

Fapas[®]

Food Chemistry

Proficiency Testing Programme

Jan 2019 – Mar 2020



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Proficiency Testing from **fera**



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HOW TO USE THIS DOCUMENT

This document lists all the food chemistry proficiency tests (PTs) we have planned for the period January 2019 to March 2020 inclusive. It is provided as an off-line companion to our on-line ordering system on our website at fapas.com/shop. Our website will always be the most up to date source of information and thus the **data on the website is definitive** and may include pertinent details that have not been listed here.

Our food chemistry PTs are grouped into analyte / matrix categories and then within each category the PTs are listed by the date that the test materials will be dispatched to customers.

The **dispatch date** shown is the planned date on which the samples will be shipped from Fapas® to participants. An automatic email announcing the dispatch is sent to the contact named that for that test. Participants select this contact during the on-line ordering process.

Each test has a **product code** and an **item code**.

- The product code is an alphanumeric description of the combination of matrix and analyte, it doesn't change from year to year, i.e. searching for the product codes of tests in the previous programme will find the equivalent tests this year.
- The item code is the *unique* reference for the test being dispatched on a given date.

The **fee** shown for each test is solely the cost of participating in that test. It does *not* include any carriage costs because these charges are applied to your complete order. When you place your order on-line you will see the carriage costs that are applicable. For those tests that are, by default, sent by regular post, you have the option of upgrading to courier. For tests where rapid delivery is essential the samples are automatically sent by courier and you cannot change this.

APPENDIX 1 provides some guidance on the process of ordering and taking delivery of a Fapas® PT. **Please note, the information in APPENDIX 1 does not constitute our Standard Terms & Conditions for Proficiency Testing Schemes, which are available on our website at fapas.com/terms-conditions.**

APPENDIX 2 gives the contact details of our International Agents. If there is an agent in your country you are advised to benefit from their services (assistance with ordering, invoicing in local currency and advising on potential sample import issues).



FOOD CHEMISTRY PROFICIENCY TESTING PROGRAMME

Analytical testing for food chemistry covers an extremely wide scope, for nutritional purposes as well as monitoring against contamination. Label declarations and compliance with good agricultural practice and good food production practice are principal requirements for testing. In addition, compliance with market regulations for international trade is another equally important driver for testing. For all laboratories involved anywhere in the food chain, quality assurance supported by proficiency testing results should be routine. Fapas® aims to provide proficiency tests for all different food chemistry demands.

For more general information on Fapas® proficiency testing as a whole, please see information available on our website www.fapas.com.

Processed Food

A new matrix/analyte combination proficiency test resulting from customer demand. Many official control laboratories are expected to test finished product food samples that arrive without prior warning for a range of possible analytes. This sample is a complex processed food matrix intended to provide a real-world challenge. The analytes cover a range of nutritional components, illegal dyes, metallic contaminants and allergens. Not all of the illegal dyes or metallic contaminants will be present.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
15/07/2019	FCXS1-PRO32	3201	processed food	moisture, ash, total fat, nitrogen, sodium, chloride, Butter Yellow (Dimethyl Yellow), Orange II, Para Red, Rhodamine B, Sudan I, Sudan II, Sudan III, Sudan IV, Sudan Black B, Sudan Orange G, Sudan Red B, Sudan Red 7B, Sudan Red G, Toluidine Red, calcium, iodine, magnesium, potassium, selenium, sodium, arsenic (total), cadmium, lead, mercury (total), peanut	300 g	431



Halal Compliance

Laboratories testing products for compliance with Halal certification need to detect trace level contamination of pork or alcohol. These differ from our authenticity or alcoholic drinks PTs which are at high levels of analytes. These proficiency tests supply two or more test samples, at least one of which will be spiked at low levels. The samples for pork contamination in beef are verified by PCR, the samples for alcohol (ethanol) in a beverage are verified by a GC method.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
15/04/2019	FCAC1-MRP2	3110	beef	pork (DNA)	2 x 30 g	268
19/08/2019	FCOH1-DRA2	3111	beverage	alcohol (ethanol)	2 x 200 ml	188



Nutritional Analysis

The nutritional analysis PTs are primarily aimed at nutritional labelling compliance, where laboratories in the supply chain are verifying the nutritional content of food products. The matrices comprise ingredients (such as flour) and finished products (such as ready to eat meals). Canned meat and fish test materials are produced as bespoke test samples for Fapas®.

Nutritional Components

The nutritional components PTs include proximates and general categories corresponding to the AOAC nutritional triangle. Sodium and chloride are required as separate determinands, not as salt (unless otherwise specified). Total dietary fibre can be determined by any AOAC method. Specific instructions will be provided where there is known method dependency (including hydrolysis steps for total fat, temperature for ash and moisture). The determinand Nitrogen is required instead of protein. There are other proficiency tests in the Programme for nutritional components, see under the section headed Oils and Fats.

Please note:

total sugars = that measured by a defined titration method (e.g. Lane-Eynon, Luff-Schoorl, Munson Walker) or, if measured by HPLC, the sum of fructose, glucose, sucrose, lactose, galactose and maltose. Not all sugars may be present.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
17/01/2019	FCNC15-MRP12	01127	canned meat	moisture, ash, total fat, nitrogen, sodium, chloride	150 g	181
27/03/2019	FCNC15-MRP13	01128	canned meat meal	moisture, ash, total fat, nitrogen, sodium, chloride	150 g	181
17/05/2019	FCNC11-MRP12	01129	canned meat	moisture, ash, total fat, nitrogen, hydroxyproline	150 g	185
12/07/2019	FCNC15-MRP12	01130	canned meat	moisture, ash, total fat, nitrogen, sodium, chloride	150 g	185
22/08/2019	FCNC25-MRP13	01131	canned meat meal	total fat, saturated fatty acids, total sugars, protein, salt	150 g	185
11/10/2019	FCNC11-MRP12	01132	canned meat	moisture, ash, total fat, nitrogen, hydroxyproline	150 g	185
29/11/2019	FCNC16-MRP13	01133	canned meat meal	moisture, ash, total fat, nitrogen, sodium, chloride, total sugars	150 g	185
16/01/2020	FCNC15-MRP12	01134	canned meat	moisture, ash, total fat, nitrogen, sodium, chloride	150 g	185
19/03/2020	FCNC15-MRP13	01135	canned meat meal	moisture, ash, total fat, nitrogen, sodium, chloride	150 g	185



Nutritional Components (continued)

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
15/02/2019	FCNC4-CCP49	2481	wheat flour	moisture at 130°C, ash, nitrogen, total dietary fibre by AOAC	150 g	181
12/04/2019	FCNC5-CCP40	2482	porridge oats	moisture at 130°C, ash, total fat, nitrogen, total dietary fibre by AOAC	150 g	185
05/07/2019	FCNC4-CCP15	2483	cereal	moisture at 130 deg c, ash, nitrogen, total dietary fibre by AOAC	150 g	185
12/09/2019	FCNC6-PRO9	2484	breadcrumbs	moisture, ash, nitrogen, total dietary fibre by AOAC, starch, sodium	150 g	185
07/11/2019	FCNC13-PRO2	2485	biscuit (cookie)	moisture, ash, total fat, nitrogen, total dietary fibre by AOAC	150 g	185
14/02/2020	FCNC4-CCP49	2486	wheat flour	moisture at 130°C, ash, nitrogen, total dietary fibre by AOAC	150 g	185



Nutritional Components (continued)

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
18/01/2019	FCNC15-PRO12	25169	cheese & pasta meal	moisture, ash, total fat, nitrogen, sodium, chloride	100 g	181
26/02/2019	FCNC24-DRY6	25170	butter	moisture, total fat, non-fat solids, pH, chloride	200 g	181
15/03/2019	FCQT1-SEA7	25171	canned fish	total volatile basic nitrogen (TVB-N)	150 g	181
21/03/2019	FCNC15-PRO39	25172	corn/maize based snack food	moisture, ash, total fat, nitrogen, sodium, chloride	50 g	181
11/04/2019	FCNC15-SEA15	25173	fish paste	moisture, ash, total fat, nitrogen, sodium, chloride	150 g	185
15/05/2019	FCNC14-DRY9	25174	condensed milk	moisture, ash, total fat, nitrogen, total sugars	150 ml	185
27/06/2019	FCNC28-DRY15	25175	milkshake powder	fructose, glucose, lactose, maltose, sucrose	50 g	185
23/07/2019	FCNC23-CON2	25176	chocolate	moisture, total fat, nitrogen, butyric acid, lactose, sucrose	150 g	185
06/09/2019	FCQT1-SEA7	25177	canned fish	total volatile basic nitrogen (TVB-N)	150 g	185
01/11/2019	FCNC17-DRY14	25178	milk powder	moisture, ash, total fat, nitrogen, titratable acidity, lactose	50 g	185
17/01/2020	FCNC15-PRO12	25179	cheese & pasta meal	moisture, ash, total fat, nitrogen, sodium, chloride	100 g	185
25/02/2020	FCNC24-DRY6	25180	butter	moisture, total fat, non-fat solids, pH, chloride	200 g	185
12/03/2020	FCQT1-SEA7	25181	canned fish	total volatile basic nitrogen (TVB-N)	150 g	185
20/03/2020	FCNC15-PRO39	25182	corn/maize based snack food	moisture, ash, total fat, nitrogen, sodium, chloride	50 g	185



Nutritional Elements

The nutritionally important elements are the required determinands, usually at production-fortified levels. These are the levels that typically may be expected in finished products. Our heavy metals PTs are intended for trace level contamination from toxic metals. There are other proficiency tests in the Programme for metallic elements, see under the section headed Metallic Contaminants.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
08/03/2019	FCNE1-INF10	1895	infant formula	calcium, copper, iodine, iron, magnesium, manganese, phosphorus, potassium, selenium, sodium, zinc	50 g	190
10/07/2019	FCNE4-CCP13	1896	breakfast cereal	calcium, iron, magnesium, phosphorus, potassium, sodium, zinc	50 g	185
21/11/2019	FCNE8-DRY14	1897	milk powder	calcium, copper, iodine, iron, manganese, magnesium, molybdenum, phosphorus, potassium, selenium, sodium, zinc	50 g	194
19/03/2020	FCNE1-INF10	1898	infant formula	calcium, copper, iodine, iron, magnesium, manganese, phosphorus, potassium, selenium, sodium, zinc	50 g	194



Vitamins

The levels of vitamins in these test materials are either at naturally incurred or production-fortified levels. Depending on the source of the material, some vitamins may be encapsulated. The instruction letter will specify the reporting form of each vitamin, usually to molecular weight level of the vitamin species. Where there is a known method dependency, the instruction letter will inform the critical parameter to be followed.

Please note:

Some tests, e.g. those for vitamin C, have a short timescale for the submission of results. The stability of such test materials will be assessed as part of the sample preparation procedures.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
13/02/2019	FCNV9-CCP13	21113	breakfast cereal	vitamin B1, total vitamin B2, vitamin B6, vitamin B12, total niacin, folic acid	100 g	190
03/04/2019	FCNV3-INF15	21114	powdered baby food	vitamin A, vitamin B1, vitamin B2 (as riboflavin), vitamin B12, vitamin C, vitamin E	100 g	194
30/05/2019	FCNV5-INF10	21115	infant formula	vitamin A, vitamin B12, vitamin C, vitamin D3, vitamin E, vitamin K1	50 g	194
24/06/2019	FCNV2-FRU47	21116	fruit purée	vitamin C	100 g	194
03/09/2019	FCNV7-SUP4	21117	liquid vitamin supplement	vitamin B1, total vitamin B2, vitamin B6	40 ml	194
05/02/2020	FCNV9-CCP13	21118	breakfast cereal	vitamin B1, total vitamin B2, vitamin B6, vitamin B12, total niacin, folic acid	100 g	194



Oils & Fats

The oils and fats PTs comprise nutritional determination as well as quality indices determination. Some PTs will require the reporting of individual fatty acids. The fatty acid profile of a test material will be generated to determine the individual fatty acids to be reported; this is not always known a long time in advance of the PT but will be specified in the instructions. There are other proficiency tests in the Programme with oils and fats as the matrix, see under the sections headed Migration – Overall & Specific, Environmental Contaminants, and Pesticide Residues-Animal Products/Fats and Oils.

