

Ipsos MORI



**SURVEY OF SCOTTISH SMEs TO ASSESS  
PROGRESS WITH THE VOLUNTARY  
WITHDRAWAL OF 'SOUTHAMPTON SIX'  
COLOURS FROM FOOD PRODUCTS**

May 2010

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## **Executive Summary**

### **Introduction and methodology**

This report presents the findings of an assessment of the progress made by small to medium sized food enterprises (SMEs)<sup>1</sup> in Scotland in achieving the voluntary withdrawal, agreed by UK ministers in November 2008, of the group of artificial colours known as the Southampton Six (Sunset yellow (E110), Quinoline yellow (E104), Carmoisine (E122), Allura red (E129), Tartrazine (E102) and Ponceau 4R (E124)).

The research, commissioned by the Food Standards Agency in Scotland, comprised three main stages: ten scoping interviews with a range of businesses, a quantitative telephone survey of 111 food producing SMEs; and a series of five follow-up in depth interviews. The fieldwork was conducted between 1 February and 16 April 2010. It should be remembered that the findings in this report are based on a sample and not the entire population of SME food manufacturers.

### **Results**

#### ***Current use of the Southampton Six colours***

Over a third of the 111 SMEs surveyed were using at least one of the Southampton Six colours in the manufacture of their foods. The colours were used in the following order of prevalence:

- Tartrazine –24 out of 111
- Sunset Yellow –24 out of 111
- Carmoisine –21 out of 111
- Allura Red –13 out of 111
- Ponceau 4R –11 out of 111
- Quinoline Yellow –11 out of 111

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<sup>1</sup> Enterprise with headcount <250 and turnover of ≤ € 50 million or balance sheet total of ≤ € 43 million (from Recommendation 2003/361/EC)

It appeared that colours tended to be added directly rather than added as part of a bought-in ingredient. However, it appeared that there was no link between the specific Southampton Six colour used and the method of addition.

The Southampton Six colours, or ingredients containing them, were purchased both within and outwith Scotland by the SMEs surveyed. The results did suggest that the more common colours, Tartrazine, Sunset Yellow and Carmoisine, were more likely to be purchased in Scotland.

### **Awareness**

Awareness of the link between the Southampton Six colours and increased hyperactivity in children was high with 89 of the 111<sup>2</sup> (80%) SMEs surveyed reporting that they had heard about this.

However, awareness of both the voluntary withdrawal and the new labelling requirements was much lower: 39 out of 111 (35%) said they were aware of the voluntary withdrawal and 37 out of 111 (33%) said they were aware of the new labelling requirements.

In order to identify the best routes to inform SMEs that were unaware about both the voluntary withdrawal and the new labelling requirements, we asked them where they got their information on guidelines and legislation. The research identified trade associations (23 out of 61<sup>3</sup>, 38%), Environmental Health (15 out of 61, 25%) and the Food Standards Agency (15 out of 61, 25%) as the most common sources of information on new legislation and guidelines.

### **How SMEs aim to comply with the new regulations**

SMEs were given a brief background to the voluntary withdrawal and the new labelling requirements and informed of the decision they would have to make (either to remove the colours or follow the new labelling guidelines) by July 2010. When asked what decision they would make, 61 per cent (25 out of 41<sup>4</sup>) of SMEs who used any of the Southampton Six colours said that they would remove or replace them whereas 22% (9 out of 41) reported that they would rather update their labelling in line with the new regulations.

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<sup>2</sup> Number of SMEs who participated in the survey overall.

<sup>3</sup> Number of SMEs surveyed who were unaware of both the voluntary withdrawal of the Southampton Six colours and the new labelling requirements.

<sup>4</sup> Number of SMEs surveyed who used any of the Southampton Six colours.

If SMEs reported that they would remove the colours they were asked why they would do so. The main reasons given for removing the Southampton Six colours by SMES currently using them were the link between the colours and hyperactivity (35%, 6 out of 17), compliance with the withdrawal (35%, 6 out of 17) and pressure from retailers (29%, 5 out of 17). For those who had already removed the colours, the top reasons were pressure from retailers (56%, 5 out of 9), generally reducing the use of additives in food (22%, 2 out of 9) and the link between the colours and hyperactivity (22%, 2 out of 9).

Similarly, those who said they would rather change the labelling were asked why. The reasons given for *not* removing the Southampton Six colours by those who said they would change their labelling rather than remove the colours were 'compromise on the quality of the finished product' (2 out of 3), 'customer preference' (1 out of 3) and 'traditional recipes' (1 out of 3).

#### ***Problems and barriers to removal***

The most commonly anticipated barriers to removal were changes to the appearance of the product (45%, 17 out of 38), increased costs (18%, 7 out of 38) and the availability of alternative colours (18%, 7 out of 38). For those who had already removed the colours, the main problems had been changes to the appearance of the products (3 out of 9) and the availability of alternative colours (2 out of 9).

#### ***Required help and guidance***

In order to establish what could be done to support SMEs in reformulating their products, they were asked who they would go to for advice and what kinds of guidance would be most helpful.

SMEs most commonly said they would go to suppliers (42%, 16 out of 38), the Food Standards Agency (21%, 8 out of 38) and trade associations (18%, 7 out of 38) for help with reformulation. For those who had already removed the colours, helpful guidance was received from suppliers (44%, 4 out of 9), Environmental Health (22%, 2 out of 9) and retail customers (22%, 2 out of 9).

Examples of alternatives to specific colours (39%, 15 out of 38), more general information on the colours and the new regulations (26%, 10 out of 38), a list of the type of products that may contain the colours (16%, 6 out of 38) and a list of suppliers who do not use the colours (13%, 5 out of 38) were most likely to be cited as the types of guidance that would be helpful to SMEs.

### **Conclusions and Recommendations**

Awareness of the voluntary withdrawal and the new labelling requirements was low. There is a requirement for basic information about these developments to be disseminated more widely.

Consideration should be given to providing more detailed support and guidance. The results suggest that this should include examples of alternatives to specific colours, a list of suppliers who do not use the colours and a list of products most likely to contain Southampton Six colours.

This information should be directed to the smallest companies and sole traders in particular and should be disseminated through trade associations, Environmental Health and suppliers.

## Introduction

This report presents the findings of an assessment of the progress made by small to medium sized food enterprises (SMEs)<sup>5</sup> in Scotland in reformulating their products to remove the group of colours known as the Southampton Six (Sunset yellow (E110), Quinoline yellow (E104), Carmoisine (E122), Allura red (E129), Tartrazine (E102) and Ponceau 4R (E124)). A study undertaken by Southampton University<sup>6</sup> provided evidence for a possible link between the consumption of these six food colours and hyperactivity in 3 year old and 8/9 year old children in the general population. Following publication of the findings in 2007, and a review by the independent Committee of Toxicity, the Food Standards Agency (FSA) board recommended that the UK push for voluntary action by UK manufacturers to remove the additives through extensive reformulation. In November 2008, UK ministers agreed to this initiative, aimed at removing these colours from foods by the end of 2009.

The EU is currently reviewing all approved additives commencing with food colours. In December 2008, the EU proposed a labelling requirement that has been incorporated into the Food Improvement Agents Package<sup>7</sup> for manufacturers of products that contain the Southampton Six colours. Regulation (EC) No 1333/2008 on food additives, Article 24<sup>8</sup> states that the labelling of foods containing food colours listed in Annex V (namely, Sunset Yellow (E110), Quinoline Yellow (E104), Carmoisine (E122), Allura Red (E129), Tartrazine (E102) and Ponceau 4R (E124)), must include the following additional information: "name or E number of the colour(s): may have an adverse effect on activity and attention in children." This requirement will be enforced from 20 July 2010.

There has been a drive amongst the major UK food retailers to remove all artificial food colours and flavourings from their own brand ranges for some time. This has been driven by a consumer perception of natural colours and flavourings being preferable to artificial. Since the start of the voluntary withdrawal, the FSA has also worked closely with the major retailers and trade associations on this issue. Larger manufacturers appear to have made good progress in removing the Southampton Six colours from

<sup>5</sup> Enterprise with headcount <250 and turnover of ≤ € 50 million or balance sheet total of ≤ € 43 million (from Recommendation 2003/361/EC)

<sup>6</sup> McCann D, Barrett A, Cooper A, Crumpler D, Dalen L, Grimshaw K, Kitchin E, Lok E, Porteous L, Prince E, Sonuga-Barke E, Warner JO, Stevenson J. Food additives and hyperactive behaviour in 3-year-old and 8/9-year-old children in the community: a randomised, double-blinded, placebo-controlled trial. *Lancet*. 2007 Nov 3; 370(9598):1560-7.

<sup>7</sup> <http://www.worldfoodscience.org/cms/?pid=1004651>

<sup>8</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:354:0016:0033:en:PDF>

products and have a clear route for obtaining information on legislative developments and technical issues.

The Scottish food manufacturing sector is dominated by SMEs and the FSA in Scotland has had limited success in engaging with the relevant SMEs in Scotland. Information is therefore lacking on the progress of Scottish SMEs in replacing the Southampton Six colours in response to the voluntary withdrawal. It is also unclear to what extent these businesses are aware of the labelling legislation due to come into force on 20 July 2010 and how this will impact on the manufacture of products. The extent of these issues in Scottish businesses and the types of products implicated require clarification.

The overall aim of the research was to gather evidence from SMEs to ascertain the current situation with regard to removal of the Southampton Six colours in Scotland.

Specifically, the research aimed to:

- identify the SMEs in Scotland involved in the manufacture of packaged foods that are likely to contain the Southampton Six colours. The project focused particularly on manufacturers of bakery products, confectionery, soft drinks or ready meals which are packaged and labelled for retail sale
- assess the general awareness of these SMEs of the voluntary withdrawal of Southampton Six colours and forthcoming labelling requirements under the EC Regulation 1333/2008 on food additives (part of the Food Improvements Package)
- identify if, and how, customers are influencing SMEs to remove Southampton Six colours from products
- establish what steps have been/are being taken by SMEs to reformulate products, and identify where progress is being achieved
- identify the key barriers to reformulation (e.g. financial, technical) where progress is not being achieved
- identify the specific difficulties being experienced by SMEs with respect to product reformulation and where further technical guidance is required (i.e. what colours and food types are proving difficult to deal with).



