



Grower Summary

CP 100

Tracking Peat usage in Growing
Media Production

Final 2016

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AHDB Horticulture,
AHDB
Stoneleigh Park
Kenilworth
Warwickshire
CV8 2TL

Tel – 0247 669 2051

AHDB Horticulture is a Division of the Agriculture and Horticulture Development Board.

Project title: Tracking Peat usage in Growing Media Production

Project number: CP 100

Project leader: David Denny, HTA

Report: Annual report, 2016

Previous report: Annual report, 2015

Key staff: Paul Waller
David Denny

Location of project: Theale, Reading, RG7 5AH

Date project commenced: 1 October 2012

**Date project completed
(or expected completion date):** May 2016

GROWER SUMMARY

Headline

Between 2011 and 2015 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. 2015, the most recent year covered by the study, saw volumes remain within 1% of those reported in 2014.

In the professional sector of the growing media market, the proportion of volume accounted for by peat has fallen over all five years of the study. However, in the retail sector it has remained at similar levels since 2012, fluctuating between 50% and 53%. Since 2013, the proportion of peat in retail growing media has increased slightly but consistently from 50% to 53%. The use of coir ingredients has increased consistently, with green compost (composted green waste) accounting for broadly similar proportions of volume throughout the reporting period.

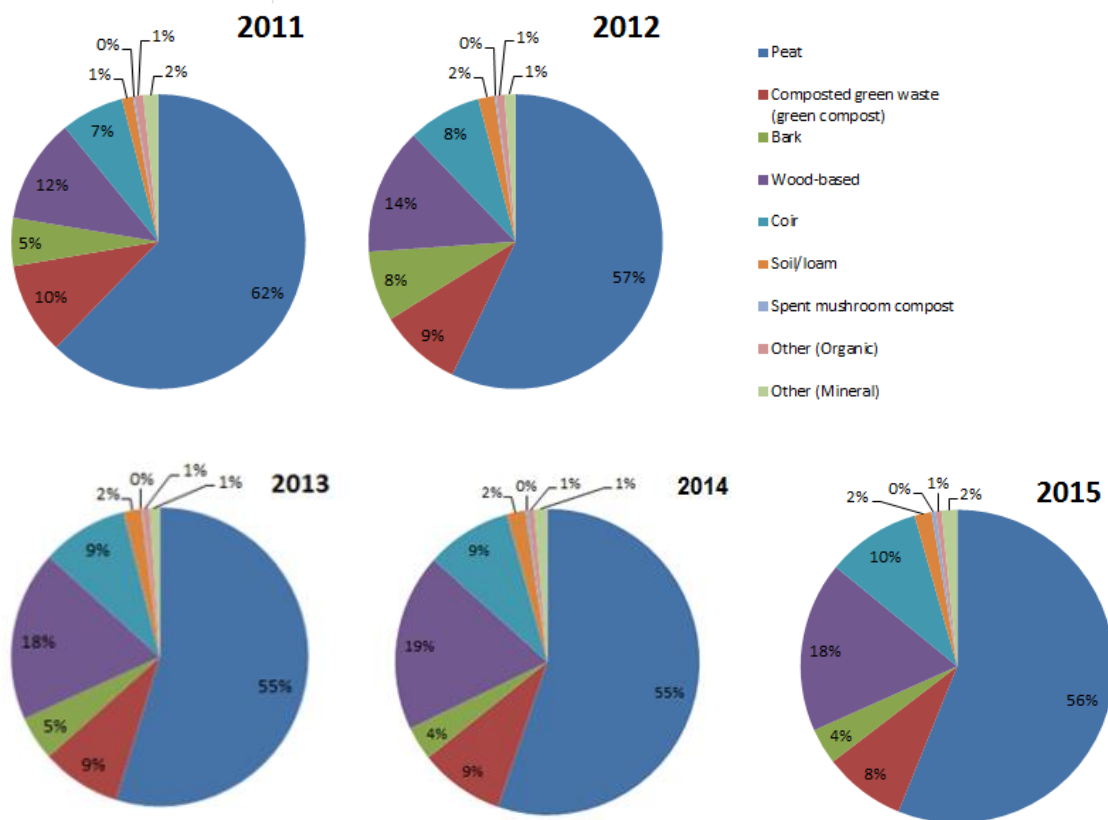


Figure 1. Summary of the proportion of overall growing media supply accounted for by different ingredients

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 2015.

