

EVIDENCE AND INSIGHTS INFORMING UPDATED GUIDANCE AIMED AT REDUCING FRESH PRODUCE WASTE AND PLASTIC PACKAGING



Research date: May 2018 to September 2019
Publication Date: November 2019

Project code: BCP003-009

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Written by: Andrew Parry and Helen White (WRAP)

Front cover photography: Loose fruit in a supermarket

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Acknowledgements

The authors wish to thank the Courtauld 2025 Fresh Produce Taskforce members, for their helpful response to consultation on the updated fresh produce labelling guidance.

1.0 Introduction

Around 10 million tonnes of food waste is generated post-farm gate every year in the UK and around 70% of this comes from households. Fresh fruit and vegetables account for a third of all household food thrown away that could have been eaten (1.6 million tonnes; £3.8 billion). Almost half of the fresh fruit and vegetables are discarded due to not being eaten in time. WRAP works with Governments, food businesses and a wide range of other partners to help to reduce this waste by enabling citizens to buy what they need and use what they buy.

In 2017, WRAP, Defra and the Food Standards Agency (FSA) published guidance for food businesses on [Food date labelling and storage advice](#), which contains recommendations relating to different aspects of pack design and labelling, aimed at helping reduce the amount of food that is wasted.

There are also significant impacts relating to food packaging; particularly plastics. One of the targets for the [UK Plastics Pact](#) is to eliminate problematic or unnecessary single-use packaging items, and in 2018 WRAP published an [evidence review](#) of plastic packaging and fresh produce.

Published in 2018, the Defra [Resources and Waste Strategy](#) stated that there would be a review of the **recommendation for most pre-packed uncut fresh produce to carry a 'Best Before' date**. Government's expectation is that before the review, industry will provide evidence about changes to fresh produce date labelling (including the removal of 'Best Before' advice), both in store and at home, as a move towards a consistent approach across the sector; and

'The 25 Year Environment Plan sets out our commitment to work with retailers and WRAP to explore introducing plastic-free supermarket aisles in which all the food is sold loose. Aisles such as these are popular with some shoppers – but it is also the case that packaging protects and extends the shelf life of many items. Nonetheless, we believe a balance can be struck which respects both the desire to cut packaging, and the desire to cut food waste. WRAP is consulting on a new technical report on the evidence for providing fresh produce loose without significantly increasing food waste. **This report will inform future published guidance and is intended to be used alongside retailers' plans to reduce plastic'**

Over the last two years WRAP has worked through a [Courtauld Commitment 2025 \(C2025\)](#) Fresh Produce Task Force representing major retailers, fresh produce suppliers and sector trade bodies to gather expert opinion and evidence to inform a review of the date labelling recommendation. Since the publication in November 2018 of the evidence review of plastic packaging and fresh produce, WRAP has also obtained results from a pilot undertaken by a major retailer, received feedback from businesses on the review and gathered new consumer insights, all of which have been discussed with the Task Force.

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This note summarises the evidence and insights to inform the decision to update the guidance to industry on fresh uncut fruit and vegetables, specifically around the provision of loose vs. pre-packed and date labelling where fresh produce is sold in packaging.

2.0 Fresh produce date labelling

2.1 Background

In 2017, WRAP/Defra/FSA [guidance](#) recommended best practice to reduce food waste at home was to include a Best Before date on pre-packed uncut fruit and vegetables (although they do not legally have to carry a date label as they are included in a list of specific exemptions to the labelling regulations). The recommendation was based on the best available evidence at the time and aimed to help consumers to manage better the food they buy.

WRAP research (see Annex 1) showed that whilst most consumers rely on judgement to decide whether or not to eat fresh produce, a significant minority (20 - 25%) felt uncomfortable with the idea of buying produce without a date. WRAP has long acknowledged (since 2009) that this is an area where better evidence is needed (of the impact of a date/no date on fresh produce waste in home). The 2017 recommendation was based on the assumptions that a) the majority of people do not make use of any on-pack date label (and therefore one being present or not is unlikely to influence use or disposal decisions) and b) for those that do make use of a date on pack the benefits of having this date to help planning/'stock rotation' in the home outweighs the risks of premature 'date-driven' disposal (this being the major unknown).

In [2015](#) the most common date mark on pre-packed (uncut) fresh produce was the Best Before date (apples 66%; carrots 70%; potatoes 86%), followed by no date at all (apples 29%; carrots 18%; potatoes 6%) and then a Display Until date only (apples 6%; carrots 10%; potatoes 7%). However, in recent years there have been calls to review the labelling of fresh produce with a view to removing any date label (for example by the [EFRA Committee](#)¹, the [NFWI](#)² and by [Feedback](#)³), and several retailers have implemented or are trialling the removal of dates from certain types of fresh produce.

¹ 'We recommend that the incoming Government continues the current review with WRAP and the Food Standards Agency on food date labelling, with a view to issuing guidance to industry by the end of 2017. The review should specifically look at whether there is a need for 'best before' dates at all'

² 'The NFWI would also like to see retailers piloting the removal of best before date labels altogether on packaged whole fruit and veg products, and instead emphasise the correct storage method for that product'

³ 'We need a common-sense approach to date labelling, a carrot has never come out of the ground with a 'Best Before' date on it, so supermarkets don't need to cause confusion by adding one'

2.2 Relevant evidence

WRAP and academic research

In addition to the WRAP evidence referred to above (the 20 to 25% of people who were uncomfortable about fresh produce packs not having a date), there are other relevant insights from previous research:

