ASSOCIATION OF AMERICAN FEED CONTROL OFFICIALS (AAFCO)
1800 SOUTH OAK STREET, SUITE 100
CHAMPAIGN, ILLINOIS

MINUTES OF THE LABORATORY METHODS AND SERVICES COMMITTEE MEETING
HELD AT THE HILTON OMAHA
1001 CASS STREET
OMAHA, NEBRASKA
AUGUST 5, 2025, 8:00 A.M.

MEMBERS PRESENT:

Erik Pearson (Co-Chair)
Dominika Kondratko (Co-Chair)
Josh Arbaugh
David Snell
Teresa Rygiel
Ametra Berry
Rebecca Moseley
Naomi High
William Hoek
Brenda Snodgrass
Tai Ha
Michelle Swarbrick
Nancy Thiex
Robin Johnson
Solomon Kariuki
Dancia Wu

ADVISORS PRESENT:

Lars Reimann (virtual)
Leo Schilling
Jeff Horst
Ken Riter
Molly Peters (virtual)
Andy Crawford (virtual)

VIRTUAL ATTENDEES:

Abie McCollar
Alex Bombich
Gail Swinford
Julie Barry
Lawrence Novotny
Denice Mittelstaedt
Melissa Nichols
Susan Humphries
Srinu Chigurupati
O McKnight
Rick Jeswein
Robyn Randolph
Tadas Kargelis

OTHERS PRESENT:

Jenny Combs
Alan Harrison
Daryl Clinton
Melanie Banta
Suzanne Rajewski
Jason Badgett
Kari Nichols
Madison Smart
Ian Banks
Eileen Stochl
Michelle Sandau
Brian Heikes
Mercedes Thelen
Rebecca Kern-Lunbery
Zachary Khul
Kimberly Roewe
Alicia Hemphill
Mariah Ponton
Brian Pickerel
Brian McLorin
Nate Larson
Sarah Hubert
Joe Ward
Jackie Lissolo
Berit Foss
Matt Nichols
Justin McKenny
Darrell Johnson
Chad Vietz
Hunter Buffington
Liberty Sibanda
Brian Schuld
Rob Shirley

Sandra Tudge, Recording Secretary, Minutes Solutions Inc. (via teleconference)

1. CALL TO ORDER

There being a quorum present, and adequate and proper notice of the meeting having been given, the meeting was called to order at 8:00 a.m.

2. REVIEW AND APPROVAL OF AGENDA

On a motion made by David Snell, seconded by Tai Ha, it was resolved to approve the agenda for the Laboratory Methods and Services Committee meeting as presented. Motion carried.

3. INTRODUCTIONS

All members and guests introduced themselves, and the sign-in sheet was completed.

4. ANALYSIS OF MYCOTOXINS IN DISTILLER'S GRAINS

Erik Pearson introduced Chad Vietz of the Nebraska Department of Agriculture, who provided an overview of mycotoxins, particularly focusing on contamination in grains. He discussed the constraints of traditional detection methods of HPLC, LC/MS, and ELISA, and then highlighted the functions and benefits of lateral flow assays or strip tests. These assays significantly reduce the need for equipment, reagents, analysis time, and costs. However, it was emphasized that alternative confirmation methods remain necessary.

Strip tests are particularly beneficial for initial screening, with satisfactory validity results obtained when compared to HPLC. It was noted that the test kits cost approximately $250 (40 strips) and come with a list of approved commodities, including dried distillery grains. While the LOD has not been published, it is expected that this information can be obtained from the manufacturer upon request via email.

5. USE OF NEAR INFRARED (NIR) SPECTROSCOPY IN A REGULATORY ENVIRONMENT

Alan Harrison, Director of Feed and Milk at the University of Kentucky (UK), provided an overview of NIR spectroscopy and its applications in agriculture. A history of NIR use at the University of Kentucky, College of Agriculture Food and Environment, was presented, noting that its use implementation began in November, 2020. The NIR screening process used at UK was reviewed, emphasizing that this includes human review. Analytes rejected by NIR screening proceed to wet chemistry testing. It was noted that analytes cannot be failed based solely on NIR results.

He then reviewed the process and data used to evaluate NIR screening and concluded that regulatory decisions based on NIR results would have been consistent with those made using wet chemistry. The laboratory's policy requires two wet chemistry values for a sample to be classified as deficient.

