Grower Summary

CP 100

Tracking peat usage in growing media production

Final 2015

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Project Leader:	David Denny, HTA
Contractor:	Horticultural Trades Association
Industry Representative:	None
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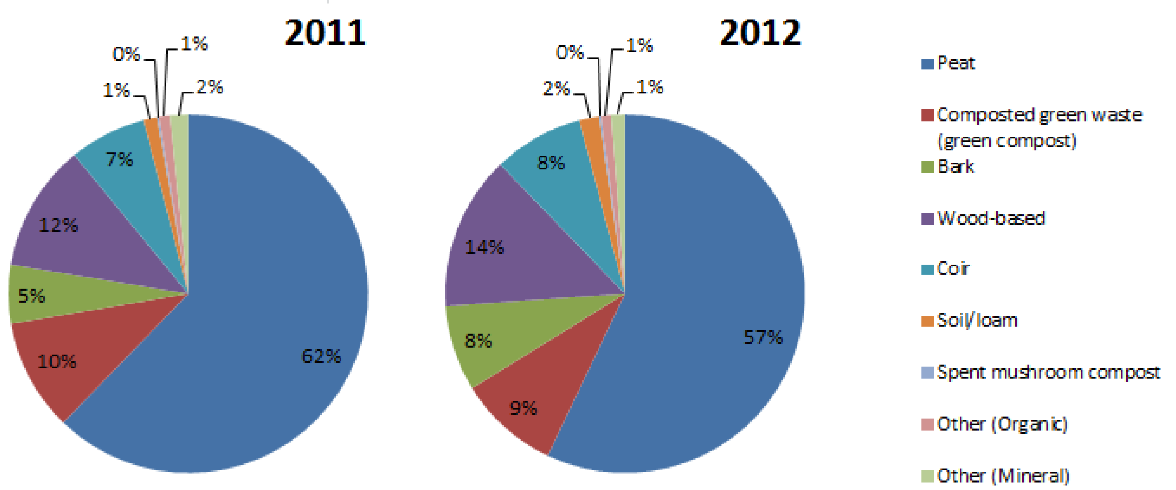
End Date:	May 2015 (with potential extension to May 2016)
Project Cost:	£43,671

GROWER SUMMARY

Headline

Between 2011 and 2014 the volume of growing media sold by manufacturers in the UK (including export sales) fluctuated between 4.5 m and 3.6 m cubic metres. 2014, the most recent year covered by the study, saw an increase of 6% in volume, which is very much in line with the generally stronger sales of garden products and plants in 2014 compared with 2013.

Across all sectors of the growing media market, the proportion of volume accounted for by peat has fallen over the four years of the study. However, it remained similar between 2013 and 2014, recording a 0.5% increase (rounding makes this to 55% in both 2013 and 2014, see Figure 1). The use of wood-based and coir ingredients has increased consistently, with bark and green compost (composted green waste) accounting for broadly similar proportions of volume throughout the reporting period.



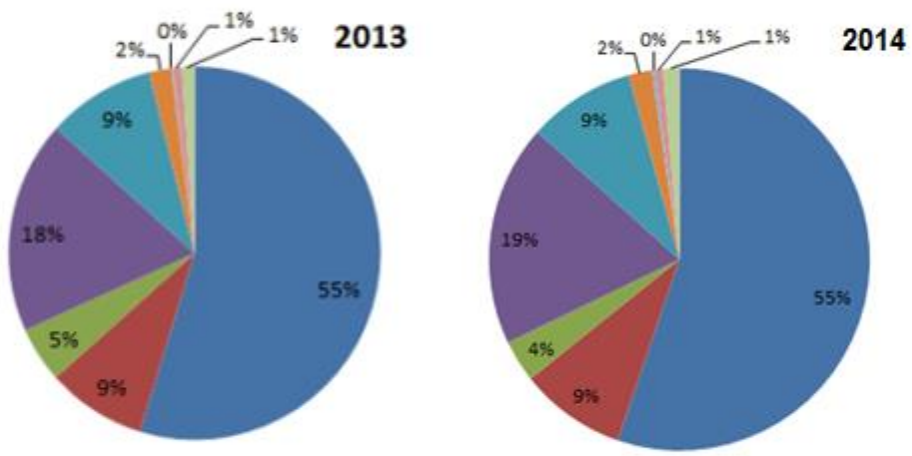


Figure 1: Summary of the proportion of overall growing media supply accounted for by different ingredients

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, with a possible extension to 2015.