## Methodology

The research comprised three main stages: ten scoping interviews with a range of businesses, a quantitative telephone survey of 111 food producing SMEs in Scotland; and a series of five follow up in depth interviews. The fieldwork was conducted between 1 February and 16 April 2010.

The three elements are described in more detail below.

### Sample Selection

Since the aim of the project was to evaluate the awareness of Southampton Six colours in SMEs in Scotland, the study targeted manufacturers of bakery products, confectionery, soft drinks or ready meals in Scotland as these companies were considered most likely to use colours in their products.

The sample was provided by a specialist database supplier MarketingFile<sup>9</sup> and was supplemented with additional contact details obtained from the Scottish Association of Master Bakers' list of member companies available on their website<sup>10</sup>. The sample covered the whole of Scotland and included companies with 0-250 employees and a turnover less than £30 million. SMEs were included under the categories:

- manufacture of bread, manufacture of fresh pastry goods and cakes
- manufacture of sugar confectionery
- manufacture of prepared meals and dishes
- manufacture of soft drinks,
- manufacture of other food products

The 'other' category included manufacturers of speciality foods, butchers and prepared meals. Due to the small numbers in each group, soft drinks manufacturers and prepared meals manufacturers have also been included in the 'other' category throughout the report.

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<sup>9</sup> <http://marketingfile.com>

<sup>10</sup> <http://www.samb.co.uk>

### Sample profile

The following table details the profile of the 111 SMEs that were interviewed as part of the telephone survey.

**Table 1 Sample profile – Telephone Survey**

<i>Base: all respondents, (n=111)</i>		%
Company Size		
0-10		26
11-50		48
51-250		26
Company Sector		
Bakery		61
Confectionery		14
'Other'		24

Table 2 below outlines the breakdown of those surveyed classified as 'other' food manufacturers.

**Table 2 'Other' category – Telephone Survey**

<i>Base: All those in the 'other' category (n=27)</i>		(n)
Meat products		6
Prepared meals		6
Speciality foods		4
Fishmongers/smokers		3
Snack foods		3
Soft drinks		3
Ingredients/premixes		2

### Scoping interviews

Scoping interviews were conducted among a range of SMEs between 1 and 5 February 2010. The purpose of these interviews was to inform the design of the survey questionnaire and highlight any particular issues that should be addressed.

A total of ten fifteen-minute interviews were conducted by core members of the Ipsos MORI project team. The SMEs selected were from a broad range of food industries and company sizes (Table 3). All interviews were undertaken by telephone.

**Table 3 Scoping interviews**

<i>Base: All respondents (n=10)</i>	(n)
Bakers	4
Confectioners	2
Prepared meals	2
Meat products	1
Sandwich manufacturer	1

The topic guide was developed in consultation with the Food Standards Agency in Scotland. A copy of the guide is included in Appendix A.

### **Telephone Survey**

The survey fieldwork took place between 24 February and 12 March 2010. The telephone interviews were conducted by Ipsos MORI's specialist telephone interviewers using Computer Assisted Telephone Interviewing (CATI). The average interview length was just under 10 minutes. A total of 111 interviews were completed.

In advance of the survey, the SMEs were sent a letter to inform them that Ipsos MORI would be contacting them in the next few days to conduct research about the use of colourings in food production on behalf of the Food Standards Agency in Scotland. However, the advance letter did not give SMEs details about the Southampton Six colours, the withdrawal or the new labelling requirements to ensure that the businesses levels of awareness of these things was not biased. A copy of the advance letter is included in Appendix B

The questionnaire was designed in consultation with the Food Standards Agency in Scotland using the scoping interviews to inform the content. Topics covered included:

- SMEs' awareness of the link between the Southampton Six colours and increased hyperactivity, the voluntary withdrawal of these colours and the new labelling requirements
- SMEs' current use of the Southampton Six colours
- SMEs' perceptions of what the problems would be if they tried to remove the Southampton Six colours

- SMEs' perspective of what types of guidance would assist them in removing the colours from their products.

A copy of the questionnaire is included in Appendix C.

### **Follow up interviews**

In order to explore in more detail some of the issues raised in the survey, five follow up interviews were conducted between 30 March and 16 April. As in the scoping phase, all of these interviews were conducted by telephone. The interviews were based on the SMEs' responses to the telephone survey rather than a generic topic guide due to the fact that each interview would explore a different issue of interest.

### **Interpretation of the findings**

It should be remembered that the findings in this report are based on a sample and not the entire population of SME food manufacturers. All survey results are subject to sample variability i.e. it is not certain that the figures obtained are exactly those that would be found if everybody had been interviewed (the 'true' values). However, we can predict the variation between the sample results and the 'true' values from knowledge of the size of the samples on which the results are based and the number of times that a particular answer is given. The confidence with which we can make this prediction is usually chosen to be 95% - that is, the chances are 19 in 20 that the 'true' value will fall within a specified range. Due to this variation, some differences between sub-groups may have occurred by chance. Therefore, throughout the report, differences between sub-groups are commented upon only where these are statistically significant (i.e. where we are 95% certain that the difference is not due to chance).

Where percentages do not sum up to 100%, this may be due to computer rounding, the exclusion of don't know/not stated categories or multiple answers. Throughout the report, an asterisk (\*) denotes any value less than one half of a per cent but more than nought and a hyphen (-) represents nought. Where the base sample sizes are less than 30, generally the actual respondent numbers are given rather than percentages although both may be presented for ease of comparison.

## Results

### Current use of the Southampton Six colours

The main objective of this research was to establish the current situation with regard to the use of Southampton Six colours by Scottish SME food producers. In order to do this, selected companies were asked if they used the colours, how they were adding them to their products and where they purchased them from.

The survey indicated that over a third of the SMEs interviewed were using at least one of the Southampton Six colours in the manufacture of foods. These findings indicate that a proportion of Scottish SMEs did not take part in the voluntary withdrawal. As shown in Figure 1, 41 out of the 111 (37%) of SMEs used at least one of the Southampton Six colours with 24 (22%) using Tartrazine, 24 (22%) using Sunset Yellow, 21 (19%) using Carmoisine, 13 (12%) using Allura Red, 11 (10%) using Ponceau 4R and 11 (10%) using Quinoline Yellow.

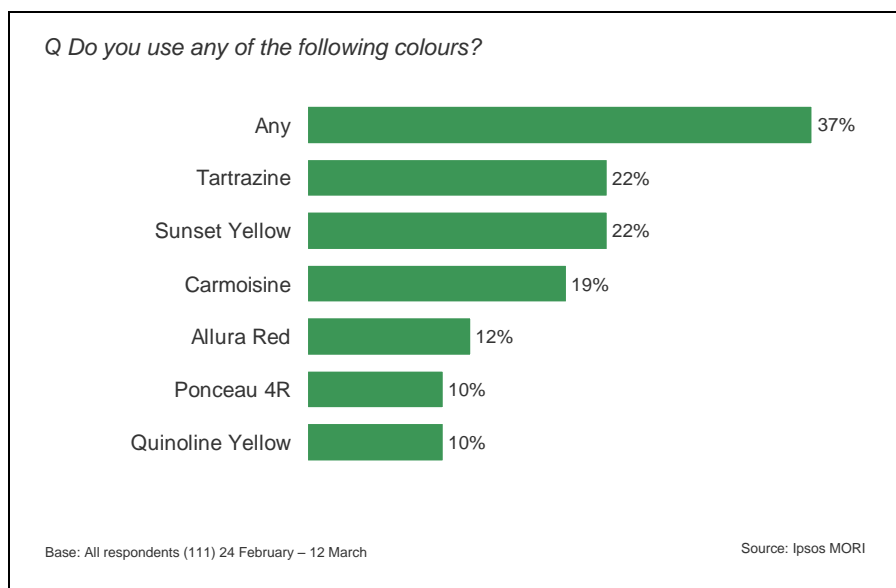


Figure 1 - Southampton Six colours used

The figure below provides a summary of the use of each colour, the typical products it is used in, whether the colour was added directly or in a bought-in ingredient and whether the colour was purchased in Scotland. Results are shown as percentages for ease of comparison. Actual numbers and information on the use of each colour by the respondents is given in the following colour-specific sections.

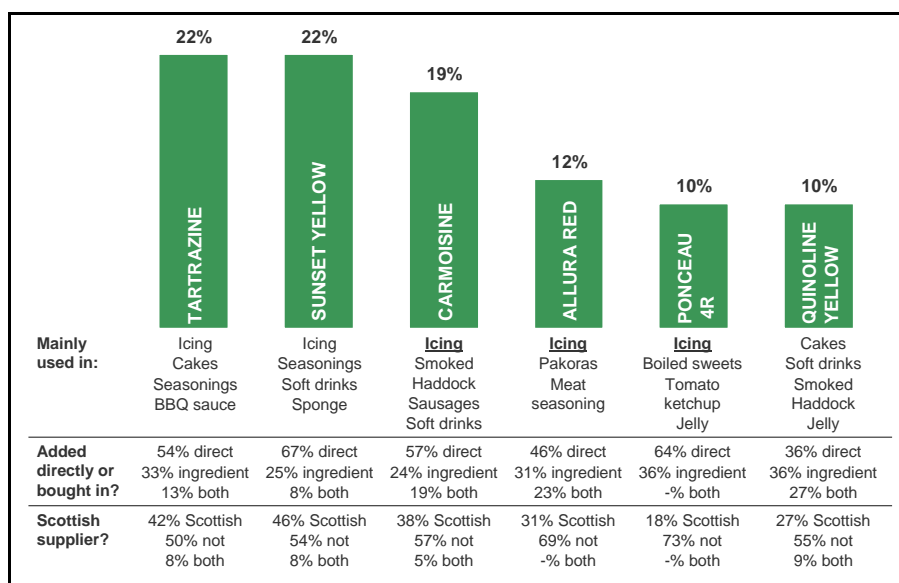


Figure 2 – Summary table of Southampton Six colours used by the survey respondents

### Tartrazine

SMEs used Tartrazine in a variety of products including icing, cake/sponge, seasoning mixes and barbecue sauce.