Jennifer Combs, Regulatory Associate, Division of Regulatory Services, provided an overview of the benefits of NIR, including cost savings, reduced turnaround time, adequacy of NIR results for service samples, and enhanced reporting. Unexpected benefits include identifying potential problem samples before wet lab testing, detecting inflated fat guarantees, using NIR-estimated moisture value rather than the label guarantee to calculate the mineral guarantees.

The drawbacks of NIR were discussed, including upfront investment costs, increased management time for data review and test approval, reduced labor demands, challenges related to analyte mix and laboratory bottlenecks, integration of NIR screening into existing laboratory systems, and the need to account for NIR downtime. Considerations for using NIR screening were also reviewed.

Future plans and goals for NIR in the KY lab include assuming state forage testing from the Kentucky Department of Agriculture, purchasing an NIR scanner for forages, and building new models.

The attendees posed several questions regarding the modeling, and the application of NIR. Alan Harrison reviewed the criteria for deciding when the model should be updated, and the process for determining the use of NIR. It was noted that newer feed ingredient samples would generally be forwarded for wet chemistry testing.

6. INTEGRATION OF ROBOTICS FOR SAMPLE PREPARATION AND AUTOMATION

Leo Schilling of Eurofins SF Analytical Laboratories provided an overview of how robotic systems can streamline online sample preparation, and presented automation strategies for sample accessioning, storage, and retrieval, and examples of integration with analytical systems and LIMS.

The benefits of robotics were reviewed, specifically in terms of minimizing human error and manual repetitive processes, gaining efficiencies, improving quality, and long-term savings. Laboratory staff should be made to feel empowered through automation by offering hands-on experience with advanced technology, shifting from repetitive tasks to analytical thinking, greater productivity, upskilling and career development, as well as fostering collaboration, resiliency and flexibility.

Considerations for robotics implementation were outlined, including a phased adoption approach, emphasis on validation and compliance through data equivalence with manual sampling, and the importance of training and change management.

Potential artificial intelligence (AI) innovations for the laboratory were reviewed, including AI driven sample prioritization, integration with cloud-based LMIS, and remote monitoring. Attendees were encouraged to take advantage of AI tools currently available, such as Microsoft AI products.

Leo Schilling suggested that the most approachable technique for many laboratories is a sampling preparation robot. To gain leadership support for automation, he recommended beginning with a well-defined process, such as a LEAN project, which focuses on the proposed improvement. A return-on-investment analysis should also be included. A dedicated team and resources aligned with the project goals are also essential for success.

7. CHALLENGES OF MANAGING A STATE FEED LABORATORY

Rebecca Moseley State Chemical Laboratory Coordinator, Alabama Department of Agriculture and Industries, highlighted the challenges faced by state feed laboratories in meeting sample testing turnaround expectations, emphasizing the impact of staffing limitations. Other internal challenges cited include difficult samples, laboratory maintenance, and ISO accreditation activities.

The attendees discussed ways they address turnaround challenges, including the following:

- Flexible staff scheduling
- Prioritizing samples and adjusting timing of sample preparation
- Requesting lab analysts to prepare samples one hour per day
- Negotiating contracts with courier for online ordering

Rebecca Moseley reviewed external factors that limit turnaround time for the Alabama State laboratory, including supply chain issues, lengthy accounting process, scheduling repairs and maintenance, power outages, and building maintenance issues.

Several participants reported also experiencing power outages. The meeting discussed potential solutions, such as purchasing back-up generators and/or uninterruptible power supplies (UPS) to allow for the safe shutdown of equipment, installing UPS systems for computers, and developing backup procedures. It was noted that all UPS systems require a maintenance plan.

The meeting discussed other external challenges, including sample delivery delays, sampling packing issues, and lost samples. Approaches for overcoming factors influencing unrealistic turnaround time expectations were noted, including:

- Inviting field inspectors to spend a day in the laboratory and vice versa
- Regularly communicating challenges to Management
- Cross-training and mentoring of laboratory staff
- Presenting at the yearly Inspectors meeting by laboratory staff
- Integrating laboratory time into onboarding for all staff
- Hosting coffee with the scientist for office staff and tours of the laboratory

Methods of boosting employees' morale for increased retention were also discussed, including celebrating birthdays and work anniversaries, field trips, holding lunches for social time and for learning, and hosting an in-office book club.

The meeting recessed from 10:32 a.m. to 10:45 a.m.

