WHO WE ARE

Established in 1990, Fapas® is a leading accredited provider of proficiency testing schemes, quality control samples, and reference materials in the food and water, environmental chemistry, and microbiology sectors.

Fapas® proficiency testing schemes cover food and beverage chemistry, food and beverage microbiology, GM Foods, water and environmental chemistry, and water and environmental microbiology. Our quality control samples and reference materials can be purchased easily through our website throughout the year.

Proficiency testing is an independent check of your laboratory procedures that provides you with a completely confidential assessment of your capability. Participation in proficiency testing schemes not only allows you to demonstrate the validity of your systems and the technical ability of your staff, it also helps you gain and maintain ISO/17025 accreditation. Confidence in your laboratory equipment, methods, and staff provides your customers with the assurance that you are delivering the quality results they require.

We provide a confidential, flexible service allowing participation at a level that suits you; there is no minimum number of proficiency tests that you must take part in each year. We provide you with comprehensive reports of your data, which receive rigorous statistical analysis and contain method comparisons to provide further insight into your performance - all of which are accessible via an easy reporting facility on our website.

What makes us different? We only use Real World Samples

In order to obtain life-like results and eliminate as much of the unexpected as possible, we use real food samples and a protocol that has been refined over nearly 30 years. We use incurred materials in combination with established fortification techniques, and extensive stability and homogeneity testing to ensure optimum material production.
**WHY CHOOSE FAPAS®?**

**High Quality Samples**
By using real food samples, Fapas® test materials provide a representative challenge that simulates routine laboratory scenarios. Our chemistry reference and quality control materials are stable and fully characterised for long-term availability in method validation and verification. We also have a limited range of microbiology quality control materials available.

**Accredited Programmes**
Fera Science Ltd. is a UKAS accredited proficiency testing provider (No.0009), in compliance with ISO/IEC 17043:2010. Fera Science Limited also holds accreditation and certification to other internationally recognised standards including ISO/IEC 17025 and ISO 9001. The Fapas® participant certificates provide evidence you are enrolled in a reputable proficiency testing, or external quality assessment (EQA), scheme.

**Flexible and Cost Effective**
Our extensive range of multi-analyte programmes and analyte/matrix combinations allow you to reduce the number of individual programmes required to cover your testing schedule, saving both time and money. You can participate at a level that suits you; there is no minimum number of proficiency tests that you must undertake each year. This provides flexibility and ensures suitability for laboratories of all sizes and budgets.

**Timely and Effective Reporting**
Short timescale reporting provides early identification of potential issues and allows implementation of any corrective or preventative actions with minimum disruption to your laboratory. With a turnaround of less than fifteen days for most reports, you can investigate root causes efficiently, and minimise the risk of future issues. Your results receive rigorous statistical analysis by our experts in that time.

**Online Data and Reports**
The Fapas® online submission and reporting system is simple to use and our reports are comprehensive, but also easy to understand.

There is also the facility to prepare user defined trending charts to compare historical performance over a number of previous tests.

Reports include data on all methods, allowing comparative performance assessment of different laboratory protocols. We can also provide inter-laboratory reports for multiple connected laboratories, that provide an overview of global performance.

**Strength in Numbers**
Fapas® testing regimes are used by thousands of participants every year. This high level of participation means peer group numbers are maximised and provides data across a wide range of instruments and methods.

**Benefits of Proficiency Testing**

**We understand the challenges you face, which is why we can provide tailored proficiency testing solutions that deliver real value: we can also help with the interpretation of your proficiency test results.**

We have been a global leader in proficiency testing for the food and beverage sector for nearly 30 years with thousands of customers in more than 130 countries. As part of Fera Science Ltd. we have access to a wealth of expertise, underpinned by conducting over 600 proficiency tests every year with high levels of participation. This gives you the confidence in our robust analytical data to allow you to make evidence-based business decisions.

The rapid development of new technologies and methodologies can allow you to work smarter but can also pose a challenge for laboratories to maintain quality standards that can be trusted. Proficiency tests help you to achieve EN ISO/IEC 17025 accreditation, the international standard for analytical laboratories.

Proficiency testing is also a vital tool that can help to mitigate business risks such as product failure and non-compliance. Avoiding these risks can enhance your brand reputation, and help you meet legal requirements. Fapas® deliver a comprehensive yet cost-effective solution to demonstrate the quality of your testing regime. We help you meet your regulatory requirements, work smarter, and increase confidence in the accuracy of your test systems.

With over 600 matrix and analyte combinations currently available, you can be sure that we have the right test for you. We are constantly adding to our range, informed by customer feedback, market analysis, and changes in regulation. A recent example of this is our development and introduction of the new Fipronil proficiency test, which we developed as a result of the recent food scare in eggs and egg products.

Fapas® provides certificates as proof of EQA participation for laboratory accreditation purposes.

