Food fraud

The picture above shows the types of food that have been targeted by food fraudsters. We investigate the problem and explain what to look out for

Meat
- Selling non-organic meat as organic
- Adding excessive water without declaring it
- Selling meat unfit for human consumption
- Adding beef and other meats to '100 per cent pork' sausages
- Selling 'lean' mince containing as much fat as standard mince

Parma ham
- Substituting Parma ham with a cheaper variety

Alcohol
- Watering down spirits
- Substituting premium-brand spirits with cheaper varieties
- Adding extra sugar during wine production to increase alcohol content
- Selling alcohol that has been produced illegally

Eggs
- Selling eggs from battery-farmed hens as 'free range'

Olive oil
- Dyeing basic olive oil green with chlorophyll to make it look like extra virgin olive oil
- Diluting olive oil with cheaper hazelnut oil

Basmati rice
- Mixing pure Basmati rice with cheaper long-grain varieties

Fish
- Selling farmed fish as wild
- Mislabelling the geographical origin

Coffee
- Mixing Arabica beans with cheaper varieties

Orange juice
- Diluting orange juice with cheaper juice
- Adding beet sugar to sweeten natural orange juice

Cheese
- Adulterating mozzarella cheese made from buffalo milk with cheaper cow's milk

Honey
- Mixing different blends and selling it as more expensive varieties such as Manuka or Corsican honey

Potatoes
- Selling cheaper potatoes as a more expensive variety, such as King Edward

Pasta
- Selling durum wheat pasta that contains other types of wheat

Fruit and vegetables
- Selling conventional produce as organic or giving the wrong geographical origin

Soya beans
- Adding genetically modified soya beans to non-GM beans but not declaring it

Food fraud is not always obvious. It's not easy for consumers to spot when a premium product has been substituted or mixed with a cheaper one, or when a label lies about its origin. Nor is it new: reports from the early 19th century tell of bakers mixing flour with chalk to make loaves whiter, and confectioners adding lead, copper and mercury salts to sweets and jellies to make them brightly coloured.

These days, unscrupulous fraudsters have developed new ways to fool consumers and increase profits. Last year, an illegal vodka factory in east London decanted industrial spirits into bottles labelled with fake Glen's Vodka and Kirov Vodka labels and distributed them around the UK. This is potentially dangerous; there have been instances where the level of methanol found in illegal alcohol was so high that it could have caused blindness or even death.

And in 2000 and 2003, thousands of tonnes of rotten poultry from slaughterhouses in Rotherham and Denby, Derbyshire, were destined for pet food. Instead, brokers recycled the meat, which ended up in schools, supermarkets and hospitals nationwide. The fraud, involving large gangs, was discovered only after an anonymous tip-off to the local councils.

Food fraudsters also follow trends. Ten years ago, selling farmed fish as wild, or conventional meat as organic, was rare. In 2006, a couple in Norfolk were found importing honey from Argentina and China and selling it as 'local'.

How big is the problem?

The level of food fraud in the UK has been estimated at about 10 per cent, or £7 billion a year, but the true extent is impossible to gauge. The figure reflects only areas that have been investigated when fraud has been suspected. David Statham, Director of Enforcement and Food Standards at the Food Standards Agency (FSA), says the figures are 'speculative', and insists that 'food fraud is not a day-to-day event'.

OUR RESEARCH

We conducted a survey of 4,119 Which? members in January and February 2008. Participants were asked about their food shopping habits and how much they trusted food labels.

HOW MUCH DOES IT COST YOU?

Apart from health risks, the most serious effect of food fraud on consumers is financial.

Paying £10 for what you believe to be an organic, free-range chicken that is actually a battery-farmed bird that you could have bought for £2 leaves you considerably out of pocket.

Below we show how much shoppers could have spent on adulterated Basmati rice in 2003.

In 2003, UK sales of Basmati rice were worth £39 million.