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 horticulture 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 were collected from manufacturers between October and November 2012. Data on 2012 were collected in February and March of 2013. Data on 2013 and 2014 were collected in February and March of 2014 and 2015 respectively. This report is based on these four rounds 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

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

content of growing media have been cross referenced against data in the Defra project to check that the figures are broadly in line with what might be expected.

Summary

Overall sales trends 2011 to 2014

UK growing media supply for domestic use or export increased by 6% in volume overall in 2014 compared with 2013. In volume terms this equates to an increase from 3.65 m cubic metres to 3.88 m cubic metres. In terms of growing media supplied for retail (amateur use), volumes increased by 7% from 2.55 m cubic metres to 2.72 m cubic metres. For professional use the equivalent figures are a 6% increase, with volumes increasing from 1.0 m cubic metres in 2013 to 1.1 m cubic metres in 2014. Production for export accounts for a very small proportion of overall supply (1.4% in 2014).

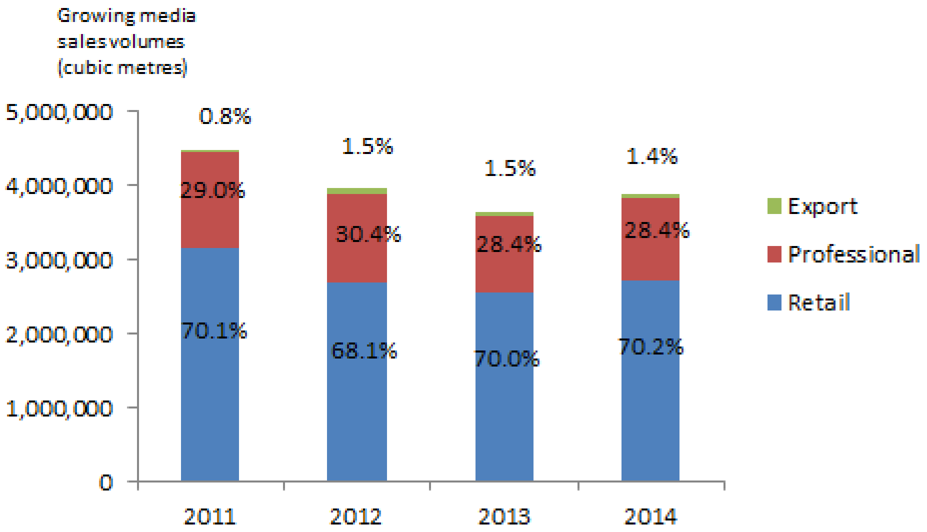


Figure 2: Proportion of volume of growing media which goes to retail, professional and export markets, 2011 to 2014[2]

Overview of growing media supplied into the retail market

As noted, the volume of growing media supplied into the UK retail market increased by 7% in 2014 compared with 2013. Within this, the 'mix' of ingredients used for all types of growing media product changed. As a proportion of volume supplied, the use of peat and green

[2] Note – figures do not total 100% in all cases due to rounding.

compost (composted green waste) increased, whilst the proportion of volume accounted for by coir fell. The proportion of volume accounted for by peat increased from 49.6% to 51.1% between 2013 and 2014. This equates to 124,343 cubic metres more peat being used in growing media sold into the retail market in 2014 than in 2013, a reflection of consumer demand for garden products in 2014, which, in general was up on 2013.

