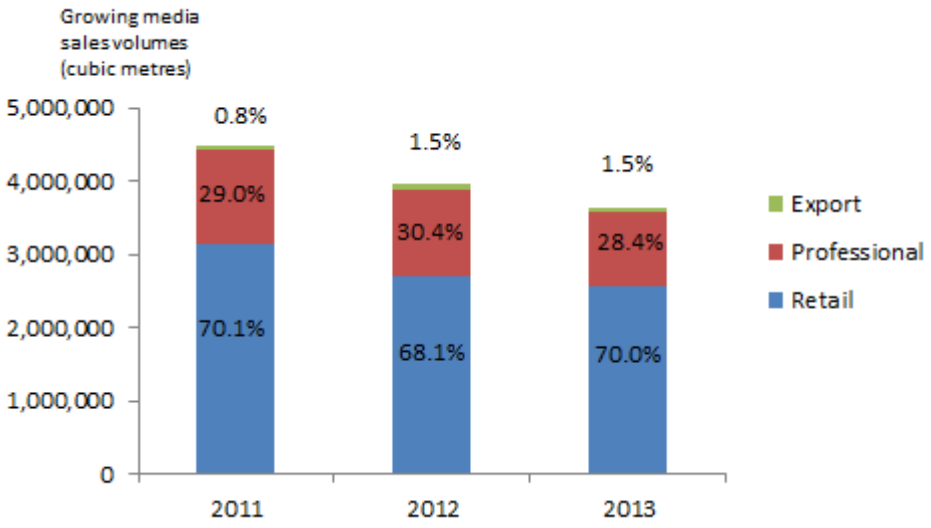

Figure 1313: Proportion of volume in growing media which goes to retail, professional and export markets 2011 and 2013[5]

[5] Figures do not total 100% due to rounding

Table 2: Volume of growing media supply which goes to retail, professional and export markets 2011 to 2013 ('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
2013	3,647	55	1,037	2,555

Growing media supply for the retail market

As noted, the volume of growing media supplied to the UK retail market fell by 5% in 2013 compared with 2012. Within this, the 'mix' of ingredients used for all types of growing media product changed. Overall peat and green compost[6] accounted for a lower proportion of the volume produced in 2013 than in 2012. The proportion of volume accounted for by wood-based ingredients in particular increased from 15% in 2011 to 18% in 2012 and reached 23% in 2013. The proportion accounted for by coir also increased from 4% in 2011 to 6% in 2012.

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.

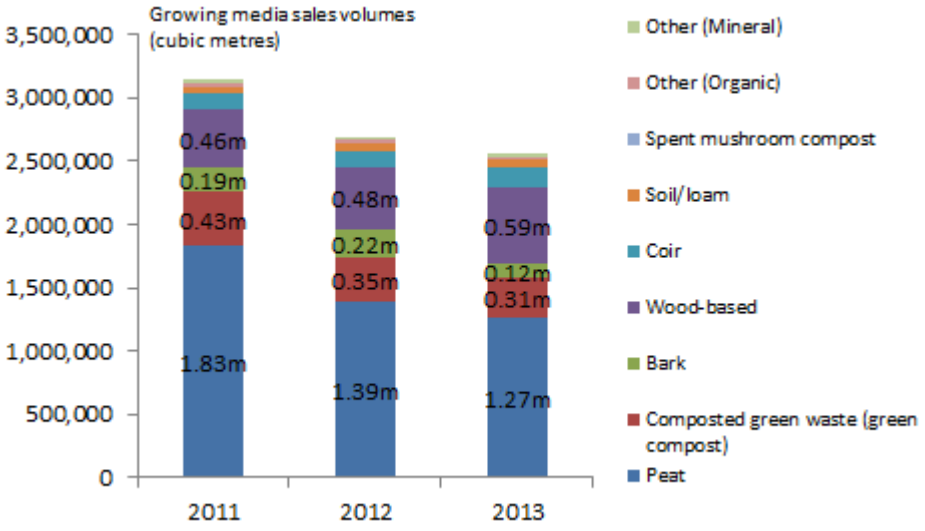

Figure 1414: Volume in cubic metres of ingredients used in the growing media supply to the retail market 2011 to 2013

[6] The term 'green compost' is used throughout this report to denote composted green waste.