The project provides 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. Data¹ 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, 2014 and 2015 were collected in February and March of 2014, 2015 and 2016 respectively. This report is based on these five 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 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 2015

UK growing media supply for domestic use or export fell by 1% in volume overall in 2015 compared with 2014. In volume terms this equates to a fall from 3.88 m cubic metres to 3.84 m cubic metres. In terms of growing media supplied for retail (amateur use), volumes were essentially unchanged (2.72 m cubic metres to 2.71 m cubic metres). For professional use the equivalent figures are a 2% decrease, with volumes falling from 1.10 m cubic metres in 2014 to 1.08 m cubic metres in 2015. Production for export accounts for a very small proportion of overall supply (1.1% in 2015).

¹ Request Appendix for a copy of the form used for data collection.

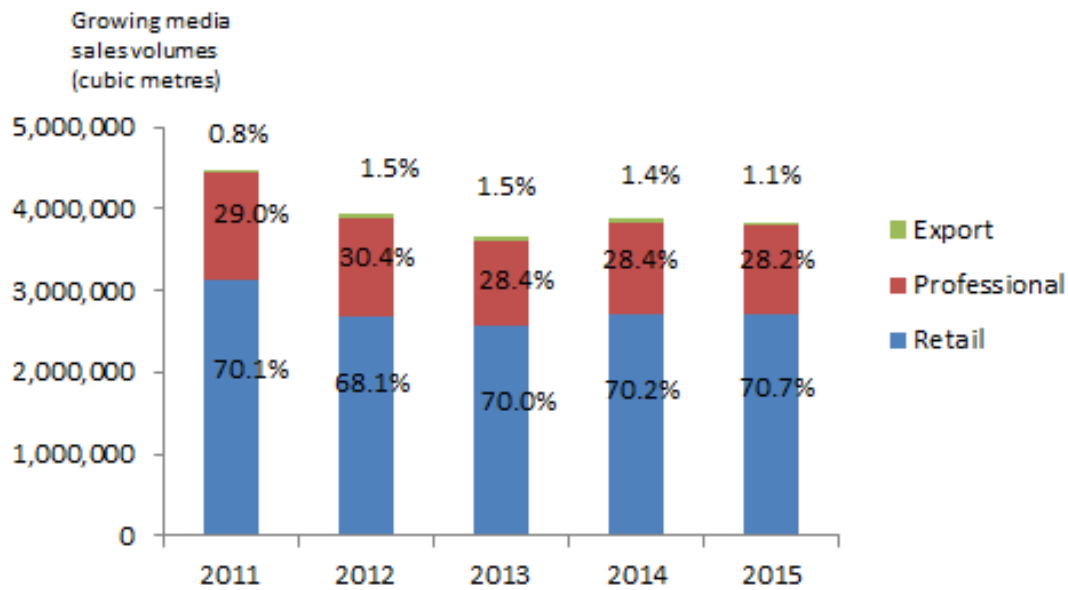


Figure 2. Proportion of volume of growing media which goes to retail, professional and export markets, 2011 to 2015²

Overview of growing media supplied into the retail market

As noted, the volume of growing media supplied into the UK retail remained flat in 2015 compared with 2014. Within this though, the ‘mix’ of ingredients used for all types of growing media product changed. As a proportion of volume supplied, the use of peat increased slightly for the second year in a row. The proportion of volume accounted for by peat increased from 49.6% to 51.1% to 52.9% between 2013, 2014 and 2015. This equates to 44,220 cubic metres more peat being used in growing media sold into the retail market in 2015 than in 2014.

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.