Thirteen of the twenty-four SMEs (54%) that used Tartrazine added it directly compared with eight (33%) who added it as part of a bought-in ingredient. A further three (13%) added Tartrazine both directly and as part of a bought-in ingredient.

Ten SMEs (42%) purchased Tartrazine from a Scottish supplier while twelve (50%) did not. A further two companies (8%) purchased the colour from suppliers both within and outwith Scotland.

### Sunset Yellow

The types of products in which Sunset Yellow was used were varied and included icing, seasonings, soft drinks and sponge - with icing being the product most commonly cited.

Sixteen of the twenty-four SMEs (67%) who used Sunset Yellow added the colour directly whereas only six (25%) added it as part of a bought-in ingredient. In addition, there were two (8%) SMEs who added Sunset Yellow both directly and as part of bought-in ingredients.

Similar numbers of SMEs purchased Sunset Yellow from a Scottish supplier and from outside Scotland, 46% (11 out of 24) and 54% (13 out of 24), respectively. SMEs working in the confectionery sector exclusively purchased Sunset Yellow from outside of Scotland whereas the majority of bakers purchased it from Scottish suppliers (71%, 10 out of 14). Seventeen per cent of those in the 'other' category purchased Sunset Yellow from a Scottish supplier.

### **Carmoisine**

Icing was most often highlighted as a product that contained Carmoisine. However, it was used in a wide range of other products including smoked haddock, sausages and soft drinks.

Carmoisine was used by 21 SMEs. Of this number, 12 (57%) added the colour directly whereas five (24%) added it as part of a bought-in ingredient. A further four (19%) added Carmoisine using both methods.

Eight of the twenty-one (38%) purchased Carmoisine from a Scottish supplier while a further 12 (57%) purchased the colour from outside Scotland. One SME (5%) purchased the colour from both inside and outside of the country.

### **Allura Red**

The colour was most commonly used in icing and cake decorations, although it was also used in pakoras and meat seasonings.

Six out of thirteen SMEs (46%) that used Allura Red added it to their products directly whereas four (31%) added it as part of a bought-in ingredient. A further three (23%) added Allura Red colouring using both methods.

Of the thirteen SMEs that used Allura Red, four (31%) purchased the colouring from a Scottish supplier while nine (69%) purchased from a supplier outside of Scotland. SMEs working in the confectionery sector exclusively purchased Allura Red from

outside of Scotland whereas the majority of bakers purchased it from Scottish suppliers (60%, three out of five).

#### **Ponceau 4R**

Again, this colour was most commonly used in icing but was also used in boiled sweets, tomato ketchup and jelly.

Of the eleven (64%) SMEs that used Ponceau 4R, seven added the colour directly to their products. A further four (36%), all in the bakery sector, added the colour as part of a bought-in ingredient.

Two out of the eleven SMEs (18%) purchased the colouring from a Scottish supplier whereas eight (73%) purchased it from a supplier outside of Scotland. One (9%) SME did not know where the colour was purchased.

#### **Quinoline Yellow**

Quinoline Yellow was commonly used in cakes and in soft drinks. Other products in which the colour was used included smoked haddock and jelly. However, none of the SMEs in the confectionery sector who were surveyed used Quinoline Yellow.

Of the eleven SMEs that used Quinoline Yellow, four (36%) added the colour directly, four (36%) added the colour as part of a bought-in ingredient and a further three (27%) added Quinoline Yellow using both methods. Bakers were less likely than those in the 'other' food category to add Quinoline Yellow directly: 14% (one out of seven) of bakers added the colour directly while 75% (three out of four) of those in the 'other' category added the colour directly.

Three of the eleven SMEs (27%) that used Quinoline Yellow purchased it from a Scottish supplier while six (55%) purchased the colour from outwith Scotland. Additionally, one SME (9%) purchased Quinoline Yellow from both within and outwith Scotland and one (9%) did not know where the colour was purchased from.

It is clear from the SMEs interviewed that icing was the most common product to which the Southampton Six colours were added. However, it is worth highlighting that bakeries accounted for 61% of the sample set (Table 1), which would explain the predominance of this product in the responses.



Overall, there was no clear relationship between the type of Southampton Six colour used and the method of addition. The proportion of those adding the colours directly, in a bought-in ingredient or through both methods, varied across the six colours but there appeared to be a general tendency for colours to be added directly to products rather than via an ingredient. However, it was observed that bakers, when compared to the other SMEs included in the survey, were more likely to add colours through bought-in ingredients.

When purchasing colours or ingredients, SMEs used both Scottish suppliers and those outwith Scotland. The findings suggested that the more commonly used colours were more likely than those less commonly used to be purchased in Scotland. In addition, those in the bakery sector were more likely than those in the confectionery sector and those in the 'other' food category to purchase the colours from a Scottish supplier.

### **Awareness of the link between the Southampton Six colours and increased hyperactivity in children, the voluntary withdrawal and the new labelling requirements**

It was apparent from conducting the scoping interviews that not all SMEs would be aware of the Southampton Six colours. For this reason some background information was provided during the survey so that respondents could answer questions on the topic. Before SMEs were asked about awareness in the telephone survey they were given a brief introduction to the Southampton Six research, the voluntary withdrawal of the colours, the new labelling regulations and what their options would be in advance of July 2010. There could be a concern that this information would inflate the reported awareness among SMEs. However, this is unlikely as SMEs who took part in the scoping interviews were very open about their lack of awareness.

#### **Link between the Southampton Six colours and increased hyperactivity in children**

Overall, awareness of the link between the Southampton Six colours and increased hyperactivity in children was high with 89 of the 111 (80%) saying they had heard about this. Awareness of the link did not differ by company size or sector (Figure 3).

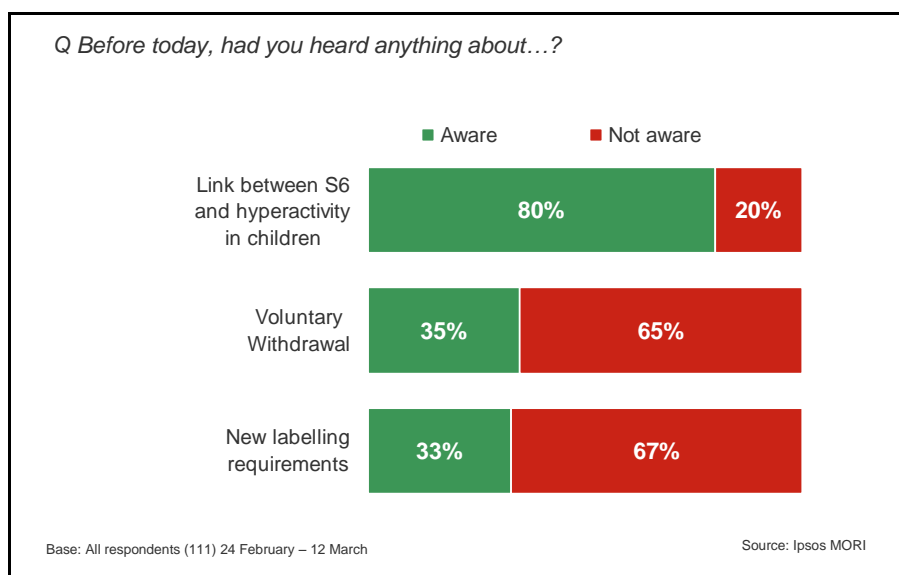


Figure 3 - Awareness of the Southampton Six colours

There has been a great deal of media coverage over the years reporting anecdotal evidence that artificial food colourings cause hyperactivity in children. As a result, the relatively high level of awareness of the link between the Southampton Six colours and increased hyperactivity in children should be treated with caution. It may be that SMEs were thinking of this discussion of additives and hyperactivity more generally and not referring specifically to the Southampton Six colours.

#### Awareness of voluntary withdrawal

Awareness of the voluntary withdrawal of the Southampton Six colours was much lower. Only around a third of SMEs (39 out of the 111) were aware of the withdrawal while two thirds (72 out of 111) were not aware (Figure 3). Smaller organisations were less likely to be aware of the withdrawal than larger ones. Fourteen per cent (4 out of 29) of those who had 0-10 employees said that they were aware of the withdrawal compared to 42% (22 out of 53) of those who had 11-50 employees and 45% (13 out of 29) of those who had 51-250 employees. Company sector also seemed to have an effect on awareness with those in the bakery and confectionery industries less likely to be aware than those in 'other' food manufacturing: 29% (20 out of 68) of those in the bakery sector and 31% (5 out of 16) of those in the confectionery sector were aware compared with 52% (14 out of 27) in the 'other' food manufacturing category.

### **Awareness of new labelling requirements**

The level of awareness of the new labelling requirements was similar to that of the voluntary withdrawal. A third of SMEs (37 out of 111) were aware of the new labelling requirements while two thirds (74 out of 111) were not (Figure 3). Again, smaller companies reported lower levels of awareness. However, this difference was only statistically significant between the smallest and largest organisations: 28% (8 out of 29) of those with 0-10 employees were aware compared to 41% (12 out of 29) of those with 51-250 employees. In terms of company sector, bakers were less likely to be aware of the new labelling requirements than those classified as 'other' food manufacturers, with only a quarter (17 out of 68) saying they were aware compared with 52% (14 out of 27) of 'other' food manufacturers.

The findings suggest that awareness of the issue did not have an impact on the use of the Southampton Six colours by the SMEs interviewed. Thirty-eight per cent (19 out of 50) of those who were aware of the withdrawal and/or the new labelling requirements used at least one of the colours compared to 36% (22 out of 61) of those who were unaware.