Please note:

Some tests, e.g. those for quality parameters of olive oil, have a short timescale for the submission of results. The stability of such test materials is assessed during the course of the PT.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
07/01/2019	FCQO1-OIL22	14196	olive oil	peroxide value, acidity, anisidine value, iodine value	100 ml	181
20/02/2019	FCFO3-OIL30	14197	vegetable oil	fatty acids	30 ml	181
12/03/2019	FCQO2-OIL22	14198	olive oil	peroxide value, acidity, K232 & K270	100 ml	181
16/04/2019	FCFO9-INF10	14199	infant formula	fatty acids	50 g	188
07/05/2019	FCFO8-FAT12	14200	mixed fat spread	fatty acids	50 g	188
17/06/2019	FCQO1-OIL30	14201	vegetable oil	peroxide value, acidity, anisidine value, iodine value	50 ml	188
03/07/2019	FCFO4-OIL30	14202	vegetable oil	fatty acids	30 ml	188
16/07/2019	FCQO1-OIL22	14203	olive oil	peroxide value, acidity, anisidine value, iodine value	100 ml	188
19/08/2019	FCFO5-FAT12	14204	mixed fat spread	total fat, saturates, mono-unsaturates, poly-unsaturates, total trans fatty acids, omega-3 fatty acids, omega-6 fatty acids, omega-9 fatty acids	50 g	188
10/09/2019	FCQO2-OIL22	14205	olive oil	peroxide value, acidity, K232, K270	100 ml	188
19/09/2019	FCFO1-OIL13	14206	fish oil	omega-3, -6 & -9 series fatty acids	30 ml	188
08/10/2019	FCFO7-PRO2	14207	biscuit (cookie)	fatty acids including butyric acid	50 g	188
24/10/2019	FCFO9-INF6	14208	infant breakfast cereal	fatty acids	50 g	188
26/11/2019	FCFO6-FAT12	14209	mixed fat spread	total fat, butyric acid, cholesterol	50 g	188
07/01/2020	FCQO1-OIL22	14210	olive oil	peroxide value, acidity, anisidine value, iodine value	100 ml	188
19/02/2020	FCFO3-OIL30	14211	vegetable oil	fatty acids	30 ml	188
31/03/2020	FCQO2-OIL22	14212	olive oil	peroxide value, acidity, K232 & K270	100 ml	188



Food Ingredients

The food ingredients PTs are for analyses which are not necessarily related to nutritional components. These PTs includes additives (such as preservatives) or indicative parameters of ingredients (such as Brix or total acidity). Permitted and non-permitted colours are included in this category. There are other proficiency tests in the Programme for food ingredients, see under the section headed Alcoholic Drinks, Fruit Juice & Soft Drinks.

Please note:

total sugars = that measured by a defined titration method (e.g. Lane-Eynon, Luff-Schoorl, Munson Walker) or, if measured by HPLC, the sum of fructose, glucose, sucrose, lactose, galactose and maltose. Not all sugars may be present.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
09/01/2019	FCFA8-CON21	20157	tomato sauce	brix, pH, total acidity, sodium, chloride, benzoic acid	150 g	177
04/03/2019	FCFA22-MRP23	20158	meat	sulphur dioxide	100 g	177
01/04/2019	FCFA22-SEA20	20159	prawns	sulphur dioxide	100 g	186
02/05/2019	FCFA4-CON7	20160	jam	brix, pH, benzoic acid, citric acid, sorbic acid	70 g	186
26/06/2019	FCFA14-PRO13	20161	chocolate cake mix	caffeine, sorbic acid, theobromine, total sugars	50 g	186
18/07/2019	FCFA20-CON17	20162	sugar confectionery (boiled sweets)	artificial colours	50 g	186
29/07/2019	FCFA22-FRU37	20163	dried apricot (water/fruit slurry)	sulphur dioxide	100 g	186
19/09/2019	FCFA1-OIL20	20164	oil	antioxidants	50 ml	186
07/10/2019	FCFA22-MRP23	20165	meat	sulphur dioxide	100 g	186
14/11/2019	FCFA19-CON5	20166	hot pepper sauce	illegal dyes (e.g. Sudan I, etc.)	50 ml	186
02/12/2019	FCFA22-FRU36	20167	dried apple (water/fruit slurry)	sulphur dioxide	100 g	186
08/01/2020	FCFA8-CON21	20168	tomato sauce	brix, pH, total acidity, sodium, chloride, benzoic acid	150 g	186
02/03/2020	FCFA22-MRP23	20169	meat	sulphur dioxide	100 g	186



Alcoholic Drinks, Fruit Juice & Soft Drinks

The soft drinks PTs focus on the permitted additives that are commonly found in these products. Some test materials may contain deliberately elevated concentrations of additives to replicate irregular production activity. Fruit juice test materials are usually prepared from commercially-available products without further modification. The alcoholic drinks PTs comprise a wide range of congeners that may be present from the manufacturing process, as well as commonly determined contaminants. Alcoholic strength may be determined by direct methods (report as real alcoholic strength) or indirect methods (report as apparent alcoholic strength).

The omission of item codes 1387 and 1388 is deliberate because these numbers were allocated to extra tests that were added to last year's programme.

Please note:

total sugars = that measured by a defined titration method (e.g. Lane-Eynon, Luff-Schoorl, Munson Walker) or, if measured by HPLC, the sum of fructose, glucose, sucrose, lactose, galactose and maltose. Not all sugars may be present.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
11/01/2019	FCFA2-DRN12	03149	cola drink	benzoic acid, caffeine, acesulfame-k, saccharin	150 ml	177
20/03/2019	FCFA23-DRN29	03150	soft drink	sweeteners	2 x 150 ml	186
23/05/2019	FCFA12-DRH11	03151	coffee (ground) - one regular, one decaffeinated	caffeine (as received)	2 x 30 g	186
24/07/2019	FCFA7-DRN29	03152	soft drink	brix, pH, citric acid, sorbic acid, cyclamate, saccharin, benzoic acid	150 ml	186
09/08/2019	FCFA20-DRN29	03153	soft drink	artificial colours	150 ml	186
17/10/2019	FCFA13-DRN12	03154	cola drink	benzoic acid, caffeine, total sugars, phosphoric acid (as P ₂ O ₅)	150 ml	186
06/11/2019	FCFA3-DRN32	03155	tonic water	benzoic acid, quinine, acesulfame-k, aspartame	150 ml	186
10/01/2020	FCFA2-DRN12	03156	cola drink	benzoic acid, caffeine, acesulfame-k, saccharin	150 ml	186
18/03/2020	FCFA23-DRN29	03157	soft drink	sweeteners	2 x 150 ml	195



Alcoholic Drinks, Fruit Juice & Soft Drinks (continued)

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
31/01/2019	FCFA09-DRN1	0871	apple juice	brix, pH, total acidity, total sugars, calcium, magnesium, phosphorus, potassium, sodium	250 ml	181
10/05/2019	FCNC1-DRN27	0872	pineapple juice	ash, brix, pH, total acidity, total sugars, calcium, magnesium, potassium, sodium	250 ml	190
04/09/2019	FCFA5-DRN26	0873	orange juice	brix, pH, citric acid, fructose, glucose, sucrose, total sugars, calcium, magnesium, phosphorus, potassium	250 ml	200
30/10/2019	FCFA10-DRN34	0874	pomegranate juice	brix, pH, total acidity, total sugars, calcium, magnesium, potassium, sodium	250 ml	190
30/01/2020	FCNC27-DRN1	0875	apple juice	brix, pH, total acidity, total sugars, calcium, magnesium, phosphorus, sodium	250 ml	190



Alcoholic Drinks, Fruit Juice & Soft Drinks (continued)

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
28/03/2019	FCOH3-DRA10	1386	whisky	alcoholic strength (real), alcoholic strength (apparent), ethanal (acetaldehyde), ethyl acetate, methanol, propan-1-ol, 2-methylpropan-1-ol, 2-methylbutan-1-ol + 3-methylbutan-1-ol (sum)	200 ml	248
30/04/2019	FCOH5-DRA13	1389	wine	wine quality indicators	3 x (4 x 250 ml)	414
07/08/2019	FCOH4-DRA13	1390	wine	alcoholic strength (real), total sulfur dioxide (SO ₂), total acidity, volatile acidity	220 ml	250
12/11/2019	FCOH5-DRA13	1391	wine	wine quality indicators	3 x (4 x 250 ml)	414
20/11/2019	FCOH6-DRA4	1392	brandy	alcoholic strength (real), alcoholic strength (apparent), butan-1-ol, ethanal (acetaldehyde), ethyl acetate, methanol, propan-1-ol, 2-methylpropan-1-ol, 2-methylbutan-1-ol + 3-methylbutan-1-ol (sum), ethyl carbamate	200 ml	250
18/03/2020	FCOH7-DRA10	1393	whisky	alcoholic strength (real), alcoholic strength (apparent), ethanal (acetaldehyde), ethyl acetate, methanol, propan-1-ol, 2-methylpropan-1-ol, 2-methylbutan-1-ol + 3-methylbutan-1-ol (sum)	200 ml	250



Wine Quality Indicators

The final definitive list of parameters is subject to change and will be notified to registered participants in advance of the start of the test.

volumic mass at 20°C	total polyphenol (expressed as gallic acid)	dissolved oxygen	lactic acid	cadmium
alcoholic strength (real)	carbon dioxide	turbidity	malic acid	calcium
alcoholic strength (apparent)	pH	filtration index	shikimic acid	copper
methanol	total acidity (expressed as tartaric acid)	Folin-Ciocalteu index	sorbic acid	iron
ethanal (acetaldehyde)	total volatile acidity (expressed as acetic acid)	colour intensity	tartaric acid	lead
4-ethyl-guaiacole	nitrate (total, ionic)	colour shade	glycerol	lithium
4-ethyl-phenol	chloride (expressed as NaCl)	total sugars	dry extract	magnesium
2,4,6-tribromoanisole	sulphate (total, as K ₂ SO ₄)	glucose + fructose (sum)	sulphur dioxide (free)	potassium
2,4,6-trichloroanisole	phosphate (total, ionic)	fructose	sulphur dioxide (total)	silver
2-pyrrolidone	overpressure (sparkling wines only)	sucrose	histamine	sodium
1-vinyl-2-pyrrolidone	ash	citric acid	ochratoxin a	zinc
1-vinylimidazole	ash alkalinity (0.1N HCl) (as CaCO ₃)	gluconic acid	arsenic	¹⁸ O/ ¹⁶ O isotope ratio
total polyphenol index				



Honey

The honey PTs are intended to meet the requirements detailed in the EU Honey Directive, for honey intended for human consumption. The analytes listed below are important determinands in evaluating the quality of honey (but not necessarily related to its authenticity). Some analytes may have artificially elevated levels. Levels of diastase will be dependent on the source of the honey used for the test material. HMF may be determined by either spectrophotometric methods or HPLC (there is no observable method dependency). There are other proficiency tests in the Programme with honey as the matrix, see under the sections headed Veterinary Drug Residues, and Pesticide Residues – Fresh Fruits, Vegetables, Tea, Herbs & Honey.

