



*In Food & Agriculture, We Set the Standard*

# PESTICIDE RESIDUES IN SPICES AND HERBS INITIATIVE

## OVERVIEW

As a standards development organization known for its work over the past 140 years in agricultural, food, dietary supplement and related fields, AOAC INTERNATIONAL is an independent, 501(c)(3), non-profit membership association of analytical science professionals representing government, industry, and academia worldwide. AOAC's credibility is derived from leveraging the expertise of its international pool of volunteer subject matter experts to address analytical challenges with reliable, fit-for-purpose, characterized and validated published methods.

## BACKGROUND

Members of the AOAC Southeast Asia section identified in 2023 the need for standardized and harmonized methods of analysis to determine pesticide residues in spices and herbs. A survey by the "Working Group on Method Harmonization" indicated that stakeholders' most important analytical challenges for this analysis and category of samples involve matrix effects, sample preparation, extraction and clean-up, and analyte identification. The Working Group conducted surveys to support prioritization of pesticides and matrices with the focus on spices and herbs used in culinary applications, but recognized that this initiative could potentially be extended to spices and herbs used in other applications, such as in flavorings and dietary supplements.

To address the need for fit-for-purpose methods within the Official Methods of Analysis, AOAC INTERNATIONAL will convene an Advisory Panel (AP) of organizations including private companies as well as non-profit scientific organizations. The AP will then determine the priorities and scoping based on inputs of a technical Working Group advising on:

1. A candidate (minimum) list of pesticide residues and types of herbs and spices to be included in the scope. Priority will be given to those residues and commodities with the highest level of non-conformity in cross-border trade in combination with food safety risk based on stakeholders' collected analytical results and documentation in (inter)national databases.
2. Standard Method Performance Requirements (*SMPR*®), based on the list of pesticides and target matrices, which will form the basis to identify suitable AOAC Official Method(s).

3. A Guidance document to support interpretation of test results, e.g. how to use measurement uncertainty, how to interpret analytical results below an established Limit of Quantitation, or how to consider processing and drying factors of spices and herbs in the analytical result interpretation.

The Working Group will be comprised of volunteers as well as appointed scientific advisors who are experts in this field.

## **MOVING FORWARD WITH AOAC's Pesticide Residues in Spices & Herbs Initiative**

AOAC INTERNATIONAL is seeking financial support to launch the Pesticide Residues in Spices and Herbs Initiative, which will be guided by an Advisory Panel comprised of funding organizations to determine priorities and working group objectives. This panel will meet quarterly to review progress and consider additional objectives.

AOAC INTERNATIONAL is asking organizations to join this important initiative with an annual contribution of US \$10,000. Other levels of contributions will be considered as well. Funding will support the following for each workstream:

- Project management support for convening the Advisory Panel and subsequent technical Working Groups,
- Oversight of the standard development process,
- Processes for drafting documents and consensus building,
- Publication of approved consensus documents,
- Call for methods,
- Establishment of Expert Review Panel(s) for methods considered for AOAC official method status,
- Oversight of the *Official Methods of Analysis* process,
- Publication of established official methods in *Official Methods of Analysis of AOAC INTERNATIONAL*<sup>SM</sup> (OMA),
- Facilitation of global alignment,
- External outreach and training events to publicize the work of the group as well as to attract additional scientists.

## **Advisory Panel Member Benefits**

- Leadership in standardizing and harmonizing an analytical approach to Pesticide Residues in Spices and Herbs, thereby enabling more efficient global commerce for key foods and ingredients,
- Driving the development of internationally recognized method performance standards that will foster the development of needed *Official Methods of Analysis*,
- Engagement with leading experts, regulatory bodies, and industry groups that will set benchmarks for product integrity.

**Contact us at [scienceprograms@aoac.org](mailto:scienceprograms@aoac.org) to get involved!**