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

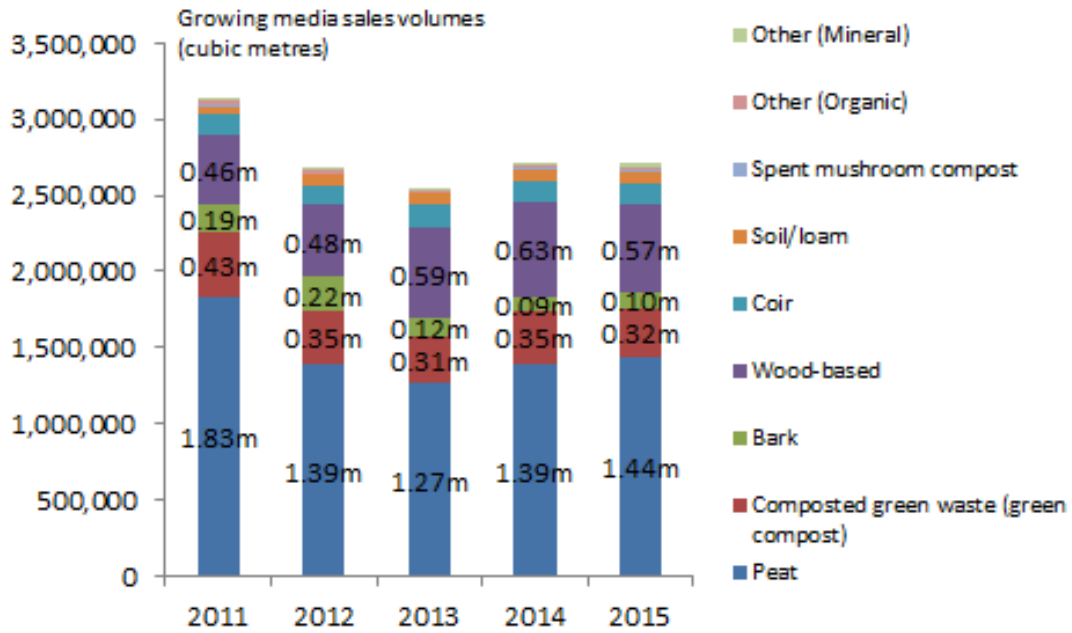


Figure 3. Volume in cubic metres of ingredients used in growing media supplied into the retail market, 2011 to 2015