Please note:

Some tests may use an adulterated honey matrix

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
26/02/2019	FCQH3-HON2	2842	honey	moisture, fructose, glucose, sucrose, hydroxymethylfurfural (HMF), diastase & free acid	100 g	190
25/06/2019	FCQH2-HON2	2843	honey	moisture, fructose, glucose, sucrose, hydroxymethylfurfural (HMF), diastase	100 g	188
05/11/2019	FCQH1-HON2	2844	honey	fructose, glucose, sucrose, hydroxymethylfurfural (HMF), diastase, electrical conductivity, pH, lead	100 g	188
10/03/2020	FCQH3-HON2	2845	honey	moisture, fructose, glucose, sucrose, hydroxymethylfurfural (HMF), diastase, free acid	100 g	188



Feeding Stuffs

These PTs focus on the nutritional analyses (proximates and elements) for animal feed. Animal feed is used here to mean feed for animals raised to provide meat and products for human consumption but also for companion animals (pets).

There are other proficiency tests in the Programme with animal feed as the matrix, see under the sections headed Mycotoxins, Metallic Contaminants, Pesticide Residues – Cereals, and Melamine.

Please note:

total sugars = that measured by a defined titration method (e.g. Lane-Eynon, Luff-Schoorl, Munson Walker) or, if measured by HPLC, the sum of fructose, glucose, sucrose, lactose, galactose and maltose. Not all sugars may be present.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
23/01/2019	FCNE5-AFE17	10162	premix	calcium, magnesium, manganese, phosphorus, sodium & zinc	150 g	180
20/03/2019	FCNC20-AFE7	10163	dairy ration	moisture, ash, total oil, protein, crude fibre, iron, magnesium, manganese & selenium	225 g	344
06/06/2019	FCNC19-AFE14	10164	pig ration	moisture, ash, total oil, protein, crude fibre, aNDF, vitamin E, zinc	150 g	194
25/09/2019	FCNC7-AFE20	10165	soybean meal	moisture, ash, protein, crude fibre	150 g	194
02/10/2019	FCNC10-PFO7	10166	pet dog food (dry)	moisture, ash, total oil, protein, crude fibre, starch, total sugars, water activity	150 g	194
06/12/2019	FCNC21-AFE16	10167	poultry ration	moisture, ash, total oil, protein, crude fibre, starch, total sugars, calcium, phosphorus	225 g	351
30/01/2020	FCNE5-AFE17	10168	premix	calcium, magnesium, manganese, phosphorus, sodium, zinc	150 g	184
25/03/2020	FCNC20-AFE7	10169	dairy ration	moisture, ash, total oil, protein, crude fibre, iron, magnesium, manganese, selenium	225 g	351



Authenticity

The meat authenticity proficiency tests are designed to test the adulteration or high level contamination of a named meat with another animal species. The materials are therefore prepared at economically advantageous (high) concentrations with participants reporting presence or absence of named species. Participants may also report any other species that they screen for. For detection of low level contamination with pork, please see under the section headed Halal Compliance.

Please note:

The meat matrices are supplied as freeze-dried materials that require reconstitution by participants prior to testing.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
06/02/2019	FCAA4-MRP2	2981	beef	chicken, equine, lamb, pork	30 g	190
03/04/2019	FCAA3-MRP14	2982	chicken	beef, lamb, pork, turkey	30 g	196
19/07/2019	FCAA2-MRP22	2983	lamb	beef, chicken, goat, pork	30 g	196
21/10/2019	FCAS1-SEA11	2984	fish	Gadus macrocephalus (Tilesius 1810), Gadus morhua (Linnaeus 1758), Hippoglossus hippoglossus (Linnaeus 1758), Limanda limanda (Linnaeus 1758), Melanogrammus aeglefinus (Linnaeus 1758), Merlangius merlangus (Linnaeus 1758), Merluccius merluccius (Linnaeus 1758), Pangasius hypophthalmus (Sauvage 1878), Pleuronectes platessa (Linnaeus 1758), Pollachius virens (Linnaeus 1758), Gadus chalcogrammus (Pallas 1814) (previously Theragra chalcogramma)	3 x 10 g	196
14/11/2019	FCAA1-VEG44	2985	herb (<i>Organum</i> spp.)	adulteration	3 x 7 g	368
05/02/2020	FCAA4-MRP2	2986	beef	chicken, equine, lamb, pork	30 g	196



Allergens

The allergens proficiency tests cover a wide range of common allergic ingredients. With the exception of histamine, all the allergens tests require results to be reported according to the ELISA kit used. There is a recognised results-dependency of ELISA kits and assigned values will be specific to the kit used. Some of the proficiency tests are designed for specific allergen protein reporting (such as milk as BLG, for example).

Most of these proficiency tests are semi-blind, i.e. they combine qualitative detection and/or quantitative results reporting. Some tests will only be qualitative if the known detection technology is insufficiently quantitative. Histamine can be reported using test kits or HPLC methods.

Please note:

For the majority of tests, two test materials will be supplied and participants can submit qualitative and/or quantitative results. The exceptions are tests 27249 and 27260 which are purely qualitative tests.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
10/01/2019	FCAL13-INF13	27237	infant soya formula	beta-lactoglobulin, milk	2 x 20 g	195
24/01/2019	FCAL7-PRO14	27238	cooked biscuit	gluten, milk, egg	30 g	249
08/02/2019	FCAL16-CON2	27239	chocolate	peanut, peanut protein	2 x 20 g	195
21/02/2019	FCAL15-INF13	27240	infant soya formula	casein, milk, gluten	2 x 20 g	249
07/03/2019	FCAL12-CCP28	27241	flour	lupin	2 x 20 g	195
13/03/2019	FCAL9-PRO14	27242	cooked biscuit	hazelnut, peanut	50 g	249
29/03/2019	FCAL10-SEA7	27243	canned fish	histamine	145 g	195
05/04/2019	FCAL17-CCP49	27244	wheat flour	soya, soya protein	2 x 20 g	203
16/04/2019	FCAL5-PRO10	27245	cake mix	egg, egg white protein	2 x 20 g	203
25/04/2019	FCAL16-SPI10	27246	garlic powder	peanut, peanut protein	2 x 20 g	203
01/05/2019	FCAL6-PRO10	27247	cake mix	gluten	2 x 20 g	203
24/05/2019	FCAL8-CON2	27248	chocolate	hazelnut, hazelnut protein	2 x 20 g	203
07/06/2019	FCAL2-PRO27	27249	instant soup powder	celery, mustard	2 x 20 g	203
21/06/2019	FCAL14-INF6	27250	infant breakfast cereal	milk, casein	2 x 20 g	203
11/07/2019	FCAL7-PRO10	27251	cake mix	gluten, milk, egg	2 x 30 g	259
26/07/2019	FCAL6-CCP37	27252	oat based foodstuff	gluten	2 x 20 g	203
08/08/2019	FCAL11-SEA7	27253	canned fish	histamine	145 g	203
05/09/2019	FCAL1-CON2	27254	chocolate	almond, almond protein	2 x 20 g	203
26/09/2019	FCAL17-CCP49	27255	wheat flour	soya, soya protein	2 x 20 g	203



Allergens (continued)

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
01/10/2019	FCAL18-CON7	27256	jam	sulphites	80 g	203
22/10/2019	FCAL6-DRA1	27257	beer	gluten	2 x 50 ml	259
31/10/2019	FCAL10-SEA7	27258	canned fish	histamine	145 g	203
04/11/2019	FCAL19-CON23	27259	sauce (cooked)	fish	2 x 30 g	259
28/11/2019	FCAL3-CON2	27260	chocolate	Almond (<i>Amygdalus communis</i> L.), Hazelnut (<i>Corylus avellana</i>), Walnut (<i>Juglans regia</i>), Cashew (<i>Anacardium occidentale</i>), Pecan nut (<i>Carya illinoensis</i> (Wangenh.) K.Koch), Brazil nut (<i>Bertholletia excels</i>), Pistachio nut (<i>Pistacia vera</i>), Macadamia/Queensland nut (<i>macadamia ternifolia</i>), Peanut (<i>Arachis hypogaea</i>)	50 g	259
09/01/2020	FCAL13-INF13	27261	infant soya formula	beta-lactoglobulin, milk	2 x 20 g	203
23/01/2020	FCAL7-PRO14	27262	cooked biscuit	gluten, milk, egg	30 g	259
07/02/2020	FCAL16-CON2	27263	chocolate	peanut, peanut protein	2 x 20 g	203
20/02/2020	FCAL15-INF13	27264	infant soya formula	casein, milk, gluten	2 x 20 g	259
05/03/2020	FCAL12-CCP28	27265	flour	lupin	2 x 20 g	203
13/03/2020	FCAL9-PRO14	27266	cooked biscuit	hazelnut, peanut	50 g	259
26/03/2020	FCAL10-SEA7	27267	canned fish	histamine	145 g	203



Migration – Overall & Specific

The proficiency tests for migration include overall migration according to standard methods as well as specific food contact materials chemicals such as bisphenol A or phthalates. The test methods are standardised to specific conditions of immersion and to specified food simulants. Where the test method is intended to serve a number of different purposes, please follow the method provided in the instructions in order to ensure comparability of results.

Please note:

Where two test materials are supplied, one is a blank material.

The oil, aqueous acetic acid and aqueous ethanol matrices are food simulants.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
17/04/2019	FCCO1-PMM13	1159	nylon film	overall migration into ethanol	6 sheets, each 12 x 16 cm	190
23/10/2019	FCCO2-PMM16	1160	plastic film	overall migration into olive oil	to be decided	225

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
28/03/2019	FCCS5-OIL20	1291	oil	phthalates	2 x 50 ml	186
29/05/2019	FCCS4-PMM3	1292	3% aq. acetic acid	melamine	50 ml	197
03/07/2019	FCCS2-PMM4	1293	50% aqueous ethanol	bisphenol A	50 ml	197
13/09/2019	FCCS3-PMM3	1294	3% aq. acetic acid	formaldehyde	50 ml	197
18/10/2019	FCCS6-PMM3	1295	3% aq. acetic acid	total primary aromatic amines	>300 ml	197
27/11/2019	FCCS1-PMM3	1296	3% aq. acetic acid	barium, cobalt, copper, iron, lithium, manganese, zinc	50 ml	197
25/03/2020	FCCS5-OIL20	1297	oil	phthalates	2 x 50 ml	197



Environmental Contaminants

The test materials for Polycyclic Aromatic Hydrocarbons (PAHs) are prepared from contaminated sources where possible with over-spiking to ensure complete coverage of all advertised PAHs.

Please note:

Where 'PAH 4 sum' is shown, this refers to the sum of benzo[a]pyrene (BaP), benz[a]anthracene (BaA), benzo[b]fluoranthene (BbF) and chrysene (CHR), as regulated by the EU.