### **Sources of information**

As it was known from the scoping interviews that awareness of the withdrawal and new labelling requirements was low, those who were unaware of the withdrawal and/or the new labelling requirements were asked where they usually get information about legislation relating to food. This was to highlight any information channels that would be useful in the dissemination of information on the Southampton Six colours. As shown in Figure 4, the three most common sources of information were trade associations (38%, 23 out of 61), Environmental Health (25%, 15 out of 61) and the Food Standards Agency (25%, 15 out of 61). Suppliers were reported as the usual source of information by 8 of the 61 SMEs (13%) while a further five (8%) said the internet was where they got their information relating to legislation. Respondents in the scoping interviews also mentioned these sources of information.

It is important to keep in mind that the proportion of SMEs reporting the Food Standards Agency as a source of information about new guidelines may have been inflated due to the mention of them in the brief introductory section or in the advance letter increasing the salience of the Agency which would otherwise not come to mind.

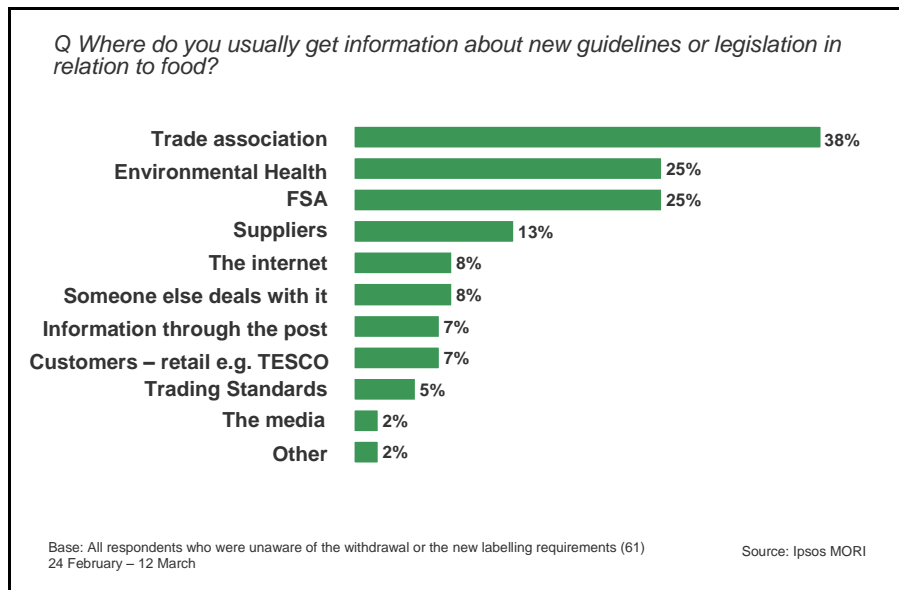


Figure 4 – Sources of information relating to food legislation

Those working in the bakery sector were more likely than confectioners or those in the 'other' category to say they usually got information on legislation from trade associations. Forty-nine per cent (20 out of 41) of bakers got information from trade associations compared with 20% (2 out of 10) of confectioners and 10% (one out of ten) of those in the 'other' category. Conversely, only 12% (5 of the 41) of SMEs who worked in the bakery industry said they got information from Environmental Health compared with half (5 out of 10) of those from the confectionery industry and half (5 out of 10) of those in the 'other' category.

## How SMEs aim to comply with EC No 1333/2008 on food additives and its labelling requirements

All SMEs that were identified as using any of the Southampton Six colours were asked whether, following the implementation of the legislation, they thought they would remove or replace the colours or if they would change their labelling in line with the new requirements. As previously noted, the scoping interviews indicated that there were low levels of awareness of the voluntary withdrawal and the new labelling requirements so a brief description of the background to Southampton Six and the choice that businesses will face in July 2010 was provided. With that in mind this question was included to gauge SMEs' immediate reactions to the choice they would have to make rather than to record a definite plan of action. Sixty-one per cent (25 out of 41) of SMEs said that they would remove or replace the Southampton Six colours while 22% (9 out of 41) felt they would prefer to update their labelling in line with the new regulations. A further 5% (2 out of 41) reported that it would depend on the product that was involved and 2% (1 out of 41) said they would neither change the colours nor their labelling (Figure 5).

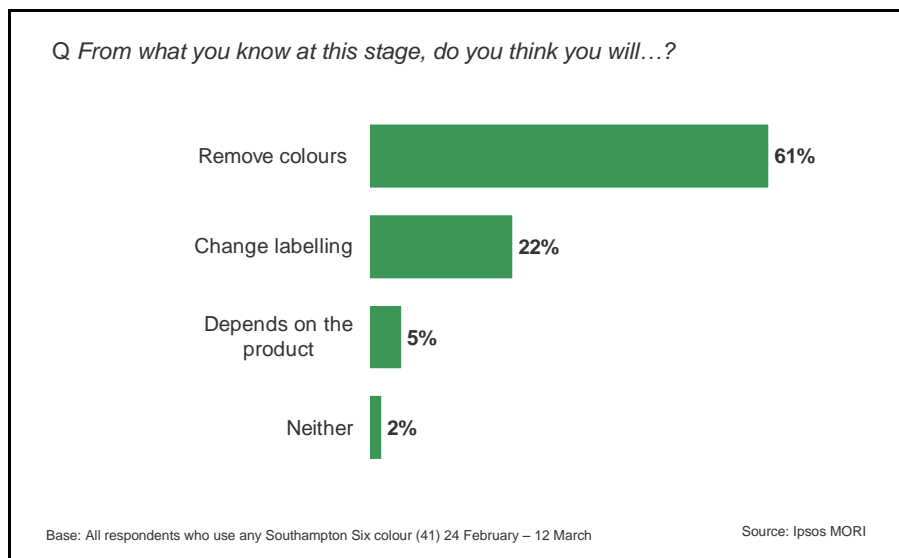


Figure 5 - Anticipated future plans for Southampton Six colours used

The smallest companies were more likely than the larger companies to indicate they would change the labelling on their products rather than remove or replace the colours: 51% (5 out of 10) of SMEs with 0-10 employees indicated they would change their

labelling compared with 17% (3 out of 18) of SMEs with 11-50 employees and 8% (1 out of 13) of SMEs with 51-250 employees.

SMEs who indicated that they would remove the colours were asked what their main reasons for doing so were. However, this was only asked of those who had been aware of the voluntary withdrawal and/or the new labelling requirement prior to the survey. This reduced the likelihood of getting a response based only on the information provided in the survey introduction.

As Figure 6 shows, around a third (35%, 6 out of 17) cited the link between the Southampton Six colours and hyperactivity in children as their reason, with the same number reporting that they would remove the colours in order to comply with the withdrawal. A further 29% (5 out of 17) said that pressure from retailers such as Tesco or the CO-OP was their motivation while 24% (4 out of 17) reported that it was the prospect of the new labelling requirements coming into force. The new labelling requirements will oblige SMEs to provide a warning label that identifies that the product may cause hyperactivity in children due to the presence of certain food colours. As some customers will find this off-putting, it may be unsurprising that many SMEs found it preferable to reformulate their products rather than introduce this labelling requirement.

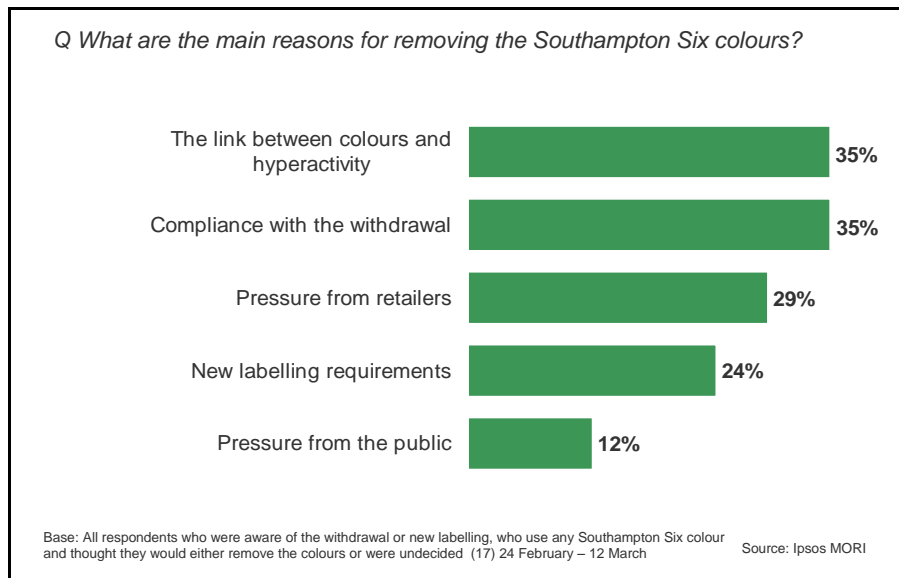


Figure 6 - Reasons for removal of the Southampton Six colours

Case study 1 gives a detailed example of one company that was, at the time of this report, in the process of removing the Southampton Six colours.

### Case Study 1

This respondent was a manufacturer of 'other foods' and had 21-50 employees. The company uses Ponceau 4R in tomato ketchup.

The company became aware of the voluntary withdrawal and the new labelling requirements over a year ago from updates that they receive from Campden Research. They were not surprised to hear about the new legislation as they were aware of the findings of the research. They were, however, concerned about the potential cost implications as they knew that using natural colours would be more expensive than using Ponceau 4R.

The company makes two different tomato ketchup products. One is sold in shops and one is sold to catering companies. For the tomato ketchup that is sold in shops, the company has taken the decision to completely remove Ponceau 4R from the product due to concerns that the labelling would be off-putting to customers. This product has a high tomato content so they feel that it is an acceptable colour without the addition of Ponceau 4R. In order that the difference between the original product and the product containing no Ponceau 4R is not so apparent, the company has gradually been reducing the amount of Ponceau 4R in the ketchup over the past year and should have completely removed it by June 2010. The company is happy with the finished product and the only cost implication will be changing the ingredients section of the labelling.