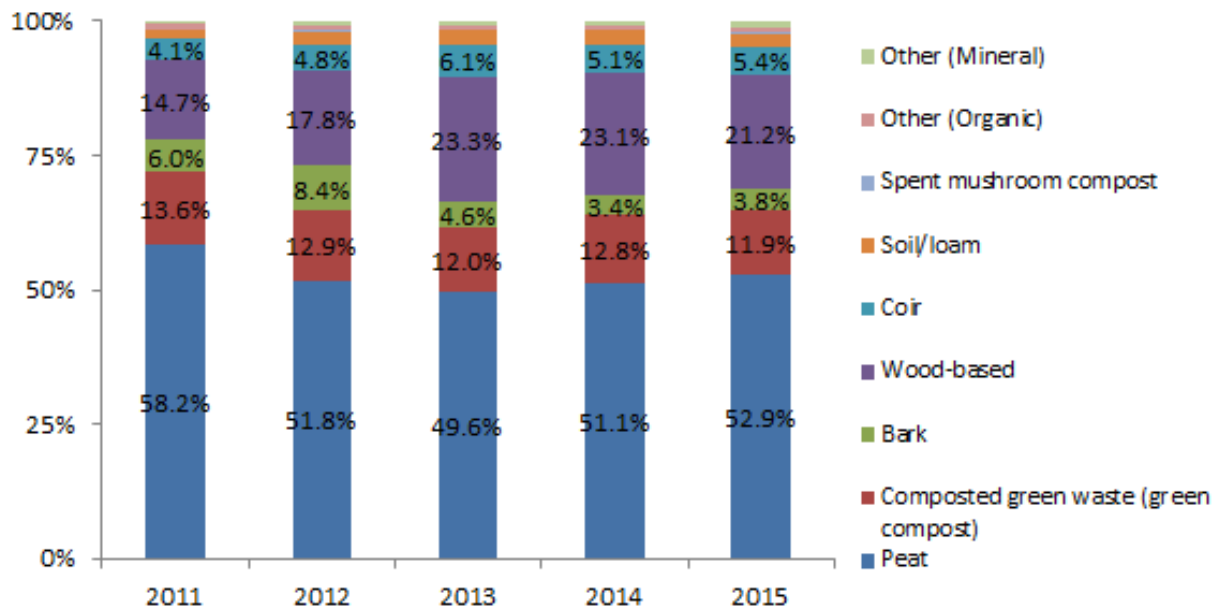


Figure 4. Proportion of ingredients used in total growing media supplied into the retail market, 2011 to 2015

In both absolute and proportional terms, peat use in growing media manufactured in the UK for the UK retail sector increased slightly in 2015. Bark remained at a low level compared with the early years of this study. The use of green compost fell again after a slight increase in 2014 following two previous years of decreases.

In terms of the different growing media products supplied for the UK retail market, the four years' data are now starting to show some patterns. Within growing media containing peat, multi-purpose growing media had from 2011 to 2014 consistently increased its share of overall volumes supplied into UK retail from 70% of volume to 79% of volume. However in 2015 the proportion of volume accounted for by multi-purpose growing media fell to accounting for 76% of volume in 2015, with the difference being made up mainly of specialist growing media such as ericaceous, sowing, potting, citrus, cactus and other growing media products.

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 since 2012. In 2015 peat-free growing media accounted for 9.0% of volume, compared to 8.3% in 2014 and 9.0% in 2013. 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.

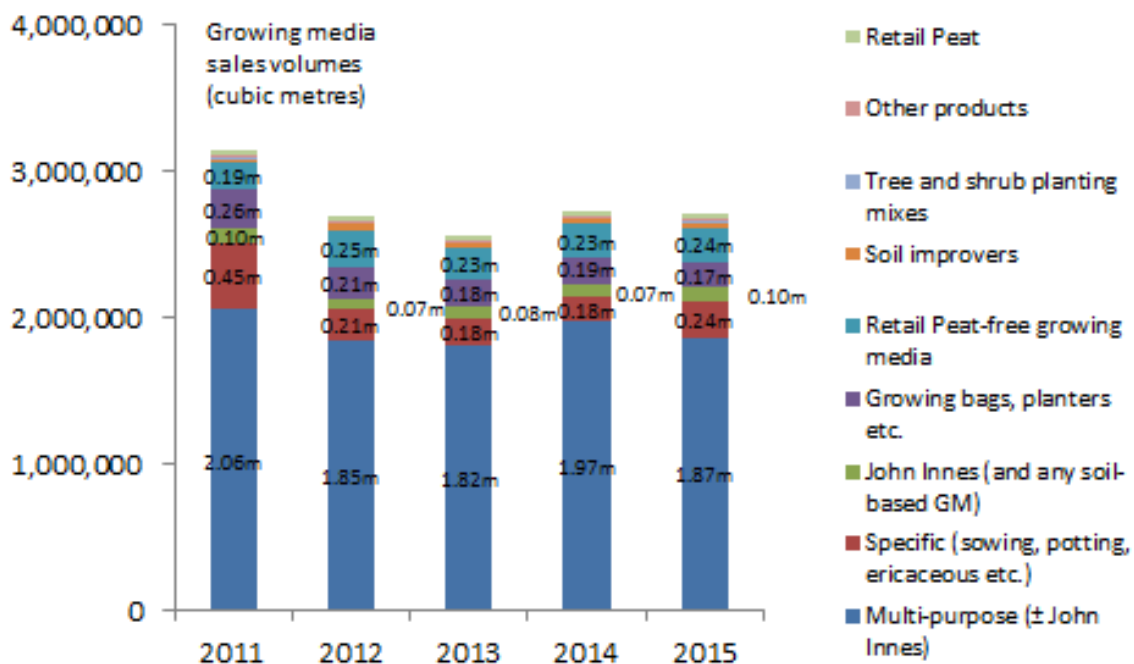


Figure 5. Volume of different growing media products supplied into the retail market, 2011 to 2015