- Over half of people claim to look at dates on fresh produce packs when in store ([54%](#) [2012 research] to [63%](#) [2008]), to help select the freshest produce
- When asked to choose between (images of) loose and pre-packed leeks, 47% selected the pre-packed ones, but of these only [7%](#) stated it was because it showed a 'date of expiry' (the lowest of the top 5 answers) [2012]
- A smaller number claim to always or often follow the dates in home ([33%](#) [2008]), which could indicate the proportion of people who use the dates to help manage stocks/plan meals
- Dates are cited by much smaller percentages of people as a reason to dispose of fresh produce, although this varies by produce type (fruit [3 - 25%](#) [2008], [5%](#) [2011], [3 - 12%](#) [2014] and for vegetables [0 - 30%](#) [2008], [15%](#) [2011], [6 - 16%](#) [2014]). Importantly, other reasons are also given by some of those that cite dates as a factor i.e. products may have 'gone off' and be past the date
- [12%](#) of all 'avoidable' household food waste thrown away where a date label was cited was fresh produce (ca. 80,000 tonnes) [2014]

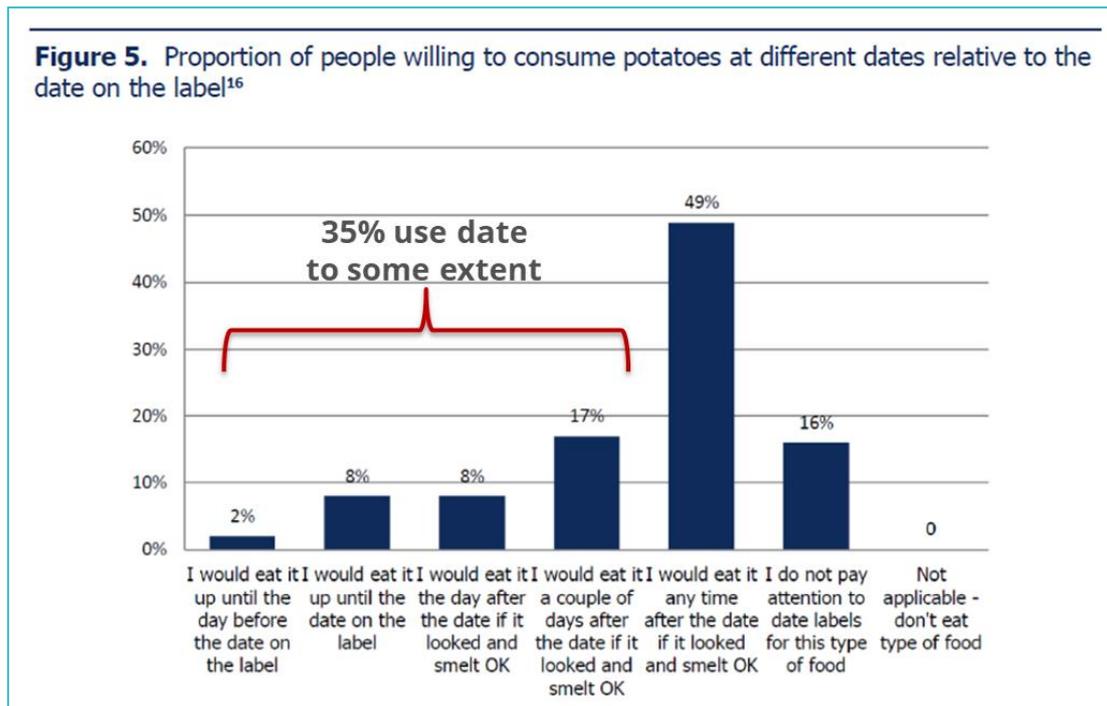
WRAP commissioned a recent review of citizen behaviour, date labels and food waste⁴, which identified new relevant insights from several UK and international studies:

- The presence of a date label of any type does influence behaviour, making people less likely to discard food before the date and more likely to discard it afterwards
- Even consumers who understand the difference in definition of Use By and Best Before dates may not apply the distinction in practice. There is a tendency for some consumers to treat all dates in the same way
- People rely on dates more for some categories and trust their judgement more for others. They are willing to consume products in different categories at different points in time relative to the date

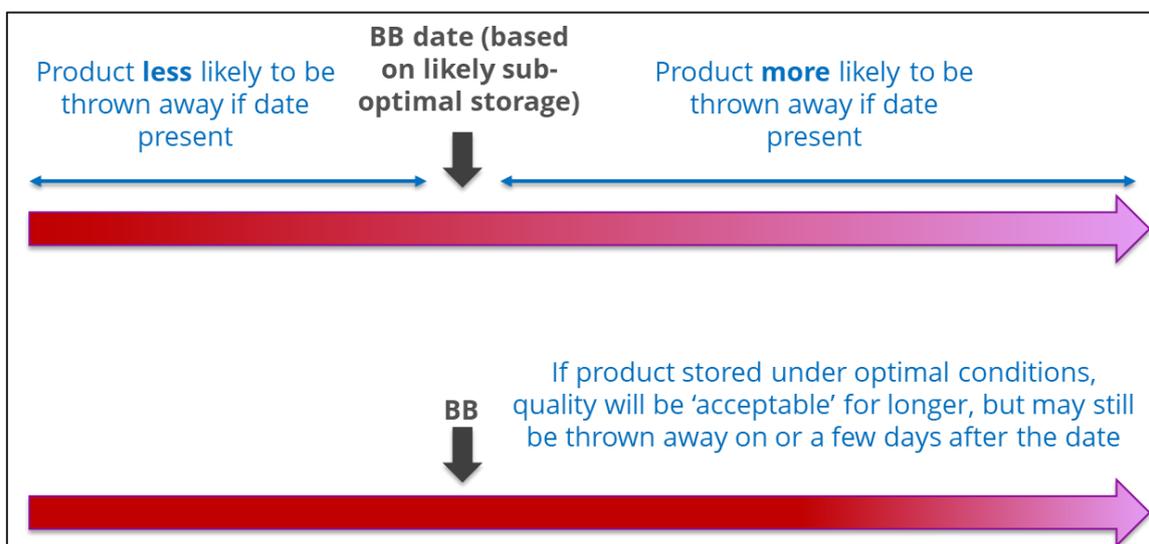
⁴ For internal use only, written by: Linda Bacon with contributions from David Hall and Izzy Brennan; Change Behaviour

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The figure below from WRAP's [2011 research](#) is consistent with this, showing that 35% of people make use of a date on pre-packed potatoes to some extent in their decision making.