The vast majority of our PT tests comply with ISO/IEC 17043:2010, “Conformity assessment - General requirements for proficiency testing, and we are a UKAS accredited proficiency testing provider, No. 0009.

Accreditation to ISO/IEC 17043:2010 establishes the quality and excellence of Fapas®.
OUR SIMPLE WEB-BASED APPROACH

Fapas® SecureWeb provides a portal for easy, direct submission of results, and for the retrieval of reports directly from our secure Fapas® server.

- Confidentiality and security are maintained via password protected access.
- Enter results directly into the Fapas® database.
  Receipt of results is confirmed by e-mail.
- Additions and changes to assay details can be made quickly and easily online.

- Requests for new methods, instruments, and reagent codes can be made online.
- Participants receive an email as soon as the report is ready to download.
- Digitally signed, secure reports for all historic results can be downloaded from the website.

- View, print, or store reports as you wish.
- Update your laboratory’s certificate of participation details.
- All you need is web access, Adobe Reader and a valid login to access the system.

FAPAS® REPORTS

Fapas® reports are presented in a comprehensive, user-friendly format that allows easy interpretation of your analytical performance.

- Statistical breakdown by all methods and instruments, where applicable.
- Use the histogram to compare your instrument group, method group, and all methods.
- Identify trends, biases, and precision problems using the visual charts.

- At-a-glance summary page for all parameters in the programme.
- Compare your result with statistically robust consensus means.
- Identify acceptable and poor performance.
- Expert data assessment and application of appropriate statistical treatments ensure fit-for-purpose performance indicators.

Laboratory Group Reports

This service enables large groups to monitor the performance of all the member laboratories. It is particularly powerful when the laboratories coordinate their participation in specific tests at the same time. Each affiliated laboratory will receive an individual report, and the group supervisor also receives a summary report comparing each laboratory in the network.
PROFICIENCY TESTING PROGRAMMES
FOOD AND BEVERAGE CHEMISTRY

The confidence in analytical data provided to producers can be enhanced through using proficiency testing. Proficiency testing (PT) provides evidence, from an independent source, regarding the competency of the laboratory supplying the analytical service.

Proficiency testing is also a necessary component for laboratories that wish to become accredited to ISO/17025 laboratory management standards. This provides the basis of laboratory accreditation in more than 40 countries, and other recognised laboratory quality assurance standards may also require that a proficiency testing programme is in place to check the actual performance of a laboratory process.

PT is a key part of food testing services, which helps to ensure the safety and quality of the food chain. The global market for food testing services is projected to grow from $138bn in 2017 to $198bn in five years. The growth is driven by increasing focus on food quality, stringent food safety regulations, advances in food testing technologies and commercial availability of rapid screening tests. Europe represents the largest food testing market worldwide prompted by increasing consumer awareness over healthy food options, improvements in industrial hygiene standards in food processing, and the efforts of regulatory bodies to ensure safety and authenticity of food products.

Asia-Pacific ranks as the fastest growing market, with the compound annual growth rate of 8.5% in the next five years, led by growing population, escalating demands for food, and strong emphasis on food security and safety in emerging markets such as China and India. Rapid growth in food trade in developing nations and the need to comply with the quality standards are also driving demands for food testing services.

Our Food Chemistry programme covers chemical analysis of real food samples for a wide range of target analytes including: nutritional components, additives, allergens, natural contaminants, pesticide and veterinary medicine residues, and packaging chemical migrants.

Click here or visit www.fapas.com/food-chemistry-0 to see our 2019 Food Chemistry Proficiency tests. New Customers use discount code PTFAPAS19 to get 20% off your first order.
**FOOD AND BEVERAGE CHEMISTRY**

Fapas® Wine Proficiency Testing programme provides a means of monitoring a wide range of quality and safety (contaminants) tests in real wines. Using our programme to ensure accurate analysis is carried out can help to safeguard the quality of the product and ultimately help to protect the value of your brand.

[Click here](http://www.fapas.com) to order our wine PTs, or visit [www.fapas.com](http://www.fapas.com) and search ‘wine’