Refer to our website for details of which PAHs, dioxins, PCBs, PBDEs and PFASs are in each test.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
27/02/2019	FCCE2-OIL24	0679	palm oil	PAHs (including PAH4 sum)	30 ml	344
30/04/2019	FCCE2-SEA23	0680	shellfish (bivalve molluscs)	PAHs (including PAH4 sum)	50 g	357
24/05/2019	FCCE1-OIL22	0681	olive oil	all 16 EU priority PAHs	30 ml	406
14/06/2019	FCCE4-MRP35	0682	pork (freeze dried)	dioxins, PCBs & PBDEs	70 g	365
09/07/2019	FCCE2-FAT7	0683	cocoa butter	PAHs (including PAH4 sum)	50 g	365
09/09/2019	FCCE2-SEA25	0684	smoked fish product	PAHs (including PAH4 sum)	50 g	365
24/10/2019	FCCE4-OIL10	0685	cod liver oil	dioxins, PCBs & PBDEs	30 ml	365
15/11/2019	FCCE1-SUP8	0686	spirulina	all 16 EU priority PAHs	15 g	406
14/01/2020	FCCE5-SEA11	0687	sea fish	perfluoroalkylated substances (PFASs)	50 g	258
27/02/2020	FCCE2-OIL24	0688	palm oil	PAHs (including PAH4 sum)	30 ml	365



Acrylamide, Furan, 3-MCPD, Melamine

These proficiency tests cover the major analytes produced as food processing contaminants. The matrices are chosen as those most typically susceptible to these types of contaminants. In certain cases, there are proficiency tests designed for low level and high level contamination concentrations; the concentration range of interest is indicated in the analyte description.

Please note:

Some tests, e.g. those for furans in coffee, have a short timescale for the submission of results. The stability of such test materials will be assessed as part of the sample preparation procedures.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
21/03/2019	FCCP2-CON15	2655	soy sauce	3-MCPD, 1, 3-DCP, 2-MCPD	40 g	190
25/04/2019	FCCP1-INF10	2656	infant formula	3-MCPD esters, glycidyl esters (ester-bound glycidol), 2-MCPD esters	50 g	201
12/06/2019	FCCP1-PRO31	2657	potato crisps	3-MCPD esters, glycidyl esters (ester-bound glycidol), 2-MCPD esters	50 g	201
18/09/2019	FCCP1-OIL30	2658	vegetable oil	3-MCPD esters, glycidyl esters (ester-bound glycidol), 2-MCPD esters	50 ml	201
26/02/2020	FCCP2-CON15	2659	soy sauce	3-MCPD, 1, 3-DCP, 2-MCPD	40 g	201



Acrylamide, Furan, 3-MCPD, Melamine (continued)

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
21/01/2019	FCCP4-DRH6	3088	coffee	furan, 2-methylfuran, 3-methylfuran	100 g	181
14/02/2019	FCCP3-PRO31	3089	potato crisps	acrylamide	50 g	181
14/03/2019	FCCP7-INF10	3090	infant formula	melamine & cyanuric acid	50 g	181
08/05/2019	FCCP3-PRO37	3091	vegetable crisps	acrylamide	50 g	192
07/06/2019	FCCP3-INF8	3092	infant foodstuff (biscuits for infants)	acrylamide	50 g	192
19/06/2019	FCCP5-AFE1	3093	animal feed	melamine, cyanuric acid	50 g	192
25/07/2019	FCCP3-PRO2	3094	biscuit (cookie)	acrylamide	50 g	192
24/09/2019	FCCP3-PRO25	3095	french fries (pre-cooked)	acrylamide	50 g	192
10/10/2019	FCCP6-DRY14	3096	milk powder	melamine, cyanuric acid	50 g	192
08/11/2019	FCCP3-DRH12	3097	coffee (instant)	acrylamide	50 g	192
20/01/2020	FCCP9-DRH6	3098	coffee	furan, 2-methylfuran, 3-methylfuran	100 g	192
13/02/2020	FCCP3-PRO31	3099	potato crisps	acrylamide	50 g	192
06/03/2020	FCCP7-INF10	30100	infant formula	melamine, cyanuric acid	50 g	192



Nitrate & Nitrite

The test samples are produced as naturally-occurring where possible. For green leafy vegetables such as rocket (rucola) the levels might be very high. The analyte description and instructions will specify how nitrate and nitrite are to be reported, either as the free ionic form or as the sodium salts.

Please note:

Although the meat matrices are supplied as freeze-dried materials they are to be tested 'as received', i.e. must NOT be reconstituted by participants prior to testing.

Please note:

Some tests, e.g. those with meat or milk powder matrices, have a short timescale for the submission of results. The stability of such test materials will be assessed as part of the sample preparation procedures.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
16/01/2019	FCFA18-MRP23	15134	meat	nitrate as NaNO ₃ & nitrite as NaNO ₂	25 g	177
01/03/2019	FCFA18-DRY14	15135	milk powder	nitrate as NaNO ₃ & nitrite as NaNO ₂	40 g	177
16/05/2019	FCFA18-MRP23	15136	meat	nitrate as NaNO ₃ & nitrite as NaNO ₂	25 g	186
11/06/2019	FCFA17-VEG32	15137	cabbage purée	nitrate	70 g	186
20/08/2019	FCFA17-VEG49	15138	lettuce purée	nitrate	70 g	186
20/09/2019	FCFA18-MRP23	15139	meat	nitrate as NaNO ₃ & nitrite as NaNO ₂	25 g	186
29/10/2019	FCFA17-VEG60	15140	rocket (rucola) purée	nitrate	70 g	186
02/12/2019	FCFA17-VEG70	15141	spinach purée	nitrate	70 g	186
15/01/2020	FCFA18-MRP23	15142	meat	nitrate as NaNO ₃ & nitrite as NaNO ₂	25 g	186
28/02/2020	FCFA18-DRY14	15143	milk powder	nitrate as NaNO ₃ & nitrite as NaNO ₂	40 g	186



Veterinary Drug Residues

The veterinary drug residues proficiency tests are separated according to the chemical class of drugs. The matrices are chosen as typical of those monitored for the chemical class of interest. Some matrices are chosen for the concentration of the drug in the animal, not necessarily the part of the animal that would be consumed. We intend to use material containing incurred residues from animal dosing studies where possible. Some test materials might be a combination of incurred and spiked residues, inclusive of major metabolites.

Incurred materials at high concentration are combined with blank matrix to produce the final test material. Blank test matrices are additionally provided where listed so that participants can produce exact matrix-matched calibration standards or for other quality control purposes.

Most of these proficiency tests are semi-blind, i.e. they incorporate both identification and quantification of a analytes from a given list of potential residues. The proficiency test reports include additional residues reported by participants and highlight where required residues were not detected.

Please note:

All tests have a short timescale for the submission of results.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
07/01/2019	FCVD20-SEA13	02365	fish muscle	sulphonamides	20 g	243
		02365b	blank fish muscle			
14/01/2019	FCVD11-SEA13	02366	fish muscle	malachite green, leucomalachite green, total malachite green	20 g	243
	BLVD11-SEA2	02366b	blank fish muscle	74		
04/02/2019	FCVD15-EGG2	02367	chicken eggs	quinolones & fluoroquinolones	20 g	243
19/02/2019	FCVD22-SEA20	02368	prawns	tetracyclines	20 g	243
	BLVD22-SEA4	02368b	blank prawns			
26/03/2019	FCVD25-MRP8	02369	bovine muscle	sulphonamides & trimethoprim	20 g	243
02/04/2019	FCVD27-HON2	02370	honey	chloramphenicol, thiamphenicol, florfenicol, total phenicols	20 g	248
	BLVD27-HON1	02370b	blank honey			
08/04/2019	FCVD15-SEA13	02371	fish muscle	quinolones & fluoroquinolones	20 g	248
	BLVD15-SEA2	02371b	blank fish muscle			
08/04/2019	FCVD12-MRP32	02372	pig muscle	nitrofurans metabolites	20 g	248



Veterinary Drug Residues (continued)

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
20/05/2019	FCVD1-SEA13	02373	fish muscle	ivermectins	20 g	248
	BLVD1-SEA2	02373b	blank fish muscle		20 g	75
20/05/2019	FCVD17-MRP30	02374	pig liver	beta-agonists	20 g	248
04/06/2019	FCVD10-SEA13	02375	fish muscle	illegal dyes (vet. drugs)	20 g	248
	BLVD10-SEA2	02375b	blank fish muscle		20 g	75
24/06/2019	FCVD21-MRP9	02376	bovine urine	synthetic hormones	25 ml	248
	BLVD21-MRP46	02376b	blank bovine urine		25 ml	75
08/07/2019	FCVD26-MRP6	02377	bovine kidney	tetracyclines, aminoglycosides	40 g	248
23/07/2019	FCVD20-HON2	02378	honey	sulfonamides	20 g	248
	BLVD20-HON1	02378b	blank honey		20 g	75
05/08/2019	FCVD7-MRP17	02379	chicken muscle	coccidiostats	20 g	248
05/08/2019	FCVD13-MRP17	02380	chicken muscle	nitroimidazoles	20 g	248
27/08/2019	FCVD2-MRP7	02381	bovine liver	ivermectins, anthelmintics	40 g	248
23/09/2019	FCVD28-DRY4	02382	bovine milk	phenolics	25 ml	248
23/09/2019	FCVD18-DRY4	02383	bovine milk	beta-lactams	25 ml	248
14/10/2019	FCVD12-SEA20	02384	prawns	nitrofurans metabolites	20 g	248
	BLVD12-SEA4	02384b	blank prawns		20 g	75
14/10/2019	FCVD22-SEA13	02385	fish muscle	tetracyclines	20 g	248
	BLVD22-SEA2	02385b	blank fish muscle		20 g	75
21/10/2019	FCVD23-MRP37	02386	rabbit muscle	coccidiostats, sulfonamides	40 g	248
18/11/2019	FCVD3-SEA20	02387	prawns	chloramphenicol	20 g	248
	BLVD3-SEA4	02387b	blank prawns		20 g	75
18/11/2019	FCVD14-HON2	02388	honey	nitroimidazoles & aminoglycosides	40 g	248
	BLVD14-HON1	02388b	blank honey		20 g	75
09/12/2019	FCVD24-DRY4	02389	bovine milk	NSAIDs	25 ml	248



Veterinary Drug Residues (continued)

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
06/01/2020	FCVD11-SEA13	02390	fish muscle	malachite green, leucomalachite green, total malachite green	20 g	248
	BLVD11-SEA2	02390b	blank fish muscle		20 g	75
03/02/2020	FCVD15-HON2	02391	honey	quinolones, fluoroquinolones	20 g	248
	BLVD15-HON1	02391b	blank honey		20 g	75
17/02/2020	FCVD22-SEA20	02392	prawns	tetracyclines	20 g	248
	BLVD22-SEA4	02392b	blank prawns		20 g	75
23/03/2020	FCVD29-MRP6	02393	bovine kidney	sulphonamides, trimethoprim, macrolides	20 g	248



Potential Veterinary Drug Residues

Potential veterinary drug residues in tests where only general categories are stated.