For the tomato ketchup sold to caterers, the company is instead going to keep Ponceau 4R in the product and update the labelling in line with the new requirements. There are two main reasons for this. Firstly, the tomato ketchup sold to caterers has a lower tomato content and it is, therefore, more difficult to maintain the appearance of the product and, secondly, it is not sold directly to the general public so the concerns about the labelling being off-putting do not apply. While the company has not yet had discussions with the catering companies it supplies about this, the respondent did not envisage any problems.

The company has made these decisions internally without any specific help or guidance. The respondent was satisfied that they do not need any further help or guidance but would have found it useful to have had examples of alternative colours at the start of the process.

Some SMEs have already withdrawn the Southampton Six colours. In order to explore the main factors driving those decisions, these SMEs were asked why they had stopped using them.

The main driver was pressure from large retailers such as Tesco and the CO-OP (56%, 5 out of 9). Other reasons cited were: generally reducing the use of additives in food (22%, 2 out of 9) and the link between the colours and increased hyperactivity in children (22%, 2 out of 9).

There were only three SMEs who were already aware of the withdrawal, still used the Southampton Six colours and planned to change the labelling of their products in line with the new requirements (rather than withdraw the colours). The products that they produced, which contained the Southampton Six colours, included confectionary products, cakes, muffins, icing and soft drinks. Case Study 2 gives a detailed example of one such company. 'Compromise on the quality of the finished product' was cited by two out of three respondents as a reason not to remove the colours. In addition, 'customer preference' was cited by one out of three and 'traditional recipes' was cited by one out of three as reason not to remove the colours.

### Case Study 2

This respondent manufactured sugar confectioneries and had 11-20 employees. The respondent was aware of the link between the Southampton Six colours and increased hyperactivity in children, the voluntary withdrawal and the new labelling requirements. When asked what their plans were, they stated that they would be changing labelling rather than removing the colours. They used the following Southampton Six colours:

- Allura Red
- Carmoisine
- Sunset Yellow
- Tartrazine

The respondent received information on the voluntary withdrawal and the new labelling through the Food and Drink Federation, of which they were a member. They automatically receive information from the Federation on a regular basis with regard to legislation and guidelines. Although they felt the information on the withdrawal and the new labelling requirements had been adequately disseminated, the respondent felt that their company already received a large number of information leaflets. This was perceived as a problem as it was felt that it was too time consuming and difficult to find the information that was actually relevant to them.

This particular respondent did not agree with the withdrawal and the new labelling requirements as it was their opinion that the link between increased hyperactivity in children had not been satisfactorily proven and felt that, due to the fact that their product utilised small amounts, they should not have to remove the colours.

The respondent claimed they could not reformulate because the alternative colours available could not withstand the temperatures at which they boil 100% sugar. They had already tried to solve this problem in the past as the Southampton Six colours have been an issue in the export markets for their product for some time. Due to the respondent being unable to find alternative colours, they have resorted to selling only certain colours of their sweets in the USA. It was felt that this would not be possible in the UK as there are certain colours expected of the traditional products that they make. They have previously spoken to their colour supplier and sought technical assistance from the Food and Drink Federation but there appeared to be no way around this particular problem.



This SME also indicated that the change in labelling will incur a great deal of extra cost for them. In addition, one organisation to which they supply have indicated that they do not want the warning label on their products, which come with the client's branding and not the respondent SME's branding, and they do not know how to resolve this problem.

### **Problems and barriers to removal**

In order to explore the main problems and barriers facing SMEs when trying to remove the Southampton Six colours, those who used the colours and thought they would remove them were asked what they thought the difficulties would be. It must be kept in mind, as previously noted, that over half of these SMEs had only just heard about the voluntary withdrawal and new labelling requirements at the start of the survey. These responses were, for many, top of the mind reactions to what the problems *might* be rather than issues they had actually experienced.

As Figure 7 shows, 'changes to the appearance of the product' (45%, 17 out of 38) was the most commonly anticipated problem, followed by increased costs (18%, 7 out of 38) and availability of alternatives (18%, 7 out of 38). Just over a quarter (26%, 10 out of 38) of all those who used the colours and were planning to remove them from their products said that they could foresee no difficulties. However, it is important to remember that some SMEs had only just been made aware of the withdrawal and might not have had time to fully consider what the difficulties might be.

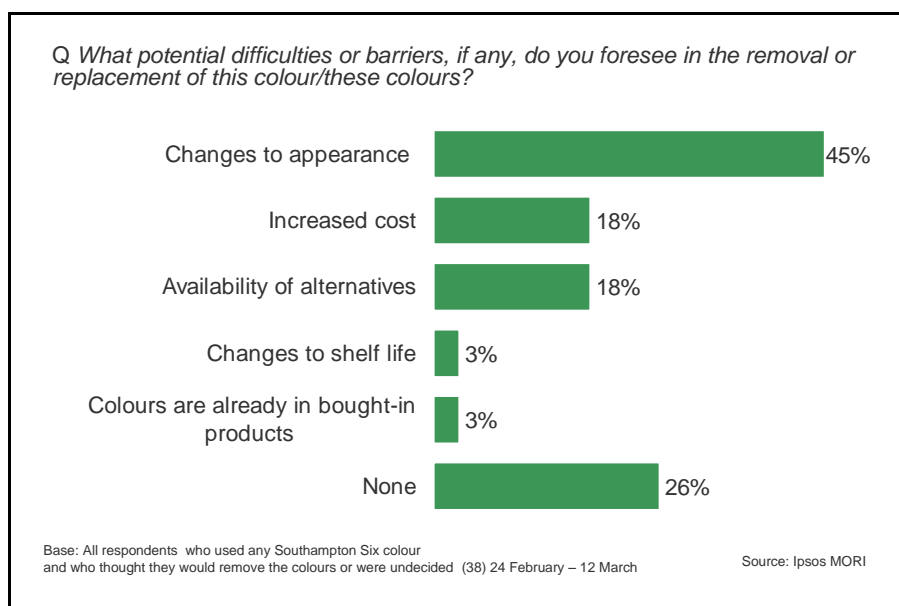


Figure 7 - Anticipated problems with Southampton Six colours removal

Those that were already aware of the withdrawal or the new labelling requirements, and therefore more likely to have given the decision more thought, were more likely to see 'changes to the appearance of the product' as a potential problem than those that were not aware (63%, 10 out of 16 versus 32%, 7 out of 22, respectively). One example of this issue can be seen in case study 3.

### Case Study 3

The respondent was a manufacturer of cooked meats and continental sausages with 21-50 employees. The company used Carmoisine and Sunset Yellow in some of their sausage products. The company mainly supplies their products to other food producers. The respondent was aware of the voluntary withdrawal and the new labelling requirements. However, they were not fully clear about what the requirements actually were and when the changes were coming into force. As a result, they had already contacted the FSA who provided them with the required information.

The company wished to completely remove the Southampton Six colours from their products and had previously made some attempts to remove them and reformulate their products. In order to do so, the company went to their colour suppliers to look for alternatives. However, the alternatives that were available were not suited to their processes. For example, they found that the alternative colours did not dissolve in the same way as the Southampton Six colours and, as a result, the products took on a weaker colour. One of the main problems was that the alternative colours were water soluble and being used in a meat product, which meant that the colours were not absorbed well. The company did consider using cochineal as an alternative, but this is

undesirable to their customers due to the fact it is made from crushed insects. They did find an alternative colour that met the company's satisfaction but it was not agreeable to their clients, who have indicated that they preferred the original appearance of the products.

The respondent has now decided that, after receiving the information from the FSA to give their customers the option to purchase unaltered products that will carry new labelling or to accept a product with a slightly different colour. However, the respondent was still unclear about some of the information they had to pass on to their customers and how far the labelling requirement extended. They did not know if their customers would then have to label their products because they contain one of the respondent's products with a Southampton Six colour. This identifies a need for guidance in this area.

None of the largest SMEs were concerned about the availability of alternative colours. In contrast, 44% (4 out of 9) of the smallest SMEs saw this as a potential problem. Those who had removed the Southampton Six colours from their products in the last three years were asked what the actual difficulties or barriers had been. Of the nine SMEs in this group, three reported that changes to the appearance of the product were a problem while two mentioned the availability of alternatives. In addition, changes to the shelf life of the product, changes to traditional recipes and the increased cost of alternatives were each mentioned once. The actual problems experienced by SMEs seem to be in line with the perceived potential problems with the exception of increased cost, which appears to be less of an issue than SMEs first expect. Case study 4 provides details of the experience of a company who have already reformulated their products.

#### **Case Study 4**

This respondent was a manufacturer of desserts and had 100-200 employees. The company makes a range of desserts including cheesecakes, meringue pies, caramel shortcake, fruit topped cakes, brownies, frozen portion desserts and profiteroles.

They previously used Southampton Six colours but have removed them within the last three years. They had mainly used Allura Red in fruit topped products. They had also used some of the colours in Key Lime Pie but the respondent was not sure which ones.

They became aware of the voluntary ban and the labelling requirements through legal updates on food related issues that they get from Campden BRI Research and other similar organisations. However, they stopped using the colours due to requests from their customers (food distributors) to remove all artificial colours from their products.

They were happy to remove the colours and did not envisage it being too problematic as they have good flavour and colour houses. It emerged that the flavour and colour

houses that they purchased their colours from already had alternatives for some of the colours although these were more expensive than the colours they had previously used. For other colours, where there were no existing alternatives, the development department of the company worked to create formulations and the process was not too difficult. There were cost implications but they just accepted that this would occur.

They discovered that some products were easier to reformulate than others. They had previously used the Southampton Six colours in two main ways: in a gel used to cover fruit (mainly strawberry and raspberry) topped products and as part of a swirl through products such as cheesecakes. The former were more straightforward to reformulate as the colour of the fruit underneath meant that it was not obvious that the gel was a duller colour. The latter were more difficult as there was a stark contrast between the light colour of the cheesecake and the raspberry gel swirled within it was not as bright as it had been previously. The respondent's company has undertaken a bit of development work and has managed to obtain a colour that, while not the same as the original, the customer is happy with.

