



Pesticide residues services

Because you care about consumers' health



Cutting edge equipment

Mérieux NutriSciences avails itself of excellent tools for the specific detection of pesticide residues on food products, such as:

- 14 triple quadrupole GC-MS/MS
- 10 triple quadrupole LC-MS/MS
- 5 GC-MS Head space
- 2 GC-ECD/FPD
- 1 preparative HPLC
- 1 HPLC-DAD
- 1 GC-FID Varian

FAST Service

Mérieux NutriSciences always puts its customers' needs first.

Upon request, the results of multi-residual determinations can be sent within 24 hours from delivery of the sample without compromising the high quality standards that have always distinguished the Group.

Customers can thus rapidly decide the end-use of the collected, stored or sold goods.

"At a global level, the market of pesticides is experiencing a continuous growth, thus confirming their increasing use in the farming world."

Pesticides are natural or synthetic chemical compounds that are used to tackle the main issues of the food crops chain (fungal diseases and parasites) and post-harvest phases.

The use of these substances is regulated in their respective spheres of competence (seed treatment, cultivation, post-harvest, preservation, etc.), but the residues can remain inside products and foodstuffs for a long time, causing health and regulatory problems (when the residual values do not comply with the limitations set forth by applicable regulations).

The residual quantity must not endanger human or animals health or the environment. If the Maximum Residue Limit (MRL) is exceeded in foodstuff, animal feed and processed products, this can entail administrative penalties, sales prohibition or product withdrawal. Competent authorities and Official Bodies are responsible for checking compliance with the MRLs, but so are the players in the food supply chain.

Plant-related matrices

Mérieux NutriSciences can count on over 30 years of experience in pesticides residues determination on a wide range of foodstuff matrices, with particular focus on the detection of over 700 molecules pertaining to the different pesticide categories (herbicides, fungicides, insecticides, growth regulators, etc.).

The high degree of competence and professionalism make Mérieux NutriSciences the ideal partner for food industries in Italy and abroad: the Group is proud to offer high quality standards, fast results delivery, several accreditation certificates and specific analysis methods, validated on a wide range of simple and complex foodstuff matrices.



Our R&D lab:

- *develops and validates methods to determine the new pesticides contained in food products and very complex food matrices (spices and polysaccharides-, protein- or fat-based semi-finished products, etc.);*
- *can count on constant updates and a strong know-how of the Mérieux NutriSciences staff and on continuous investments in terms of analytical technology (mass spectrometry);*
- *it is the reference lab for search and determination of non-standardized and potentially toxic pesticide metabolites;*
- *it actively participates in international pesticide work groups (e.g. EPRW 014 and AOAC 2015), thus observing the progress of the scientific community from up close.*

Complex matrices

When raw materials and semi-finished products characterized by the presence of pesticide residues are employed, the presence of the latter can be extended to the whole agro-industrial sector, and to finished products in particular.

On behalf of large supermarket chains and main national food industries, Mérieux NutriSciences labs have been involved for years in checking the compliance of finished products, such as pasta and its derivatives, dairy products, animal feed, meat products and cured meats, canned vegetables, juices and baby food. The wide experience in this field, the high level of professionalism and the strong know-how make Mérieux NutriSciences the ideal partner for food industry analytical controls.

A wide range of analytical determinations:

- Triple quadrupole GC-MS/MS and Triple quadrupole LC-MS/MS combined multi-residue analysis (over 600 accredited molecules and related metabolites)
- Polar pesticide analysis (Fosetyl Aluminum, Chlormequat, Chlorates, Perchlorates, Ethephon, Maleic Hydrazide)
- Dithiocarbamates
- Single determinations with internal validated methods (Glyphosate, Dithianon, Phosphine, Quaternary Ammonium Salts, Sulfonylurea, Matrine)
- Total Inorganic Bromide
- Nitrites and Nitrates
- Phytohormones and growth regulators (Naa, Nad, B-Noa)
- Heavy Metals
- 1-MCP



Fruits, vegetables and grains

In Italy, fruit, vegetable and grain sectors are the main crops for importance and surface: Italy is one of the major exporters of fruit and vegetable products in Europe and a great importer of grains and oil and fiber products. In order to protect the safety of fresh and processed products, the relevant companies and large supermarket chains must guarantee their safety and pesticide compliance.

A complete and customized service

The agronomic properties characterizing grains and oil and fiber products require a series of specific checks - which Mérieux NutriSciences has developed over the years - to guarantee the healthiness of these products and of their derivatives, as well as protecting the livestock sector and the end user.



Mérieux NutriSciences counts on over 30 years of experience in pesticide residues determination, and it offers a complete service that can be customized on the basis of its customer's needs and type of matrices analyzed. Thanks to the use of cutting-edge equipment, Mérieux NutriSciences has the skills to detect over 700 active ingredients and their related metabolites, ensuring a complete and in-depth screening to all customers.

Mérieux NutriSciences is acknowledged by all major supermarket chains, has QS accreditation certificates for vegetable and fruit product exportation in Germany, and it also keep regular contacts with the main networks on quality maintenance (international Ring Tests, interlab network of the Emilia Romagna Region and Coop Italia, QS Ring Test).

For more information contact one of our experts by calling +39 0423 7177 or by writing an email to food.italy@mxns.com

New Mériex NutriSciences facility dedicated to contaminants and pesticides



The new facility spreads over 1,500 square meters, it houses three production areas and more than 70 employees.

The labs perform residue analysis on food products for human and animal use, vegetable matrices, watery matrices, soil and packaging, as well as transfer tests. The main analyses performed here concern pesticides, fumigants, mycotoxins, antibiotics, chemotherapeutic drugs, hormones, preservatives, additives and allergens.

Thanks to our skilled staff and cutting-edge equipment, the lab is the crown-jewel of the Group that wishes to extend its leadership to the chemical contaminant and pesticide sectors, too.



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