general category	potential residues
β-agonists	bromchlorbuterol, brombuterol, cimaterol, cimbuterol, clenbuterol, clenpenterol, clenproperol, hydroxyclenbuterol, hydroxymethylclenbuterol, isoxsuprine, mabuterol, mapenterol, ractopamine, ritodrin, salbutamol, salmeterol, terbutaline, tulobuterol, total β-agonists
anthelmintics	albendazole-sulfone, albendazole-2-amino-sulfone, albendazole-sulfoxide, total albendazole, closantel, febantel, fenbendazole, oxfendazole, oxfendazole-sulfone, total oxfendazole-sulfone, flubendazole, aminoflubendazole, hydroxyflubendazole, total flubendazole, levamisole, mebendazole, hydroxymebedazole, aminomebendazole (mebendazole amine), total mebendazole, Nitroxinil (Nitroxynil), thiabendazole, 5-hydroxythiabendazole, total thiabendazole, triclabendazole, triclabendazole-sulfone, triclabendazole-sulfoxide, ketotriclabendazole, total triclabendazole, total avermectins, total benzimidazoles
avermectins	abamectin (avermectin B1a only), doramectin, emamectin, eprinomectin, ivermectin, moxidectin, total avermectins
cephalosporins	cefalexin, cefalonium, cefapirin, desacetylcefapirin, cefazolin, cefoperazone, cefquinome
coccidiostats	clopidol, decoquinate, diclazuril, DNC (nicarbazin component), halofuginone, lasalocid, maduramycin, monensin, narasin, robenidine, salinomycin, semduramycin, toltrazuril-sulfone, total coccidiostats
glucocorticoids	betamethasone, dexamethasone, prednisolone, total glucocorticoids, malachite green
illegal dyes (veterinary drugs)	leucomalachite green, total malachite green, crystal violet, leucocrystal violet, total crystal violet, brilliant green, total veterinary dyes
nitrofurans metabolites	AHD (bound), AHD (total), AOZ (bound), AOZ (total), AMOZ (bound), AMOZ (total), SEM (bound), SEM (total), total nitrofurans metabolites
nitroimidazoles	dimetridazole, 2-hydroxy dimetridazole (HMMNI), ipronidazole, 2-hydroxy ipronidazole, metronidazole, 2-hydroxy metronidazole, ronidazole, total nitroimidazoles
non-steroidal anti-inflammatory drugs (NSAIDs)	carprofen, diclofenac, flunixin, 5-hydroxyflunixin, ibuprofen, ketoprofen, meloxicam, naproxen, niflumic acid, oxyphenylbutazone, phenylbutazone, tofenamic acid, vedaprofen, total NSAIDs
penicillins	amoxicillin, ampicillin, benzyl penicillin (penicillin G), penicillin V, cloxacillin, dicloxacillin, nafcillin, oxacillin
quinolones & fluoroquinolones	flumequine, nalidixic acid, oxolinic acid, ciprofloxacin, danofloxacin, difloxacin, enrofloxacin, marbofloxacin, norfloxacin, sarafloxacin, total quinolones
sulfonamides	sulfachloropyridazine, sulfadiazine, sulfadimethoxine, sulfadimidine (sulfamethazine), sulfadoxine, sulfaguandine, sulfamerazine, sulfamethizole, sulfamethoxazole, sulfamethoxy-pyridazine, sulfamonomethoxine, sulfamoxole, sulfanilamide, sulfapyridine, sulfaquinoxaline, sulfathiazole, sulfisoxazole, total sulfonamides
synthetic hormones	alpha-Boldenone, methylboldenone, diethylstilbestrol (DES), dienestrol, hexoestrol, methyltestosterone, alpha-Nortestosterone, stanozolol, 16beta-hydroxystanozolol, alpha-trenbolone, beta-trenbolone, zeranol (alpha-zearalanol), taleranol (beta-zearalanol), total synthetic hormones
tetracyclines	total chlortetracycline (parent + epimer), doxycycline, total oxytetracycline (parent + epimer), total tetracycline (parent + epimer), total tetracyclines (all)
aminoglycosides	apramycin, dihydrostreptomycin, gentamicin, kanamycin, neomycin, paromomycin, spectinomycin, streptomycin, total aminoglycosides
gestagens	altrenogest, chlormadinone, medroxyprogesterone, megestrol, melengestrol, total gestagens
macrolides	3-O-acetyltylosin, erythromycin, gamithromycin, josamycin, lincomycin, oleandomycin, pirlimycin, rifampicin, spiramycin, tildipirosin, tilmicosin, tulathromycin, tylosin A, tylosin B, total tylosin, tylvalosin (aivlosin), virginiamycin, total macrolides
natural hormones	boldenone, 17beta-boldenone conjugate, ethinylestradiol, 17beta-oestradiol (estradiol), 17alpha-19-nortestosterone, 17beta-19-nortestosterone (nandrolone), 17beta-testosterone, 17alpha-trenbelone, 17beta-trenbelone, total natural hormones
phenicols	chloramphenicol, florfenicol, florfenicol-amine, thiamphenicol
thyrostats	6-methyl-2-thiouracil (methylthiouracil), dimethylthiouracil, ethylthiouracil, methimazole (tapazole), mercaptobenzimidazole, thiouracil, phenylthiouracil, propylthiouracil, total thyrostats
tranquilizers	acepromazine, azaperol, azaperone, carazolol, chlorpromazine hydrochloride, haloperidol, propionylpromazine hydrochloride, xylazine, total tranquilizers



Mycotoxins – Aflatoxins & Multi-Mycotoxins

The mycotoxins proficiency tests are separated according to the class of mycotoxins. This series of proficiency tests principally includes aflatoxins (B and G and/or total) plus AFM₁ specifically for milk powder. Multiple mycotoxins inclusive of aflatoxins are represented in this series, which may be named as required determinands or as a challenge test for non-specified mycotoxins.

The tests described as ‘multi-mycotoxins’ are target analyte quantification tests. Please refer to our website for details of which mycotoxins are specified as analytes in these tests.

The tests described as ‘mycotoxin contamination’ tests are semi-blind, i.e. they incorporate both identification and quantification of analytes from a given list of potential mycotoxins. Please refer to our website for the list of potential mycotoxins that might be present.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
02/01/2019	FCMA2-CCP30	04352	maize	aflatoxins B & G &/or total AF	55 g	181
15/01/2019	FCMA2-NUT14	04353	pistachio (water/nut slurry)	aflatoxins B & G &/or total AF	100 g	181
07/02/2019	FCMM1-CCP30	04354	maize	multi-mycotoxins	150 g	314
20/02/2019	FCMA1-DRY14	04355	milk powder	aflatoxin M ₁	55 g	181
07/03/2019	FCMM4-SPI1	04356	black pepper	multi-mycotoxins	75 g	242
19/03/2019	FCMA2-NUT9	04357	peanut (water/nut slurry)	aflatoxins B & G &/or total AF	100 g	181
04/04/2019	FCMA2-AFE2	04358	animal feed (cereal based)	aflatoxins B & G &/or total AF	55 g	188
10/04/2019	FCMM3-CCP30	04359	maize	multi-mycotoxins	150 g	458
24/04/2019	FCMM6-INF8	04360	infant food	mycotoxin contamination	200 g	327
07/05/2019	FCMA2-NUT1	04361	almond (water/nut slurry)	aflatoxins B & G &/or total AF	100 g	188
22/05/2019	FCMA2-CCP30	04362	maize	aflatoxins B & G &/or total AF	55 g	188
06/06/2019	FCMA1-DRY14	04363	milk powder	aflatoxin M ₁	55 g	188
20/06/2019	FCMM4-SPI14	04364	paprika	multi-mycotoxins	75 g	252
08/07/2019	FCMA2-NUT6	04365	hazelnut (water/nut slurry)	aflatoxins B & G &/or total AF	100 g	188
01/08/2019	FCMM3-CCP30	04366	maize	multi-mycotoxins	150 g	458
13/08/2019	FCMM4-FRU38	04367	dried figs (water/fruit slurry)	multi-mycotoxins	150 g	252
12/09/2019	FCMM4-SPI6	04368	chilli powder	multi-mycotoxins	75 g	252
24/09/2019	FCMA2-NUT9	04369	peanut (water/nut slurry)	aflatoxins B & G &/or total AF	100 g	188



Mycotoxins – Aflatoxins & Multi-Mycotoxins (continued)

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
04/10/2019	FCMA1-DRY14	04370	milk powder	aflatoxin M ₁	55 g	188
17/10/2019	FCMA2-AFE2	04371	animal feed (cereal based)	aflatoxins B & G &/or total AF	55 g	188
30/10/2019	FCMM2-CCP30	04372	maize	multi-mycotoxins	150 g	327
07/11/2019	FCMM4-SPI23	04373	ginger	multi-mycotoxins	75 g	252
21/11/2019	FCMA2-CCP43	04374	rice	aflatoxins B & G &/or total AF	55 g	188
06/12/2019	FCMM5-AFE2	04375	animal feed (cereal based)	mycotoxin contamination	200 g	327
09/01/2020	FCMA2-CCP30	04376	maize	aflatoxins B & G &/or total AF	55 g	188
20/01/2020	FCMA2-NUT14	04377	pistachio (water/nut slurry)	aflatoxins B & G &/or total AF	100 g	188
06/02/2020	FCMM1-CCP30	04378	maize	multi-mycotoxins	150 g	327
19/02/2020	FCMA1-DRY14	04379	milk powder	aflatoxin M ₁	55 g	188
05/03/2020	FCMM4-SPI1	04380	black pepper	multi-mycotoxins	75 g	252
16/03/2020	FCMA2-NUT9	04381	peanut (water/nut slurry)	aflatoxins B & G &/or total AF	100 g	188
26/03/2020	FCMM9-CCP38	04382	oat flour	multi-mycotoxins	55 g	327



Mycotoxins – Patulin

The mycotoxins proficiency tests are separated according to the class of mycotoxins. This series of proficiency tests is specifically for patulin in the most commonly occurring matrices. Juice matrices are specified as clear or cloudy. A depectinisation step may be used for cloudy juice.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
29/01/2019	FCMP1-DRN2	1669	apple juice (clear)	patulin	50 ml	181
23/04/2019	FCMP1-FRU2	1670	apple purée	patulin	60 g	188
29/10/2019	FCMP1-DRN3	1671	apple juice (cloudy)	patulin	50 ml	188
28/01/2020	FCMP1-DRN2	1672	apple juice (clear)	patulin	50 ml	188



Mycotoxins – Ochratoxin A

The mycotoxins proficiency tests are separated according to the class of mycotoxins. This series of proficiency tests is specific for ochratoxin A but includes the analytically related citrinin where relevant.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
24/01/2019	FCMO1-CCP49	17189	wheat flour	ochratoxin A	55 g	181
27/02/2019	FCMM8-CCP28	17190	flour	ochratoxin A & citrinin	100 g	181
19/03/2019	FCMO1-MRP27	17191	offal (liver)	ochratoxin A	75 g	181
01/04/2019	FCMO1-FRU43	17192	dried vine fruit (water/fruit slurry)	ochratoxin A	100 g	188
23/05/2019	FCMO1-CCP4	17193	barley flour	ochratoxin A	55 g	188
19/07/2019	FCMO1-DRH9	17194	coffee (green)	ochratoxin A	55 g	188
05/09/2019	FCMO1-CCP32	17195	maize flour	ochratoxin A	55 g	188
18/10/2019	FCMO1-DRH18	17196	instant coffee	ochratoxin A	55 g	188
15/11/2019	FCMO1-AFE1	17197	animal feed	ochratoxin A	55 g	188
29/11/2019	FCMO1-DRH21	17198	roasted coffee	ochratoxin A	55 g	188
29/01/2020	FCMO1-CCP49	17199	wheat flour	ochratoxin A	55 g	188
28/02/2020	FCMM8-CCP28	17200	flour	ochratoxin A & citrinin	100 g	188
23/03/2020	FCMO1-MRP27	17201	offal (liver)	ochratoxin A	75 g	188



Mycotoxins – Fusarium Toxins / Trichothecenes / Plant Toxins

The mycotoxins proficiency tests are separated according to the class of mycotoxins. This series of proficiency tests includes the fusarium toxins as well as the related trichothecenes. In addition, this series of proficiency tests now includes plant toxins such as the ergot and tropane alkaloids.