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

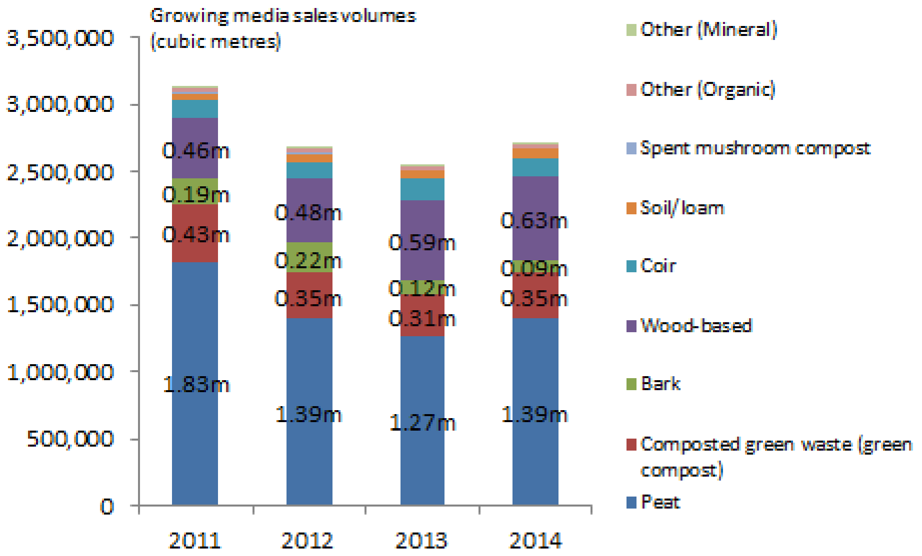


Figure 3: Volume in cubic metres of ingredients used in growing media supplied into the retail market, 2011 to 2014

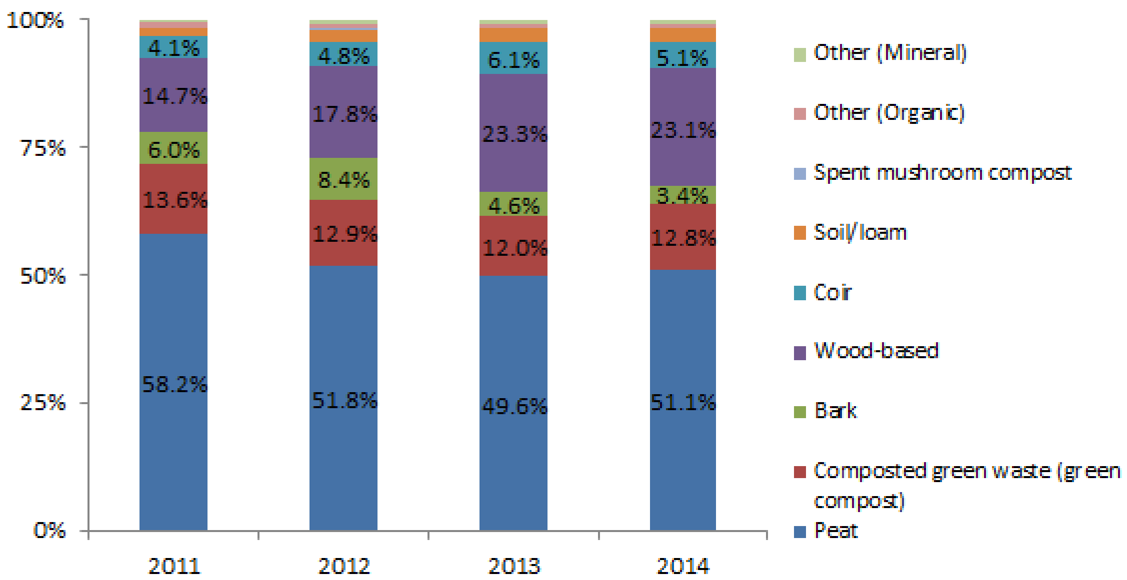


Figure 4: Proportion of ingredients used in total growing media supplied into the retail market, 2011 to 2014

In both absolute and proportional terms, peat use in growing media manufactured in the UK for the UK retail sector increased slightly, as did green compost. Bark continued to fall in terms of the proportion of volume it accounts for since 2012.

