



The Association of Official Analytical Collaboration

AOAC INTERNATIONAL

*Promoting global confidence in
consensus-based analytical solutions
for food safety, food integrity, and
public health*



AOAC INTERNATIONAL's mission is to ensure the safety and integrity of foods and other products that impact public health by convening government, industry, and academia to develop and validate standards, methods, and technologies.

3,000+ OFFICIAL methods
23,854 users from
211 countries WORLDWIDE

From January 1 - December 31, 2021, an average of 23,854 people from 211 countries actively used AOAC's websites each month.

Scientific Excellence

Founded in 1884, AOAC INTERNATIONAL is one of the world's most respected food and agricultural standards organizations.

AOAC's *Official Methods of Analysis*™ is considered the gold standard for analytical science, and the methods contained within are used and trusted by regulatory and industry laboratories worldwide. AOAC's online database of Official Methods is accessed nearly 10,000 times a month by scientists.

Each year, AOAC's Laboratory Proficiency Testing Program helps more than 500 laboratories compete in the global marketplace by demonstrating that they meet the highest international standards.

International Trade

The global food and beverage market is expected to be worth nearly \$8.2 trillion USD by 2025, while the share of trade issues referencing Codex international food standards rose by 475% in the 10 years prior to the Food and Agriculture Organization's 2019 report.

As the U.S. liaison to ISO/TC 34 (Food) and recognized by Codex internationally, AOAC INTERNATIONAL is positioned at the center of critical global standards harmonization that keeps goods flowing.

AOAC's 18 Regional Sections in the Americas, Asia, Europe, and Africa represent economies encompassing 99.4% of the world's population and 80% of world GDP.

ACCURACY
RELIABILITY
Compliance



AOAC SECTIONS REPRESENT
80%
OF WORLD GDP

Share of world Gross Domestic Product for countries represented by AOAC Sections: Asia 23%, North America 26.53%, Latin America 6.95%, European Union 22%, and Africa 2%. Source: World economy by country groups, 2019 (Wikipedia)

AOAC INTERNATIONAL is the preeminent standards organization with the scientific reputation and process efficiency to meet regulatory, business, and technical needs.



14 program areas
30+ *working groups*
500+ EXPERTS



HOW AOAC WORKS

Full Circle: Integrating Essential Services for Scientific Excellence

AOAC’s global suite of activities supports analytical excellence by developing and validating standards and methods, certifying technical performance and proficiency, and providing training and capacity-building programs. Together, these create the environment essential for global confidence in the food supply.

Supporting Innovation

Meeting evolving consumer demands, such as “gluten free” and “lactose free” products, requires the ability to fill testing gaps quickly to reduce time to market.

Leveraging the power of 14 program areas, an average 30-plus working groups, and more than 500 expert volunteers, AOAC INTERNATIONAL can develop critically needed consensus testing methods in as little as three months.

Risk Management

The World Trade Organization estimates that globally, 600 million people fall ill each year after eating contaminated food, with an economic cost of \$95 billion USD a year.

In 2019, 337 U.S. food products were recalled, involving 20.5 million pounds of food. It is estimated that the average cost of a recall to a food company is \$10 million USD.

AOAC INTERNATIONAL continually lowers the cost and time of ensuring food safety by developing new, more accurate, faster, and less expensive chemistry and microbiology methods.



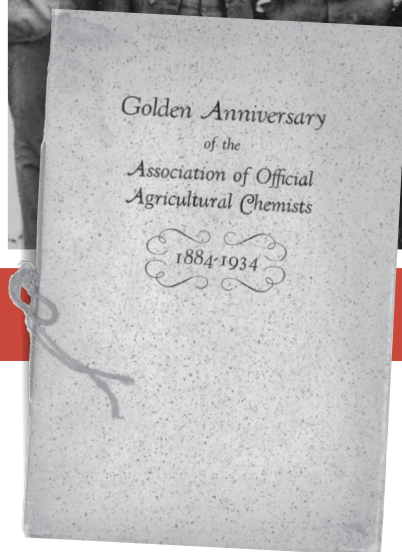
Global Confidence in Food Supply



AOAC INTERNATIONAL founding member, Harvey W. Wiley



Harvey Wiley (third from right) and his staff, about 1883



138 Years of Collaboration

AOAC INTERNATIONAL was founded on September 8, 1884 as the Association of Official Agricultural Chemists by the United States Department of Agriculture, to establish uniform chemical analysis methods for analyzing fertilizers. Since then, it has led continuous advancement in food safety testing.