Table 3: Volume in cubic metres of ingredients used in growing media supply for the retail market 2011 to 2013

Ingredient	2011	2012	2013
Peat	1,826,291	1,392,165	1,267,522
Green compost	428,150	346,334	305,391
Bark	189,273	224,866	117,981
Wood-based	460,960	478,369	594,752
Coir	128,551	128,479	156,514
Soil/loam	47,340	63,504	68,258
Spent mushroom compost	7,689	7,002	3,648
Other (organic)	31,157	26,793	21,045
Other (mineral)	18,688	21,139	19,755

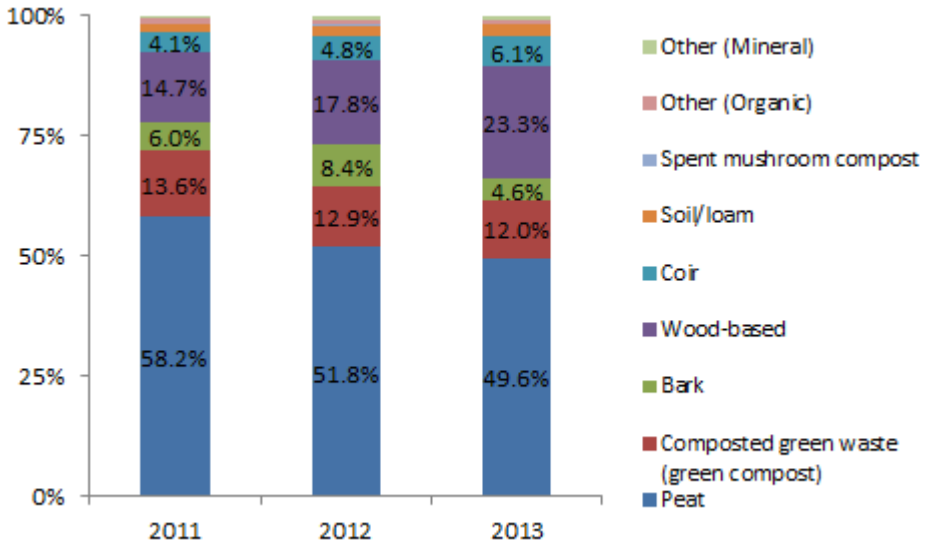

Figure 1514: Proportion of ingredients used in the total growing media supply to the retail market 2011 to 2013

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 and coir ingredients have increased in terms of the proportion of the mix they account for. Bark fellfellhas fallen back in terms of the proportion of volume it accounts for after a rise in 2012.

In terms of the different growing media products supplied for the UK retail market, there were some shifts. Within growing media containing peat, multi-purpose growing media increased its share of the overall volumesvolume supplied for UK retail consistently

between 2011 and 2013 from 71% of volume in 2011 to 81% of volume in 2013. Peat-free growing media accounted for 9% of the total volumesvolume of growing media supplied into retail, a very similar but slightly reduced proportion when compared with 2012. This compares with 2011's 6% figure. The proportion of volume accounted for by retail peat stayed at approximately similar levels to 2012, accounting for less than 1% of volume supplied to the sector.

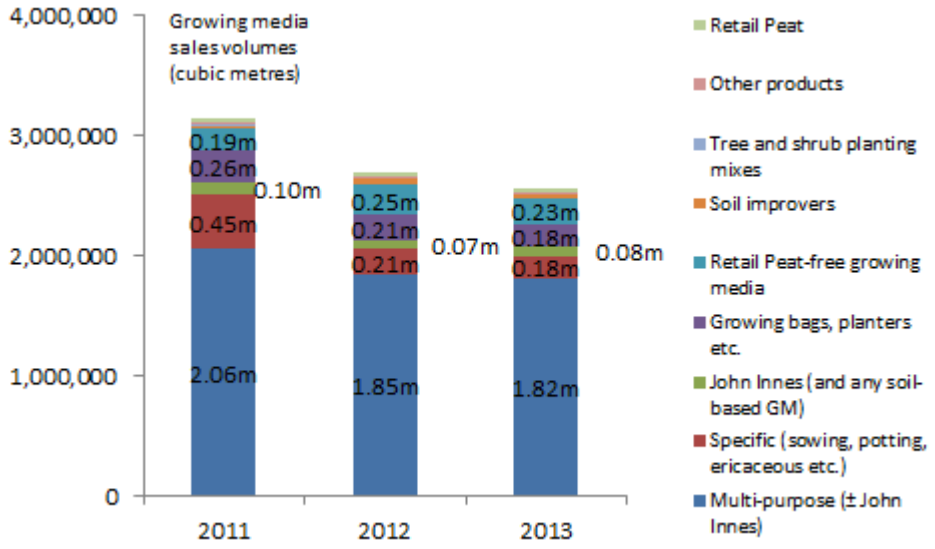

Figure 161615: Volume of different growing media products supplied to the retail market 2011 to 2013

Table 4: Volume in cubic metres of different growing media products supplied to the retail market 2011 to 2013

Growing media product type	2011	2012	2013
Multi-purpose (± John Innes)	2,055,883	1,845,020	1,816,975
Specific (sowing, potting, ericaceous etc.)	454,656	213,000	181,298
John Innes (and any soil-based growing media)	103,751	71,783	81,147
Growing bags, planters etc.	261,233	212,747	176,245
Retail peat-free growing media	186,279	251,847	230,529
Soil improvers	20,532	46,742	19,216
Tree and shrub planting mixes	8,420	7,978	9,654
Other products	26,359	15,689	15,865
Retail peat (sold as 'peat')	20,984	23,845	23,937