---

### Food and Beverage Chemistry Proficiency Testing Schedule

<table>
<thead>
<tr>
<th>Materials / Products</th>
<th>Type of Test / Properties Measured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animal feed, pet food</td>
<td>3-MCPD, 1,3-DCP</td>
</tr>
<tr>
<td>Alcoholic drinks (beer, brandy, whisky, wine)</td>
<td>Acidity</td>
</tr>
<tr>
<td>Biscuits, cake mix</td>
<td>Acrylamide</td>
</tr>
<tr>
<td>Cereals and cereal products</td>
<td>Aflatoxins</td>
</tr>
<tr>
<td>Crisps (chips) snack food</td>
<td>Alcohol, congeners</td>
</tr>
<tr>
<td>Egg</td>
<td>Allergens</td>
</tr>
<tr>
<td>Fish and shellfish (prawns, crab, squid)</td>
<td>Antioxidants</td>
</tr>
<tr>
<td>Fruit and fruit juice</td>
<td>Authenticity</td>
</tr>
<tr>
<td>Fruit and vegetable juices</td>
<td>Benzoic acid</td>
</tr>
<tr>
<td>Halal compliance</td>
<td>Biocides</td>
</tr>
<tr>
<td>Honey, jam</td>
<td>Brix</td>
</tr>
<tr>
<td>Herbs, spices</td>
<td>Caffeine, theobromine</td>
</tr>
<tr>
<td>Infant formula, infant food</td>
<td>Citric acid</td>
</tr>
<tr>
<td>Meat and meat products (including offal)</td>
<td>Colours, dyes</td>
</tr>
<tr>
<td>Meal (soybean, canned meat, canned cheese &amp; pasta)</td>
<td>Contaminants</td>
</tr>
<tr>
<td>Milk &amp; milk powder</td>
<td>Cyanuric acid</td>
</tr>
<tr>
<td>Nuts</td>
<td>Fatty acids</td>
</tr>
<tr>
<td>Oils and fats</td>
<td>Melamine</td>
</tr>
<tr>
<td>Packaging material solutions</td>
<td>Mycotoxins</td>
</tr>
<tr>
<td>Ready meals and snack foods</td>
<td>Nitrate and nitrite</td>
</tr>
<tr>
<td>Rice, rice cakes</td>
<td>Nutritional elements</td>
</tr>
<tr>
<td>Sauce</td>
<td>PAHs, PBDEs, PCBs, &amp; PFASs</td>
</tr>
<tr>
<td>Soft drinks</td>
<td>Pesticide residues</td>
</tr>
<tr>
<td>Sugar confectionery</td>
<td>Proximates (nutritional components)</td>
</tr>
<tr>
<td>Tea, coffee</td>
<td>Quality indicators</td>
</tr>
<tr>
<td>Vegetables and vegetable juice</td>
<td>Sorbic acid</td>
</tr>
<tr>
<td>Vitamin supplement</td>
<td>SO₂</td>
</tr>
<tr>
<td></td>
<td>Sugars and sweeteners</td>
</tr>
<tr>
<td></td>
<td>Veterinary drug residues</td>
</tr>
<tr>
<td></td>
<td>Vitamins</td>
</tr>
<tr>
<td></td>
<td>Water activity</td>
</tr>
</tbody>
</table>

**Note:** This list is shortened, with many tests and properties grouped together. Please visit [www.fapas.com](http://www.fapas.com) and search the database if your required matrix and/or analyte is not shown here.

---

Want to know more about Fapas®? [Click here](http://www.fapas.com) to access our frequently asked questions and informative webinars. Or visit [www.fapas.com/frequently-asked-questions](http://www.fapas.com/frequently-asked-questions)

For the accreditation status of Fapas® proficiency testing programmes, please see our schedule of accreditation at [www.fapas.com](http://www.fapas.com)
Foods which exceed specifications for total bacterial and fungal load, or which are contaminated with a pathogen, pose a risk to both public health and brand reputation.

Modern food processing often involves complicated global supply chains and ample opportunity for foods to be contaminated in their journey to our tables. Even in a carefully controlled environment contamination can occur, and laboratory analysis is a key safety measure to ensure the process and controls are working as they should. Our microbiology proficiency tests are here to ensure that the laboratory itself is working as it should and is capable of detecting non-conforming product should the biosafety chain be compromised.

Our test materials are designed to simulate real laboratory samples with varying levels of target organisms and background flora, providing a more realistic challenge than some proficiency programmes. In the case of Listeria analysis we even make the cheese ourselves, to ensure the contamination is the same as a real sample. Other matrices include beef, chicken, fish, milk powder, salad, rice and others.

We also have environmental swabs for organism identification and enumeration. The processing environment is a common source of food contamination, so ensuring it is hygienic, free from pathogens, and key spoilage organisms, is an important control point.

Our Food Microbiology has a flexible programme of 10 distributions a year, where samples are sent by courier worldwide in a controlled environment with detailed instructions. Results from each proficiency test receive rigorous statistical analysis, ensuring you have clear feedback on your performance. Comprehensive reports give information on microbiological methods used by other participants.
**FOOD AND BEVERAGE MICROBIOLOGY**

Our Campylobacter in chicken PT is designed to work with the control measures for this important food poisoning organism, which are centred around reduction in contamination rather than eradication. Our stable, matrix material for enumeration of Campylobacter allows laboratories to show their competence in carrying out this analysis.