In terms of the different growing media products supplied for the UK retail market, the four years' data are now starting to show some trends. Within growing media containing peat, multi-purpose growing media has consistently increased its share of overall volumes supplied into UK retail between 2011 and 2014 from 70% of volume in 2011 to 79% of volume in 2014. Sales of retail peat-free growing media products have remained at similar levels expressed as a percentage of total growing media sales volume they account for. In 2014 peat-free growing media accounted for 8.3% of volume, compared to 9.0% in 2013 and 9.4% in 2012. However, this compares with a 2011 baseline of 5.9%. The proportion of volume accounted for by retail peat has consistently remained at less than 1% of volume supplied to the sector throughout the study.

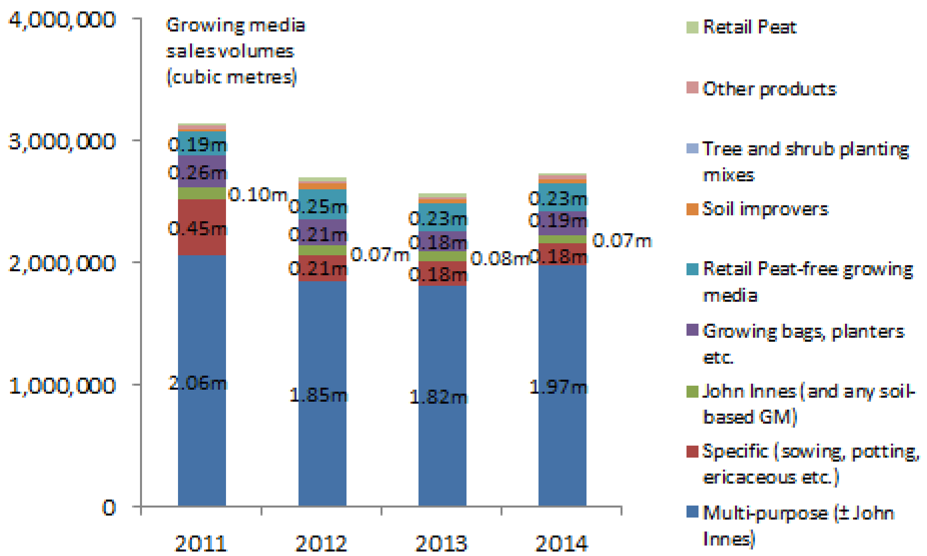


Figure 5: Volume of different growing media products supplied into the retail market, 2011 to 2014

