

The 'fresh' fruit and veg that could be a year old

By **Fiona MacRae**
Science Reporter

THE 'fresh' fruit and vegetables on our supermarket shelves are up to a year old, a Daily Mail investigation has revealed.

Stores are routinely selling produce months and even seasons after it is harvested.

Advances in technology mean that apples stocked by chains including Sainsbury may have been picked 12 months earlier.

Shelves may also be stocked with nine-month-old potatoes and eight-month-old kiwi fruit.

Our figures shocked even food experts, who accused the supermarket giants of putting profit before the health of their customers.

Best-selling author Joanna Blythman, who wrote *Shopped: The Shocking Power of British Supermarkets*, said: 'It is counterfeit freshness. The customer is being conned.'

Last month the Daily Mail revealed that the shelf-life of apples can be extended to up to a year by treating the air in their storage environment with a gas. The chemical, known as SmartFresh,

'Season-defying marvels'

stops the fruit from producing ethylene, a natural ripening agent.

It has now emerged that many other so-called 'fresh' fruits and vegetables lie in warehouses for months before being sold.

Potatoes can spend almost nine months in storage.

These are actually treated with ethylene which, in low doses, stops them from sprouting.

HOW LONG HAS YOUR FOOD BEEN IN STORAGE?

Treatment	Used on	Preserves for	How it works
 <p>SmartFresh</p>	<p>Apples Tomatoes Bananas</p>	<p>One year Two weeks One month</p>	<p>SmartFresh gas is pumped in during cold storage to put ripening process on hold. It contains the chemical 1-methylcyclopropene, which halts production of the hormone ethylene. Also used on pears. Bananas are picked and shipped while still green, preserved with SmartFresh and then ripened quickly using ethylene.</p>
<p>Ethylene gas</p>	<p>Potatoes</p>	<p>Nine months</p>	<p>Stops potatoes sprouting.</p>
<p>Controlled atmosphere</p>	<p>Pears Oranges</p>	<p>Four months Two months</p>	<p>Composition of air is altered to provide lower levels of oxygen and more CO₂. Without oxygen, fruit cannot ripen. Also used for lemons, limes and satsumas.</p>
 <p>Modified atmosphere packaging</p>	<p>Salad leaves</p>	<p>11 days</p>	<p>Leaves are washed in a weak chlorine solution to kill bacteria so they will be ready to eat. Packaging contains reduced levels of oxygen to stop leaves maturing and going brown.</p>
<p>Sulphur dioxide pads</p>	<p>Grapes</p>	<p>One month</p>	<p>Kills yeasts and other fungi that might make the fruit go off and prevents stems turning black.</p>
<p>Refrigeration</p>	<p>Kiwi fruit Lettuce Carrots</p>	<p>Eight months Nine days One week</p>	<p>Old-fashioned method is still used to preserve much of our food.</p> 



proportion of carbon dioxide in the bags is raised.

Despite assurances from the industry that such salads are still bursting with goodness, studies have shown that the leaves, which are also washed in a chlorine solution, are missing vital nutrients.

British shoppers could traditionally rely on, but those days are gone. One very strong reason why Britain doesn't eat enough fruit and vegetables is because Britain gets quite poor produce.

'It tends not to be very fresh, not very rewarding to eat and quite expensive and people end up thinking, "I

'We are keen suppliers of local produce and have many local suppliers.

'We are also one of the few supermarkets who buy most of our fruit and vegetables direct from the grower. Our customers are assured of the freshest-quality produce possible throughout the year.'

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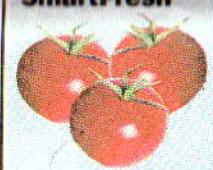
Bananas, which are picked and transported while still green to prolong their life, are treated with ethylene to bring on the ripening process just before they go on the shelves.

Kiwi fruit are also stored for months at a time and pears often reach the supermarkets four months after they are picked.

Grapes can be kept for a month by packing them with sulphur dioxide pads which delay ripening.

Often, the produce is stored in 'controlled atmosphere' rooms where the composition of the air has been altered to stop decay.

A similar process, known as modified atmosphere packaging, stops lettuce leaves from going brown in salad packs. There, levels of oxygen are decreased, while the



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Tomatoes
Bananas
Two weeks
One month

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Ethylene gas Potatoes **Nine months** Stops potatoes sprouting.

Controlled atmosphere Pears
Oranges **Four months**
Two months Composition of air is altered to provide lower levels of oxygen and more CO₂. Without oxygen, fruit cannot ripen. Also used for lemons, limes and satsumas.

Modified atmosphere packaging Salad leaves **11 days** Leaves are washed in a weak chlorine solution to kill bacteria so they will be ready to eat. Packaging contains reduced levels of oxygen to stop leaves maturing and going brown.



Sulphur dioxide pads Grapes **One month** Kills yeasts and other fungi that might make the fruit go off and prevents stems turning black.

Refrigeration Kiwi fruit
Lettuce
Carrots **Eight months**
Nine days
One week Old-fashioned method is still used to preserve much of our food.



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Despite assurances from the industry that such salads are still bursting with goodness, studies have shown that the leaves, which are also washed in a chlorine solution, are missing vital nutrients.

The process keeps the leaves fresh for up to 11 days but also destroys vitamins and protective antioxidants. It is particularly destructive to vitamin C, which beats off colds and other infections.

Among the freshest products are carrots and tomatoes. Carrots are rarely more than a week old, while British-grown tomatoes may have been picked just days earlier. However, imported tomatoes, which may also be treated with SmartFresh, can be up to two weeks old.

Miss Blythman said: 'We are being sold season-defying marvels that are not worth eating.'

'It is all about a retail system that is there to service the people who make the profits rather than the customer.'

'Freshness is something that

British shoppers could traditionally rely on, but those days are gone. One very strong reason why Britain doesn't eat enough fruit and vegetables is because Britain gets quite poor produce.

'It tends not to be very fresh, not very rewarding to eat and quite expensive and people end up thinking, "I can't be bothered".'

Vicki Hird, of Friends of the Earth, said: 'Good food does not need adulteration. It has got to be a bad thing when food is sitting around for nine months or a year.'

'Fresh produce should be exactly that, and people should be able to get it at reasonable prices.'

Gerry Hayman, of the British Tomato Growers' Association, urged people to buy local.

He said that British-grown tomatoes, which are picked when ripe, are fresher, sweeter and more nutritious than their long-stored foreign-counterparts.

Last night, supermarkets insisted they tried to buy local produce wherever possible.

A spokesman for Morrisons said:

'We are keen suppliers of local produce and have many local suppliers.'

'We are also one of the few supermarkets who buy most of our fruit and vegetables direct from the grower. Our customers are assured of the freshest-quality produce possible throughout the year.'

SmartFresh, the gas used to prolong the life of fruit and veg, contains the chemical 1-methylcyclopropene (1-MCP). This stops apples and tomatoes producing the hormone ethylene, their natural ripening agent.

Pumped into the air in cold storage or during shipping, it can delay ripening for weeks or months.

Ethylene itself is used to speed the process in bananas. In low concentrations, it also stops potatoes sprouting. Fruit and vegetables can also be preserved by altering the composition of the air in storage.

Levels of oxygen are lowered, while the amount of carbon dioxide is increased, again slowing the ripening process, which is dependent on a ready supply of oxygen.

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