8. DISTILLERS PRODUCTS PROCEDURES WORKING GROUP

Joe Ward of Distillers Technology Council noted that the Council and ASTM have established a working group to recommend testing procedures for distillers' products for each analyte. He encouraged participants to contact him at Joe.ward@distillersgrains.org if they are interested in participating in the working group.

9. WORKING GROUP UPDATES – LMSC WG LEADS

9.1 Ash

ACTION – Dominika Kondratko and Erik Pearson will ensure the resource documents are moved to Basecamp.

The Ash Working Group did not meet since the mid-year meeting. The resource documents collected by the previous Working Group have been uploaded onto SharePoint for the Working Group's review. Participants were encouraged to contact Dominika Kondratko or Erik Pearson if they are interested in volunteering on the Working Group. Eileen Stochl is interested in joining the working group.

9.2 Metals

ACTION – Dominika Kondratko will confirm SharePoint access for the Metals Working Group Chair.

The Working Group has met several times to gather documents. The Committee agreed that the Metals Working Group would continue consisting of Michele Swarbrick, Melanie Titley, William Hoek, Brian Dawkins, and Justin McKenney.

9.3 Fat-Soluble Vitamins

Ken Riter, Co-Chair of the Fat-Soluble Vitamins Working Group, confirmed that the Texas State Chemist has not yet issued their publication on vitamin D. Robin Johnson, Co-Chair, reported that some progress has been made on vitamin A testing, with encouraging results. The Working Group plans to meet shortly to discuss further testing. Participants were encouraged to volunteer for this group.

9.4 Moisture Best Practices

The Committee agreed to continue pursuing Karl Fischer testing on dry and wet pet foods and compare testing with the loss on drying (LOD) methods. It was reported that Lawrence Novotny would be stepping down as Chair of the Working Group. Eileen Stochl, Brian Schuld, Darrell Clinton , Dominika Kondratko volunteered to continue on the Working Group.

9.5 Dietary Fiber

On a motion Darrell Clinton, seconded by Robin Johnson, it was resolved to accept creating a representative sample of dietary fiber as proposed. Motion carried.

Josh Arbaugh reported that the Working Group met several times and has proposed purchasing dry dog food through AAFCO's proficiency testing program for sampling by laboratories that enroll for a small fee. The goal is to engage 30 to 50 laboratories. The purpose of the study is to evaluate matrices without limiting the total dietary fiber method, with the aim of identifying a valid method for pet food labeling. Sample preparation and shipment are planned for fall 2025, with data collection targeted for completion before the midyear meeting. Method validation will follow, as states acquire the necessary equipment.

The meeting discussed the definition of dietary fiber, and Josh Arbaugh noted the Working Group concluded that the testing method would define dietary fiber. The Committee emphasized the importance of communicating to participating laboratories that the purpose of testing is for labelling, not nutrition profiling. The Committee also discussed factors to consider for prioritizing matrix testing.

9.6 Quality Assurance (QA)/Quality Control (QC)

ACTION – Erik Pearson will draft a short QA/QC Subcommittee purpose for the Committee to recommend for Board approval.

The QA/QC guidelines must be updated to meet the ISO standards. David Snell, Denise Mittelstaedt, Erik Pearson, Leo Schilling, and Susan Humphries volunteered to continue on the Subcommittee. Brenda Snodgrass provided a brief history of the previous guideline update.

Following discussion on the QA/QC Subcommittee charge, the Committee agreed that the Subcommittee should review the current QA/QC guidelines for alignment with ISO/IEC 17025:20017 requirements and adjust the guidelines as needed.

9.7 AAFCO Certified Laboratory

The Certified Laboratory Working Group was renamed the Laboratory Network Working Group. An optional survey will be distributed to each State's Laboratory Director. The goal is to create searchable laboratory information to be housed on AAFCO's website in the regulatory section.

9.8 Emerging Contaminants

The Working Group compiled a list of relevant emerging hazards in the food chain to serve as an information repository for feed and pet food industry laboratories. The goal is to provide laboratories with quality information on compounds, including testing methods and products. The repository will start with one or two analytes and be maintained as an evergreen resource.

The Committee reviewed the draft list and discussed criteria for identifying emerging contaminants. The Food and Drug Administration will be invited to join the Working Group and attendees were encouraged to participate. An update on the repository's development will be shared at the 2026 midyear meeting.

10. HEMP UPDATE

Erik Pearson introduced Hunter Buffington of Agriculture Policy Solutions and ASTM International. She noted that ASTM's D37 Committee on Cannabis has recently been reconfigured as the Committee on Cannabis and Hemp, and encouraged attendees to join ASTM International and the Committee.