This is important as it suggests that if a product carries a Best Before date, which is usually set on the assumption that in-home storage will be sub-optimal (i.e. the product is not stored in the recommended place, or for example in a fridge where the temperature is too high), it is more likely to be thrown out by many consumers a few days after this at most. However, if the storage instructions are followed then the product may have many days of 'quality' life remaining:



2.3 Retailer action

Tesco announced the removal of Best Before dates from 70 lines in [May 2018](#) and from a further 116 lines in [October 2018](#) (citing new customer research, see below).

In January 2019, M&S announced they were undertaking a three-month [trial](#) removing plastic packaging from over 90 lines of fruit and vegetables at its Tolworth store, and removing Best Before date labels from fresh fruit and vegetables as part of this trial. The trial was to provide insights and customer feedback which would be used to inform wider implementation.

Morrisons removed dates from some fresh produce lines and undertook a [pilot](#) to remove packaging from more fresh produce lines (and therefore the date as well) and other retailers such as [Asda](#), [Iceland](#), Waitrose and [Tesco](#) are also progressing trials and removing packaging.

As part of WRAP's Retail Survey 2019 research [Produce View](#) was commissioned to undertake fieldwork (March 2019) to gather data on pre-packed and loose fresh produce from all of the major retailers. Of the pre-packed lines assessed (20 products, 1,240 SKUs) 13% had no date (164 lines, 76% of which were found in Lidl or Tesco stores).

Retailer insights

Several retailers shared insights from consumer research and/or in-store pilots/roll-out:

- A November 2017 consumer survey found that the 'most helpful date information on pack' was a Best Before date (64%), followed by no date (19%) and lastly, a Display Until date (13%). However, 20% of respondents agreed (incorrectly) with the statement that packs with a Best Before date can be eaten until this date, but not after.
- Consumer research conducted by a retailer in 2017 suggested that date labels on pre-packed uncut fruit and vegetables could be a significant driver for food waste, superseding the consumers' own judgement of quality. This was tested using one less-perishable vegetable, where consumers were asked to determine if they would use the product - based on their visual assessment of the product quality - in the absence of a date label. The findings from the example tested suggested that consumers would be more likely to use the vegetable based on a visual assessment, when compared with a date. The research concluded that the removal of date labels could therefore help reduce consumer food waste, if it encourages consumer assessments of the products themselves in deciding whether to eat the food.
- Tesco published the results of an [omnibus survey](#) which revealed that '69% of customers believe scrapping best before dates is a good idea. 53% of shoppers in the same survey saying they believe scrapping best before dates makes a difference, helping them keep perfectly good food for longer'.

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In order to facilitate the discussion and focus of the C2025 Task Force, Tesco shared more detail of how they approached removing Best Before dates, and some key insights:

- Although we went live with the date code removal project in May 2018 the technical team had spent the previous 12 months carrying out extensive shelf life tests with our suppliers, so we were well informed in terms of what lines were delivering the quality our customers expect prior to launch
- We were very clear from day 1, we will not compromise on quality to deliver this project
- Colleague engagement is key, without the support of our store colleagues we would not have been able to land this
- This was achieved through using short online upskilling training videos
- Keeping the training documents live and accessible in the help centre was critical for the delivery across our store formats
- Additional Training sessions were also delivered to coincide with key trading period's such as Christmas
- Outer case labels carry a Julian code to help stores manage stock rotation
- Store colleagues have access to the daily online store feedback account where they were able to inform head office technical teams of any quality issues. This enabled any issues to be addressed immediately
- Customer complaints are monitored on a daily basis
- We also shared our plans with suppliers on a one to one basis and during a produce supplier conference before launch
- We are currently reviewing the performance of a small number of lines to decide whether we should reintroduce a best before date on these products
- Communication for customers' as to why you are doing this needs to be clear both in store and online
- In store waste on these lines has reduced significantly
- 69% of customers stated that removing best before dates is a good idea. 53% of shoppers in the same survey told us scrapping best before dates makes a difference, helping them keep perfectly good food for longer.

Whilst feedback from customers on the removal of date labels is positive, it is important to acknowledge that there is no new evidence (from any of the retailers or other sources) on the influence of having a date (or the type of date) or not on pre-packed fresh produce on levels of food waste *in the home*.

2.4 Value of additional research

Discussions with experts suggested that the likelihood is low of additional research providing a definitive answer to the question of whether keeping/removing a date is likely to increase or reduce food waste in home. There are too many factors that may influence decisions on whether to use or dispose of a particular product, including the quality of the product when bought (which may vary by season, variety, retailer etc.), the type of packaging and clarity of label, how this is stored (in or out of the packaging, fridge or not, fridge temperature etc.), household planning/unexpected changes to plans, the degree to which attention is paid to the label/date and the knowledge, attitudes and habits of people at home.