The company found that the process went smoothly for them, but they would have found it useful to have examples of alternative colours that were available, perhaps in the form of a chart similar to a pantone colour chart.

Those who had removed the Southampton Six in the past three years were asked if there were any products that had been particularly difficult to change. Of the nine SMEs asked this, three said that they did not find any particular product difficult to change. The remaining six identified the following products as problematic:

- reds and pinks in icings
- colours that were not based on fruit gels such as for a mallow pie and a key lime pie
- yellow sweets for decoration on biscuits
- decoration items for cakes
- sausages
- colourings used in preserved/coloured cherries.

## Required help and guidance

SMEs that used any of the Southampton Six colours and indicated that they thought that, at this stage, they would remove them were asked where they would go for further guidance. The most common sources of potential guidance were suppliers (42%, 16 out of 38), followed by the Food Standards Agency (21%, 8 out of 38) and then trade associations (18%, 7 out of 38). However, 11% (4 out of 38) said they did not need any guidance and a further 8% (3 out of 38) said that they did not know who they would get guidance from (Figure 8).

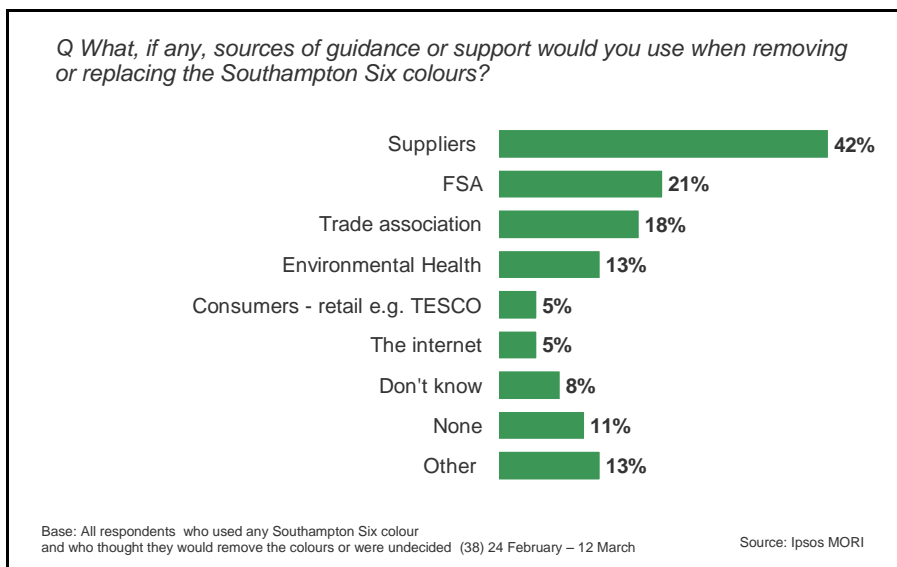


Figure 8 – Sources of guidance for the removal of the Southampton Six colours

Fifty-four per cent (7 out of 13) of the largest SMEs reported that they would go to a supplier for guidance in contrast to only 22% (2 out of nine) of the smallest SMEs.

Thirty-eight SMEs used the Southampton Six colours and indicated that they thought, at this stage, they would remove them. They were asked what guidance would be useful in order to help them remove the colours. As can be seen from Figure 9, the most common suggestion was 'examples of alternatives to specific colours' with 39% (15 of the 38) reporting that this would be helpful. Just over a quarter (10 out of 38) simply wanted information on the Southampton Six colours and the new labelling regulations, perhaps unsurprising given the low levels of awareness. Lists of the types of products that may contain the colours and of suppliers that do not use the colours were also mentioned (16% and 13%, respectively).

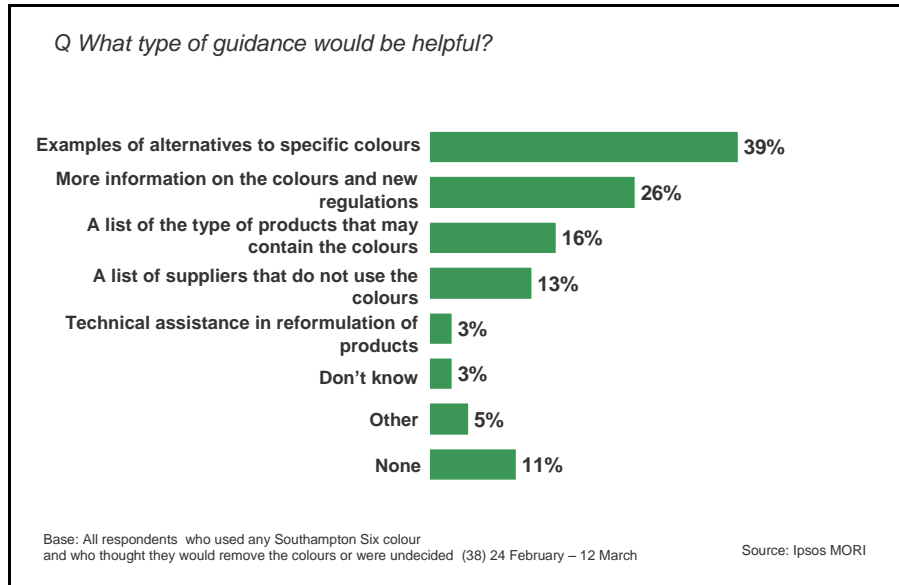


Figure 9 - Types of guidance required

Case study 5 outlines the experience of a typical SME and the problems they anticipate with the upcoming changes. It also identified the kinds of support and guidance they would like to see.

#### Case Study 5

This respondent was a wholesale baker with 0-5 employees. They use a small amount of Sunset Yellow and Tartrazine in one of their products which they produce in small volumes, Madeira cake. They were aware of a general link between artificial colourings and hyperactivity in children but were not aware of the voluntary withdrawal. They had heard something about the labelling requirements but could not remember where they got this information and were unsure of the details.

After hearing the details of the voluntary withdrawal and the labelling requirements during the survey, they identified that they were likely to attempt to replace the Southampton Six colours. They would prefer to do this rather than change labelling on the products and were currently undertaking a general move to make their products healthier.

They have not yet begun to investigate what alternatives are available but indicated that they would contact suppliers for this information in the first instance, followed by their trade association.

As they are at an early stage in the process they would appreciate basic written information on the voluntary ban that clearly states what colours they need to remove. They would also like to see examples of alternatives to the colours that they use. At

this stage, they do not envisage that it will be too difficult to find alternative colours and they do not anticipate that the cost implications will be too great.

Of those who had used the Southampton Six colours but removed them in the last three years, 44% (4 out of 9) said they found suppliers a useful source of guidance. Environmental Health and retail customers such as Tesco and the CO-OP were each cited as a useful source of guidance by a fifth (2 out of 9) of these SMEs. However, the Food Standards Agency and trade associations were each mentioned as a source of guidance by only one SME.

Just over half of those who had removed the Southampton Six in the past three years reported that there was no particular type of guidance that would have been helpful. Two SMEs out of the nine reported that examples of alternatives to specific colours would have helped and one suggested that a list of suppliers that do not use the colours would have been useful.

## Conclusions and Recommendations

- Thirty-seven per cent of the SMEs surveyed were still using at least one of the Southampton Six colours.
- Awareness of the voluntary withdrawal of the Southampton Six and the new labelling requirements was low among the Scottish SMEs surveyed. It is clear that there is a requirement for wider dissemination of basic information about the Southampton Six and the new labelling requirements.
- When made aware of the voluntary withdrawal and the new labelling requirements, the majority of SMEs surveyed (61%) expressed a willingness to reformulate their products.
- The main problems and barriers to reformulation, cited by SMEs, were changes to the appearance of the product, availability of alternatives and increased costs.
- Consideration should be given to producing more specific guidance to help SMEs tackle problems with reformulation. The findings of this project suggest that this should include examples of alternatives to specific colours, a list of suppliers who do not use the colours and a list of the products most likely to contain Southampton Six colours.
- Information needs to be directed at the smallest companies and sole traders, in particular. In addition to information provided directly by the Food Standards Agency, there should be a focus on trade associations, particularly in the bakery sector, and Environmental Health, as they are cited as the main sources of information for general food legislation.
- A number of SMEs surveyed indicated that they obtained advice and guidance from their suppliers. It may therefore be beneficial to target some information and support to the suppliers.



## Appendix A – Scoping interviews topic guide

### FSA Southampton Six – Scoping interviews Final Topic Guide

#### Introduction

- Introduce self, Ipsos MORI
- We're doing some research about ingredients. Who would be the best person to speak to about the ingredients used in your products? (*Arrange to call back if ness*).
- We have been commissioned by the Foods Standards Agency Scotland to talk to businesses in Scotland about the colours they use in the products that they manufacture.
- Before we begin, I'd like to reassure you that we are completely independent organisation from the FSA, everything you say will be treated in confidence, neither you nor your organisation will be named in any reports that we produce, and the FSA won't know who has taken part in the research.
- Explain that the interview is likely to last around 20 minutes
- Request permission to record

#### Background

First of all, I have some general background questions about your organisation

- Can I confirm if your organisation manufactures pre-packaged food or drink products?
- What types of food do you produce? (*Check for bakery, confectionary, soft drinks and ready meals*)

***If the organisation does not produce pre-packaged food products, thank and close interview***

- What is your role within the organisation?
- Roughly how many employees work at your organisation (including all your branches in the UK)? (*If they don't know exactly, try to get an approximate figure*)
- And can I just check that your annual turnover is less than £30 million?<sup>11</sup>

***If over 250 employees or turnover of more than £30 million, thank and close interview***

<sup>11</sup> the category of micro, small and medium-sized enterprises consists of enterprises which employ fewer than 250 persons and which have either an annual turnover not exceeding €50 million (£33,523,316.82), or an annual balance sheet total not exceeding €43 million (£28,830,052.47).