Refer to our website for full details of the ergot and tropane alkaloids in those tests.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
03/01/2019	FCMF1-CCP13	22157	breakfast cereal	deoxynivalenol (DON) & zearalenone (ZON)	55 g	237
13/03/2019	FCME1-CCP47	22158	rye flour	ergot alkaloids	55 g	384
05/04/2019	FCMF4-CCP38	22159	oat flour	T-2, HT-2, sum T2 & HT-2	55 g	184
16/05/2019	FCMF2-PRO17	22160	dried pasta	deoxynivalenol (DON), zearalenone (ZON), T-2, HT-2, sum T2 & HT-2	75 g	184
20/06/2019	FCMF3-CCP32	22161	maize flour	fumonisin B ₁ , fumonisin B ₂ , total fumonisins (sum FB ₁ & FB ₂)	55 g	246
25/07/2019	FCMF5-CCP32	22162	maize flour	trichothecenes	150 g	448
21/08/2019	FCME1-INF17	22163	baby food (multigrain)	ergot alkaloids	30 g	399
25/09/2019	FCMF2-AFE1	22164	animal feed	deoxynivalenol (DON), zearalenone (ZON), T-2, HT-2, sum T2 & HT-2	75 g	286
10/10/2019	FCMF6-INF17	22165	baby food (multigrain)	tropane alkaloids	30 g	246
13/11/2019	FCMF2-CCP49	22166	wheat flour	deoxynivalenol (DON), zearalenone (ZON), T-2, HT-2, sum T2 & HT-2	75 g	286
02/01/2020	FCMF1-CCP13	22167	breakfast cereal	deoxynivalenol (DON), zearalenone (ZON)	55 g	246
26/02/2020	FCMF6-CCP15	22168	cereal	tropane alkaloids	30 g	246
11/03/2020	FCME1-CCP47	22169	rye flour	ergot alkaloids	55 g	399



Metallic Contaminants

This series of proficiency tests includes the mostly commonly sought toxic heavy metals. For nutritionally important elements analysis, please see section headed Nutritional Elements. The test materials generally will be incurred but may be over-spiked to elevate the concentrations closer to legislated levels. Some proficiency tests will only be at the naturally occurring (low) levels and these are indicated in the analyte description. Where the heavy metal speciation is important, this is indicated in the analyte description (for example, total arsenic and inorganic arsenic).

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
04/01/2019	FCCM12-DRY14	07327	milk powder	arsenic (total), cadmium, lead, mercury (total)	50 g	181
23/01/2019	FCCM3-DRN29	07328	soft drink	antimony, arsenic (total), cadmium, chromium, copper, zinc	50 ml	181
01/02/2019	FCCM6-SEA6	07329	canned crab meat	arsenic (total), arsenic (inorganic), cadmium, lead, mercury (total)	150 g	181
11/02/2019	FCCM21-VEG74	07330	tomato paste	cadmium, iron, lead, tin	50 g	181
06/03/2019	FCCM17-SEA7	07331	canned fish	arsenic (total), mercury (total), methyl mercury	150 g	181
26/03/2019	FCCM21-FRU51	07332	grapefruit purée	cadmium, lead, iron, tin	50 g	181
04/04/2019	FCCM6-PRO33	07333	rice cakes	arsenic (total), arsenic (inorganic), cadmium, lead, mercury (total)	35 g	192
11/04/2019	FCCM28-CCP4	07334	barley flour	aluminium, arsenic (total), cadmium, copper, lead, mercury (total), nickel	50 g	192
24/04/2019	FCCM2-INF10	07335	infant formula	aluminium, cadmium, chromium, iodine, molybdenum, selenium	50 g	192
03/05/2019	FCCM11-SEA7	07336	canned fish	arsenic (total), cadmium, mercury (total)	150 g	192
08/05/2019	FCCM19-HON2	07337	honey	cadmium, lead	50 g	192
29/05/2019	FCCM29-CCP49	07338	wheat flour	aluminium, arsenic (total), cadmium, lead, mercury (total), nickel	50 g	192



Metallic Contaminants (continued)

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
05/06/2019	FCCM16-OIL30	07339	vegetable oil	arsenic (total), copper, iron, lead	50 ml	192
21/06/2019	FCCM31-DRH5	07340	cocoa powder	arsenic (total), cadmium, lead	50 g	192
26/06/2019	FCCM10-SPI6	07341	chilli powder	arsenic (total), cadmium, lead	50 g	192
04/07/2019	FCCM6-CCP41	07342	powdered brown rice	arsenic (total), arsenic (inorganic), cadmium, lead, mercury (total)	50 g	192
17/07/2019	FCCM13-MRP27	07343	offal (liver)	arsenic (total), cadmium, lead, mercury (total)	50 g	192
31/07/2019	FCCM25-DRA13	07344	wine	pH, cadmium, copper, lead	50 ml	192
15/08/2019	FCCM15-SEA7	07345	canned fish	arsenic (total), cadmium, mercury (total)	150 g	192
28/08/2019	FCCM12-DRY14	07346	milk powder	arsenic (total), cadmium, lead, mercury (total)	50 g	192
09/09/2019	FCCM27-SEA27	07347	squid	cadmium, lead, mercury (total)	50 g	192
20/09/2019	FCCM22-INF7	07348	infant cereal (rice based)	arsenic (inorganic), arsenic (total), cadmium, chromium, lead, mercury (total), selenium	50 g	192
01/10/2019	FCCM21-DRN17	07349	fruit juice	arsenic (inorganic), cadmium, iron, lead, tin	50 ml	192
23/10/2019	FCCM1-VEG68	07350	soya flour	aluminium, arsenic (total), cadmium, lead, mercury (total)	50 g	192
04/11/2019	FCCM24-VEG79	07351	vegetable purée	cadmium, lead, tin, nickel	50 g	192
13/11/2019	FCCM7-CCP42	07352	powdered rice	arsenic (inorganic), arsenic (total), cadmium, lead, mercury (total)	50 g	192
28/11/2019	FCCM30-AFE1	07353	animal feed	arsenic (total), cadmium, lead, mercury (total), nickel	50 g	192
04/12/2019	FCCM27-SUP2	07354	food supplement	cadmium, chromium, lead, mercury (total)	50 g	192



Metallic Contaminants (continued)

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
10/01/2020	FCCM12-DRY14	07355	milk powder	arsenic (total), cadmium, lead, mercury (total)	50 g	192
22/01/2020	FCCM3-DRN29	07356	soft drink	antimony, arsenic (total), cadmium, chromium, copper, zinc	50 ml	192
31/01/2020	FCCM6-SEA6	07357	canned crab meat	arsenic (total), arsenic (inorganic), cadmium, lead, mercury (total)	150 g	192
10/02/2020	FCCM21-VEG74	07358	tomato paste	cadmium, iron, lead, tin	50 g	192
04/03/2020	FCCM17-SEA7	07359	canned fish	arsenic (total), mercury (total), methyl mercury	150 g	192
24/03/2020	FCCM21-FRU51	07360	grapefruit purée	cadmium, lead, iron, tin	50 g	192



Pesticide Residues – Animal Products / Fats and Oils

The pesticide residues proficiency tests are separated according to the matrix-pesticide analytical compatibility. This series of proficiency tests is for fat-soluble pesticides which may typically be found in fats, oils and animal products. The majority of the pesticides are spiked into the material, occasionally elevating incurred low levels of pesticides. The same blank material is available for purchase so that participating laboratories can correctly matrix-match calibration standards or for other quality control purposes.

Most of these proficiency tests are semi-blind, i.e. they incorporate both identification and quantification of a analytes from a given list of potential residues. The proficiency test reports include additional residues reported by participants and highlight where required residues were not detected.

The residue definitions, reporting requirements and quality control specifications are derived from EU legislation and guidance.

Each test material will contain any number of pesticides. Refer to the relevant tables below for the full lists of potential residues in a test material.

Please note:

The omission of item code 05134 is deliberate because this number was allocated to an extra test that was added to last year's programme.

Blank matrix test materials can ONLY be purchased if the corresponding test is ordered.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
16/01/2019	FCPM10-INF10	05132	infant formula (powdered)	pesticides (fat soluble & EU 'red list')	50 g	190
	BLPM10-INF5	05132b	blank infant formula (powdered)		50 g	57
04/03/2019	FCPM9-EGG2	05133	chicken (hens) eggs	pesticides (fat soluble)	50 g	190
	BLPM9-EGG1	05133b	blank chicken (hens) eggs		50 g	57
28/05/2019	FCPM9-SEA18	05135	oily fish	pesticides (fat soluble)	50 g	198
	BLPM9-SEA3	05135b	blank oily fish		50 g	59
31/07/2019	FCPM9-DRY14	05136	milk powder	pesticides (fat soluble)	50 g	198
	BLPM9-DRY2	05136b	blank milk powder		50 g	59
17/09/2019	FCPM9-FAT2	05137	animal fat (pork)	pesticides (fat soluble)	50 g	198
	BLPM9-FAT3	05137b	blank animal fat (pork)		50 g	59



Pesticide Residues – Animal Products / Fats and Oils (continued)

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
09/10/2019	FCPM2-OIL34	05138	olive oil (virgin)	pesticides (multi-residue)	50 g	198
	BLPM2-OIL36	05138b	blank olive oil (virgin)		50 g	59
26/11/2019	FCMS1-SEA20	05139	prawns	quaternary ammonium compounds	50 g	198
	BLMS1-SEA4	05139b	blank prawns		50 g	59
15/01/2020	FCPM10-INF10	05140	infant formula	pesticides (fat soluble) AND perchlorate	50 g	198
	BLPM10-INF5	05140b	blank infant formula		50 g	59
02/03/2020	FCPM9-EGG2	05141	chicken (hens) eggs	pesticides (fat soluble) AND (recommended monitoring)	50 g	198
	BLPM9-EGG1	05141b	blank chicken (hens) eggs		50 g	59



Potential Pesticide Residues and PCBs – Fat Soluble

Parent compound only unless otherwise stated

aldrin	cypermethrin (sum of constituent isomers)	endrin	indoxacarb (sum of indoxacarb and its R enantiomer)	spinosad (sum of spinosyn A and D)
azinphos-ethyl	DDD-pp (TDE)	famoxadone	methidathion	tecnazene
bifenthrin	DDE-pp	fenthion (parent)	methoxychlor	triazophos
chlordane (cis)	DDT-op	fenvalerate (sum of constituent isomers in any ratio including esfenvalerate)	parathion (ethyl)	vinclozolin
chlordane (oxy)	DDT-pp	HCB (hexachlorobenzene)	parathion-methyl	PCB 28
chlordane (trans)	deltamethrin	HCH-A (alpha hexachlorocyclohexane)	pendimethalin	PCB 52
chlorfenvinphos (sum of E and Z isomers)	diazinon	HCH-B (beta hexachlorocyclohexane)	permethrin (sum of isomers)	PCB 101
chlorpyrifos (ethyl)	dieldrin	HCH-G (gamma hexachlorocyclohexane / lindane)	pirimiphos-methyl	PCB 118
chlorpyrifos-methyl	endosulfan I (alpha)	heptachlor	profenofos	PCB 138
cyfluthrin (sum of constituent isomers)	endosulfan II (beta)	heptachlor-epoxide (cis)	pyrazophos	PCB 153
cyhalothrin-lambda	endosulfan-sulfate	heptachlor-epoxide (trans)	quintozene	PCB 180

Potential Pesticide Residues – EU ‘Red List’

Low level, based on EU-MRLs. Parent compound only unless otherwise stated

cadusafos	fensulfothion-oxon-sulfone
demeton-S-methyl-sulfone	fensulfothion-sulfone
demeton-S-methyl-sulfoxide (oxydemeton-methyl)	fentin (as triphenyltin cation)
diphenylamine	fipronil (parent)
disulfoton	haloxyfop (free acid)
disulfoton-sulfone	nitrofen
disulfoton-sulfoxide	omethoate
ethoprophos	terbufos
fensulfothion	terbufos-sulfone
fensulfothion-oxon	terbufos-sulfoxide

Potential Pesticide Residues – Quaternary Ammonium Compounds

BAC 10 (Benzyldimethyldecylammonium Chloride)	BAC 16 (Benzyldimethylhexadecylammonium Chloride)
BAC 12 (Benzyldimethyldodecylammonium Chloride)	DDAC (Didecyldimethylammonium Chloride)
BAC 14 (Benzyldimethyltetradecylammonium Chloride)	

Potential Pesticide Residues – Recommended Monitoring

abamectin (sum of avermectin B1a and B1b only)	fipronil (parent)
amitraz (sum of amitraz and all metabolites containing the 2,4-DMA moiety)	fipronil-desulfinyl
bifenthrin	fipronil-sulfone
cypermethrin (sum of constituent isomers)	flufenoxuron
diazinon	pyridaben
dichlorvos	pyriproxyfen
etoxazole	thiamethoxam



Pesticide Residues – Cereals

The pesticide residues proficiency tests are separated according to the matrix-pesticide analytical compatibility. This series of proficiency tests is for fat-soluble and water-soluble pesticides which may typically be found in cereals or their products. The majority of the pesticides are spiked into the material, occasionally elevating incurred low levels of pesticides. The same blank material is available for purchase so that participating laboratories can correctly matrix-match calibration standards or for other quality control purposes.