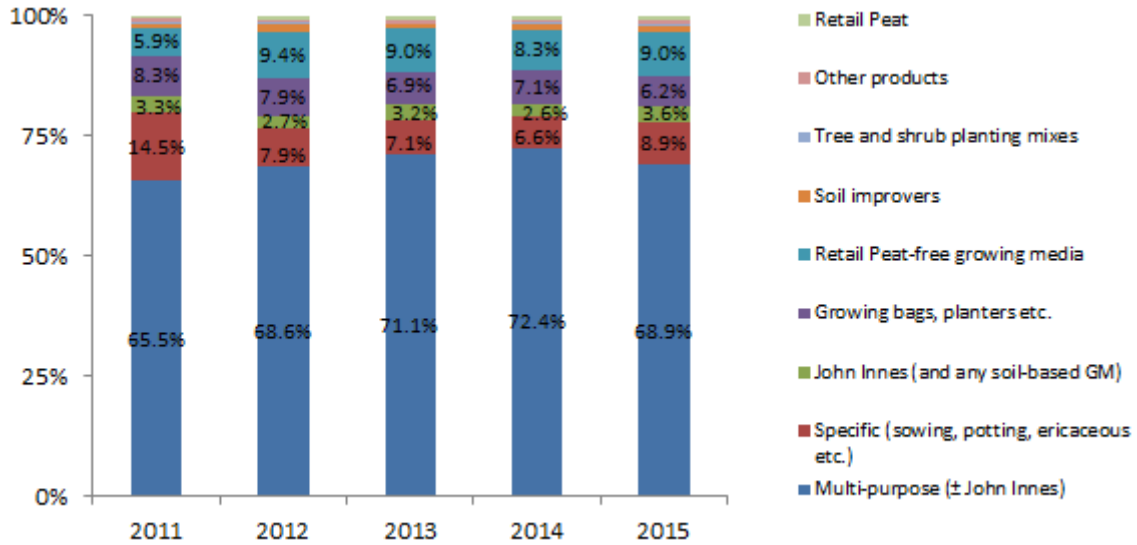


Figure 6. Proportion of overall volume supplied into the retail market accounted for by different types of growing media product, 2011 to 2015

Between 2011 and 2015 there has been a movement away from peat in growing media for amateur use, with a slight rebound in 2014 and 2015. 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 fell in 2015 by 2% compared with 2014 (1.1 m cubic metres compared with 1.0 m cubic metres). Unlike the retail market, the proportion of growing media volume made up of by peat continued to fall in 2015, with wood-based materials and coir continuing to increase the proportion of volume they account for.

The following figures 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.