AOAC Meeting, Washington, DC, November 1908

1884 – 1920s

AOAC's first meeting; *Journal of AOAC INTERNATIONAL* and *Official Methods of Analysis* begin publication

1930s – 1960s

AOAC moves to the newly formed Food, Drug and Insecticide organization which becomes the Food and Drug Administration (FDA) in 1930

1970s – 1980s

AOAC becomes an independent nonprofit; membership is expanded from government to all analytical scientists; local Sections launch in U.S., Canada, Europe, and Asia; MOU with A2LA

1990 – 2000s

Launch of test kit certification and laboratory proficiency testing programs; *Inside Laboratory Management* begins publication; launch of technical divisions on reference materials and laboratory management; China Section launched

2010 – present

MOU with ISO, AOAC named U.S. TAG to ISO/TC 34; Africa, India, and Southeast Asia Sections launched; launch of cannabis, food authenticity, infant formula, and agent detection assays programs; launch of coronavirus environmental testing validation

AN ORGANIZATION ON THE MOVE

Official Methods Program

Analytical Solutions Forum

Cannabis Analytical Science Program

Food Authenticity Methods Program

Stakeholder Program on Infant Formula and Adult Nutritionals

Stakeholder Program on Agent Detection Assays

Gluten & Food Allergens Program

Research Institute *Performance Tested Methods*SM Program

Research Institute *Reviewed and Recognized*SM Program

Laboratory Proficiency Testing Program

collaborations
**ISO
USDA
OUP
A2LA
FDA**



Collaborating with Scientific Centers of Excellence

In 2019, the *Journal of AOAC INTERNATIONAL* joined the ranks of distinguished scientific journals published by Oxford University Press.

Following six years of expanding collaboration, in 2018 AOAC and ISO entered a cooperative agreement for joint development and approval of common standards and methods.

In 2021, AOAC's network of global affiliated Sections expanded into Southeast Asia, bringing use of consensus-based validated analytical science to critical supply chain and regulatory centers.

Meeting Regulatory Needs

In 2020, AOAC expanded its role in international standards as the new ISO TC-34 TAG liaison to the International Organization for Standardization (ISO), giving U.S. stakeholders a voice in decisions made on a global scale.

In 2019, AOAC's *Standard Method Performance Requirements* for analyzing THC content of hemp became the cited standard in the USDA's Domestic Hemp Production Program interim final rule.

Also in 2019, seven methods from AOAC's Infant Formula program were recommended for adoption by Codex Alimentarius.

Keeping Pace with Expanding Safety Testing Needs

In 2020, AOAC's Laboratory Proficiency Testing Program's Scope of Accreditation was expanded by A2LA to include testing capabilities for 20 new analytes in the vitamins and nutrients in infant formula and adult nutritionals focus area, as well as pH in meat and cheese chemistry.

In 2019, AOAC ramped up its training program to provide professional development courses in process risk management and its innovative method validation process.

In 2019, AOAC launched the Analytical Solutions Forum, an "idea incubator" bringing stakeholders together for horizon scanning on emerging food analytical science needs and innovation.



Opening Doors for Trade

AOAC's Board of Directors sets international strategy, priorities, and goals in AOAC's international food safety testing harmonization efforts.

AOAC's rapidly growing Sections in developing nations, the "eyes and ears on the ground" to identify emerging issues, are increasingly serving as expert resources for local authorities and food industry decision makers.