### Use of food colourings

- Do you use any food colourings in any of your packaged products?
- (if yes) Do you add the food colourings directly yourself or are the colours 'bought in' as part of a pre-prepared ingredient?
- (If yes as part of a pre-prepared ingredient) What are the coloured pre-prepared ingredients that you buy in?
- Are your 'bought in' coloured ingredients purchased from a Scottish supplier?
- *Explore* (if feasible) which colourings in which products?
- Have there been any changes in the last few years in your use of any food colourings (introduced any new ones? Stopped using any?)

***If have never used any, thank and close***

### Awareness of the 'Southampton Six' colours, the voluntary withdrawal of these colours and the forthcoming labelling requirements

- Does your business have any policies about the use of different food colourings in your products?
- Are you aware of any recent developments in the use of colours in food manufacturing?
- Have you heard anything about the 'Southampton Six' food colourings? (*If aware of 'Southampton Six' check where they got the information.*)
- Did you know that the government introduced a voluntary withdrawal of these six colours from food manufacturer in 2008?
- Have you heard that any packaged food product containing these six colours after July 2010 will be required to carry a warning label?

### Briefly explain the background to the withdrawal of the 'Southampton Six' colours and the new labelling legislation – see separate sheet

#### If respondent has no awareness at all

- Where do you normally get information about new guidelines or legislation that affect your business?
- What is your initial reaction to the withdrawal of the colours? What about the changes to food labelling?
- Do you use any of these six colours in your products? (*Check if recently removed these colours. Explore which colours in which products*)

- (if yes) Do you add the food colourings directly yourself or are the colours 'bought in' as part of a pre-prepared ingredient?
- (If yes as part of a pre-prepared ingredient) What are the coloured pre-prepared ingredients that you buy in?
- Are your 'bought in' coloured ingredients purchased from a Scottish supplier?
- Do you think it would be easy or difficult to remove these colours from your products?
- What problems would you face if you tried to remove these colours from your products?
- Where would you go for advice about the withdrawal of the 'Southampton Six'?
- What about the new labelling requirements?

***Thank and close***

**If aware of the 'Southampton Six'/new labelling requirements**

- Can you tell me about which of the 'Southampton Six' colours you use and the types of products that you use them in?
- *Check* (if not covered already): Have you recently removed any of these colours from any of your packaged food products (and if so, from which products)?

***If they do not use any of the 'Southampton Six' colours in any products, thank and close***

**If they have withdrawn colours from any of their products:**

- What was your initial reaction to the voluntary withdrawal of the colours?
- What about the new labelling requirements?
- How did you feel about replacing these colourings in your products?
- To what extent did the voluntary withdrawal affect your decision to remove these colours? What about the new labelling requirements? Were there any other reasons?
- Were you aware of any pressure from customers/the public to remove the 'Southampton Six' colours from your products? Did that have an impact on your decision to remove the colours?
- Which of your products have been changed?
- How have you reformulated the products that used to contain 'Southampton Six' colours?
- When did you make these changes?

- What, if any, difficulties did you face when changing the colours in these products?  
*Check for:*
  - Cost
  - Technical difficulties (flavour, appearance, shelf life)
  - Traditional/signature recipe
  - Availability of alternative colourings
  - Ingredients purchased pre-mixed with colours already added
- Which if you products, if any, *still* contain the 'Southampton Six'? Are there any particular difficulties associated with changing this product?
- What, if anything, did you find useful in replacing colours/changing products?
- What further guidance/support/technical help, if any, is required in order that businesses like yours can remove the colours from *all* of their products?

**If they have not removed the colours from any of their products:**

- What was your initial reaction to the voluntary withdrawal of the colours? What about the new labelling requirements?
- How do you feel about replacing these colourings in your products?
- What plans, if any, do you have to remove the 'Southampton Six' colours from your products?
- Are you aware of any pressure from customers/the public to remove the 'Southampton Six' colours from your products? Would this have an impact on your decision to remove the colours?
- What are the main reasons for keeping the 'Southampton Six' colours in your products? Any other reasons?
- What, if any, difficulties do you face when changing the colours in these products?  
*Check for:*
  - Cost
  - Technical difficulties (flavour, appearance, shelf life)
  - Traditional/signature recipe
  - Availability of alternative colourings
  - Ingredients purchased pre-mixed with colours already added
- Are you aware of any sources of guidance/support for the replacement of the 'Southampton Six' colours that are available to you?
- What further guidance/support/technical help technical help, if any, would help you to remove the colours?

- Which packaged products do you intend to label when the labelling requirements come into effect on 20 July 2010? How will this affect your business?

**Conclusion**

## Appendix B

Ipsos MORI Scotland



19<sup>th</sup> February 2010

Dear Sir/Madam

**Food Standards Agency Scotland - research into the use of colourings in food production.**

Ipsos MORI has been commissioned by the Food Standards Agency in Scotland to undertake a survey on the types of food colourings used by food manufacturers in Scotland. The results of this survey will be used to help the Food Standards Agency in Scotland to consider how they should engage with Small to Medium Sized Enterprises (SMEs) in Scotland on this issue in the future. Your participation would be much appreciated.

The survey will take around 10-15 minutes to complete and will be conducted over the telephone. An Ipsos MORI interviewer will contact you in the next few days to ask for your participation in the research.

It would be useful to speak to the person in your organisation who knows the most about the ingredients of your products. Please could you keep this in mind when we contact you to ask for your participation. We would like to stress that we will only be asking about the ingredients themselves and will not request any information relating to the recipes of your products.

Your responses to this survey will be completely confidential. Ipsos MORI is an independent research organisation and will not report the name of any individual or organisation, providing only anonymous, statistical results to the Food Standards Agency Scotland.

If you wish to have any queries about the research or wish to make an appointment please contact Carolyn Black on 0131 240 3261 or alternatively [carolyn.black@ipsos.com](mailto:carolyn.black@ipsos.com).

Yours faithfully

Formatted: French (France)

Jane Eunson  
Research Manager  
Ipsos MORI  
Scotland

Dr. Jacqui McElhiney  
Senior Scientific Officer  
Food Standards Agency

## Appendix C – Telephone survey questionnaire

### Scottish SMEs' attitudes towards the 'Southampton Six' food colours Final Questionnaire

Good morning/afternoon/evening. My name is ..... from Ipsos MORI, the research organisation.

QA Can I just check, does your organisation manufacture food or soft drink products (IF NECESS: or are you just involved in distribution or retail)? SINGLE CODE.

Yes	1
No	2

IF NO THANK AND CLOSE. OTHERS GO TO QB

QB And are the products packaged for sale with a label on them? SINGLE CODE.

Yes/some	1
No – none of them	2
Don't know	3

IF NO THANK AND CLOSE. OTHERS GO TO PREAMBLE BEFORE QC

We have been commissioned by the Food Standards Agency in Scotland to undertake some research about colourings that food manufacturers use in their products. You may remember receiving a letter from us about the research.

Could I speak to the person most likely to know about the ingredients you use?

IF AVAILABLE START INTERVIEW. IF NOT ARRANGE TIME TO CALL BACK.

REPEAT IF A DIFFERENT PERSON We have been commissioned by the Food Standards Agency in Scotland to undertake some research about colourings that food manufacturers use in their products. You may remember receiving a letter from us about the research.

We are independent from the Food Standards Agency and everything you say will be treated in complete confidence. Anonymous results will be reported to the Food Standards Agency and it will not be possible to identify any individual or organisation from this research.

The survey should take around 10-15 minutes. Would you be willing to take part?

YES - CONTINUE  
NO - CLOSE

First of all, can I just check...

QC How many employees work at your organisation? (IF NECESSARY: a rough estimate is fine) DO NOT PROMPT SINGLE CODE.

0-5	1
6-10	2
11-20	3
21-50	4
51-100	5
101-150	6
151-250	7
250+	8

IF OVER 250 EXPLAIN THAT WE ARE JUST INTERESTED IN SMALLER BUSINESSES, THANK AND CLOSE

QD **And can I just check that your annual turnover is less than £30 million?** SINGLE CODE.

Yes	1
No	2

IF MORE THAN £30 MILLION EXPLAIN THAT WE ARE JUST INTERESTED IN SMALLER BUSINESSES THANK AND CLOSE

#### Use of Food Colourings

QFCS **Do you use any food colourings in any of your pre-packaged products?** DO NOT PROMPT SINGLE CODE.

Yes	1
No	2
Don't know	3

IF CODE 2 OR 3 GO TO QFCP. IF CODE 1 GO TO QFCA

QFCP **And are there are any colourings in any of the pre-mixed ingredients that you buy in? When I say pre-mixed I mean ready to use ingredients or compound ingredients that are bought in, for example icing or seasoning mixes.** DO NOT PROMPT SINGLE CODE.

Yes	1
No	2
Don't know	3

IF CODE 2 OR 3 GO TO QFCE. IF CODE 1 GO TO QFCA.

QFCA **How are food colourings added to your products? Are they...?** READ OUT MULTICODE OK.

<b>Added by you directly</b>	1
<b>or added as part of a bought in, pre-mixed ingredient</b>	2
<b>or both</b>	3
Don't know	4

GO TO PREAMBLE BEFORE QAWR

QFCE **Have you used any food colourings in your products in the past 3 years?** DO NOT PROMPT SINGLE CODE.

Yes	1
No	2
Don't know	3

IF CODE 2 THANK AND CLOSE. IF CODE 1 OR 3 GO TO PREAMBLE BEFORE QAWR

#### Awareness of the 'Southampton Six'

In 2007, researchers from Southampton University found a link between six artificial colourings and hyperactivity in children. I'll just read out the list of six colours, they are:

- Tartrazine
- Quinoline Yellow
- Sunset Yellow
- Carmoisine
- Ponceau 4R
- Allura Red



As a result of this research the Food Standards Agency, in agreement with UK ministers, has encouraged a voluntary withdrawal of the 'Southampton Six' colours by food businesses in the UK and had hoped the colours would be phased out by the end of 2009.