[Click here](#) to order now, or visit [www.fapas.com](http://www.fapas.com) and use the product code FMOE17-MRP14

---

**Food and Beverage Microbiology Proficiency Testing Schedule**

<table>
<thead>
<tr>
<th>Materials / Products</th>
<th>Type of Test / Properties Measured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animal feed</td>
<td>Enumeration</td>
</tr>
<tr>
<td>Cheese</td>
<td>Aerobic Plate Count (APC)</td>
</tr>
<tr>
<td>Chocolate</td>
<td>Alicyclobacillus spp.</td>
</tr>
<tr>
<td>Chocolate powder</td>
<td>Bacillus cereus</td>
</tr>
<tr>
<td>Egg (dried)</td>
<td>Campylobacter spp.</td>
</tr>
<tr>
<td>Fish</td>
<td>Clostridium perfringens</td>
</tr>
<tr>
<td>Flour</td>
<td>Clostridium spp.</td>
</tr>
<tr>
<td>Fruit juice</td>
<td>Coagulase positive staphylococci</td>
</tr>
<tr>
<td>Herbs</td>
<td>Coliforms</td>
</tr>
<tr>
<td>Infant formula</td>
<td></td>
</tr>
<tr>
<td>Meat (beef, chicken, pork, dry cured meat)</td>
<td>E. coli</td>
</tr>
<tr>
<td>Milk powder</td>
<td>Enterobacteriaceae</td>
</tr>
<tr>
<td>Mixed vegetables</td>
<td>Enterococci</td>
</tr>
<tr>
<td>Pepper (ground)</td>
<td>Lactic Acid bacteria</td>
</tr>
<tr>
<td>Rice (cooked)</td>
<td>Listeria monocytogenes</td>
</tr>
<tr>
<td>Salad</td>
<td>Yeasts &amp; moulds</td>
</tr>
<tr>
<td>Spice (ground pepper)</td>
<td></td>
</tr>
<tr>
<td>Swab</td>
<td></td>
</tr>
</tbody>
</table>

**Detection**

Campylobacter spp.

Cronobacter sakazakii

E. coli O157

Listeria monocytogenes

Listeria spp.

Salmonella spp.

Vibrio parahaemolyticus

---

New to Fapas®? [Click here](#) to register your company or visit [www.fapas.com](http://www.fapas.com) and select My Account. If your company is already registered simply email [info@fapas.com](mailto:info@fapas.com) and we will set up a new individual account.

For the accreditation status of Fapas® proficiency testing programmes, please see our schedule of accreditation at [www.fapas.com](http://www.fapas.com)
Modern analytical techniques are allowing us to detect chemicals in water at ever decreasing concentrations, and this is changing our understanding of the pollutants that may be present in the environment, which can consequently be an issue for our drinking water.

Increasing legislation controlling permitted levels of agricultural contaminants such as fertiliser run-off and over-sprayed herbicides and pesticides means it has never been so important to ensure laboratory analysis of these potentially harmful substances is as accurate as possible. Typically present at low concentrations, they can still impact on the ecosystem and cause damage.

In many regions the majority of drinking water is sourced from rivers and reservoirs, which collect water from a range of environments, including agricultural, urban and potentially industrial areas. Regular monitoring of these diverse water types is required by governmental regulation to ensure the safety of the water we drink and the environment we live in.

The Fapas® Water and Environmental Chemistry Scheme assesses the performance of laboratories in the water and environmental testing sectors, and our range of proficiency testing schemes provide the opportunity to monitor laboratory quality on a global scale. Our extensive programme covers a wide range of water types including, drinking, waste, high salinity, and surface waters, and is complemented by schemes for emergency chemical contamination, taste and odour chemical identification, and soil chemistry.
# WATER AND ENVIRONMENTAL CHEMISTRY

Our chemical contamination incident programme is designed to test your laboratory response under emergency conditions. The programme assesses the laboratory’s ability to detect unknown contaminants as quickly as possible and with limited information, simulating a real emergency contamination event. For more information, click here or visit www.fapas.com and search 'emergency'.