Small-scale qualitative studies would go some way to untangling the various influences on fresh produce disposal, but would not generate learnings that could be used reliably to estimate the separate impact of any change on food waste at a UK level.

Analysis of purchase data could give an indication of how the amounts of fresh produce purchased by (comparable groups of) people differ between retailers or products with different approaches to labelling, or changes over time, but are unlikely to detect the potential magnitude of any change resulting from differences in date labels (and could cost >£100k to acquire the necessary data).

Larger-scale studies aimed at acquiring fresh produce waste data from in-home (e.g. diaries) are unlikely to be able to differentiate adequately enough between the reasons for waste occurring (and could cost >£100k).

2.5 Expert/stakeholder views

As part of the 2017 consultation for the WRAP/FSA/Defra Labelling Guidance and enhanced by several interviews with fresh produce industry contacts, insights were collated on the use of date labelling of fresh produce. These can be summarised as follows:

- There was not a consistent view amongst any of the groups consulted (retailers, manufacturers/suppliers, trade bodies, local authorities, redistribution organisations); overall 46% of respondents thought that no fresh produce packs should carry a Best Before date, 30% thought that some types of fresh produce should have a Best Before date and 24% thought all should), however, there were some commonalities within groups:
 - Retailers and manufacturers/suppliers/packers fed back that some or all fresh produce should carry a Best Before date
 - Redistribution organisations fed back mostly that no fresh produce should carry a Best Before date, with one saying that all should
 - Trade Bodies feedback was mixed across the three options

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Overall, where people were in favour of having dates, it was because they felt consumers had lost much of the ability to assess when produce was good to eat, and that dates help consumers assess that more easily and manage their food better at home. The alternative view was that consumers should be encouraged to use their senses more, and that a date could lead to food being thrown away when it was still edible – as the dates would be set assuming sub-optimal storage.

Some feedback suggested that Best Before dates might be more important for certain types of fresh produce (the more perishable) such as berries, compared with others, such as carrots and onions, and be dependent on the season/quality.

There was a view that any recommendation should be based on a balance of evidence and that:

- Evidence and insights from across the sector should be gathered and shared
- That this should be reviewed, discussed and agreed – to form the recommendation
- There is a need to improve consumer understanding of date labels and associated storage guidance

A survey of the C2025 Task Force members in 2018 revealed that every date label option (all with Best Before, some types of produce with a Best Before, none with a date and other wording) was selected as the preferred approach by at least one respondent. This range of views is consistent with what was found in the interviews in 2017.

- Where 'some' was selected, the delineation of what kind of produce should carry or not carry a date was consistently based on perishability (with more perishable products carrying the date)
- All Task Force survey respondents thought that there should be a consistent approach to labelling overall
- Key topics to address identified (from the Task Force survey and other sources) were:
 - The operational problems caused by the removal of date labels e.g. stock rotation and management, in-store
 - A single, consistent approach for all retailers of whether to apply date labels and with the use of Display Until and other deviations from Best Before identified as particularly problematic (acknowledging that consumers usually regularly shop across at least two different retailers)
- Consumer education and understanding of Best Before vs Use By is key
- The importance of storage information in relation to quality and freshness

In subsequent discussions a consensus formed around keeping a (Best Before) date only on some products/at some times of year.

3.0 Fresh produce and plastic packaging

3.1 Background

Since the publication in November 2018 of the [evidence review of plastic packaging and fresh produce](#), WRAP has supported Morrisons to evaluate a “plastic-free”/loose fresh produce trial in its Skipton (North Yorkshire) store, received feedback from businesses on the evidence review and gathered more recent and relevant consumer insights. A summary of each is provided below.

Summary: An evaluation of a plastic-free/loose fresh produce trial

WRAP supported Morrisons to evaluate a trial in its Skipton store, the aim of which was to assess the impact of selling more fresh produce lines “plastic-free”/loose by examining customer, staff and supplier opinion in terms of satisfaction, attitudes and behaviour. The key findings of the evaluation have been summarised below and accompany the guidance as a [case study](#).

The trial was launched in June 2018 and involved increasing the number of fresh produce SKUs sold loose. Broccoli, cauliflower and cabbages were amongst some of the lines made available to buy loose.

Qualitative research consisted of several elements including observation, depth interviews, and accompanied shops and included a comparison store, Congleton, to provide a point of reference when exploring findings arising from the trial store. Morrisons supplemented this with quantitative research of Skipton store customers using an online questionnaire.

Customer feedback

Twenty-seven out of the 28 customers were either satisfied or very satisfied with the changes. Customers also liked the aesthetic, with some perceiving an improvement in the quality of fresh produce. Customers also found that buying loose helped them to meet other important purchasing criteria such as:

- Buying the quantity needed;
- Checking the condition of the fresh produce; and
- Choosing the size of the items.

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There was a group of customers, however, that are less likely to choose loose fresh produce due to:

- A perception that loose fresh produce is more expensive than packaged;
- Packaged fresh produce is quicker/easier to pick up when in a rush; and
- A perception that loose fresh produce has been touched more by other people, therefore packaged fresh produce is cleaner/more hygienic.

The trial appeared to improve customer perceptions of the retailer. Most customers thought the retailer was helping them to save money, either through special offers or by helping them to buy the right amount, and that the retailer is more committed to the environment.

Staff feedback

In general, staff were also positive about the trial. They thought the aisle looked more visually appealing and that the changes either made their job easier or made no difference. However, staff did refer to the need to monitor closely and manage the condition of loose fresh produce.

Supplier feedback

Suppliers were keen to reduce plastic packaging, but expressed concerns that food waste would increase. The shorter shelf-life of loose broccoli was identified as an issue by one supplier, who said it was a struggle to deliver the produce to the store with enough shelf-life remaining. Similar comments were made about mushrooms.

