

Food Standards Agency: Information released under the Freedom of Information Act

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Annex

Request

1. How many food authenticity, speciation and adulteration DNA tests did the FSA request/commission in the last 12 months?
2. Which laboratories undertake these DNA tests for the FSA?
3. What is the annual cost to the FSA of these DNA tests in 2015 and in 2016?

Response

The FSA holds information relevant to your request. In answer to your specific questions:

1. How many food authenticity, speciation and adulteration DNA tests did the FSA request/commission in the last 12 months?

The FSA collects sampling data from enforcement authorities in England, Wales and Northern Ireland on an annual basis. Sampling for food standards covers analyses for chemical (other) contamination, composition, labelling and presentation.

For 2015/16 food standards sampling programme, which runs from 1 April – 31 March, the FSA awarded approximately 5820 samples of which **953** samples required DNA testing. The table below provides a breakdown of the specific priorities:

	Priority 17.2. Minced Meat - Meat species substitution	Priority 18.3 Meat species substitution (excluding minced meat)	Priority 19. Fish species substitution	Priority 22. Durum wheat authenticity	Priority 23. Basmati rice authenticity
DNA test required	Semi-quantitative RT-PCR DNA test	Semi-quantitative RT-PCR DNA test	DNA profiling by Sanger sequencing	DNA profiling. Four sections of the nuclear genome are amplified using universal primer pairs for durum wheat (<i>Triticum durum</i>) and soft wheat (<i>Triticum aestivum</i>). The amplicons are analysed for their species specific fragment lengths by capillary electrophoresis.	DNA profiling using microsatellite analysis

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Total samples awarded by FSA in 2015/16	395	209	233	53	63
Total analysis costs for each priority in 2015/16	£92895	£50960	£51375	£10275	£19140

2. Which laboratories undertake these DNA tests for the FSA?

The Food Safety Act 1990 requires all local authorities who deliver food standards official controls to appoint one or more public analysts to undertake official controls analysis of food samples. Public analysts are highly trained and meet specific qualification requirements. They act as expert witnesses in court cases to support local authority enforcement.

A list of official feed and food control laboratories in the UK can be found at:

<https://www.food.gov.uk/enforcement/sampling/foodcontrollabs>

All the Analyst Agricultural Analyst (AA); Public Analyst (PA) category laboratories have some capability, to a greater or lesser extent to undertake DNA testing.

Where the FSA pays for a local authority to take a sample, and its analysis, FSA requires that the data on the sample is reported on the UK Food Surveillance System (UKFSS). UKFSS is a database of food samples taken by local authorities. Local authorities do not have to use it, but around 70% do. Consistency of data entry is dependent on the local authorities and the data in UKFSS may not be precisely accurate, even though it is a good indication.

The food sampling priorities, decided by the FSA for current year (2016/17) did not require any DNA testing. The published food sampling priorities can be found on the food.gov.uk website.

<https://www.food.gov.uk/enforcement/sampling>

3. What is the annual cost to the FSA of these DNA tests in 2015 and in 2016?

For the 2015/16 food standards sampling programme, the DNA testing cost the FSA approximately **£225k**.