## Water and Environmental Chemistry Proficiency Testing Schedule

<table>
<thead>
<tr>
<th>Materials / Products</th>
<th>Type of Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drinking water (potable water)</td>
<td>Acid herbicides</td>
</tr>
<tr>
<td>High salinity water</td>
<td>Anions</td>
</tr>
<tr>
<td>Soil (contaminated)</td>
<td>Alkalinity</td>
</tr>
<tr>
<td>Surface water</td>
<td>BTEX (benzene, toluene, ethylbezene, styrene, xylene)</td>
</tr>
<tr>
<td>Waste water (effluent)</td>
<td>Cations</td>
</tr>
<tr>
<td></td>
<td>Chlorine (total + free)</td>
</tr>
<tr>
<td></td>
<td>Cr (VI)</td>
</tr>
<tr>
<td></td>
<td>Cyanide (total)</td>
</tr>
<tr>
<td></td>
<td>Fluorosurfactants (PFOS, PFOA)</td>
</tr>
<tr>
<td></td>
<td>Haloacetic acids</td>
</tr>
<tr>
<td></td>
<td>Inorganic disinfection by-products</td>
</tr>
<tr>
<td></td>
<td>Major inorganic components</td>
</tr>
<tr>
<td></td>
<td>Metals (routine, toxic, trace)</td>
</tr>
<tr>
<td></td>
<td>Minerals</td>
</tr>
<tr>
<td></td>
<td>Nitrogen (total + Kjeldahl)</td>
</tr>
<tr>
<td></td>
<td>Nutrients (complex + simple)</td>
</tr>
<tr>
<td></td>
<td>Organochlorine (OC) pesticides</td>
</tr>
<tr>
<td></td>
<td>Organophosphate (OP) pesticides</td>
</tr>
<tr>
<td></td>
<td>Oil and grease</td>
</tr>
<tr>
<td></td>
<td>Oxygen demand (BOD, COD, TOC)</td>
</tr>
<tr>
<td></td>
<td>Oxygen (dissolved)</td>
</tr>
<tr>
<td></td>
<td>Perchlorate</td>
</tr>
<tr>
<td></td>
<td>pH + conductivity</td>
</tr>
<tr>
<td></td>
<td>Phosphorus (total + orthophosphate)</td>
</tr>
<tr>
<td></td>
<td>Phthalates</td>
</tr>
<tr>
<td></td>
<td>Polycyclic aromatic hydrocarbons (PAHs)</td>
</tr>
<tr>
<td></td>
<td>Routine components</td>
</tr>
<tr>
<td></td>
<td>Solids (dissolved, suspended, total)</td>
</tr>
<tr>
<td></td>
<td>Sulphide (total)</td>
</tr>
<tr>
<td></td>
<td>Triazine + urea (uron) pesticides</td>
</tr>
<tr>
<td></td>
<td>Trihalomethanes / chlorinated solvents</td>
</tr>
<tr>
<td></td>
<td>Uranium</td>
</tr>
<tr>
<td></td>
<td>VOC</td>
</tr>
</tbody>
</table>

For the accreditation status of Fapas® proficiency testing programmes, please see our schedule of accreditation at www.fapas.com

New drinking water tests for fluorosurfactants, perchlorate and uranium. Click here for further details or visit www.fapas.com/2019-fapas-programme
Modern water distribution systems in developed countries provide clean water to vast populations, so regular monitoring of water quality in terms of microbiological safety is highly regulated.

A failure in the system could lead to a significant public health risk, if contamination with a pathogenic organism were to enter such a widespread and essential commodity. Rather than looking for pathogens themselves, which should never be present at detectable levels in a well-controlled system, laboratories look at the overall hygienic status of the water, and specifically look for organisms which would indicate a failure of the treatment system. Such organisms should be absent or below the set limit for drinking water.

The Fapas® water and environmental microbiology scheme covers all the common indicator organisms for drinking water, as well as Legionella spp. in environmental (cooling) waters and common water parasites associated with water treatment failure (Cryptosporidium).

The programme also covers water quality tests for swimming pool and spa waters and tests for outdoor bathing waters whether they are swimming lakes or beach bathing.

Regular microbiological monitoring of swimming and spa pool waters is recommended to ensure that chemical treatments are being carried out correctly and potentially harmful bacteria are not reaching levels that may cause problems for bathers. Our samples are designed to give a representative challenge for the key tests performed on communal bathing facilities.

Find out more, [click here](#) or visit: [www.fapas.com/water-environmental-microbiology](http://www.fapas.com/water-environmental-microbiology)
## Water and Environmental Microbiology Proficiency Testing Schedule

<table>
<thead>
<tr>
<th>Materials / Products</th>
<th>Type of Test / Properties Measured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lyophilised vials</td>
<td>Enumeration</td>
</tr>
<tr>
<td>PBS suspensions</td>
<td>Total coliforms</td>
</tr>
<tr>
<td>Drinking Water</td>
<td>E. coli</td>
</tr>
<tr>
<td>Swimming Pool Water</td>
<td>TVC (37°C/24 hours)</td>
</tr>
<tr>
<td>Bathing Water</td>
<td>Colony counts (22°C/3 days)</td>
</tr>
<tr>
<td>Environmental Water</td>
<td>Colony counts (37°C/2 days)</td>
</tr>
<tr>
<td></td>
<td>Enterococci</td>
</tr>
<tr>
<td></td>
<td>Clostridium perfringens</td>
</tr>
<tr>
<td></td>
<td>Pseudomonas aeruginosa</td>
</tr>
<tr>
<td></td>
<td>Coagulase positive staphylococci</td>
</tr>
<tr>
<td></td>
<td>Total staphylococci</td>
</tr>
<tr>
<td></td>
<td>Legionella spp.</td>
</tr>
<tr>
<td>Parasitology</td>
<td></td>
</tr>
<tr>
<td>Cryptosporidium oocysts</td>
<td></td>
</tr>
<tr>
<td>Giardia cysts</td>
<td></td>
</tr>
<tr>
<td>Detection</td>
<td></td>
</tr>
<tr>
<td>Organism Identification</td>
<td></td>
</tr>
<tr>
<td>E. coli O157</td>
<td></td>
</tr>
<tr>
<td>Campylobacter spp.</td>
<td></td>
</tr>
<tr>
<td>Salmonella spp.</td>
<td></td>
</tr>
<tr>
<td>Legionella spp.</td>
<td></td>
</tr>
</tbody>
</table>