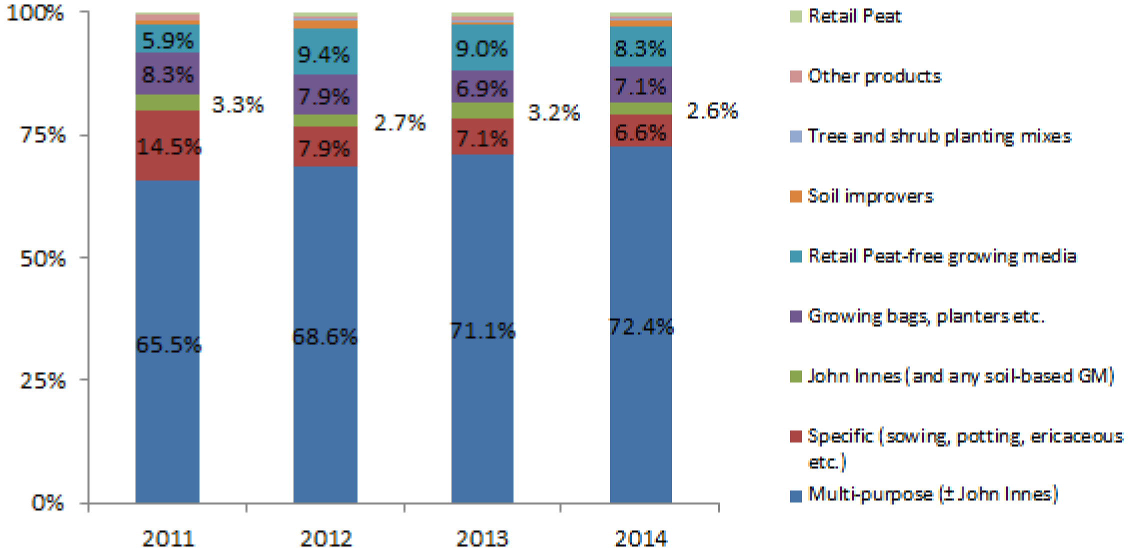


Figure 6: Proportion of overall volume supplied into the retail market accounted for by different types of growing media product, 2011 to 2014

Between 2011 and 2014 there has been a movement away from peat in growing media for amateur use, with a slight rebound in 2014. 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 supplied into the professional market

The volume of growing media supplied into the professional use market increased in 2014 by 6% compared with 2013 (1.0 m cubic metres compared with 1.1 m cubic metres). Unlike the retail market, the proportion of growing media volume made up of by peat continued to fall in 2014, with wood-based materials and coir continuing to increase the proportion of volume they account for.

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

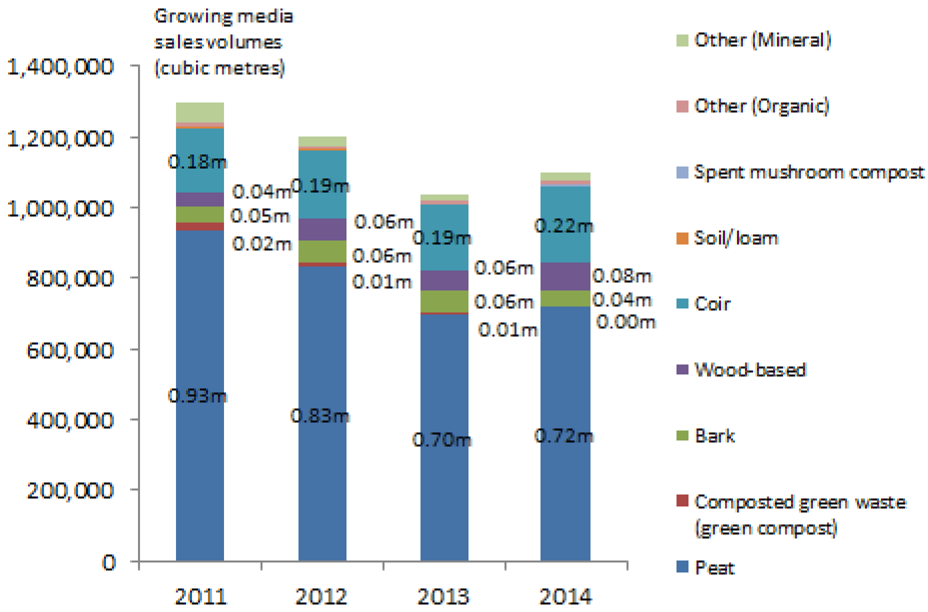


Figure 7: Volume in cubic metres of ingredients used in growing media supplied into the professional use market, 2011 to 2014