A grape supplier expressed concern over liability, questioning where the responsibility would lie if grapes were damaged. Staff reported there had been no problems with damaged or otherwise unsaleable produce being delivered to the store.

Although the feedback on the trial was largely positive, there are several considerations with regards to the viability of rolling out on a wider scale. Specifically, the changes made to the aisle have required Morrisons to adapt the way it operates resulting in:

- An increase in costs for store staff to manage and replenish loose fresh produce; and
- The need for loose fresh produce to be delivered in the evening, so that the aisle can be replenished overnight before the store opens.

Household food waste

Overall, customers believed they had less food waste when they purchased loose fresh produce, reporting they:

- Purchased in smaller quantities (compared to packaged fresh produce);
- Expected to be able to consume the fresh produce within the next two or three days;

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- Could choose the items they wanted and satisfy themselves as to their condition;
 - Packaged fresh produce tends to be purchased for speed/convenience without the customer checking the condition of every item in the pack; and
- Felt plastic packaging made fresh produce 'sweat' and that it deteriorated more quickly.

An analysis of quantitative data provided by Morrisons indicated that although sales (tonnes) of fresh produce were lower in 2018, unit sales were higher. One interpretation of this is that customers were buying fewer items per purchase e.g. four loose bananas instead of a pack of five.

In-store food waste

Food waste increased in-store at the start of the trial, reportedly returning to 'average' levels after a few weeks. Some staff explained that the rise in food waste at the start of the trial was partially due to ordering too much loose fresh produce that just did not sell, rather than down to any reduction in the shelf-life of the loose fresh produce.

The analysis of quantitative data provided by Morrisons indicates in-store food waste was indeed higher than the same period the previous year when the trial was not running (this is corroborated by the qualitative study). Interestingly, food waste from both loose and packaged fresh produce was higher, largely due to damaged stock (this conflicts with the qualitative study). The analysis is unable to determine why, but as both loose and packaged products were affected, it suggests factors other than the removal of packaging. The value of markdowns was also higher in 2018 than 2017, considerably so for loose fresh produce, although it was also higher for packaged.

Supply chain waste

None of the suppliers reported any additional food waste resulting from the trial.

Plastic packaging

The analysis of quantitative data suggests there was a 5% reduction in plastic packaging.

3.2 Summary: industry feedback

In November 2018, WRAP published an [evidence review of plastic packaging and fresh produce](#). This review was published on the WRAP website, and retailers and suppliers were asked to provide comments and/or further evidence to support – or otherwise – the findings.

A limited number of responses were received, and a summary of the feedback is given below:

- Customer demand for more loose fruit and vegetables was not necessarily reflected in sales figures. However, there was a correlation between loose fresh produce sales and promotions on packaged alternatives, suggesting that special offers can impact on purchasing behaviours, diverting customers from loose to packaged.
- Discontinuing the practice of selling mushrooms loose because of ‘massively high [in-store] waste’ of the product. Reverting to selling mushrooms exclusively in plastic punnets.
- (Based on one retailers data) total waste of unpackaged fruit and vegetables appears to be double that of packaged fruit and vegetables. Waste of unpackaged fruit is four times that of packaged (analysis based only on fresh produce lines that allowed like-for-like comparison). Despite this, further trials selling more loose fresh produce are in progress, because of customer demand.
- (When sold loose) customers tend to select undamaged items, which can be less visible in a pack. A higher specification is required for carrots supplied loose compared to packaged, because customers tend to leave mis-shapen produce when buying loose. Food waste associated with packaged carrots is estimated at 7 – 10% less than that of loose carrots.
- (Trial of pulp punnets for strawberries) sales dropped and store waste increased, therefore reverted to plastic punnets.

In addition, several retailers have since taken steps to remove plastic packaging from more fresh produce lines.

- In 2018, **Waitrose** stopped selling swedes in plastic.⁵ The trial showed an increase in sales, which the retailer attributed to an increasingly-environmentally-aware, plastic-averse customer base. In June 2019 **Waitrose** launched ‘Unpacked’ at its Botley Road store in Oxford providing a dedicated refill zone with dispensers for pasta, rice, coffee and washing-up liquid and a large range of loose fruit and vegetables (160 lines). The scheme also features ‘pick and mix’ for frozen fruit.
- **Marks & Spencer** is conducting a trial in which more robust fruit and vegetables – such as apples, potatoes and bananas – are being sold loose. The results are not yet available. WRAP has requested data arising from this pilot.⁶

⁵ Sales of swedes rise after the removal of plastic wrappers, Waitrose Weekend, 13/12/2018

⁶ <https://www.edie.net/news/5/M-S-removes-plastic-packaging-and-best-before--dates-from-produce/>

- **Iceland** planned a 12-week trial in which 35 fresh produce lines were sold loose and a further 27 in alternatives to plastic packaging. It is interesting to note that Iceland set the price of plastic-free/loose fresh produce lower than plastic-packaged.⁷ However, in May 2019, Iceland scrapped the plastic-free greengrocer trial after three months following a 20% decrease in sales and went 'back to the drawing board'⁸.
- **Tesco** is trialling 45 fresh produce lines as loose only i.e. no pre-packed alternatives in two stores.⁹

3.3 Summary: additional WRAP research

Citizen behaviours

Half of UK consumers buy loose more than they buy packaged fresh produce. Buying packaged is most common for potatoes, with 64% buying packaged more than loose. Buying loose is most common for bananas, with 70% buying loose more than packaged.