A 2003 study by the FSA showed that 46 per cent of Basmati rice samples were adulterated – meaning that shoppers could have spent around £18 million on cheaper rice.

In a follow-up study in 2006, only 16 per cent of samples were adulterated – but this would still be worth around £8 million.

Meat and alcohol are the most common targets of fraud: both are high-value products that yield high profits. They are also the areas that are most often investigated, because illegal meat and bootleg alcohol pose the biggest health risks to the public.

Alan Richards, President of the Association of Public Analysts, says that there has been an increase in substitution of premium-brand spirits in the past 12 months. He feels that 'spirit substitution is viewed by some publicans as easy money, especially with so many cheaper imports now available on the market'.

Fraud also occurs when demand outstrips supply – for example, with specialist products such as buffalo-milk mozzarella, Basmati rice and organic produce.

What the authorities are doing

The FSA investigates fraud and develops methods to detect it. In a test of Basmati rice in 2003, it found that only 54 per cent of samples consisted of pure Basmati – the rest had been mixed with cheaper rice. In another study in 2005, it found that one in ten sea bass and sea bream labelled as 'wild' were farmed and that around one in seven 'wild' salmon were also mislabelled.

Local environmental health officers (EHOs) and trading standards officers also work with public analysts to investigate and identify food fraud. In 2005, Michael Eade, an EHO from Richmond in London, found two butchers selling conventional meat as organic. During inspections of food sellers, Michael asks to see accreditation with recognised organic bodies or proof that meat was bought from a legitimate trader. He also checks, for example, that the labels on bottles of vodka on display match the bottles in the storeroom.

Rotten meat from slaughterhouses ended up in schools, supermarkets and hospitals

The gangs selling illegal meat in Denby and Rotherham received combined sentences of 18 years. Other offenders have been fined: the couple selling fake 'local' honey were fined £8,000 and ordered to pay £90,000 in legal costs.

Dr Philip Barlow, Chairman of the FSA's Food Fraud Task Force, wants enforcement agencies to give food fraud higher priority, and more severe punishments to deter fraudsters. When controls are tightened and the risk of prosecution rises, fraud decreases – in 2006, a follow-up study of Basmati rice showed that only 16 per cent of samples had been adulterated. However, as fraud becomes more sophisticated and difficult to detect, public analysts say that the estimated £6 million spent annually on food testing – less than 10p a person – is not enough.

PHOTOGRAPHY NICK WRIGHT, ALAMY

Dr Barlow would also like to see a more proactive approach to dealing with food fraud, more random testing, and for information on cases of food fraud and prosecutions to be available to the public. The FSA set up a national food fraud database in 2006 to collate and share information between local authorities and enforcement agencies, and to identify patterns in food fraud. Unfortunately, it has not been well used, and the FSA is eager to change this by encouraging consumers and legitimate traders to contact it if they see anything suspicious (see 'Contacts', below).

What the industry is doing

Food fraud affects the reputations of legitimate businesses, too. Some alcohol manufacturers have produced a 'dipstick' that detects if their spirit has been watered down or substituted with a cheaper brand.

Unfortunately, not all food fraud can be detected by a quick, simple test; most is identified only through expensive and time-consuming laboratory analysis (see 'It's all in the DNA', right).

We asked the big four supermarkets what checks they carry out to prevent food fraud. Asda, Morrisons, Sainsbury's and Tesco say that they regularly audit and visit suppliers and also employ independent labs to test produce for authenticity.

Around half of UK farmers' markets are members of Farma (National Farmers' Retail and Market Association), which checks that the produce sold is local (from within around 30 miles) and that the vendor has been involved in its production. But other markets that call themselves farmers' markets may not meet these criteria. Look out for the Farma logo, and ask stallholders questions (see 'Checklist', below).

Contacts

If you think that food is being sold fraudulently or see something suspicious, contact your local environmental health or trading standards office or one of the following organisations.