Regular microbiological monitoring of swimming and spa pool waters is recommended to ensure that chemical treatments are being carried out correctly and potentially harmful bacteria are not reaching levels that may cause problems for bathers. Our samples are designed to give a representative challenge for the key tests performed on communal bathing facilities.

Find out more, click here or visit www.fapas.com/water-environmental-microbiology

Interested in our drinking water microbiology samples? Click here or visit www.fapas.com/water-environmental-microbiology

For the accreditation status of Fapas® proficiency testing programmes, please see our schedule of accreditation at www.fapas.com
Nearly 35 years after the first product trials, GM foods remain a topic of much discussion. Some territories embrace the technology widely, some restrict the use and cultivation of GM crops and others continue to ban their use in agriculture.

In some quarters, GM foods are seen as the way to feed the ever-expanding world population or a means to increase the efficiency (and reduce the environmental impact) of farming. In others cultivation of GM crops is strictly controlled, or even completely prohibited.

Where GM foods are controlled or prohibited, it is important that laboratories testing for the presence of GM are able to detect the modified material. The Fapas® GM proficiency testing materials provide laboratories with the means to independently demonstrate their ability to correctly analyse for the most commonly encountered GM crops, such as maize and soya.

Genetically modified crops can reduce the environmental impact of farming and have other environmental benefits such as helping to reduce food waste and improve air quality. Whether it is less time spent on a tractor tilling soil, which helps to reduce carbon emissions, or applying less insecticides, GMOs help farmers to reduce their environmental footprint in many ways. Additionally, genetically modified crops enable farmers to grow more crops using less land while applying fewer chemicals and conserving water and energy.

The recent development of drought tolerant maize, aiming to improve yields for farmers in dry climates, especially Africa where improved food production is needed most, may also prove important elsewhere as global warming continues.

Find out more, Click here or visit: www.fapas.com/genetically-modified
GENETICALLY MODIFIED FOODS

Currently there are over 30 approved GM crop plants, from apples to wheat, being used in the agriculture of 24 countries in 2017. This represents nearly 190 million hectares planted by 17 million farmers. It is estimated that the cultivation of GM crops has prevented 671 million kg of pesticide active ingredients being used in the environment in the period 1996-2016. (ISAA Report 2017)

GM Foods Proficiency Testing Schedule

<table>
<thead>
<tr>
<th>Materials / Products</th>
<th>Type of Test / Properties Measured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soya flour</td>
<td>Detection &amp; identification / quantification</td>
</tr>
<tr>
<td>Maize flour</td>
<td>35S Promoter</td>
</tr>
<tr>
<td>Wheat flour</td>
<td>Bt11 maize</td>
</tr>
<tr>
<td>Animal feed</td>
<td>Bt176 maize</td>
</tr>
<tr>
<td>Mixed flours</td>
<td>GA21 maize</td>
</tr>
<tr>
<td>Processed/baked product</td>
<td>Maize (contamination)</td>
</tr>
<tr>
<td>Tobacco</td>
<td>MIR604 maize</td>
</tr>
<tr>
<td></td>
<td>MON810 maize</td>
</tr>
<tr>
<td></td>
<td>MON863 maize</td>
</tr>
<tr>
<td></td>
<td>MON8817 maize</td>
</tr>
<tr>
<td></td>
<td>MON89788 soya</td>
</tr>
<tr>
<td></td>
<td>MON89034 maize</td>
</tr>
<tr>
<td></td>
<td>NK603 maize</td>
</tr>
<tr>
<td></td>
<td>NOS Terminator</td>
</tr>
<tr>
<td></td>
<td>Other GM Event</td>
</tr>
<tr>
<td></td>
<td>Rice (contamination)</td>
</tr>
<tr>
<td></td>
<td>Roundup Ready (40-3-2) soya</td>
</tr>
<tr>
<td></td>
<td>Soya (contamination)</td>
</tr>
<tr>
<td></td>
<td>TC1507 maize</td>
</tr>
</tbody>
</table>

For the accreditation status of Fapas® proficiency testing programmes, please see our schedule of accreditation at www.fapas.com

Order your products now! Click here or visit www.fapas.com and search ‘GM’
**FAPAS® CONSULTANCY SERVICE**

For when you need that expert on hand to advise on best-practice industry standards to deliver both quality and process improvement across your laboratory systems.