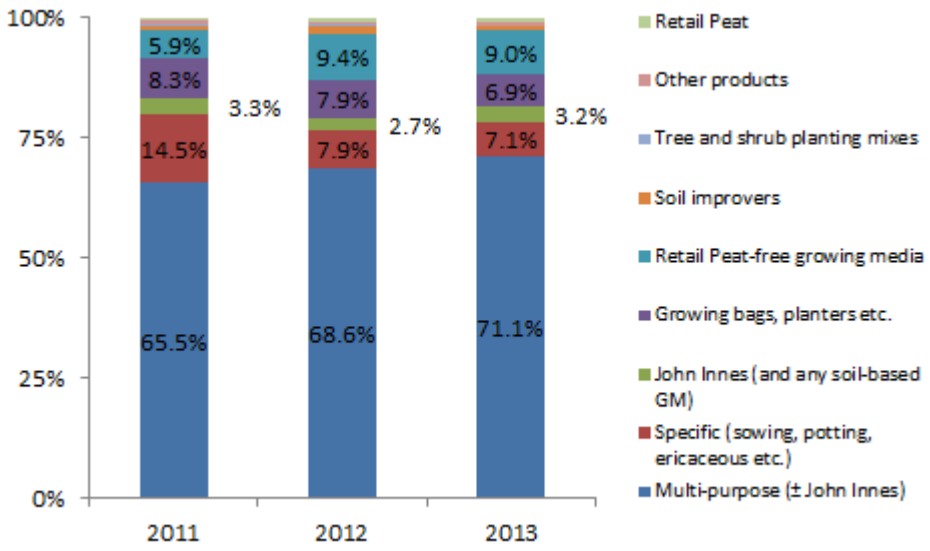

Figure 1716: Proportion of overall volume of supply to the retail market accounted for by different types of growing media product 2011 to 2013

Between 2011 and 2013 there has been 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. The volume of product composed entirely of peat (e.g. peat bales) for retail has stayed roughly consistent at less than 1% of the total volume supplied for retail.

Growing media supply for the professional market

The volume of growing media supplied for professional use fell in 2013 by 14% compared with 2012 (1.2 m cubic metres compared with 1.0 m cubic metres). As in the retail market, the proportion of the growing media volume made up of peat fell, whilst the proportion made up of bark, wood-based and coir increased for the second year in a row.

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.

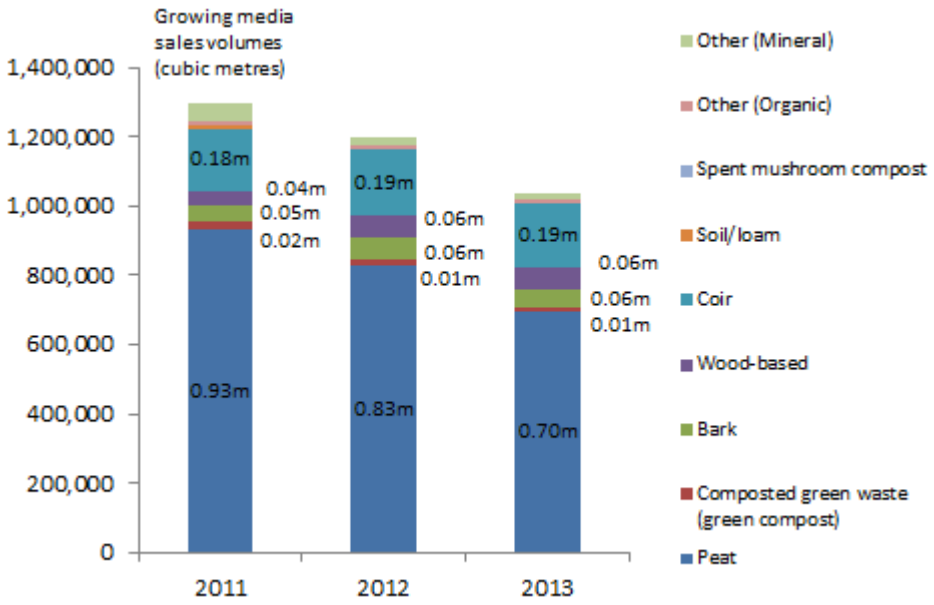

Figure 181817: Volume in cubic metres of ingredients used in the growing media supply to the professional use market 2011 to 2013

Table 5: Volume in cubic metres of ingredients used in the growing media supply to the professional market 2011 to 2013

Ingredient	2011	2012	2013
Peat	934,363	830,179	695,239
Green compost	22,235	12,934	9,661
Bark	45,253	64,531	57,242
Wood-based	41,632	62,882	59,879
Coir	180,246	191,496	185,569
Soil/loam	6,796	4,144	1,583
Spent mushroom compost	38	0	320
Other (organic)	12,281	8,910	8,637
Other (mineral)	54,827	26,106	19,206