AOAC meetings welcome representatives from all international Sections including China, Sub-Saharan Africa, Latin America, Taiwan, Japan, India, Southeast Asia, and Europe.

Meeting Emerging Needs

In 2021, AOAC's *Reviewed and Recognized* program was created to evaluate performance claims on application notes, user guides, or laboratory developed methods.

Launched in 2019, AOAC's Cannabis Analytical Science Program has developed the first consensus standards for ensuring safety and label claims in the rapidly exploding cannabis and hemp markets.

AOAC's Analytical Methods Weeks, held four times a year, facilitate virtual meetings designed to streamline expert review of methods and public comments.

In 2021, AOAC established new partnerships with the African Organisation for Standardisation (ARSO), Land O'Lakes Venture37, and the Global Retailer and Manufacturer Alliance (GRMA) to expand its global impact.

Laying Foundations for a Strong Future

AOAC is focused on attracting the next generation of analytical scientists, as well as providing ongoing introductory training and orientation in person at the Annual and Midyear Meetings and virtually during Analytical Methods Week activities.

In 2020 and 2021, AOAC partnered with the Eurofins Foundation, Herbalife Nutrition, and SCIEX to launch three new student awards designed to encourage student research and innovation in analytical science.

In 2019, AOAC members approved a new membership model that lowered individual membership fees, introduced a greater variety of organizational membership tiers, and allowed members to choose the services, programs, and publications that benefit them the most.

Inaugural 2020 "Testing For Life" student award winners from left to right: Shimin Chen, Isaac Rukundo, Xingyi Jiang, Aristeidis Tsagkaris, Stephanie Bishop



Why have more than 95 of the world's top manufacturers, laboratories, government agencies, and test developers joined AOAC?

CASE STUDY:

Animal rights militants in New Zealand threatened to contaminate baby formula with the highly toxic Compound 1080 if it were not banned for pest control. Government testing labs found no poison in commercial formula, but their test had not been formally validated and consumer fear continued to spread.

SOLUTION:

With an experienced infant formula Stakeholder Advisory Panel and a Pesticide Contaminants Working Group already in place, AOAC assembled a top-quality Expert Review Panel immediately. Within two weeks, nine candidate methods were reviewed and three received Official Method status.

“AOAC is breaking new ground in developing methods with efficiency AND scientific rigor.”
—Brad Stawick, *Stawick Laboratory Management*

CASE STUDY:

An Indian consumer group claimed there were high levels of pesticides in soft drinks produced in India by foreign-owned companies, resulting in a governmental inquiry and sales bans in some Indian states. With no officially validated methods that could be used to refute the allegations, the companies were losing sales and consumer confidence in India.

SOLUTION:

The companies turned to AOAC, which convened an Expert Review Panel to review and assess methodology used by the consumer group. Within a year the panel produced two validated methods and helped inform the official Indian government report stating the consumer group's allegations were unreliable. In the end, the product bans were lifted and the methods informed the development of new food safety regulations in India.

“If we had started from scratch, our gluten in oats method would have taken forever.”
—Paul Wehling, *Medallion Labs*

CASE STUDY:

In 2016, new regulations requiring listing of BPA in beverages were enacted in California. However, precision analytical standards and methods did not exist, exposing producers to potentially crushing noncompliance issues.

SOLUTION:

After receiving an urgent request from the American Beverage Association, AOAC launched a working group and Expert Review Panel uniting industry, academia, and government. By the time the new regulations went into effect, the precision testing protocols these businesses needed were available.