An overview was provided on ASTM International Industrial Hemp Subcommittee's Standards for Hemp Grain and the D8440-2 Specifications for Food Safety and Quality of Hempseed Products Intended as Food. It was noted that the latter will be updated in 2026. The membership of the Analytical Method Development Task Group was provided, noting AAFCO members Josh Arbaugh and Teresa Rygiel.

Regarding ASTM hemp cannabinoid quantification methods development, the D8375-23 (LC-MS/MS) is currently being validated. Work is underway on testing cannabinoid concentration in cannabis flowers and developing an education guide for using hempseed byproducts in livestock feed. Challenges were noted in the GC-FID method validation process, due to a reduced lower limits of quantification in the Food and Drug Administration's (FDA) approved definition for hempseed meal from 10 ppm to 2 ppm THC. International research regarding safe THC thresholds was discussed. It was noted that hemp crops could be an economic opportunity for United States' farmers; however, consumer confidence is necessary for expansion.

The meeting discussed alternative methods to GC-FID for testing, noting their ease of use with comparable results. Leo Schilling suggested investigating a sample concentration factor in preparation to obtain a lower limit of detection. Hunter Buffington encouraged participants to join ASTM's Hemp Working Group by contacting her at hunter@agpolicysolutions.com .

11. BEST PRACTICES FOR MYCOTOXIN ANALYSIS

On a motion made by Brenda Snodgrass, seconded by Darrell Clinton, it was resolved to form a Mycotoxin Analysis Working Group. Motion carried.

The Working Group was dissolved at the 2025 midyear meeting due to personnel changes, the complex scope for the group, and external activities. The Committee agreed that a Working Group consisting of regulators and industry would be timely given the recent panel discussion; however, the scope must be well defined within the context of international work on the topic. The working group will be led by Leo Schilling with Darryl Clinton, Joseph Ward, Brian Schuld, Ken Ritter, Solomon Kariuki, Matt Nicholas, Liberty Sibanda, and Berit Foss joining the group.

The Committee discussed a stepwise approach, with the goal of drafting an internationally harmonized best practices paper by the 2026 midyear meeting. Consideration of emerging mycotoxins by the Working Group was also discussed.

The meeting recessed for lunch from 11:30 a.m. to 1:30 p.m.

12. REGULATORY SURVEY RESULTS

Some preliminary data from the regulatory survey has been collected. It is anticipated that the data analysis will be available for presentation at the 2026 midyear meeting.

13. QUALITY ASSURANCE SUBCOMMITTEE CHARGE FOR BOD

This item was discussed under Working Group updates.

14. APHL/AAFCO WEBINAR

Erik Pearson introduced Robyn Randolph, Program Manager, APHL, who highlighted APHL's advocacy efforts over the past year and its upcoming initiatives. An overview was provided of APHL's consolidation of tools and resources for human and animal food laboratories (see https://www.aphl.org/programs/food_safety/human-and-animal-food-testing/Documents/HAF_Benefits_Flyer_2024.pdf.).

APHL's focus on fostering career pathways was reviewed, including fellowships, internships, and leadership empowerment programs. Highlights of APHL's One Health initiatives were also presented. An overview of the Regulatory and Laboratory Training System (RLTS) based on national curriculum standards was provided, highlighting the two animal food courses under development.

Robyn Randolph emphasized APHL's continuous search for opportunities to develop training, including collaborating with AAFCO, and encouraged the attendees to contact her at Robyn.Randolph@aphl.org.

The Committee inquired about future funding opportunities for laboratories working toward ISO accreditation. Robyn Randolph noted that APHL traditionally engaged a consultant to provide technical expertise for accreditation; however, this did not occur in 2025 due to fiscal constraints. Instead, participants were encouraged to explore support through APHL's training fund opportunities.

15. OTHER BUSINESS

15.1 Update On August 2024 Action Items and AAFCO Strategic Plan Objectives

This item was deferred.

15.2 Roundtable Discussion

This item was deferred.

16. ADJOURNMENT

On a motion duly made, seconded and unanimously carried, it was agreed that there was no further business to transact; the meeting closed at 3:07 p.m.

DISCLAIMER

The above minutes should be used as a summary of the motions passed and issues discussed at the meeting. This document shall not be considered a verbatim copy of every word spoken at the meeting.

Dominika Kondratko	Erik Pearson
Committee member	Committee member
09/10/2025	09/10/2025
Date	Date