



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
20,287 users from
209 countries WORLDWIDE

In the 12-month period ending November 16, 2020, an average of 20,287 people from 209 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 AnalysisSM is considered the gold standard for analytical science, and the analytical methods contained within are used and trusted by regulatory and industry laboratories worldwide. AOAC's online database of Official Methods is accessed nearly 3,000 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.

ACCURACY
RELIABILITY
Compliance



International Trade

The global food and beverage market is expected to be worth nearly \$9.5 trillion USD by 2022, while the share of trade issues referencing Codex international food standards rose by 475% in the 10 years prior to the FAO's most recent 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 17 Sections in the Americas, Asia, Europe, and Africa represent economies encompassing 99.4% of the world's population and 80% of world GDP.



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.



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

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 12 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 is safe by developing new, more accurate, faster, and less expensive chemistry and microbiology methods.



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.



**Global
confidence in
food supply**



AOAC INTERNATIONAL Founding Member, Harvey W. Wiley



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



136 Years of Collaboration

AOAC INTERNATIONAL was founded 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.

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



AOAC Meeting, Washington, DC, November 1908

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; launch of Africa & India Sections; 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 Panel on

Agent Detection Assays | Research Institute

Performance Tested MethodsSM Program

Laboratory Proficiency Testing Program

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 Requirement* 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.



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 2018, AOAC's network of global affiliated Sections expanded into Africa, bringing use of consensus-based validated analytical science to critical supply chain and regulatory centers.

Keeping Pace with Expanding Safety Testing Needs

In 2020, AOAC's Laboratory Proficiency Testing Program Scope of Accreditation was extended 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 the Meat and Cheese Chemistry programs.

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, which are AOAC's "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 and Europe.

Meeting Emerging Needs

AOAC's Emergency Response Validation Program has been activated to meet the need for validation of methods for testing environmental surfaces for SARS-CoV-2 coronavirus.

AOAC's Cannabis Analytical Science Program developed the first consensus standards for ensuring safety and label claims in this rapidly exploding market.

AOAC's Analytical Methods Weeks facilitate virtual meetings designed to streamline expert review of methods and public comments.

AOAC's Analytical Solutions Forum is an "idea incubator" where global stakeholders convene to share emerging issues and examine the role of analytical standards and methods.



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 Meeting and virtually during Analytical Methods Week activities.

In 2020 AOAC launched the new “Testing for Life” Student Award supported by the Eurofins Foundation and designed to encourage student innovation in life sciences testing.

In 2019, AOAC’s membership 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 most.

2020 “Testing For Life” 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:

A consumer group in India 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 independent expert panel to review and assess methodology including that used by the consumer group. The panel of international experts, including prominent Indian scientists, produced two validated methods. In the end, the bans on products were lifted and the new 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. But 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.





JOIN AOAC INTERNATIONAL

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.



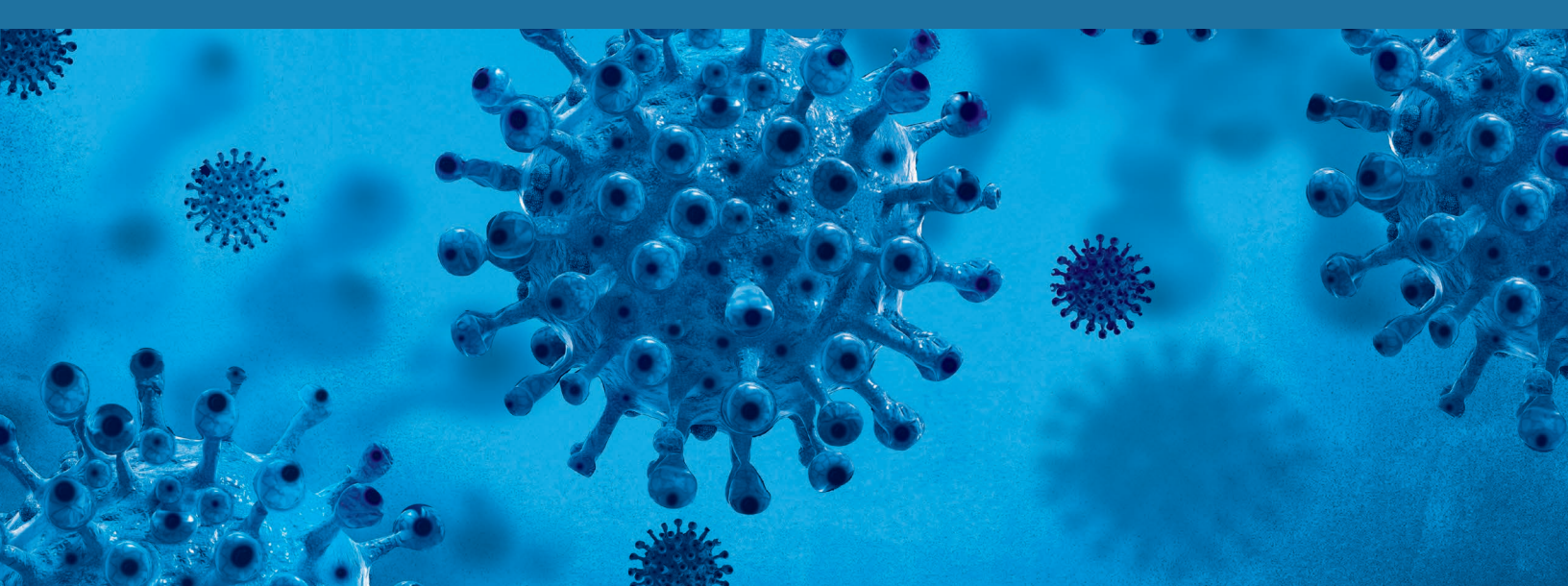
Influence the trends and standards adopted by authorities around the world.



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.

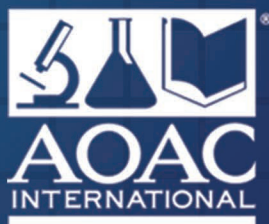
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AOAC INTERNATIONAL

In Food & Agriculture, We Set the Standard



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