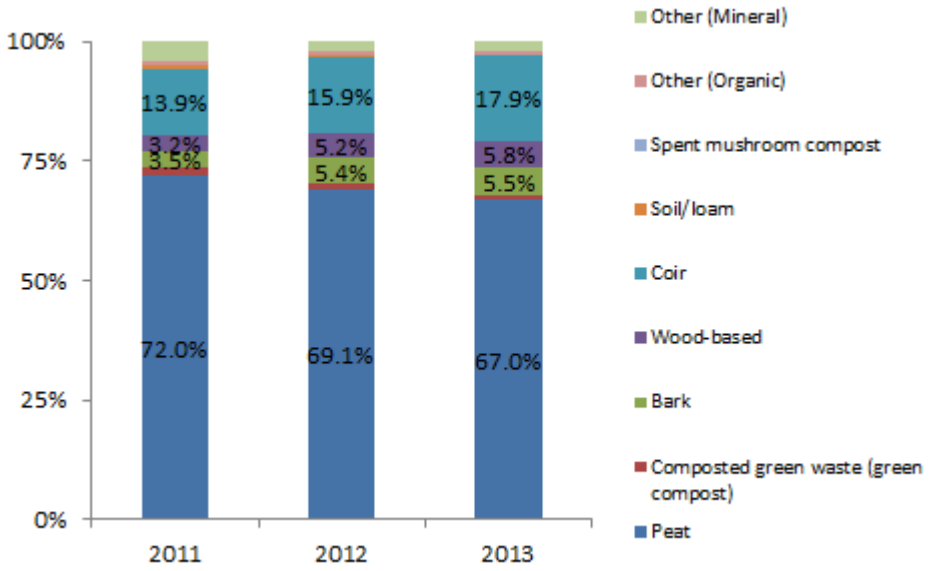

Figure 1918: Proportion of ingredients used in the total growing media supply to the professional use market 2011 to 2013

As in the retail sector, peat use fell, while the use of wood-based, coir and bark ingredients increased. Coir now accounts for a much greater proportion of the volume supplied into the professional market than into the retail market (17.9% compared to 6.1%). Indeed growing media for professional use (compared with growing media for retail use) relies much more on peat and coir. In the case of growing media supplied for professional use, 85% of the volume is made up of peat and coir. The corresponding figure for growing media supplied into the retail market is 56%.

In terms of the type of products supplied into the professional grower market, the proportion of the volume accounted for by mixes for bedding plants, pot plants and nursery stock has increased consistently over the three years of the study to date. The proportion of the volume supplied accounted for by peat-free growing media increased in 2013 to 16.7% from 14.7%, albeit this is still a lower proportion of the overall volume than in 2011 (17.4%).

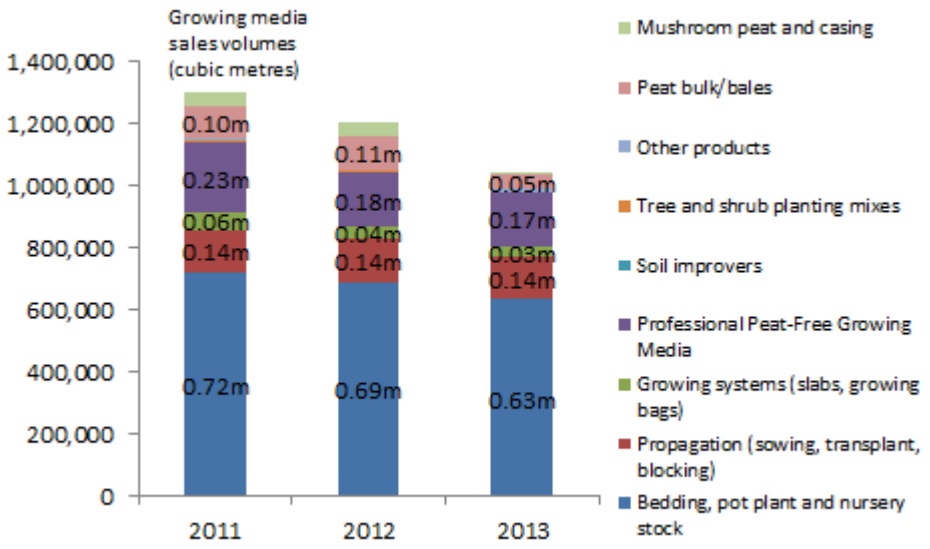

Figure 202019: Volume of different growing media products supplied to the professional use market 2011 to 2013

Table 6: Volume in cubic metres of ingredients used in growing media supply to the professional use market 2011 to 2013

Product type	2011	2012	2013
Nursery stock, bedding and pot plant	722,168	690,128	633,442
Propagation (sowing, transplant, blocking)	135,270	136,723	137,442
Growing systems (slabs, growing bags)	56,227	39,942	34,343
Professional peat-free growing media	226,031	176,931	173,562
Soil improvers	0	0	320
Tree and shrub planting mixes	2,727	1,986	1,478
Other products	8,024	5,855	6,902
Peat bulk/bales	101,448	105,658	46,816
Mushroom peat and casing	45,778	43,959	3,031