Consumers who buy loose recognise the benefits, but prioritise personal advantage over plastic reduction. Sixty-two per cent said they buy loose because it allows them to choose exactly the right amount, 50% said they prefer to select the items they want/like the look of the best and 43% said they want to cut down on the amount of packaging they use.

Consumers are open to buying more loose fruit and vegetables. Sixty-five per cent gave it a rating of 7+, indicating they could easily see themselves buying more fresh produce loose.¹⁰

Potatoes are the most difficult food for consumers to buy the right amount of. Thirty per cent of consumers find it difficult to buy the right amount of potatoes.

Thirty-one per cent of consumers said that the last time they bought potatoes they were unable to use them all before they reached the end of their storage-life (whereas only 3% of consumers had this issue with chicken).

The main reason consumers buy bigger packs is value. Eighty-six per cent of consumers say that they sometimes buy a bigger or additional pack because it is better value. Twenty-nine per cent say this happens often. Fifty-seven per cent of consumers say they sometimes buy a bigger or additional pack because a smaller one is not available.¹¹

⁷ <https://www.edie.net/news/5/Iceland-removes-plastic-packaging-from-produce-in-greengrocer-scheme/>

⁸ <https://www.dailymail.co.uk/wires/pa/article-7270833/Iceland-goes-bananas-plastic-free-packaging-woes.html>

⁹ <https://www.dailymail.co.uk/news/article-6847161/Tesco-removes-plastic-wrapped-fruit-veg-shelves-pilot-scheme.html>

¹⁰ Unpublished data from: UK survey 2019 on citizens' attitudes & behaviours relating to food waste, packaging and plastic packaging (INCPEN & WRAP)

¹¹ Food Trends Survey Wave 1 –Spring 2018 Icaro for WRAP (unpublished)

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Citizen attitudes

When directly asked about their attitude to different food packaging materials, consumers are significantly more negative towards plastic.¹² However, WRAP's research also demonstrates that both food waste and the way food is packaged have increased in prominence as concerns that UK consumers have about food. When asked to select up to five food issues that most concern them, 40% choose food waste (ranking second, with food prices first), compared to 33% in 2012. Likewise, just over one in four (28%) choose the way that food products are packaged (ranking seventh), compared to 16% in 2012 when it was notably a low-ranking issue.¹³

¹² <http://www.wrap.org.uk/sites/files/wrap/Citizen-attitudes-survey-food-waste-and-packaging.pdf>

¹³ <http://www.wrap.org.uk/sites/files/wrap/Citizen-attitudes-survey-food-waste-and-packaging.pdf>

4.0 Working with the C2025 Fresh Produce Task Force to update the guidance

The evidence and insights summarised above was shared with the C2025 Task Force, who also shared additional insights based on their experiences and/or consumer feedback. Ahead of being asked to make collective decisions on the updated guidance a situational analysis (summarised below) was provided by WRAP:

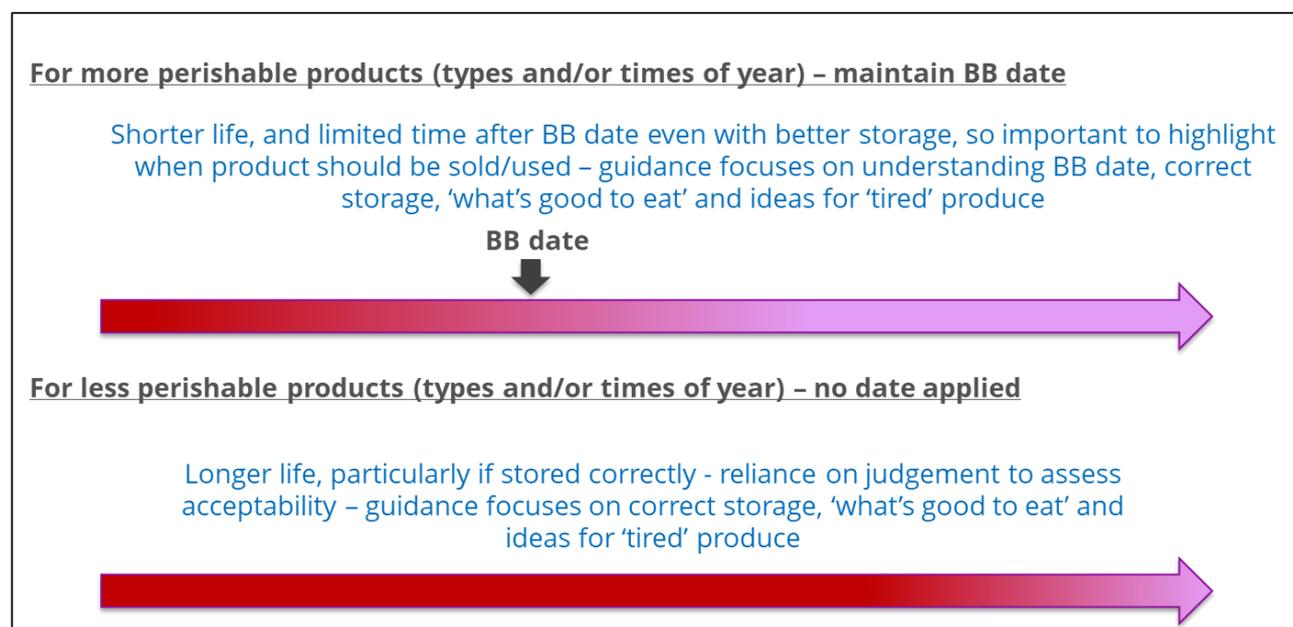
- A consensus is forming within retail/producers around keeping a (Best Before) date only on some products/at some times of year
- Several retailers have removed dates from some pre-packed fresh produce and/or expanded their ranges of produce sold loose, permanently or as part of trials, and it seems likely that more will follow
- Policies around reducing (plastic) packaging and increasing the proportion of fresh produce sold loose will lead to more produce being sold without packaging and, therefore, a date
- A research review carried out for WRAP suggests that the presence of a date does influence behaviour, making people less likely to discard food before the date and more likely to discard it afterwards – which for fresh produce stored correctly could result in significant waste
- Retail action to remove dates has not led to push-back from customers, and removing packaging results in positive consumer feedback
- Determining which fresh produce lines are suitable to be sold loose, or pre-packed without a date, and staff training are essential to maintaining the quality customers expect and minimising food waste (in-store and at home)
- There is a consensus amongst businesses and others that the priorities are: helping people to buy the right amount of fresh produce; store it correctly to keep it fresher for longer; and to have confidence in their judgment deciding on when and how produce should be eaten to avoid it being wasted
- There is significant pressure from politicians, NGOs, the media and high-profile influencers to remove dates and plastic packaging wherever possible, and this is unlikely to ease