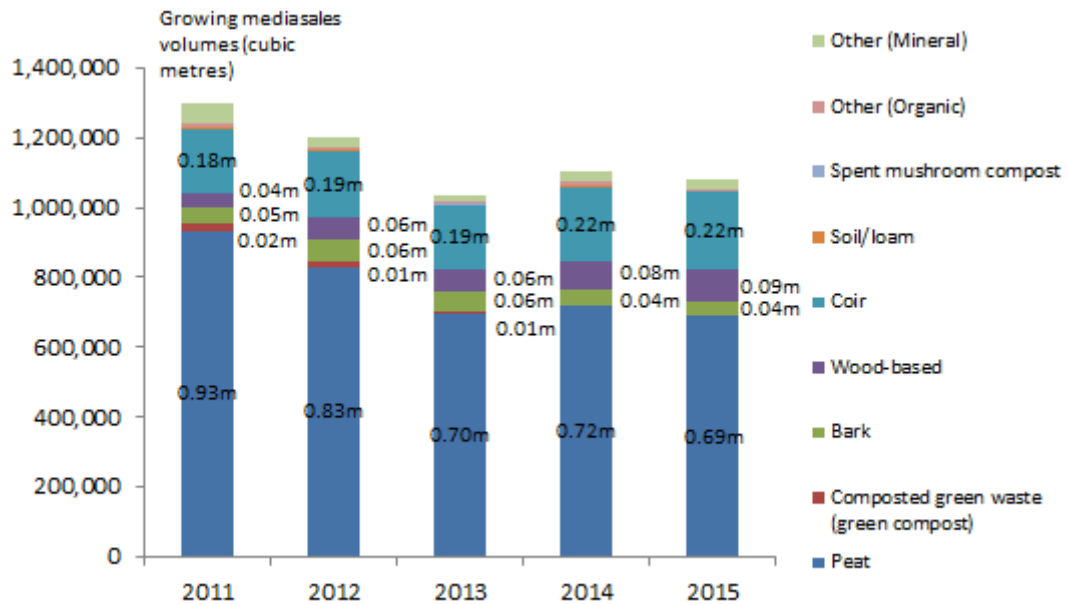


Figure 7. Volume in cubic metres of ingredients used in growing media supplied into the professional use market, 2011 to 2015

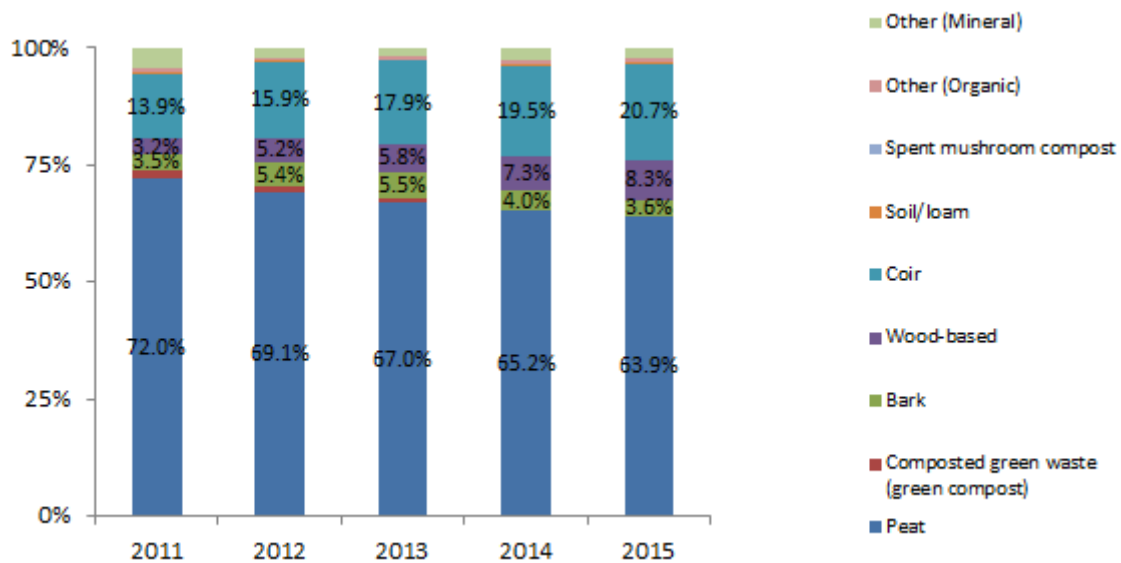


Figure 8. Proportion of ingredients used in total growing media supplied into the professional use market, 2011 to 2015

Peat use as a proportion of total volume fell and the absolute volume of peat used was the lowest recorded over the period of this study. The use of wood-based and coir ingredients has increased to replace peat volumes. 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 (20.7% compared with 5.4%). 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 58%.

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 18%.

