

Retail Surveillance Sampling Programme during Covid-19 pandemic - Project Outline

Purpose and Scope

Based on FSA and OL intelligence a number of key sampling areas of interest were identified and developed into sampling and analysis sub projects. A range of means were used to identify commodities for sampling including FSA surveillance tools, horizon scanning and policy and scientific expertise. High priority was given to commodities and hazards where intelligence suggested that Covid-19 could impact product safety or authenticity. The laboratory results will be used to provide additional intelligence but do not provide the full picture with regards to the source or level of the issues.

Sampling and analysis protocols were created for each sub project, which were approved by the FSA prior to the commencement of the work.

Six sub projects are included in this report

- P1 Mince and Processed Meat Compliance and Speciation
- P2 Fish and Fish Product Speciation
- P3 Spice and Herb Authenticity
- P4 Basmati Rice and Durum Wheat Authenticity
- P5 Undeclared Milk
- 6 Undeclared Gluten

The project aimed to provide representative surveillance across England and Wales. A small number of samples were also taken within Northern Ireland. All samples were purchased by the OLs from businesses selling to the general public either in store or online.

The samples were divided between the OLs for analysis according to the analytical capabilities of each laboratory. Each OL used analytical methods that are routinely employed for enforcement purposes and reported the samples against appropriate legislation for the food product and the tests undertaken.

The Hampshire Scientific Service project team worked in partnership with the FSA throughout the project to respond to any emerging issues and allow the project scope to be reviewed as the wider food sampling landscape evolved.

Sub Project Rationales

P1 Minced and Processed Meat Compliance and Speciation

There are compositional and labelling criteria prescribed in legislation for minced meat and meat products to ensure that consumers are informed about the quality of the products they purchase.

Retained regulation (EU) No 1169/2011 on the provision of food information to consumers has specific compositional and labelling criteria for minced meat and also quantitative ingredient requirements for prepacked meat products, whilst The Products Containing Meat etc. (England) Regulations 2014 prescribes compositional requirements for certain meat products such as sausages, burgers and pies.

During processing, meat products can be accidentally or deliberately adulterated with other meat species. This could be local or widespread adulteration such as the horsemeat scandal in 2013 where foods advertised as containing beef were found to contain undeclared or improperly declared horsemeat. There is a 1% threshold level set by the FSA for the DNA of other species in meat products.

In order to determine the quality of minced and other meat products this sub project analysed:

- Minced meat to evaluate the level of fat and collagen:meat ratio.
- Uncooked meat products such as burgers, sausages and pies for meat content.
- Ready meals for meat content.
- All samples for the presence of cow, pig, sheep, chicken, turkey, horse and goat DNA.

All results and food labels were assessed against the legislative criteria for the product type.

P2 Fish and Fish Product Speciation

Fish consumption has increased in recent years. High demand and low stock volumes of fish can lead to inflated costs and, as a consequence, be an attractive commodity for fraudsters. Fish products made from pieces of fish rather than whole fillets provide additional opportunities for fraudulent substitution.

This sub project focussed on premium fish and fish products (cod, haddock, plaice) from fishmongers / fish counters and catering establishments including fish and chip shops.

All samples were analysed for the presence of the named fish species DNA to determine whether any substitution had taken place.

P3 Spice and Herb Authenticity and Contamination

Global supply of herbs and spices is not expected to keep up with future demand, leading to a rise in prices and an increased threat of fraud and adulteration of the products. Oregano, turmeric, thyme, black pepper, ginger, sage, mixed herbs and mixed spices were particular targets identified by the FSA.

Herbs and spices are produced by a broad range of countries and may be subjected to chemical contamination at one or more stages of the supply chain mainly through environmental pollution.

Common contaminants include heavy metals and aflatoxins.

All samples were visually inspected and examined under the microscope to detect adulteration. Turmeric, black pepper and ginger samples were analysed for the presence of lead and cadmium. Spice mixes were analysed for the presence of Aflatoxins B1, B2, G1 and G2.

P4 Basmati Rice and Durum Wheat Authenticity

Basmati refers to premium rice, which has special eating characteristics, and is grown in specific regions of India and Pakistan. Approved basmati varieties sell at around twice to three times the price of ordinary long grain rice.

Durum wheat (*Triticum durum*) is traditionally used in the manufacture of dried pasta because it produces the correct eating qualities. Shortages in availability, due to recent poor global weather conditions, have increased the market price of durum wheat to around double that of common wheat. The increased prices for these premium products provide incentives for adulteration. This sub project tested rice products sold as basmati and pasta claiming to be 100% durum wheat for authenticity.

P5 Undeclared Milk

Since January 2017 there have been 177 food alerts with respect to undeclared milk ingredients, of which 26 (15%) have been issued during the 8-month period 1st January 2020 – 25th August 2020. This averages approximately 3 products a month.

It is often not obvious from the appearance of a food that it contains an allergenic ingredient. Clear product labelling is mandatory and essential to alert individuals to the presence of allergenic ingredients within the food, thereby enabling consumers to make informed choices as to whether to consume a potentially allergenic food.

This sub project evaluated foods which claimed to be free of milk and/or dairy or had no milk allergens declared, to establish if such claims are true.

P6 Undeclared Gluten

Gluten is a protein found in some cereal grains, typically wheat, barley, rye, and is a regulated allergen. Up to 13% of the population may have a gluten sensitivity (7) and, according to Coeliac UK (8), coeliac disease affects at least 1 in 100 people in the UK.

Legislation provides a framework for gluten-free labelling and states that the term can only be used on packs of food or foods sold in catering which contain 20 ppm or less of gluten.

This sub project targeted flours which claimed to be gluten free or had no gluten allergens declared to establish if the claims were true and whether there was any inter-batch variation.