Consumer Direct 0845 404 0506
FSA www.food.gov.uk/foodfraud

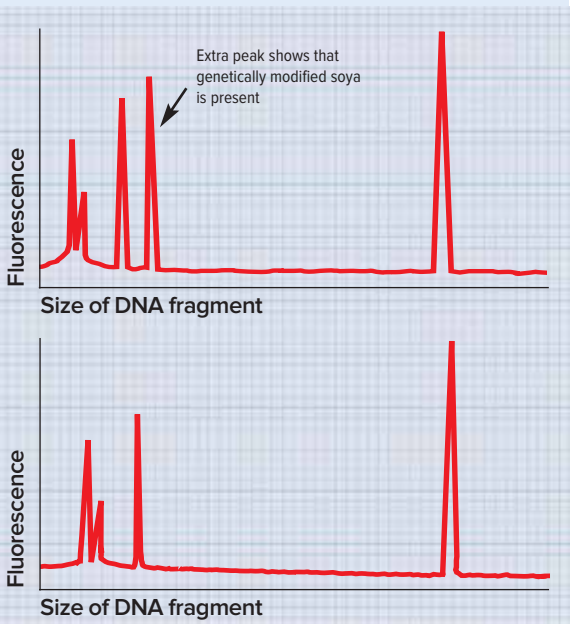
Which? says

■ Which? would like to see better funding and enforcing of food authenticity and standards. Information must be shared to allow authorities to identify opportunities for fraud. We would also like to see a public register of prosecutions so that consumers can be informed.

IT'S ALL IN THE DNA

Technology helps to track down food fraud

One method scientists use to detect fraud is DNA analysis. They extract DNA from the food, place it on a gel and pass an electric current through it. This separates the DNA fragments into different sizes, which show as peaks on a graph. In the results of a test on soya flour, below, the extra peak on the upper graph shows that this sample contains flour from undeclared genetically modified soya beans.



Checklist

It's almost impossible to tell if we're being defrauded, but there are things to look out for

Frances Atkins, Head Chef at the Yorke Arms – *The Good Food Guide* readers' restaurant of the year – says: 'Consumers should be aware of foods where the colours are too perfect.' For example, a farmed salmon would be much pinker and a farmed turbot whiter than their wild counterparts. And an organic chicken will have stronger legs (and darker leg meat) than a battery-farmed chicken, while the breast meat on a battery-farmed chicken would be plumper than that on an organic chicken.

What do the labels mean?

■ **Organic** Organic producers must be accredited with one of the following certification bodies in the UK. Look out for the name or code on organic produce.

Organic Farmers and Growers Ltd (UK2)
Scottish Organic Producers Association (UK3)
Organic Food Federation (UK4)
Soil Association Certification Ltd (UK5)
Biodynamic Agricultural Association (UK6)
Irish Organic Farmers and Growers Association (UK7)
Organic Trust Limited (UK9)
Quality Welsh Food Certification Ltd (UK13)
Ascisco Ltd (UK15)

■ **Local** Although 96 per cent of you in our survey said that you buy locally produced foods, there is no formal definition of 'local'. Your local bread could be made from local ingredients or just be baked locally. Ask the seller about this. Check that produce is seasonal: strawberries in January are not going to be local. Look for the Farma logo (right).

■ **Free range** In our survey, 97 per cent of you said you buy free-range goods. To be labelled free range, birds must have had a defined minimum amount of space, access to the outdoors and not have been slaughtered before a certain age.

■ **Produced in** Imported meat that undergoes treatment or processing in the UK can be labelled as 'produced in the UK'. Ask your butcher where your meat comes from, and check the label – a ready-meal label may say 'produced in the UK' but on closer inspection may also have a smaller label saying 'chicken from Thailand'.

■ **Home-made** The FSA recommends that only foods made or prepared in the home should be labelled 'home-made'. Ask for more details – for example, if a pie looks too perfect.

UK2 UK3 UK4 UK5 UK6 UK7 UK9 UK13 UK15