By combining process mapping, functional trending, a variety of analyses, and the use of process metrics and controls, Fapas® can provide a highly effective service for improving quality control processes.

Root cause analysis is crucial to increase the speed of resolving complex quality issues or to eliminate intractable problems once and for all. Our remedial services are practical and effective, and can result in tangible benefits including faster production, higher quality output, increased customer satisfaction, lower cost, and better execution. Training is a cornerstone of our consultancy framework and provides the tools to individuals and teams to help eliminate problems once and for all.

Fapas® has authored many peer-reviewed publications and technical papers in this area; our consultants apply their expertise to develop and enhance quality control systems and processes for your testing laboratory. By implementing integrated, efficient, and flexible quality processes our clients are able to adjust to rapidly changing marketplaces, reduce delays, and enhance their customer satisfaction, encourage collaboration with partners and customers, and optimise utilisation of resources.

For nearly 30 years, Fapas® consultants have provided their customers with world-class data-driven process improvements to drive high performance.

---

**FAPAS® IN ACTION - CASE STUDIES**

“**How can you help me with my analytical problems?**”

Fapas® collaborated with a national food producer to investigate issues arising with their nutritional data, which was not meeting the necessary requirements. Fapas® used problem-solving techniques, expertise, and a thorough understanding of the information to break down the complexities of the issues faced by the business, and get to the root cause of the problem, by focusing on areas of immediate concern.

Fapas® proficiency tests and consultancy services compared the fitness-for-purpose of the customer’s existing nutritional testing methods and highlighted areas for improvement. The existing testing methods were found not to meet the strict requirements of nutritional compliance.

To address this issue, Fapas® recommended the sustained use of quality control samples to build an ongoing control chart, providing an effective monitoring tool for the customer’s analytical methods and processes. The feedback gained from using the QC samples provided by Fapas® significantly improved the producer’s analysis methods, allowing them to meet compliance criteria to ensure their foodstuffs could stand up to regulatory scrutiny.

“I need to know if my global supplier network is proficient.”

Fapas® worked with a global manufacturer to provide a network-wide proficiency testing programme and a dedicated Technical Account Manager to work closely with their team. Together they designed tailor-made schemes specific to the needs of the customer’s situation. A fully comprehensive overall report was produced for the responsible Quality Manager detailing the performance of their laboratories and highlighting any trends or issues.

This process enabled the customer to have full oversight of the performance of their laboratory network (both internal and external) allowing them to take correcting action and deploy resources where they were required. Additionally, with consultancy from the Fapas® Technical Manager, the customer was supported in effectively interpreting the results of the proficiency tests, allowing them to gain the maximum possible benefit from their investment.

Fapas® also managed the fulfilment of the ordering process, which reduced the time required to register their laboratories and schedule their testing schemes.
Fapas® has a network of Agents to help you locally. Please contact your nearest office:

Argentina
Phone: +5411-4701-6262
b.barloqui@r-biopharmlat.com.ar

Armenia
Phone: +7 495 707 28 68
pl@stylab.ru

Austria
Phone: +49 40 49294 2930
fapas@eurofins.de

Australia
Phone: +61 (0)3 9416 0093
info@biosys.com.au

Azerbaijan
Phone: +7 495 707 28 68
pl@stylab.ru

Belgium
Phone: +32 2 736 62 18
carlos.maes@bio-line.eu

Bosnia
Phone: +7 495 707 28 68
pl@stylab.ru

China (Shanghai)
Phone: +86 13311005883
jen.lai2021@stylab.com

China (Beijing)
Phone: +86-10-88288887
keli@chowell.com

Egypt
Phone: +202 0114 15 215 26
pl@targuts.net

Estonia
Phone: +7 495 707 28 68
pl@stylab.ru

France
Phone: +33 478643200
k.irtu@biopharm.fr

Georgia
Phone: +7 495 707 28 68
pl@stylab.ru

Germany
Phone: +49 40 49294 2930
fapas@eurofins.de

Greece
Phone: +30-210-2934745
info@phac.gr

Indonesia
Phone: +62 811824811
marketing@md.co.id

Israel
Phone: +97257240003
assy@enitan.bio

Italy
Phone: +39 02 89540225
giovanna.lampa@starecotronics.it

Japan
Phone: +81 3 5627 8150
fapas.info@kejip.co.jp

Kazakhstan
Phone: +7 495 707 28 68
pl@stylab.ru

Korea
Phone: +82 2529 2282
kla@kaambio.com

Latvia
Phone: +7 495 707 28 68
pl@stylab.ru

Lithuania
Phone: +7 495 707 28 68
pl@stylab.ru

Malaysia
Phone: +603-5122 5108
fapas@fma-lab.com

Moldova
Phone: +7 495 707 28 68
pl@stylab.ru

Moldova
Phone: +92 42 3733 9116
sa@ talked consulting.co

Philippines
Phone: +6324410430
raklaba@f-anaconco.com

Poland
Phone: +48 61 888 6272
biokosan@nuscana.pl

Portugal
Phone: +351 22 996 20 69
artur.melo@ambifood.com

Russia
Phone: +7 495 707 28 68
pl@stylab.ru

South Africa
Phone: +27 11 681 6500
akr@wecam.co.za

Spain
Phone: +34 91 504 38 02
info@welter.com

Switzerland
Phone: +41 40 49294 2030
fapas@eurofins.de

Taiwan
Phone: +886225484509
biotic@msbi.hinet.net

Tajikistan
Phone: +7 495 707 28 68
pl@stylab.ru

Thailand
Phone: +6628817404
sales@scientificsupply.co.th

Turkey
Phone: +90 212 464 8006
eds@arsics.com.tr

Turkmenistan
Phone: +7 495 707 28 68
pl@stylab.ru

Ukraine
Phone: +7 495 707 28 68
pl@stylab.ru

United Arab Emirates
Phone: +971-4-2852211
sales@oscarexport.com

United States of America
Phone: +18507278107
orders@bochinnova.com

Uzbekistan
Phone: +7 495 707 28 68
pl@stylab.ru

Vietnam
Phone: +84 8 3726 0440
fapas@vphithu.com

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

We’ve made our product codes even simpler!

We’ve organised our codes by programme, analyte group and matrix so you can quickly understand your product exactly. As our product offering is so extensive see the list below of all the programme, analyte and matrix groups we offer.

So for FCAL11-DRY7 this product is within the food chemistry programme, number 11 within the allergens sub group, and number 7 in the dairy matrix group.
THE FAPAS® CUSTOMER JOURNEY

1. Order materials online
2. Round shipped
3. Analyse samples
4. Submit results online
5. Fapass® analyse data
6. Publish report online
7. Review & trend performance
8. Participant feedback & suggestions
QUALITY CONTROL AND REFERENCE MATERIALS

Key to supporting your monitoring of laboratory results, as required in ISO/IEC 17025, is the use of quality control and reference materials alongside your proficiency testing.

Proficiency testing is the only way of independently validating your laboratory results; but whilst it represents the ultimate test of your laboratory it is generally not practical to use for routine control due to the relative infrequency of available rounds. Between rounds the practical way to monitor laboratory results is by the use of quality control materials (QCs), and for more involved projects such as method validation, reference materials (RMs).

Fapas® provides a wide range of quality controls and reference materials from a large selection of food chemistry and GM foods, so we are likely to be able to meet your needs in this area. QC materials have been used in our proficiency testing rounds and analysed by many laboratories and come with a datasheet detailing the analyte values and performance limits for those values.

Our reference materials are provided with defined traceability to established standards and a data sheet stating the reference values and the expanded uncertainty U for those values. Our materials are generated according to the principles of ISO 17034.

Fapas® has a wide range of QCs and RMs available to purchase, covering allergens, authenticity, pesticides, vet drugs, GM foods, mycotoxins and many more. We also provide blank materials, which are an essential tool in method validation, especially where matrix-matched standards are required.
NEW FEATURES

What's New

Multiple Results Submission
You can now submit more than one result in each of our PTs allowing you to:
  - Compare different methods
  - Compare performance of analysts
  - Demonstrate analyst competence
  - Your nominated result will appear in the report and your additional results appear on Fapas® SecureWeb.

Improved Charting
- Online trending is now available for all our programmes
- A new range of filters to display the data you need quickly and clearly
- Export data into Excel format, to produce control charts and feed into your existing quality control procedures

Easy Re-ordering
You can now save time and use our easy re-ordering tool to purchase tests you’ve ordered in previous years.
- Tests purchased the previous year will automatically be added to your basket
- Shop for additional tests in the Fapas® shop
- View your Proficiency Test orders and quotations

WINE PROFICIENCY TESTING

The Fapas® Wine Proficiency Testing Programme helps winery laboratories obtain a true picture of their analytical data quality, providing participants with a higher degree of confidence in their measurements.

The programme is structured for everyone in the wine industry, from independent wineries to large, multi-site laboratories and provides laboratories with an ongoing quality assurance tool for evaluating performance. Each laboratory can choose to test any or all of the properties, depending on the laboratories’ needs and capabilities. Individual reports provide an in-depth look at the testing round, while investigating method dependency in the proficiency test performance.

Click here or visit www.fapas.com and search ‘wine’.