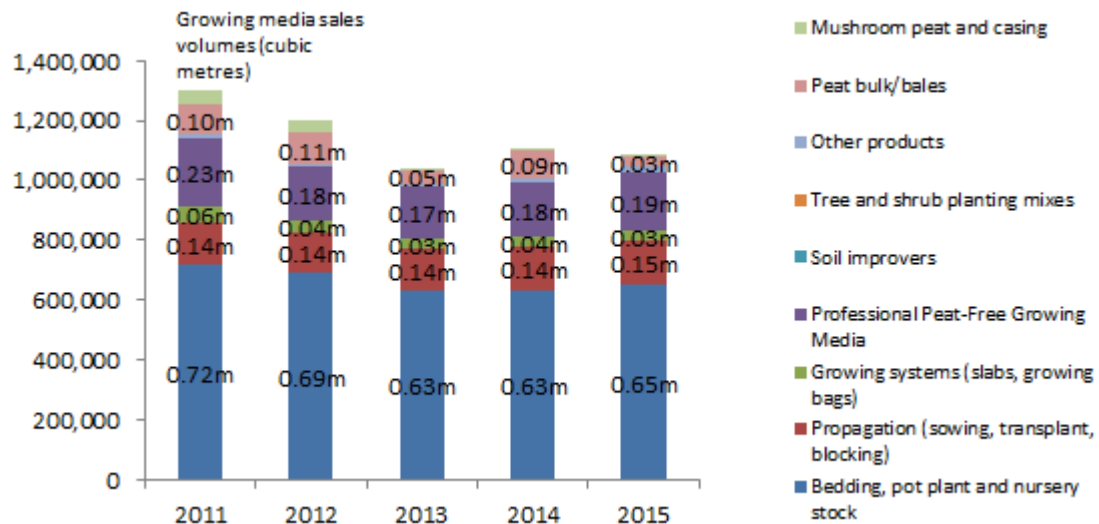


Figure 9. Volume of different growing media products supplied into the professional use market, 2011 to 2015

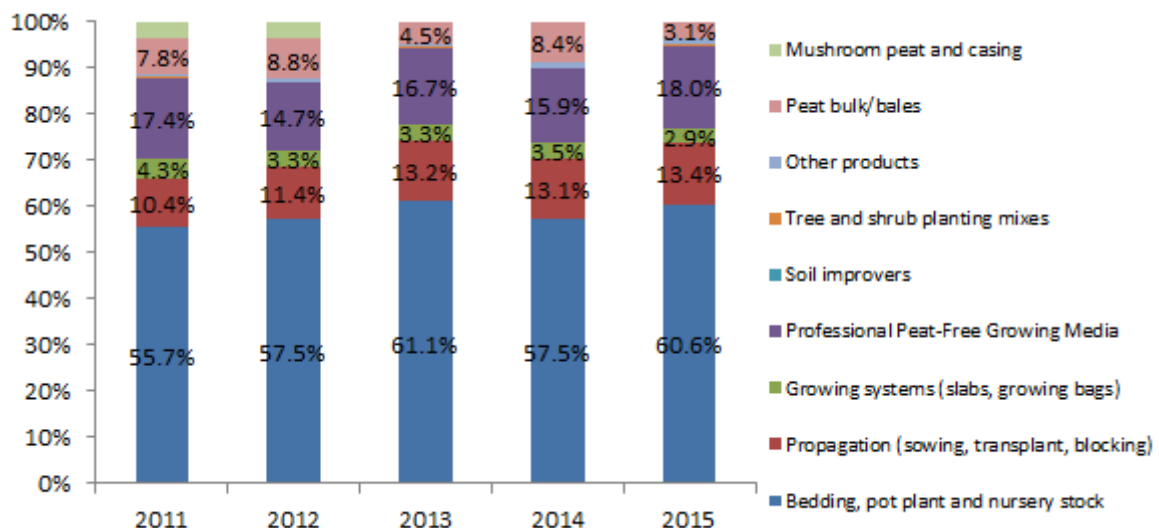


Figure 10. Proportion of overall volume supplied into the professional use market accounted for by different types of growing media product, 2011 to 2015

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 statistics³ 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 HDC 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 farm gate 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.