Most of these proficiency tests are semi-blind, i.e. they incorporate both identification and quantification of a analytes from a given list of potential residues. The proficiency test reports include additional residues reported by participants and highlight where required residues were not detected. Some of the proficiency tests are target analyte specific where single residue methods are generally applied.

The residue definitions, reporting requirements and quality control specifications are derived from EU legislation and guidance.

Each test material will contain any number of pesticides. Refer to the relevant tables below for the full lists of potential residues in a test material

Blank matrix test materials can ONLY be purchased if the corresponding test is ordered.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
30/01/2019	FCPM2-CCP51	09120	basmati rice	pesticides (multi-residue)	50 g	181
	BLPM2-CCP52	09120b	blank basmati rice		50 g	51
14/02/2019	FCPM2-CCP49	09121	wheat flour	pesticides (multi-residue)	50 g	181
	BLPM2-CCP11	09121b	blank wheat flour		50 g	51
03/05/2019	FCMS2-CCP39	09122	oats	chlormequat, mepiquat, glyphosate	100 g	188
	BLMS2-CCP9	09122b	blank oats		100 g	59
13/06/2019	FCPM2-CCP14	09123	brown rice	pesticides (multi-residue)	50 g	188
	BLPM2-CCP5	09123b	blank brown rice		50 g	59
14/08/2019	FCPM2-CCP49	09124	wheat flour	pesticides (multi-residue)	50 g	188
	BLPM2-CCP11	09124b	blank wheat flour		50 g	59
13/09/2019	FCPM2-VEG86	09125	lentils	pesticides (multi-residue)	50 g	188
	BLPM2-VEG87	09125b	blank lentils		50 g	59



Pesticide Residues – Cereals (continued)

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
16/10/2019	FCPM2-AFE1	09126	animal feed	pesticides (multi-residue)	50 g	188
	BLPM2-AFE4	09126b	blank animal feed		50 g	59
27/11/2019	FCMS2-CCP49	09127	wheat flour	chlormequat, mepiquat, glyphosate	100 g	188
	BLMS2-CCP11	09127b	blank wheat flour		100 g	59
29/01/2020	FCPM2-CCP51	09128	basmati rice	pesticides (multi-residue) AND bromide	50 g	188
	BLPM2-CCP52	09128b	blank basmati rice		50 g	59
13/02/2020	FCPM2-CCP49	09129	wheat flour	pesticides (multi-residue)	50 g	188
	BLPM2-CCP11	09129b	blank wheat flour		50 g	59



Potential Pesticides Residues – Multi-Residue

Parent compound only unless otherwise stated

2,4-D (free acid only)	DDD-pp (TDE)	fensulfothion	mepanipirim	propiconazole
2-phenylphenol (ortho-phenylphenol) acephate	DDE-pp DDT-op	fensulfothion-oxon fensulfothion-oxon-sulfone	metaflumizone (sum of E and Z isomers) metalaxyl (sum of constituent isomers including metalaxyl-M)	propoxur propyzamide
acetamiprid acetochlor acrinathrin	DDT-pp deltamethrin demeton-S-methyl-sulfone	fensulfothion-sulfone fenthion (parent) fenthion-sulfone	metamitron metconazole methacrifos	proquinazid prosulfocarb prothiofos
aldicarb	demeton-S-methyl-sulfoxide (oxydemeton-methyl)	fenthion-sulfoxide	methamidophos	pymetrozine
aldicarb-sulfone (aldoxycarb)	diafenthiuron	fenvalerate (sum of constituent isomers in any ratio including esfenvalerate)	methidathion	pyraclostrobin
aldicarb-sulfoxide aldrin allethrin ametoctradin	diazinon dichlorvos dicloran dicofol (sum of p,p' and o,p' isomers)	fipronil (parent) fipronil-desulfinyl fipronil-sulfone flonicamid	methiocarb methiocarb-sulfone methiocarb-sulfoxide methomyl	pyrazophos pyridaben pyridalyl pyridaphenthion
atrazine	dicrotophos	fluzifop (sum of constituent isomers, esters and conjugates, expressed as fluzifop)	methoxychlor	pyrimethanil
azinphos-ethyl azinphos-methyl	dieldrin diethofencarb	flubendiamide flucythrinate	methoxyfenozide metolachlor (sum of constituent isomers including S-metolachlor)	pyriproxyfen quinalphos
azoxystrobin benalaxyl bendiocarb	difenoconazole diflubenzuron dimethoate	fludioxonil flufenoxuron fluopicolide	metrafenone metribuzin mevinphos (sum of E and Z isomers)	quinoxifen quintozene spinosad (sum of spinosyn A and D)
bifenthrin	dimethomorph (sum of isomers)	fluopyram	monocrotophos	spirodiclofen
biphenyl bitertanol	dimoxystrobin diniconazole	fluquinconazole flusilazole	monolinuron myclobutanil	spiromesifen spirotramat (sum spirotramat and spirotramat-enol expressed as spirotramat)
boscalid bromophos-ethyl bromopropylate bromuconazole (sum of diastereoisomers)	dinotefuran diphenylamine disulfoton disulfoton-sulfone	flutolanil flutriafol fluvalinate (tau) fonofos	nitrofen novaluron omethoate oxadiazon	spiroxamine tebuconazole tebufenozide tebufenpyrad
bupirimate buprofezin cadusafos carbaryl carbendazim	disulfoton-sulfoxide diuron dodine endosulfan I (alpha) endosulfan II (beta)	formothion fosthiazate furathiocarb HCB (hexachlorobenzene) HCH-A (alpha hexachlorocyclohexane)	oxadixyl oxamyl oxyfluorfen paclobutrazol parathion (ethyl)	tecnazene teflubenzuron tefluthrin terbufos terbufos-sulfone
carbofuran	endosulfan-sulfate	HCH-B (beta hexachlorocyclohexane)	parathion-methyl	terbufos-sulfoxide



carbofuran (3-hydroxy)	endrin	HCH-G (gamma hexachlorocyclohexane / lindane)	penconazole	terbutylazine
carboxin	EPN	heptachlor	pencycuron	tetrachlorvinphos
chlorantraniliprole (rynaxypyr)	epoxiconazole	heptachlor-epoxide (cis)	pendimethalin	tetraconazole
chlordane (cis)	ethiofencarb-sulfoxide	heptachlor-epoxide (trans)	pentachloroaniline	tetradifon
chlordane (trans)	ethion	heptenophos	permethrin (sum of isomers)	tetramethrin (sum of constituent isomers)
chlorfenapyr	ethirimol	hexaconazole	phenthoate	TFNA
chlorfenvinphos (sum of E and Z isomers)	ethoprophos	hexythiazox	phorate	TFNG
chloridazon	etofenprox	imazalil	phorate-sulfone	thiabendazole
chlorobenzilate	etoxazole	imidacloprid	phorate-sulfoxide	thiacloprid
chlorothalonil	etrimfos	indoxacarb (sum of indoxacarb and its R enantiomer)	phosalone	thiamethoxam
chlorpropham	famoxadone	iprodione	phosmet	thiodicarb
chlorpyrifos (ethyl)	fenamidone	iprovalicarb	phosphamidon	THPI
chlorpyrifos-methyl	fenamiphos	isocarbofos	phoxim	tolclofos-methyl
chlorthal-dimethyl	fenamiphos-sulfone	isofenphos (ethyl)	phthalamide	tolfenpyrad
clofentezine	fenamiphos-sulfoxide	isofenphos-methyl	piperonyl butoxide	tolylfluanid
clothianidin	fenarimol	isoprocarb	pirimicarb	triadimefon
coumaphos	fenazaquin	isoprothiolane	pirimicarb (desmethyl)	triadimenol
cyazofamid	fenbuconazole	isoproturon	pirimiphos-ethyl	triallate
cyflufenamid	fenbutatin oxide	kresoxim-methyl	pirimiphos-methyl	triazophos
cyfluthrin (sum of constituent isomers)	fenhexamid	lenacil	prochloraz (parent)	tricyclazole
cyhalothrin-lambda	fenitrothion	linuron	procymidone	trifloxystrobin
cymoxanil	fenoxycarb	lufenuron	profenofos	triflumuron
cypermethrin (sum of constituent isomers)	fenpropathrin	malaoxon	promecarb	trifluralin
cyproconazole	fenpropidin (sum of fenpropidin and its salts, expressed as fenpropidin)	malathion	prometryn	triticonazole
cyprodinil	fenpropimorph	mandipropamid	propamocarb	vinclozolin
cyromazine	fenpyroximate	mecarbam	propargite	zoxamide



Pesticide Residues – Fresh Fruits, Vegetables, Tea, Herbs & Honey

The pesticide residues proficiency tests are separated according to the matrix-pesticide analytical compatibility. This series of proficiency tests is for a large range of pesticides which may be found in a variety of fresh fruit, vegetables or their products. The majority of the pesticides are spiked into the material, occasionally elevating incurred low levels of pesticides. The same blank material is available for purchase so that participating laboratories can correctly matrix-match calibration standards or for other quality control purposes.

Most of these proficiency tests are semi-blind, i.e. they incorporate both identification and quantification of a analytes from a given list of potential residues. The proficiency test reports include additional residues reported by participants and highlight where required residues were not detected. Some of the proficiency tests are target analyte specific where single residue methods are generally applied.

The residue definitions, reporting requirements and quality control specifications are derived from EU legislation and guidance.

Each test material will contain any number of pesticides. Refer to the relevant tables above/below for the full lists of potential residues in a test material

Please note:

Some tests, e.g. those for dithiocarbamates, have a short timescale for the submission of results. The stability of such test materials will be assessed as part of the sample preparation procedures.

Blank matrix test materials can ONLY be purchased if the corresponding test is ordered.