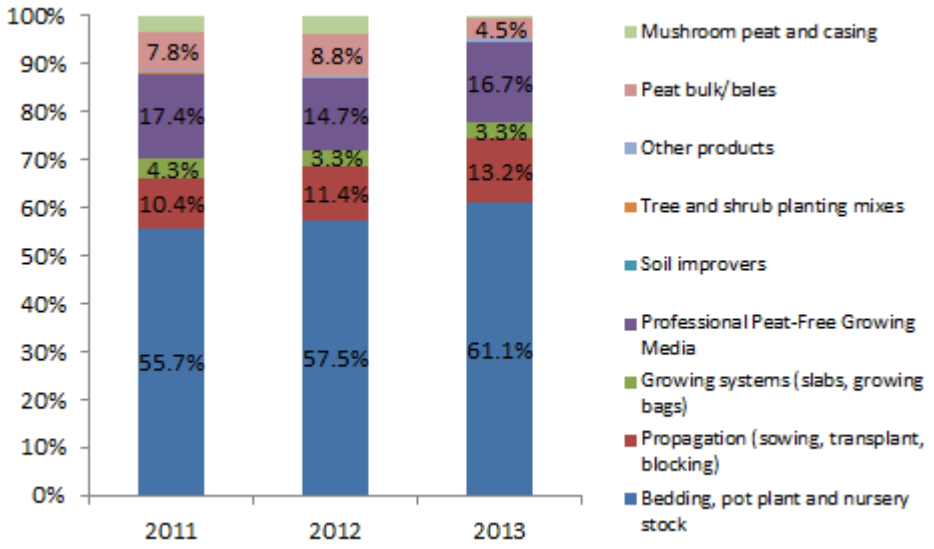

Figure 212120: Proportion of the overall volume of supply to the professional use market accounted for by different types of growing media product 2011 to 2013

The data collection form that the manufacturers completed asked them to provide separate volume figures for growing media for bedding and pot plants, and nursery stock. Respondents did this based on the specific mixes supplied, which tend to have very different ingredients in terms of the controlled release fertilisers and other components designed for these specific crops. From a manufacturer's point of view they are easily distinguishable. A sector attribution was also reported in the Defra statistics[7], 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 for the sectors in question. The Defra statistics consistently reported a greater volume of growing media used in nursery stock production, while the data collection for this study showsshowed 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 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

[7] *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*

with a detailed discussion of the 'pros' and 'cons' of each method in the final edition of this report in 2015 when more data is available.

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 the overall falling sales volumesvolume of growing media. The exception to this was peat sourced from outside the UK and Republic of Ireland, whichremained at a relatively constant volume in contrast with falling volumes of peat sourced from within the UK and Ireland.

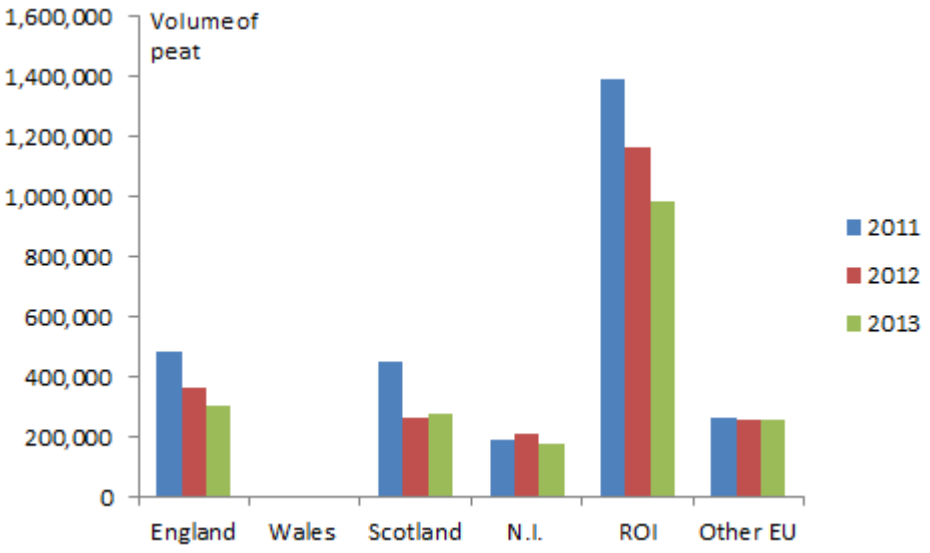

Figure 2222: Volume of peat sourced from different countries for UK growing media sold 2011 to 2013

A third year of data has permitted the correlation between rainfall and the proportion of the subsequent year's growing media volume which is accounted for by peat to be examined. The following chart shows the proportion of peat in overall volumes of growing media (red line) and the total amount of rainfall in the preceding year (blue) between May and September (inclusive) – the main peat harvesting months. The chart shows an inverse relationship between the two:, as the amount of rain increases the percentage of growing media volume accounted for by peat decreases. This is probably a result of the wet weather conditions making peat harvest difficult resulting in a need to cover any shortfall with other materials.

