



The USDA Organic Mandatory Pesticide Testing Ruling and How to Comply

A EUROFINS WHITE PAPER • DECEMBER 2012



This document by Eurofins is licensed under a Creative Commons Attribution 3.0 Unported License.



A COMPREHENSIVE GUIDE TO UNDERSTANDING AND IMPLEMENTING A PESTICIDE RESIDUE MONITORING PLAN.

- What is the Definition of Organic?
- Where did the Legal Definition of Organic Originate?
- What are the Main Goals of the OFPA of 1990?
- What is the National Organic Standards Board?
- What is the National List?
- Implications of the NOP Mandatory Testing Rule
- Current Pesticide Residue Analysis Methods
- USDA Laboratory Selection Criteria
- How Eurofins Can Help

WHAT IS THE DEFINITION OF ORGANIC?

According to the United States Department of Agriculture (USDA), Organic is a labeling term that indicates that the food or other agricultural product has been produced through approved methods that integrate cultural, biological and mechanical practices that foster cycling of resources, promote ecological balance, and conserve biodiversity. Synthetic fertilizers, sewage sludge, irradiation and genetic engineering may not be used.

WHERE DID THE LEGAL DEFINITION OF ORGANIC ORIGINATE?

The Organic Foods Production Act (OFPA), enacted under Title 21 of the 1990 Farm Bill, is the law that made "organic" a legal term. The intent of the OFPA of 1990 was to establish national standards for the production and handling of foods labeled as organic. The OFPA of 1990 authorized a new USDA National Organic Program (NOP) to set national standards for production, handling and processing of organically grown agricultural products. Additionally, the OFPA established the National Organic Standards Board (NOSB) which advises the Secretary of Agriculture in setting the standards upon which the NOP is based.

WHAT ARE THE MAIN GOALS OF THE OFPA OF 1990?

- Establish national standards governing the marketing of certain agricultural products as organically produced products.
- Assure consumers that organically products meet a consistent standard.
- Facilitate interstate commerce in fresh and processed food that is organically produced.

WHAT IS THE NATIONAL ORGANIC STANDARDS BOARD?

The National Organic Standards Board (NOSB) is appointed by the Secretary of Agriculture, the NOSB is a Federal Advisory Committee comprised of the members listed below:

- Four farmers/growers
- Three environmentalists/resource conservationists
- Three consumer/public interest advocates
- Two handlers/processors
- One retailer
- One scientist (toxicology, ecology, or biochemistry)
- One USDA accredited certifying agent

The responsibility of the NOSB is to recommend adding and/or removing materials from the National List (see next question for details on the National List). In general, synthetic substances are prohibited and non-synthetic substances are allowed. Additionally, the NOSB must review all materials every five years and recommend renewing, removing or changing each listing.

The NOSB meets twice per year in a public forum to discuss the issues and vote on their final recommendations. All meetings are free and open to the public. Recommendations by the NOSB are not official policy until they are approved and adopted by the USDA.

WHAT IS THE NATIONAL LIST?

A uniform National List of materials was mandated by Congress as part of the OFPA of 1990. The purpose of this list is to clarify which materials are acceptable and unacceptable to use in organic production, processing and handling in the United States.

HOW HAS THE RECENT FINAL RULING PUBLISHED BY THE NOP ON NOVEMBER 8, 2012, AFFECTED THE OFPA OF 1990?

On November 8, 2012, the NOP published a final ruling clarifying a provision of the OFPA of 1990 and the regulations regarding the requirement of periodic residue testing of organically produced agricultural products by accredited Certifying Agents. The final rule amends the USDA's NOP regulations to clarify that "accredited certifying agents must conduct periodic residue testing of agricultural products that are to be sold, labeled or represented as "100 percent organic," "organic," or "made with organic (specified ingredients or food group (s))." The final rule requires that Certifying Agents, on an annual basis, sample and conduct residue testing from a minimum of five percent of the operations that they certify. This action will help further ensure the integrity of products produced and handled under the NOP regulations." The effective date of this final rule is January 1, 2013, and Certifying Agents must be fully compliant with the five percent requirement for the 2013 calendar year.

The primary goal of this rule is to align the NOP regulations with the requirement for residue testing of organic products under the OFPA of 1990. Residue testing is a significant part of the organic certification process because it provides a quantitative means to monitor compliance with the NOP and discourages the mislabeling of agricultural products.

WHAT ARE THE CURRENT METHODS OF ANALYSIS FOR PERIODIC RESIDUE TESTING THAT MEET THE REQUIREMENT OF THIS RECENT BUILDING?

The NOP uses monitoring data compiled by the USDA Agricultural Marketing Service (AMS), Science and Technology Program and United States state agricultural laboratories to evaluate the residual pesticides remaining on foods. The current method used to obtain this data is a modified QuEChERS (Quick, Easy, Cheap, Effective, Rugged and Safe) method. The NOP, USDA AMS and Science and Technology Program collaborated to create a "target" analyte list (NOP 2611-1) of all pesticides/metabolites/environmental contaminants that have been found in samples analyzed for the USDA Pesticide Data Program. Certifying Agents should use laboratories attempting to analyze as many compounds on the USDA's Prohibited Pesticides for NOP Residue Testing list (NOP 2611-1).

