

Functional Mushrooms 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 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

The global market size of functional mushrooms in 2023 was estimated to be \$31.71 Billion USD, but more importantly, is expected to grow by a compound average growth rate of 11% through 2030.¹ Functional mushrooms are currently utilized by the dietary supplement, food and pharmaceutical industries. New uses and applications of these nutritive and bioactive ingredients continue to expand, including their utilization as alternatives to meat. Market success is only increasing the urgency for the development of validated fit-for-purpose analytical methods.

To address the need for standardized methods, AOAC is forming an Advisory Panel (AP) of organizations to prioritize and scope the needs of this community. With the support provided from the AP members, AOAC will facilitate AP meetings to define which methods are a priority and how to best move forward with their development and validation using AOAC standards created by a technical Working Group (WG) based on AP's input and guidance. The WG will be comprised of volunteers as well as appointed scientific advisors who are experts in this field. The WG deliverables, as determined by the AP, can be guidance documents for authenticity/identity verification methods, Standard Method Performance Requirements (SMPR) documents for specific methods, or another type of AOAC standards.

Current method needs discussions have focused on identity verification of specific mushrooms in ingredients and finished products, which would support authenticity claims and improve consumer trust. Other method types may also be a priority and can be included as this initiative. The AP will determine where to begin in tackling the list of needed methods.

Moving Forward with AOAC's Functional Mushroom Project

AOAC INTERNATIONAL is seeking financial support to launch the Functional Mushroom Project as a part of the BIDSI Program. This initiative will be guided by an Advisory Panel comprised of funding organizations from government, NGOs, industry and academia to determine

¹ www.grandviewresearch.com, Jan. 27, 2025.



priorities and working group objectives. This panel will meet at least three times per year to review progress and consider additional objectives.

AOAC INTERNATIONAL is asking organizations to join this important program with an annual contribution of \$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,
- A call for methods (request to have methods submitted that meet the standard),
- 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 INTERNATIONALSM* (OMA),
- Facilitation of global alignment, if applicable
- 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 the definitions and analytical approach to functional mushrooms, thereby enabling more efficient global commerce for key ingredients.
- Driving the development of internationally recognized method performance standards that will foster the development of needed *Official Methods of Analysis*.
- Engagement with a select group that will set benchmarks for product integrity.

Contact us at scienceprograms@aoac.org to get involved.