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The Task Force was asked to decide on the following:

1) Based on the evidence available now, agree (with industry/funders/FSA) to support an update to the WRAP/Defra/FSA recommendation to have only a Best Before date on pre-packed (uncut) fresh produce *where this is judged to be necessary/useful in order to help consumers eat rather than waste products* (likely to be linked to perishability/seasonality). For all other cases no date would be recommended (and the use of alternative dates such as Display Until would still be discouraged). Retailer codes could be retained to help manage stock control.

- There is unlikely to be any new evidence on actual impacts in the home from retailers or other sources
- WRAP funding new research would be hard to justify based on its likely outcome (see Section 2.4), and other priorities
- This is justified based on insights from retailers (albeit missing data on actual in-home food waste) and from a strategic point of view (need to 'reconnect' people with food, value it more etc.), as long as this is strongly linked to the provision of effective guidance/ support to consumers (amounts to buy/use; storage etc.)



Decision: The C2025 Task Force supported the above

2) Agree to combine fresh produce guidance to industry on labelling and packaging i.e. [loose vs pre-packed/plastic-free](#), through updating the over-arching [Food date labelling and storage advice](#) guide and replacing the existing uncut, packed fruit and vegetable guidance. Both will require guidance on principles to inform decision-making, and for both related guidance on storage etc. is critical.

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- This will simplify the outputs for businesses (and WRAP)
- A short note will sit on the same webpage justifying the change to the labelling recommendation, as could the loose vs. pre-packed evidence review (updated if necessary, following the consultation period, and retailer trials)
- This will link to citizen-facing resources and recommendations for how businesses can help citizens reduce food waste and plastic packaging

Decision: The C2025 Task Force supported the above

3) Work with WRAP to:

- Agree a set of principles to determine when a Best Before date should be applied/when (plastic packaging) could be removed (certain products may benefit from a date/packaging all or most of the time, but for others it may depend on variety, origin, quality when sourced etc.)
- Share relevant data such that this can inform updated guidance

Decision: The C2025 Task Force supported the above

Based on discussions with the Task Force new draft guidance was developed, updating the position on the use of a date label, and including a new section covering the use of packaging. This took the form of a set of principles aimed at informing decision making around both the use (or not) of a date label and packaging, a decision tree to facilitate that decision making, a series of worked examples and guidance on implementation once decisions have been made. The latter was based on insights gained from the Task Force and others.

Finalised guidance was developed following review by and further discussion with the Task Force. Key points fed back to WRAP, and acted upon, included the need to incorporate reference to various operational and other factors that might impact upon the feasibility of providing produce loose. These included a consideration of allergen labelling (and need to segregate products) and the ability to differentiate products at checkout, for example distinguishing certain types of similar products, or organic vs standard lines.

5.0 Next steps

Based on input from the C2025 Task Force the [guidance on fresh produce](#) has been updated. WRAP acknowledges that whilst this reflects the best available evidence, there are still uncertainties around the impacts of removing the Best Before date from more fresh produce packs and providing more produce loose. It will be important to assess the scale of any positive impacts and of any unintended consequences (food waste in store and at home). WRAP will therefore review implementation of the changes going forward and their potential impact through:

- Retail Survey/Produce View surveys
- Retailer (and producer) data on supply chain food waste (through Courtauld 2025 annual reporting)
- Use of the [Household Simulation Model](#)
- Through large-scale household food waste research required for reporting in 2022 (2021 data), particularly diaries linked to a household survey

Annex: Historic WRAP evidence relating to date labels and fresh produce

[Helping Consumers Reduce Fruit and Vegetable Waste](#), WRAP 2008.

63% of respondents claimed to always read date labels when buying fresh fruit and vegetables, however, the main motivation behind using date labels in-store was to select the 'freshest' and 'best' product.

Amongst the respondents who read the dates, a third (34%) [stated that they] always follow them. A further 19% always read them and will often follow them. Consumers who always follow dates are more likely to be over 45 and to always follow the storage information. The three main reasons for throwing food away were the same for both fruits and vegetables. They were that the produce was mouldy/slimy, the appearance or the texture was off (78% when combined for fruit; 72% for vegetables). The fact that the dates were past was also a reason given (10% for fruit, 18% for vegetables). The extent to which dates were cited in relation to throwing away produce varied significantly by produce type (3% - 20% for fruit; 0% - 30% for vegetables). Some of the consumers who threw away fruits and vegetables because the dates were past gave additional reasons: the appearance and the colour were off; the texture was also off; the produce was mouldy/slimy.