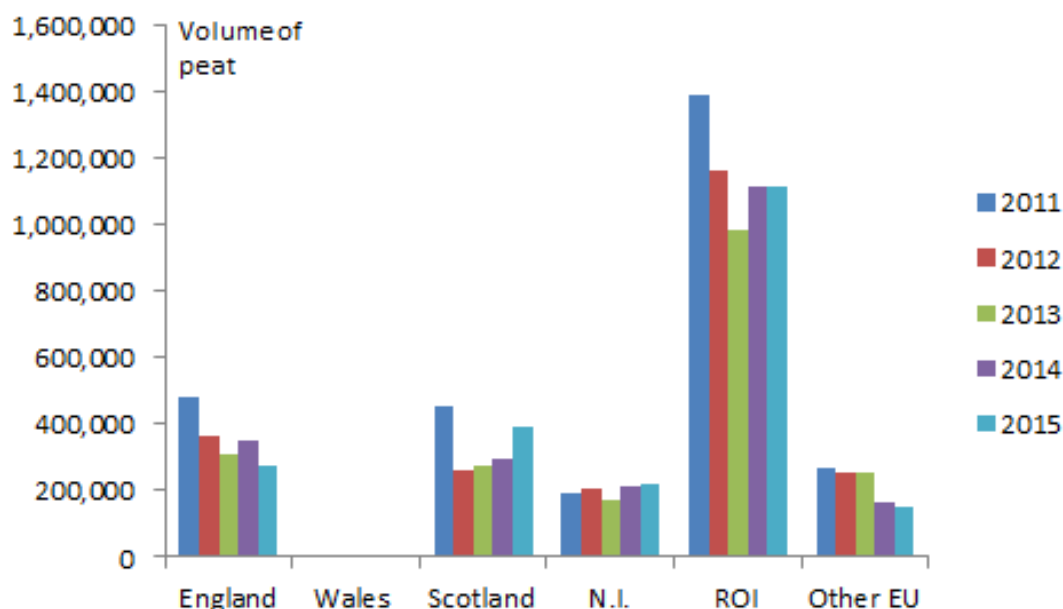


Figure 11. Volume of peat sourced from different countries for UK growing media sold 2011 to 2015

A fifth 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. Nor did peat use fall in 2015 on the back of a wetter (compared with 2013) 2014 peat harvest season.

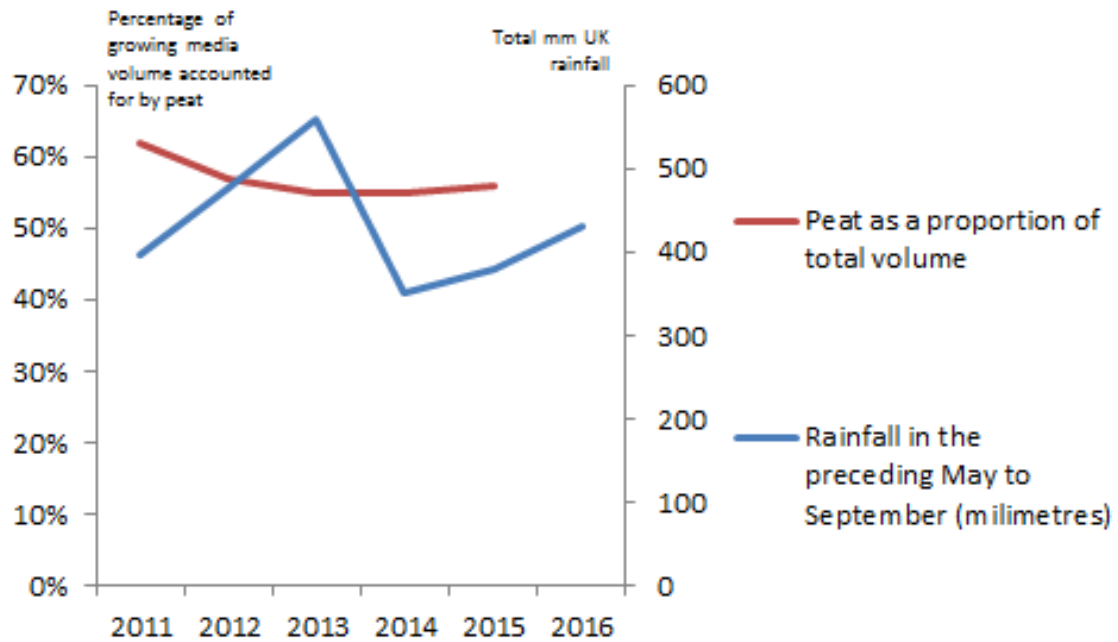


Figure 12. Correlation between peat as a proportion of growing media supplied with rainfall in May to September of the preceding year

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.