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
08/01/2019	FCPM2-HON2	19263	honey	pesticide residues (multi-residue: honey matrix)	90 g	181
	BLPM2-HON1	19263b	blank honey		90 g	57
08/01/2019	FCPM2-VEG82	19264	mushroom purée	pesticides (multi-residue) AND chlormequat	90 g	181
	BLPM2-VEG85	19264b	blank mushroom purée		90 g	57
05/02/2019	FCPM2-VEG34	19265	cauliflower purée	actual pesticides (specified residues)	90 g	181
	BLPM2-VEG10	19265b	blank cauliflower purée		90 g	57
11/03/2019	FCPM2-FRU2	19266	apple	pesticides (multi-residues)	90 g	181
	BLPM2-FRU5	19266b	blank apple purée		90 g	57
02/04/2019	FCPM2-FRU58	19267	orange purée	pesticides (multi-residue)	90 g	188
	BLPM2-FRU22	19267b	blank orange purée		90 g	59



Pesticide Residues – Fresh Fruits, Vegetables, Tea, Herbs & Honey (continued)

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
13/05/2019	FCPM2-VEG76	19268	tomato purée	pesticides (multi-residue)	90 g	188
	BLPM2-VEG29	19268b	blank tomato purée		90 g	59
10/06/2019	FCPM2-VEG38	19269	cucumber purée	pesticides (multi-residue)	90 g	188
	BLPM2-VEG13	19269b	blank cucumber purée		90 g	59
10/06/2019	FCPM2-VEG49	19270	lettuce purée	pesticides (multi-residue)	90 g	188
	BLPM2-VEG18	19270b	blank lettuce purée		90 g	59
22/07/2019	FCPM6-VEG62	19271	salad leaves purée	pesticides (disinfection by-products)	90 g	188
	BLPM6-VEG24	19271b	blank salad leaves purée		90 g	59
22/07/2019	FCPM2-DRA13	19272	wine	pesticides (multi-residue)	90 ml	188
	BLPM2-DRA3	19272b	blank wine		90 ml	59
12/08/2019	FCPM2-FRU67	19273	strawberry purée	pesticides (multi-residue)	90 g	188
	BLPM2-FRU30	19273b	blank strawberry purée		90 g	59
27/08/2019	FCPM2-FRU69	19274	kiwi fruit purée	pesticides (multi-residue)	90 g	188
	BLPM2-FRU70	19274b	blank kiwi fruit purée		90 g	59
03/09/2019	FCPM2-VEG59	19275	potato purée	pesticides (multi-residue)	90 g	188
	BLPM2-VEG23	19275b	blank potato purée		90 g	59
16/09/2019	FCMS3-VEG49	19276	lettuce purée	dithiocarbamates	90 g	252
	BLMS3-VEG18	19276b	blank lettuce purée		90 g	77
16/09/2019	FCPM2-VEG80	19277	avocado purée	pesticides (multi-residue)	90 g	188
	BLPM2-VEG83	19277b	blank avocado purée		90 g	59
07/10/2019	FCPM2-FRU71	19278	raspberry purée	pesticides (multi-residue)	90 g	188
	BLPM2-FRU72	19278b	blank raspberry purée		90 g	59
22/10/2019	FCPM2-FRU59	19279	peach purée	pesticides (multi-residue)	90 g	188
	BLPM2-FRU23	19279b	blank peach purée		90 g	59
11/11/2019	FCMS4-FRU61	19280	pineapple purée	ethephon	90 g	252
	BLMS4-FRU25	19280b	blank pineapple purée		90 g	77



Pesticide Residues – Fresh Fruits, Vegetables, Tea, Herbs & Honey (continued)

dispatch date	product code	item code	matrix	analytes	approx. size	fee GBP
11/11/2019	FCPM2-VEG32	19281	cabbage purée	pesticides (multi-residue)	90 g	188
	BLPM2-VEG8	19281b	blank cabbage purée		90 g	59
05/12/2019	FCPM3-DRH14	19282	green tea	pesticides (multi-residue: tea matrix)	50 g	188
	BLPM3-DRH1	19282b	blank green tea		50 g	59
13/01/2020	FCPM2-HON2	19283	honey	pesticides (multi-residue: honey matrix)	90 g	188
	BLPM2-HON1	19283b	blank honey		90 g	59
13/01/2020	FCPM2-VEG72	19284	bell pepper purée	pesticides (multi-residue)	90 g	188
	BLPM2-VEG27	19284b	blank bell pepper purée		90 g	59
10/02/2020	FCPM2-VEG33	19285	carrot purée	specified pesticide residues	90 g	188
	BLPM2-VEG9	19285b	blank carrot purée		90 g	59
09/03/2020	FCPM2-FRU2	19286	apple purée	pesticides (multi-residue)	90 g	188
	BLPM2-FRU5	19286b	blank apple purée		90 g	59



Potential Pesticide Residues – Disinfection By-Products

BAC 10 (Benzyldimethyldecylammonium Chloride)	DDAC (Didecyldimethylammonium Chloride)
BAC 12 (Benzyldimethyldodecylammonium Chloride)	chlorate
BAC 14 (Benzyldimethyltetradecylammonium Chloride)	perchlorate
BAC 16 (Benzyldimethylhexadecylammonium Chloride)	

Potential Pesticide Residues – Multi-Residue: Tea Matrix

Parent compound only unless otherwise stated

2-phenylphenol (ortho-phenylphenol)	chlorpyrifos (ethyl)	dinotefuran	HCB (hexachlorobenzene)	phosalone
abamectin (sum of avermectin B1a and B1b only)	cyhalothrin-lambda	endosulfan I (alpha)	HCH-A (alpha hexachlorocyclohexane)	pirimiphos- methyl
acetamiprid	cypermethrin (sum of constituent isomers)	endosulfan II (beta)	HCH-B (beta hexachlorocyclohexane)	procymidone
anthraquinone	DDD-pp (TDE)	endosulfan-sulfate	HCH-G (gamma hexachlorocyclohexane / lindane)	propargite
bifenthrin	DDE-pp	ethion	imidacloprid	pyridaben
buprofezin	DDT-op	fenazaquin	linuron	pyrimethanil
carbaryl	DDT-pp	fenitrothion	malathion	quinalphos
carbendazim	deltamethrin	fenpropathrin	methomyl	terbuthylazine
chlorfenapyr	diazinon	fenpropimorph	monocrotophos	tolfenpyrad
chlorfenvinphos (sum of E and Z isomers)	dicofol (sum of p,p' and o,p' isomers)	fenvalerate (sum of constituent isomers in any ratio including esfenvalerate)	oxadixyl	triazophos
chlorothalonil	dimethoate	fipronil-sulfone	phenthoate	trifloxystrobin

Potential Pesticide Residues – Multi-Residue: Honey Matrix

Parent compound only unless otherwise stated

acetamiprid	DMPF (N-2,4-dimethylphenylformamide)
amitraz (sum of amitraz and all metabolites containing the 2,4-DMA moiety)	fluvalinate (tau)
clothianidin	imidacloprid
coumaphos	nitenpyram
dinotefuran	thiacloprid
DMF (N-2,4-dimethylformamide)	thiamethoxam



Specified Pesticides Residues

Matrix *will* contain **ALL** of the pesticides listed in this table

Parent compound only unless otherwise stated

acetamiprid	cypermethrin (sum of constituent isomers)	endosulfan I (alpha)	fenthion-sulfoxide	malathion
aldrin	DDE-pp	endosulfan II (beta)	HCH-A (alpha hexachlorocyclohexane)	parathion-methyl
azoxystrobin	deltamethrin	endosulfan-sulfate	HCH-B (beta hexachlorocyclohexane)	permethrin (sum of isomers)
bifenthrin	dichlorvos	endrin	HCH-G (gamma hexachlorocyclohexane / lindane)	triazophos
chlorpyrifos (ethyl)	dieldrin	ethion		
chlorpyrifos-methyl	dimethoate	fenpropathrin		



APPENDIX 1: ORDERING INFORMATION

Please note the information in this Appendix does not constitute our Standard Terms & Conditions for Proficiency Testing Schemes, which are available on our website, fapas.com/terms-conditions.

Notes:

- a) Quantity discounts are automatically applied to your order and a breakdown is available on our website, fapas.com/discounts.
- b) Carriage costs will be applied to your order at the point of checkout.
- c) If you cancel an order, then Section 6.3 of our Standard Terms & Conditions for Proficiency Testing Schemes applies:

If the Customer cancels an order after 14 days of placing it and the Proficiency Test is due to take place in 30 days or more, 50% of the Fee shall be paid by the Customer. If a Customer has paid in advance, Fera shall refund 50% of the Fee. If the Customer cancels an order after 14 days and the Proficiency Test is due to take place within the next 30 days, the full Fee shall be paid by the Customer and/or no refund shall be issued.
- d) The dispatch date shown is our planned dispatch date. You will be notified by email if any of the tests you order are delayed or cancelled for any reason.
- e) Registrations for proficiency tests in all the Fapas® Programme's close either 14 or 28 days before the dispatch date of the test, refer to the relevant section above for exact details.
- f) The approximate quantity of test material we will supply is given for each test. If your method needs more material, please indicate the number of extra test materials you require. There is a charge for additional test materials.
- g) The purchase of extra test materials does not entitle you to receive an extra performance assessment in the report. You must place multiple orders for the test if you require this service. You may submit multiple results for a test, nominating one to appear in the assessment report, the others will be available for trending in Fapas® Charts.

Additional notes:

i. Dispatch

- a) *If appropriate* samples are packed in insulated boxes together with ice blocks to prevent them undergoing large temperature fluctuations in transit but are they not transported in refrigerated vehicles. No dry ice will be used in dispatch. Even if these samples do not arrive refrigerated they will still be acceptable for use as they will have been chilled for the majority of their journey.
- b) Please contact us if your postal dispatch has not arrived within 10 working days.
- c) The tracking number of your courier consignment will be sent to the email address given for the sample contact and the delivery contact for that test. The message will indicate how to track the consignment.
- d) Airway Bill Numbers are also available from the participant's secure pages on the Fapas® website.
- e) It is the responsibility of the customer to monitor the progress of their courier dispatch.
- f) Our microbiology packages are shipped as biological substances, category B (UN3373).



ii. Import / Customs

- a) We are not responsible for damage or loss of test materials due to problems in customs or for import fees.
- b) If you require special import permits for importing certain types of test material into your country, please inform us at least 3 weeks prior to dispatch date. There is a charge for this service.
- c) Phytosanitary certificates can be provided for plant-based products where appropriate. There is a charge for this service. Orders for phytosanitary certificates must be placed at least three weeks before the start date of the relevant test.

iii. Results

- a) Details of the results submission date can be viewed in the test instruction letters.
- b) Result submission will only be allowed via the Fapas® website.

iv. Reports

- a) The cost of the test includes access to an electronic copy of the report for the person placing the order and designated sample contact.
- b) Reports are normally available on our website within 25 days of the closing date of the test.
- c) The reports are in PDF format and are secured by a digital signature.
- d) The cost of a copy of the report (PDF format) on a test in which you did *not* participate is £38 GBP.



APPENDIX 2: AGENT INFORMATION

Fapas® has a network of Agents to help you locally. Please contact your nearest office:

Argentina Phone: +5411-4701-6262 E-mail: c.daiutolo@r-biopharmlat.com.ar	Israel Phone: +972572400503 E-mail: assafy@eldan.biz	Spain Phone: +34 91.504.66.02 E-mail: info@setelsl.com
Armenia Phone: +7 495 707 28 68 E-mail: pt@stylab.ru	Italy Phone: + 39 02 89540225 E-mail: giovanna.lampis@starecotronics.it	Switzerland Phone: +49 40 49294 2930 E-mail: fapas@eurofins.de
Austria Phone: +49 40 49294 2930 E-mail: fapas@eurofins.de	Japan Phone: +81 3 5627 8150 E-mail: fapas.info@cscjp.co.jp	Taiwan Phone: +886228484509 E-mail: biotic@ms64.hinet.net
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