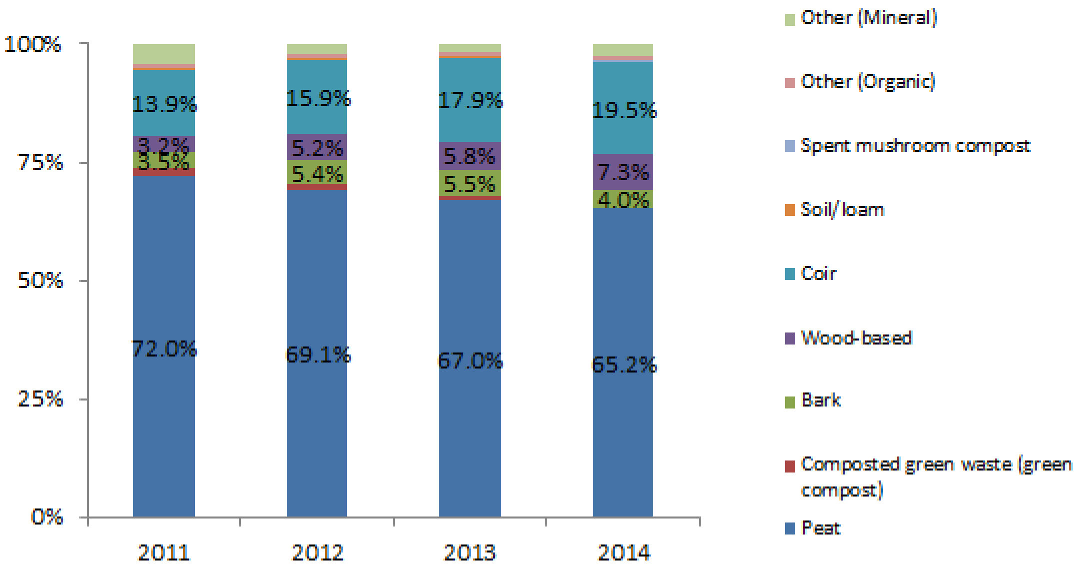


Figure 8: Proportion of ingredients used in total growing media supplied into the professional use market, 2011 to 2014

Although the volume of peat used increased, peat use as a proportion of total volume fell. The use of wood-based, coir and bark ingredients has increased. This pattern is consistent with examples of demand among some retailers for plants produced in peat-free or peat-reduced growing media, for instance B&Q's adoption of teabag-style 'Easygrow' technology and reduced-peat growing media. Coir now accounts for a much greater proportion of volume supplied into the professional use than into the retail market (19.5% compared with 5.1%). Indeed growing media for professional use (compared with growing media for retail use) relies much more on peat and coir. With 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 56%.

The proportion of volume supplied accounted for by peat-free growing media has remained broadly constant over the four years of the study, fluctuating between 15% and 17%.

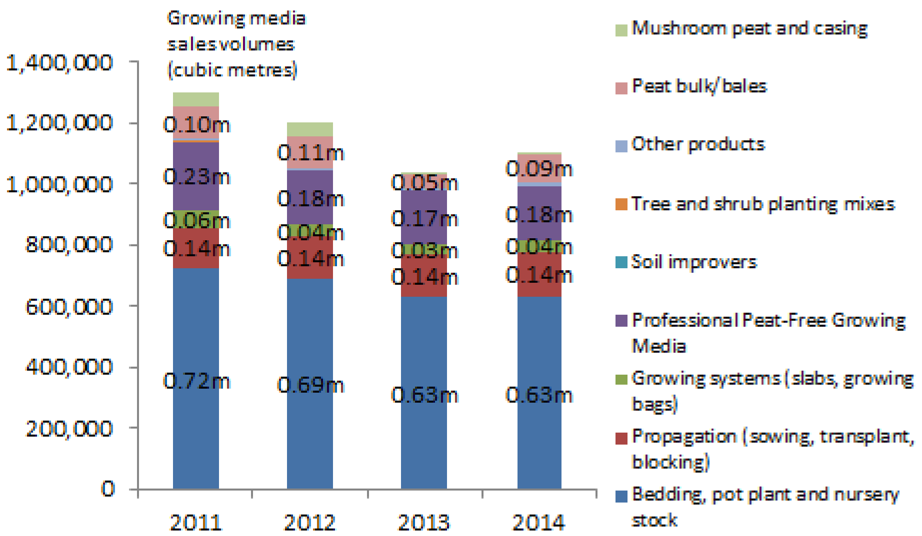


Figure 9: Volume of different growing media products supplied into the professional use market, 2011 to 2014