In addition, the European Parliament has decided that any food product with any of the 6 colours will have to carry a label stating that the additives may have an adverse affect on attention and hyperactivity in children. This labelling will be mandatory from July 2010.

This means that from July any manufacturer that produces food containing these 6 colours will have to either remove the colours from their products or will be required to label any food containing them with the warning that the additives may have an adverse affect on attention and hyperactivity in children.

QAWR Before today, had you heard anything about...? READ OUT SINGLE CODE.

	Yes	No	Don't know
A ...The link between these colours and increased hyperactivity in children	1	2	3
B ...The voluntary withdrawal	1	2	3
C ...The new labelling requirements	1	2	3

IF CODE1 AT B OR C GO TO SSC. OTHERS GO TO QUSG

QUSG Where do you usually get information about new guidelines or legislation in relation to food? IF RESPONDENT SAYS THEY GET INFORMATION FROM SOMEONE ELSE IN THE ORGANISATION, ASK WHERE THAT INDIVIDUAL GETS IT FROM. DO NOT PROMPT MULITCODE OK.

Environmental Health	1
Trading Standards	2
Suppliers	3
Trade association	4
The media	5
The internet WRITE IN WHICH WEBSITE(S)	6
Customers – retail e.g. Tesco/the CO-OP	7
The Food Standards Agency	8
Other WRITE IN	9

GO TO QSSC

ASK ALL

QSSC Do you use any of the following 'Southampton Six' colours? READ OUT SINGLE CODE RANDOMISE ORDER.

	Yes	No	Don't know
A Allura Red - E129	1	2	3
B Ponceau 4R - E124	1	2	3
C Carmoisine – E122	1	2	3
D Sunset Yellow – E110	1	2	3
E Quinoline Yellow – E104	1	2	3
F Tartrazine – E102	1	2	3

IF CODE 2 TO ALL QSSC A-F AND CODE 2 TO ALL QAWRA-C THANK AND CLOSE

IF CODE 2 TO ALL QSSC A-F AND CODE 1 TO ANY AT QAWR A-C GO TO QSSE

IF CODE 1 AT ANY QSSC A-F GO TO QSSP, SSA, SSS. REPEAT FOR EACH QSSCA-F CODE 1 (ASK IMMEDIATELY BEFORE GOING TO NEXT ITEM IN QSSC LIST)

AFTER GONE THROUGH WHOLE LIST, IF CODE 3 AT ANY QSSCA-F **Would it be possible for you to go and check if you do use [insert colour names] at all?** REPEAT QSSC WITH CHECK.

IF STILL CODE 3 TO ALL AT QSSCA-F STOP INTEVIEW AND ARRANGE TO CALL BACK. IF CODE 2 OR 3 TO SLL AT QAWR THEN STOP INTERVIEW IF CODE 2 OR 3 TO ALL AT QSSCA-F

REPEAT QSSP, QSSA, QSSS FOR EACH QSSCA-F CODE 1

IF STILL CODE 3 TO ALL QSSCA-F OR NOT ABLE TO CHECK AT THAT TIME **We would really appreciate it if you could check if you use these colours or speak to someone who would know. Can I call you back later today or tomorrow to continue the survey after you have had the opportunity to do so?** MAKE APPOINTMENT TO CALL BACK AND CONTINUE INTERVIEW

QSSE **Have you used any of the 'Southampton Six' colours in the past 3 years?** SINGLE CODE.

Yes	1
No	2
Don't know	3

IF CODE 2 OR 3 THANK AND CLOSE. CODE 1 GO TO QSTS.

QSSP **And what products do you use that in?** WRITE IN.

QSSA **And is it...** READ OUT MULTICODE OK.

<b>Added by you directly</b>	1
<b>Or added as part of a bought in pre-mixed ingredient</b>	2
<b>Or both</b>	3
Don't know	4

QSSS **And is it purchased from a Scottish supplier?** DO NOT PROMPT SINGLE CODE.

Yes	1
No	2
Both Scottish supplier(s) and non-Scottish supplier(s)	3
Don't know	4

QLAB **In July of this year, the new labelling requirements will come into force. Any companies using these colours will either have to remove them from their products or add a warning label, explaining the possible adverse effects of the colours, to any products containing them. From what you know at this stage, do you think you will remove/replace the colours or continue to use them and update your labelling to reflect the new requirements?** DO NOT PROMPT SINGLE CODE.

Remove colours	1
Change labelling	2
Neither	3
Depends on the product	4
Other WRITE IN	5
Don't know	6

IF CODE 2 OR 3 TO ALL AT QAWR GO TO QPDB. IF CODE 1 AT B OR C AT QAWR, CODE 1 TO ANY AT QSSC AND CODE 1, 4, 5, 6 AT QLAB GO TO QREM. IF CODE 1 AT B OR C AT QAWR, CODE 1 TO ANY AT QSSC AND CODE 2 OR 3 AT QLAB GO TO QKEP.

**QREM What are the main reason for removing the 'Southampton Six' colours? DO NOT PROMPT MULTICODE OK**

The link between colours and hyperactivity	1
Compliance with the withdrawal	2
The new labelling requirements	3
Generally reducing the use of artificial additives in products	4
The product that contained the colour has been discontinued	5
Pressure from retailers e.g. Tesco/CO-OP	6
Pressure from individual customers/the public	7
Other WRITE IN	8

IF CODE 1 AT B OR C AT QAWR AND CODE 3, 4, 5, 6 AT QLAB GO TO QKEP. IF CODE 1 AT B OR C AT QAWR, CODE 1 TO ANY AT QSSC AND CODE 1 AT QLAB GO TO QPDB

**QKEP What are the main reasons for keeping the 'Southampton Six' colours in your products? DO NOT PROMPT MULTICODE OK.**

Cost of alternatives	1
Traditional recipes	2
Customer preference	3
Compromise on quality of finished product	4
Other WRITE IN	5

IF CODE 1 AT B OR C AT QAWR, CODE 1 TO ANY AT QSSC AND CODE 2 AT QLAB GO TO QREC

**QPDB What potential difficulties or barriers, if any, do you foresee in the removal or replacement of this colour/these colours? DO NOT PROMPT MULTICODE OK.**

Increased cost of alternative colourings	1
Changes to the flavour of the product	2
Changes to the appearance of the product	3
Changes to the shelf life of the product	4
Availability of alternative colours	5
Colours are already present in bought in pre-mixed ingredients/Finding an alternative supplier of bought in pre-mixed ingredients	6
Changes to traditional recipes	7
None	8
Other WRITE IN	9

IF CODE 1 OR 2 TO B OR C AT QAWR AND CODE 1 TO ANY QSSC A-F GO TO QSOG

QSOG **What, if any, sources of guidance or support would you use when removing or replacing the 'Southampton Six' colours? DO NOT PROMPT MULTICODE OK.**

Environmental Health	1
Trading Standards	2
Suppliers	3
Trade association	4
The media	5
The internet WRITE IN WHICH WEBSITE(S)	6
Customers – retail e.g. Tesco/the CO-OP	7
The Food Standards Agency	8
None	9
Other WRITE IN	10

QHPG **What type of guidance would be helpful? DO NOT PROMPT MULTICODE OK.**

A list of the types of products that may contain the colours	1
A list of suppliers that do not use the colours	2
Examples of alternatives to specific colours	3
Technical assistance in reformulation of products	4
Other WRITE IN	5

IF CODE 1 OR 2 TO B OR C AT QAWR AND CODE 1 TO ANY QSSC A-F GO TO QREC

ASK IF CODE 1 AT B OR C AT QAWR, CODE 2 TO ALL QSSC AND CODE 1 AT Q8

QSTS **Why did your organisation stop using the 'Southampton Six' colours? DO NOT PROMPT MULTICODE OK**

The link between colours and hyperactivity	1
Compliance with the withdrawal	2
The new labelling requirements	3
Generally reducing the use of artificial additives in products	4
The product that contained the colour has been discontinued	5
Pressure from retailers e.g. Tesco/CO-OP	6
Pressure from individual customers/the public	7
Other WRITE IN	8

QADB **What difficulties or barriers, if any, did you face in the removal or replacement of the Southampton Six colours? DO NOT PROMPT MULTICODE OK.**

Increased cost of alternative colourings	1
Changes to the flavour of the product	2
Changes to the appearance of the product	3
Changes to the shelf life of the product	4
Availability of alternative colours	5
Colours are already present in bought in pre-mixed ingredients/Finding an alternative supplier of bought in pre-mixed ingredients	6
Changes to traditional recipes	7
None	8
Other WRITE IN	9

QDIF Which products, if any, proved particularly difficult to change? WRITE IN.

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QGUI What, if any, sources of guidance or support did you find useful when removing or replacing the 'Southampton Six' colours? DO NOT PROMPT MULTICODE OK.

Environmental Health	1
Trading Standards	2
Suppliers	3
Trade association	4
The media	5
The internet WRITE IN WHICH WEBSITE(S)	6
Customers – retail e.g. Tesco/the CO-OP	7
The Food Standards Agency	8
None	9
Other WRITE IN	10

QGUH What type of guidance would have been helpful? DO NOT PROMPT MULTICODE OK.

A list of the types of products that may contain the colours	1
A list of suppliers that do not use the colours	2
Examples of alternatives to specific colours	3
Technical assistance in reformulation of products	4
Other WRITE IN	5

ASK ALL

QREC In the next few months Ipsos MORI will be conducting further research to explore in more depth some key issues arising from this research. This will involve taking part in a short telephone interview with an Ipsos MORI researcher. Would you be willing to help with that research? You would, of course, be free to say 'no' at the time.

Yes	1
No	2

IF YES, check preferred phone number and record

ASK ALL

QFSA In addition, The Food Standards Agency may wish to conduct further research in similar areas in the next 6 – 12 months. Is it ok if we pass your name and contact details to them for this purpose? I can assure you that your answers to this survey will remain confidential to Ipsos MORI and only anonymous, statistical results will be passed to them.

Yes	1
No	2

THANK AND CLOSE