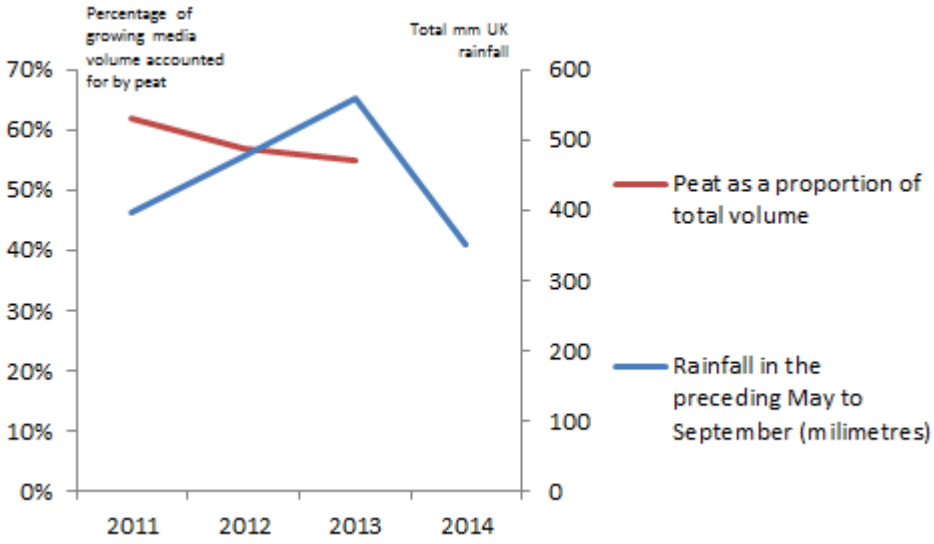

Figure 2323: Correlation between peat as a proportion of growing media supplied with rainfall in May to September of the preceding year.

Discussion

These findings show that there are movements in the overall volume of growing media supplied, and changes in the proportion of the ingredients. Overall peat supply fell between 2011 and 2012 in absolute terms, and also in percentage terms of overall volumes supplied and this trend continued into 2013.

Within the growing media supplied into the retail market, the proportion of the total supply accounted for by peat-free growing media products has increased since 2011 from 6% to 9% in 2013. Taken together with the fall in overall peat use this suggests progress towards a reduction in peat use. In the case of growing media supplied for professional use, the proportion of peat in the overall volume has also fellfallen slightly.

The Sustainable Growing Media Task Force project 4 work package aims to provide a methodology to assess the bulk material ingredients used in the production of a growing medium to provide an indication of how responsibly sourced such materials area material is.

Conclusions

The volume of growing media supplied fell from 2011 to 2013 most likely as a result of the poor weather conditions limiting consumer demand. An extremely wet April to July period in 2012 and an extremely cold March to April 2013 hit consumer spending on ornamental plants and associated products such as growing media. As such the volume of most ingredients in growing media supplied for retail, professional and export markets fell in 2012 and 2013 compared with 2011. In the case of the retail market, the proportion of peat going into all product types fell, and appears to have been replaced by wood-based and coir ingredients. The proportion of the total supply into the retail market accounted for by peat-free growing media also increased, suggesting that there has been movement away from peat use in the amateur sector. To a large extent this has been driven by choice editing coupled with an increasing acceptance of peat-free products among consumers and retailers. However, annual variations in the availability of different types of ingredient also need to be kept in mind. The wet weather experienced in 2011 and 2012 also impacted on the peat harvest in these years reducing the amount available for use in growing media products the following year, necessitating the use of other raw materials (such as wood-based ingredientsmaterials).

In the case of growing media supplied for professional use, the proportion of the volume accounted for by peat also declined. However, the amount of near-100% peat products supplied into the professional market increased in 2012, and the proportion of the total volume supplied accounted for by peat-free products actually fell. This suggests that for the professional sector (where choice editing may not be as viable an option for driving change as in the amateur sector), the move towards peat reduction is occurring as a result of multiple factors including the price and availability of different ingredients, demand, and theimprovement in performance of different products.. Until more data is available it is difficult 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 will be published in the September or October 2014 edition of the *HDC News* magazine.

Appendices

The appendix to this document contains the data tables for 2011 to 2013 detailing the volume of ingredients used for different types of amateur and professional use growing media used in the UK or exported. 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.