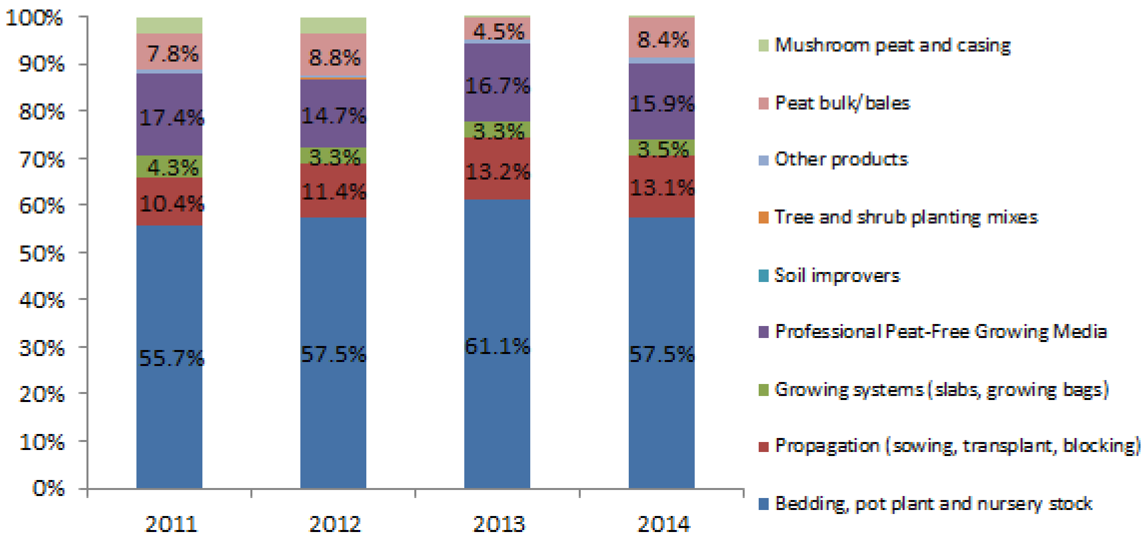


Figure 10: Proportion of overall volume supplied into the professional use market accounted for by different types of growing media product, 2011 to 2014

Growing media manufacturers were asked to provide separate volume figures for growing media used in the two categories of bedding and pot plant production and hardy 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 categories. From a manufacturer's point of view they are easily distinguishable. Defra statistics[3] provided a similar split in the data around these two categories but based on a different methodology. In summary, the approach used was to take Defra crop production statistics (i.e. the numbers of plants of different types produced), and assume average volumes of growing media that would be required to produce these volumes (i.e. the volume of growing media used in production is proportionate to the volume of plants sold by growers).

The two methodologies for measuring the split in growing media types 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 than in bedding (a recent AHDB Horticulture funded study which examined import and export opportunities for UK growers also found that grower sales of hardy nursery stock exceeded those of bedding plants by value) and the data collection for this current study show a greater volume used in bedding and pot plant production. This has remained consistent through the study.

A definitive explanation of this dichotomy cannot be provided. However, the following relevant points need to be borne in mind: (1). the different wastage levels in the production and retail of bedding compared with hardy nursery stock (which will impact on the reported farmgate values relative to the actual number of plants produced in the first instance); (2). the different numbers of times plants are transplanted from one container into another during the production process and the relative amounts of growing media used at each stage (this is more important for hardy nursery stock than bedding plants) and finally (3). the import levels of different types of plant material at different stages in the supply chain (such plants will be recorded in terms of farmgate values but the growing media used in their production won't be recorded). A conclusive resolution of the apparently contradictory conclusions of the Defra study and this current project would be useful but would require a detailed study of the levels of use of different types of growing media by commercial growers of hardy nursery stock and bedding plants.

[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.

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

The following chart shows that the bulk of peat used in the creation of growing media is sourced from the Republic of Ireland (ROI). Reliance on sources of peat from elsewhere in the EU other than the UK or ROI, has fallen over the past year.