WHAT ARE THE USDA'S LABORATORY SELECTION CRITERIA FOR TESTING ORGANIC PRODUCTS?

The criteria of the food testing laboratory that the USDA prefers a Certifying Agent performing the periodic residue testing for a Certifying Agent are listed below.

1. Laboratories should hold current accreditation to either:
 - ISO/IEC 17025:2005, General Requirements for the Competence of Testing and Calibration Laboratories.
 - An alternate standard approved by the NOP on a case-by-case basis. Certifying Agents should contact their NOP Accreditation Manager for additional information.

A copy of the accreditation certificate should be provided to the certifying agent prior to shipping samples and should be attached to laboratory results when they are reported back to the Certifying Agent.

2. Laboratories should participate in an international proficiency test program. A proficiency testing program is the determination of the calibration or testing performance of a laboratory by means of inter-laboratory comparison. A copy of the proficiency test results from the most recent round of proficiency testing should be available from the laboratory together with any corrective actions taken if the laboratory has failed the proficiency test.

3. Laboratories should be capable of screening for the "target" analyte list of pesticides included on the document NOP 2611-1, analyzing the samples using gas chromatography (GC) and/or liquid chromatography coupled to a mass spectrometer (MS) or tandem mass spectrometer (MS/MS).

4. Laboratories should provide evidence that their analytical method is appropriate for the submitted sample and that suitable validation data are available. Correspondence should be available to the certifying agent documenting that the method meets the laboratories' minimum internal quality assurance requirements.

5. Certifying Agents should direct the laboratory to provide analytical results as follows:
 - If no residue is detected, then the result should be provided as not detected (ND). The limit of detections should be provided.
 - If some residue is detected below the limit of quantification (LOQ), then the result should be provided as "Trace" or "BQL" (below quantifiable level).
 - If residue is detected at or above the LOQ, then the result should be reported in parts per million (ppm). Parts per million (ppm) is equivalent to milligrams per kilogram (mg/kg).

DOES EUROFINS MEET THE USDA'S CRITERIA FOR AN ORGANIC PRODUCT TESTING LABORATORY?

Yes, Eurofins Central Analytical Laboratories (Eurofins CAL) meets all five of the USDA's criteria for an Organic product testing Laboratory.

In addition to meeting the USDA's laboratory criteria, Eurofins CAL has 20 years of experience in the pesticide testing field and our use of modern instrumentation and highly trained staff sets us apart from in the industry. Our lab operation offers many large multi-residue screens to provide a more cost effective option for our clients.

An example of a multi-residue screen that we provide that is used for organic producers and processors is our USDA NOP Package (PQA20), that includes all the analytes listed on document NOP 2611-1, except for Ethephon (which could be added upon request).

Also, for the Certifying Agents that have clients requiring testing on tea products, Eurofins CAL has a Pesticides Tea Package (PQA28) specifically for the Organic Tea market.

The American Association for Laboratory Accreditation (A2LA) has accredited Eurofins CAL in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system. To review our scope of accredited testing services, download a copy of our Chemical Scope of Accreditation (Certificate Number: 2993.01).

For more information on our pesticides testing capabilities please contact us at info@eurofinsus.com or visit our website at <http://www.eurofinsus.com/food>.

REFERENCES

Federal Register Vol. 77, No. 218 Friday, November 9, 2012. Pages 67239-67532. Accessed at <http://www.gpo.gov/fdsys/pkg/FR-2012-11-09/pdf/FR-2012-11-09.pdf> on November 20, 2012

Mary V. Gold. Organic Production/Organic Food: Information Access Tools. United States Department of Agriculture (USDA) National Agricultural Library. June 2007. Accessed at <http://www.nal.usda.gov/afsic/pubs/ofp/ofp.shtml> on December, 5 2012

Organic Trade Association. Organic Foods Production Act Backgrounder. Accessed at <http://www.ota.com/pp/legislation/backgrounder.html> on December 5, 2012

Public Law 101-624–November 28, 1990. Title XXI–Organic Certification. Accessed at <http://nationalaglawcenter.org/assets/farmbills/1990-9.pdf> on December 5, 2012

United States Department of Agriculture (USDA) National Agricultural Library. Mary V. Gold. June 2007. Accessed at <http://www.nal.usda.gov/afsic/pubs/ofp/ofp.shtml> on December, 5 2012

United States Department of Agriculture (USDA). NOP 2611 Laboratory Procedures for Residue Testing Rev02 November 08, 2012. Accessed at <http://www.ams.usda.gov/AMSV1.0/getfile?dDocName=STELPRDC5088988> on November 20, 2012