Collation of UK sales of Growing Media and of other horticultural products containing peat for the year 2013 : compiled by Paul Waller Consulting

TOTAL VOLUME OF PRODUCTS SOLD IN & EXPORTED FROM THE UK PLUS VOLUMES OF PEAT AND OTHER COMPONENTS USED BY MARKET SECTOR IN CUBIC METRES IN 2013

MARKET SECTOR	Sales Volumes	Bulky component volumes										Peat Source volumes						
		Peat	CGW	Bark	Wood-based	Coir	Soil/Loam	SMC	Other (Org)[1]	Other (Min.)[1]	Total	England	Wales	Scotland	N.I.	ROI	Other EU	Total
Retail Growing Media containing peat																		
Multi-purpose (± JI)	1,816,975	994,119	185,923	35,826	453,304	121,471	12,218	2,000	7,319	4,795	1,816,975	186,803	0	69,480	64,580	587,433	85,823	994,119
Specific (sowing, potting, ericaceous etc.)	181,298	102,725	5,682	5,158	46,719	16,241	558	0	558	3,657	181,298	19,827	0	6,853	8,970	48,569	18,506	102,725
John Innes (and any soil-based GM)	81,147	34,268	188	5,701	0	165	31,783	0	1,981	7,061	81,147	6,395	0	3,599	1,789	17,332	5,153	34,268
Growing Bags, planters etc.	176,245	104,747	21,317	7,880	41,420	796	0	0	85	0	176,245	27,078	0	5,891	7,728	38,078	25,972	104,747
(where the pack itself is a functional unit)																		
Retail Peat-Free Growing Media	230,529	0	76,202	61,468	49,131	17,817	12,358	120	9,539	3,894	230,529	0	0	0	0	0	0	0
(all categories as above)																		
Other Retail products (excluding Growing Media) containing peat but excluding 'Peat' itself																		
Soil improvers	19,216	3,035	7,342	1,016	1,089	0	3,367	1,463	1,560	344	19,216	2,039	0	27	0	116	853	3,035
Tree and shrub planting mixes	9,654	4,708	1,218	539	3,089	24	4	65	3	4	9,654	2,015	0	921	0	746	1,026	4,708
Other products	15,865	376	7,519	0	0	0	7,970	0	0	0	15,865	211	0	165	0	0	0	376
Retail Peat (sold as 'Peat')																		
All bales etc.	23,937	23,544	0	393	0	0	0	0	0	0	23,937	7,441	0	294	4,725	10,969	115	23,544
TOTAL RETAIL	**2,554,866**	**1,267,522**	**305,391**	**117,981**	**594,752**	**156,514**	**68,258**	**3,648**	**21,045**	**19,755**	**2,554,866**	**251,809**	**0**	**87,230**	**87,792**	**703,243**	**137,448**	**1,267,522**
Professional Growing Media (used by growers, LAs and landscapers) containing peat																		
Bedding, pot plant and nursery stock[2]	633,442	495,169	8,574	38,923	45,050	24,816	1,044	0	6,062	13,804	633,442	45,368	0	132,911	59,664	182,527	74,699	495,169
Propagation (sowing, transplant, blocking)	137,442	116,570	740	7,538	678	9,531	0	0	0	2,385	137,442	2,343	0	50,365	6,154	25,930	31,778	116,570
Growing systems (slabs, growing bags)	34,343	29,969	0	0	4,212	84	0	0	0	78	34,343	1,053	0	823	11,894	13,792	2,407	29,969
Professional Peat-Free Growing Media	173,562	0	284	10,659	9,432	148,069	249	0	2,425	2,444	173,562	0	0	0	0	0	0	0
(all categories as above)																		
Other Professional products (excluding Growing Media) containing peat but excluding 'Peat' itself																		
Soil improvers	320	0	0	0	0	0	0	320	0	0	320	0	0	0	0	0	0	0
Tree and shrub planting mixes	1,478	1,010	42	122	0	224	40	0	0	40	1,478	460	0	347	0	203	0	1,010
Other products	6,902	3,129	21	0	507	2,845	250	0	150	0	6,902	750	0	0	0	0	2,379	3,129
Professional Peat																		
General bulk/bales	46,816	46,816	0	0	0	0	0	0	0	0	46,816	4,736	0	927	4,384	29,817	6,952	46,816
Mushroom peat and casing	3,031	2,576	0	0	0	0	0	0	0	455	3,031	0	0	2,576	0	0	0	2,576
TOTAL PROFESSIONAL	**1,037,336**	**695,239**	**9,661**	**57,242**	**59,879**	**185,569**	**1,583**	**320**	**8,637**	**19,206**	**1,037,336**	**54,710**	**0**	**187,949**	**82,096**	**252,269**	**118,215**	**695,239**
TOTAL (UK Sales)	**3,592,202**	**1,962,761**	**315,052**	**175,223**	**654,631**	**342,083**	**69,841**	**3,968**	**29,682**	**38,961**	**3,592,202**	**306,519**	**0**	**275,179**	**169,888**	**955,512**	**255,663**	**1,962,761**
EXPORTS of UK-made products	**55,058**	**34,835**	**448**	**499**	**17,521**	**89**	**1,091**	**34**	**0**	**541**	**55,058**	**0**	**0**	**0**	**4,570**	**30,265**	**0**	**34,835**
TOTAL UK and EXPORT SALES	**3,647,260**	**1,997,596**	**315,500**	**175,722**	**672,152**	**342,172**	**70,932**	**4,002**	**29,682**	**39,502**	**3,647,260**	**306,519**	**0**	**275,179**	**174,458**	**985,777**	**255,663**	**1,997,596**