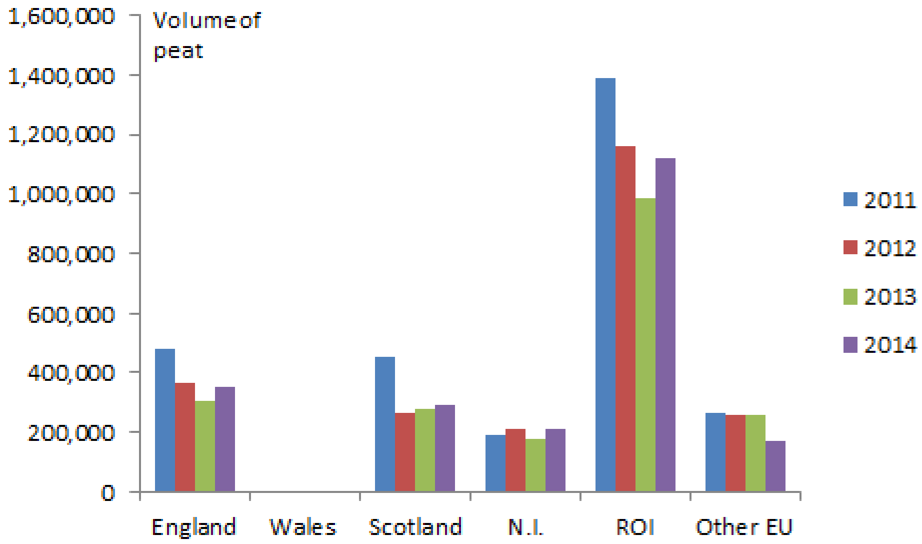


Figure 11: Volume of peat sourced from different countries for UK growing media sold 2011 to 2014

A fourth year of data has allowed us to start to plot the correlation between rainfall and the proportion of the subsequent year's growing media volume which is accounted for by peat. The following chart shows the proportion of peat in overall volumes of growing media (red line) and the total amount of rainfall (mm in the UK) in the preceding year (blue) between May and September (inclusive) – i.e. the main peat harvesting months. The chart shows that in spite of a significantly drier May to September 2013 than in 2012, peat as a proportion of volume supplied did not substantially rebound. This suggests that the fall seen in the reliance on peat over the course of the project (and the uptake of other alternative materials) is not solely the result of wet weather impacting peat harvesting.

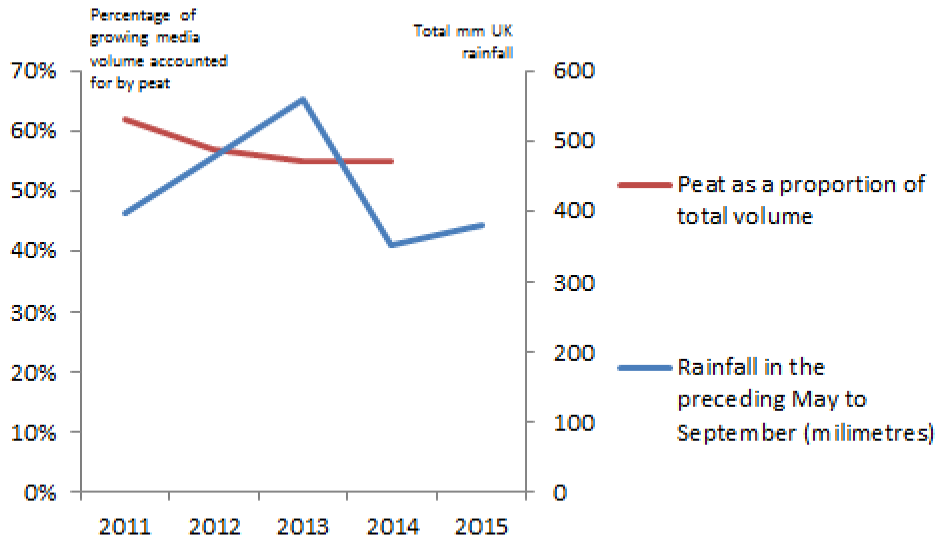


Figure 12: Correlation between peat as a proportion of growing media supplied with rainfall in May to September of the preceding year

Financial Benefits

The scope of this 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.