[Consumer insight: date labels and storage guidance](#), WRAP 2011

The reported importance of food dates at the point of disposal is fairly consistent across selected product categories, with the exception of fresh fruit, where date labels are seldom cited as an important factor in disposal decisions (ca. 5%; but only a quarter of recorded items in the "Fresh fruit" category were stored in their original packaging, such that a date label is far less likely to be reported). For fresh vegetables the figure was ca 15%. (where date labels were cited in a reason for disposal). Reasoning for throwing away fresh fruit is dominated by judgement of look and smell; fresh vegetables to a slightly lesser extent.

Using date labels to decide when to eat potatoes is a minority behaviour: around two thirds of respondents indicated either that they simply don't pay attention to dates on potatoes or would eat them irrespective of the date so long as the potatoes looked and smelled ok. Young people exhibited a more suppressed version of the same pattern (a preference for relying on dates, indicating lack of confidence/experience/wisdom) and 'date label users' comprised almost the entire population of respondents indicating that they would eat potatoes up to or including the date on the label. Only 7% said they rely entirely or mostly on the date to decide whether to eat or throw away a product.

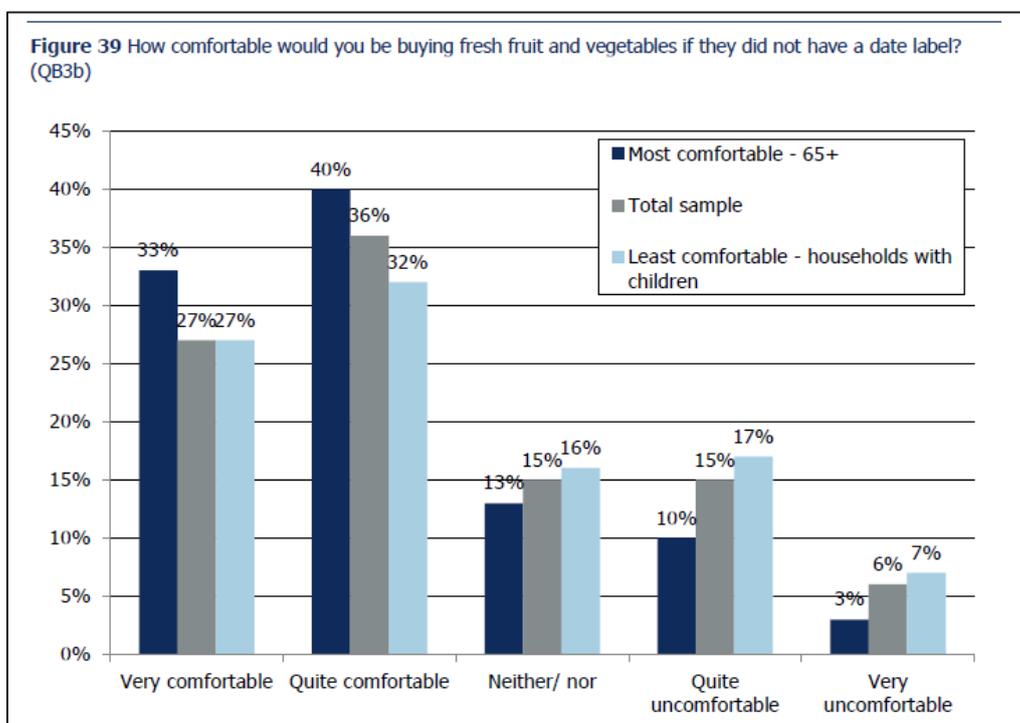
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Removal of date labels from fruit and vegetables.

Respondents were asked:

“Some retailers are thinking about removing date labels from fresh produce such as carrots, apples and potatoes. How comfortable or uncomfortable would you be buying fresh fruit and vegetables if they did not have a date label?”

The chart below shows the average answers given for the whole sample of 2,008 plus the results for the ‘most comfortable’ segment (those aged 65+) and the least comfortable (households with children).



The chart shows clearly that most consumers are comfortable with this idea and the variation between extremes is relatively modest. The overwhelming majority of respondents (60%) indicated that they would be either comfortable or very comfortable with removing all date labels from fresh fruit and vegetable packs, a further 15% expressed no preference either way.

[Consumer Attitudes to Food Waste and Food Packaging](#), WRAP 2012

The survey asked consumers what they look out for when they are deciding which products to buy. The sample was split into two halves (i.e. 2 x 2,000) with one half asked the question with prompted answers and the other asked to write in their answers unprompted. For fresh produce 13% cited ‘The use by/best before date (how long it will last)’ as a key consideration unprompted, whilst this increased to 54% when prompted.

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When asked to choose between loose and pre-packed leeks, 47% selected the pre-packed ones, and of these 7% stated it was because it showed a 'date of expiry' (the lowest of the top 5 answers).

[Household food and drink waste: A product focus](#), WRAP 2014

The date label was cited as a reason for disposing of 'avoidable' fresh fruit and vegetables in between 3% and 12% of occasions for fruit, and 6% to 16% for vegetables (dependant on the product).

12% of all 'avoidable' household food waste thrown away where a date label was cited was fresh produce (ca. 80,000 tonnes).

Food waste thrown away in packaging: Bakery waste comprised the largest fraction of packaged waste at 24% (200,000 tonnes). Fresh vegetable and salad waste was the second largest fraction at 21% (180,000 tonnes). For unopened waste in packaging, fresh vegetables and salad waste comprised the largest fraction at 19% (47,000 tonnes).

WRAP's vision is a world in which resources are used sustainably.

Our mission is to accelerate the move to a sustainable resource-efficient economy through re-inventing how we design, produce and sell products; re-thinking how we use and consume products; and re-defining what is possible through re-use and recycling.

Find out more at www.wrap.org.uk

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