[1] includes unspecified materials that may belong in other categories

[2] includes fruit tree/bush production

Collation of UK sales of Growing Media and of other horticultural products containing peat for the year 2013 : compiled by Paul Waller Consulting

PERCENTAGES OF TOTAL VOLUME OF PRODUCTS SOLD IN & EXPORTED FROM THE UK PLUS PERCENTAGES OF PEAT AND OTHER COMPONENTS USED BY MARKET SECTOR IN 2013

MARKET SECTOR	Market %	Bulky component percentage										Peat source percentage						
		Peat	CGW	Bark	Wood-based	Coir	Soil/Loam	SMC	Other (Org)[1]	Other (Min.)[1]	Total	England	Wales	Scotland	N.I.	ROI	Other EU	Total
Retail Growing Media containing peat																		
Multi-purpose (± JI)	49.8	27.3	5.1	1.0	12.4	3.3	0.3	0.1	0.2	0.1	49.8	5.1	0.0	1.9	1.8	16.1	2.4	27.3
Specific (sowing, potting, ericaceous etc.)	5.0	2.8	0.2	0.1	1.3	0.4	0.0	0.0	0.0	0.1	5.0	0.5	0.0	0.2	0.2	1.3	0.5	2.8
John Innes (and any soil-based GM)	2.2	0.9	0.0	0.2	0.0	0.0	0.9	0.0	0.1	0.2	2.2	0.2	0.0	0.1	0.0	0.5	0.1	0.9
Growing Bags, planters etc.	4.8	2.9	0.6	0.2	1.1	0.0	0.0	0.0	0.0	0.0	4.8	0.7	0.0	0.2	0.2	1.0	0.7	2.9
(where the pack itself is a functional unit)																		
Retail Peat-Free Growing Media	6.3	0.0	2.1	1.7	1.3	0.5	0.3	0.0	0.3	0.1	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(all categories as above)																		
Other Retail products (excluding Growing Media) containing peat but excluding 'Peat' itself																		
Soil improvers	0.5	0.1	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Tree and shrub planting mixes	0.3	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Other products	0.4	0.0	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Retail Peat (sold as 'Peat')	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
All bales etc.	0.7	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.2	0.0	0.0	0.1	0.3	0.0	0.6
TOTAL RETAIL	**70.0**	**34.8**	**8.4**	**3.2**	**16.3**	**4.3**	**1.9**	**0.1**	**0.6**	**0.5**	**70.0**	**6.9**	**0.0**	**2.4**	**2.4**	**19.3**	**3.8**	**34.8**
Professional Growing Media (used by growers, LAs and landscapers) containing peat																		
Bedding, pot plant and nursery stock[2]	17.4	13.6	0.2	1.1	1.2	0.7	0.0	0.0	0.2	0.4	17.4	1.2	0.0	3.6	1.6	5.0	2.0	13.6
Propagation (sowing, transplant, blocking)	3.8	3.2	0.0	0.2	0.0	0.3	0.0	0.0	0.0	0.1	3.8	0.1	0.0	1.4	0.2	0.7	0.9	3.2
Growing systems (slabs, growing bags)	0.9	0.8	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.3	0.4	0.1	0.8
Professional Peat-Free Growing Media	4.8	0.0	0.0	0.3	0.3	4.1	0.0	0.0	0.1	0.1	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(all categories as above)																		
Other Professional products (excluding Growing Media) containing peat but excluding 'Peat' itself																		
Soil improvers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tree and shrub planting mixes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other products	0.2	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Professional Peat																		
General bulk/bales	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.1	0.0	0.0	0.1	0.8	0.2	1.3
Mushroom peat and casing	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.1
TOTAL PROFESSIONAL	**28.4**	**19.1**	**0.3**	**1.6**	**1.6**	**5.1**	**0.0**	**0.0**	**0.2**	**0.5**	**28.4**	**1.5**	**0.0**	**5.2**	**2.3**	**6.9**	**3.2**	**19.1**
TOTAL (UK Sales)	**98.5**	**53.8**	**8.6**	**4.8**	**17.9**	**9.4**	**1.9**	**0.1**	**0.8**	**1.1**	**98.5**	**8.4**	**0.0**	**7.5**	**4.7**	**26.2**	**7.0**	**53.8**
EXPORTS of UK-made products	**1.5**	**1.0**	**0.0**	**0.0**	**0.5**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**1.5**	**0.0**	**0.0**	**0.0**	**0.1**	**0.8**	**0.0**	**1.0**
TOTAL UK and EXPORT SALES	**100.0**	**54.8**	**8.7**	**4.8**	**18.4**	**9.4**	**1.9**	**0.1**	**0.8**	**1.1**	**100.0**	**8.4**	**0.0**	**7.5**	**4.8**	**27.0**	**7.0**	**54.8**

[1] includes unspecified materials that may belong in other categories

[2] includes fruit tree/bush production