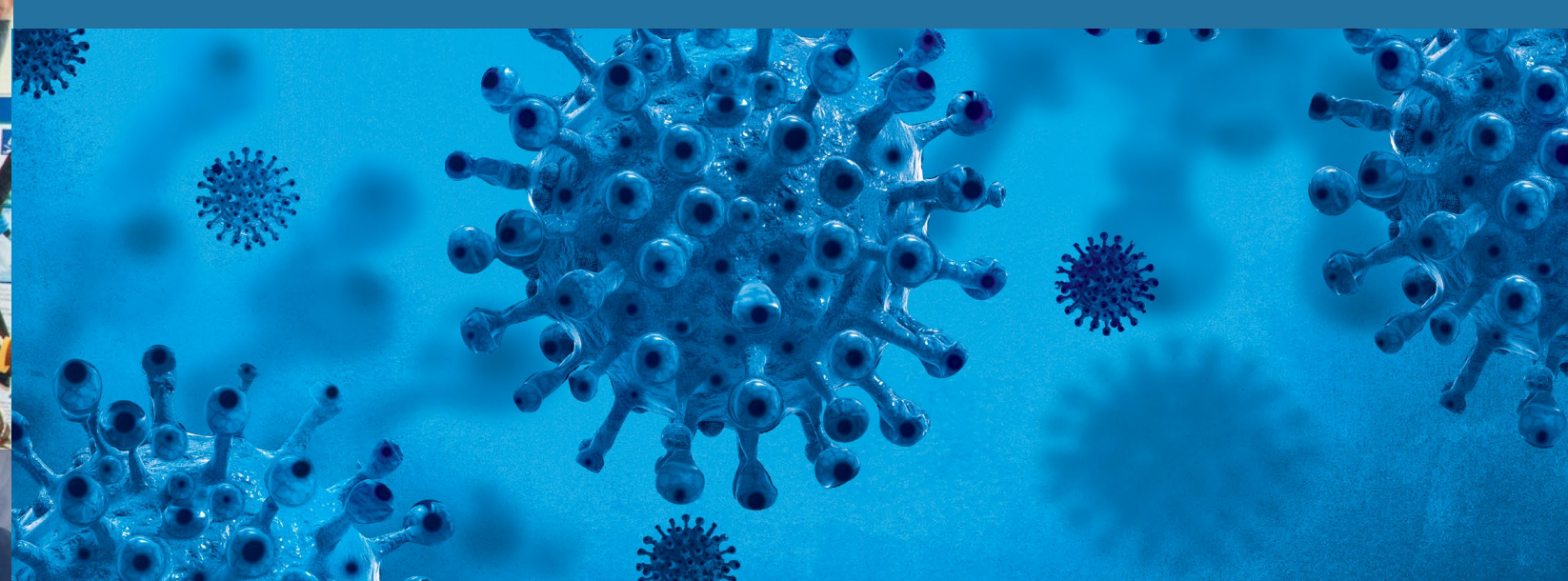
CASE STUDY:

Companies eager to boost opportunities for oats in the lucrative gluten-free consumer market were blocked because existing analytical tests were not applicable to oats.

SOLUTION:

Seven AOAC Organizational Members initiated a project taking advantage of an existing AOAC stakeholder panel. With experts assembled and a working infrastructure already in place, consensus was quickly reached on a new method that unlocked this valuable business opportunity.





Gain the practical benefits and reputational advantage of being part of the world's most unique and respected analytical solutions provider.



Demonstrate leadership in ensuring safe and healthful food for our families and communities.



Access the latest standards and globally recognized scientific and regulatory experts.



Influence the trends and standards adopted by authorities around the world.



Tie your organization's reputation to the most respected organization for food quality and safety.



Reap dividends in risk reduction, brand reputation, and business intelligence.

AOAC INTERNATIONAL: Where Government, Industry, and Academia Meet

AOAC's position at the confluence of all key stakeholder groups creates exceptional opportunities for official collaboration leading to analytical solutions essential to protecting public health.

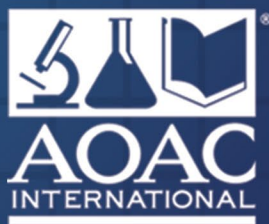
**To learn more, contact Dawn Frazier,
Senior Director, Membership,
Marketing and Communications**

dfrazier@aoac.org | 301.924.7077 ext 117



AOAC INTERNATIONAL

In Food & Agriculture, We Set the Standard



www.aoac.org

2275 Research Blvd. Ste 300, Rockville MD 20850 +1 (800) 379-2622