



## **METHODS FORUM XX FEB. 17-19, 2021 VIRTUAL MEETING FERTILIZER METHOLOGY; BIOSTIMULANT EFFICACY, SAFETY & COMPOSITION**

### **Who Should Attend?**

- Regulatory, commercial, industry, academic and vendor chemists, biologists, agronomists and product managers who test and conduct research on fertilizers & biostimulants.
- Technical experts, project managers, state and federal regulators, chemists, microbiologists & regulatory specialists.

### **Key Speakers:**

- *Amy Roberts, Lallemand Plant Care*
- *Terry Stone, Corteva*
- *Patrick Doyle, Plant Response*
- *David Hiltz, Acadian Seaplants*
- *Helen Harrison, Novozymes*
- *Erick Johnson, Chemical Dynamics*
- *Dr. Beth Guertal, Auburn University*
- *Chuck Ramsey, Envirostat*
- *Patty Lucas, FL Dept of Ag & Consumer Services*
- *Christine Rivera & Mark Kelinske, Agilent*
- *Dion Tsourides, Spectro*
- *Jay Gandhi, Metrohm USA*
- *James Bartos, Office of the Indiana State Chemist*
- *Solomon Kariuki, University of Kentucky Reg. Serv.*
- *Other Industry Experts & Vendor Tech Support Speakers*

Registration: <http://www.aapfco.org/meetings.html>

### **Topics Include**

**Biostimulant Ingredient  
Evaluation & Methods  
Development**

**Improving Instrumental  
Analysis of Metals, Ions  
& Compounds**

**Slow & Controlled  
Release/Enhanced  
Efficiency Methods  
Development**

**Improving Sample  
Preparation & Test  
Portion Selection  
Procedures**

### **Additional Opportunities**

- Breakout Sessions  
On Biostimulants
- Access To Industry &  
Vendor Experts
- Open Forums &  
Expert Panels
- Pre-Meeting Topic  
Input & Questions
- Ongoing Highly  
Focused Meetings &  
Training Sessions

## Sessions Overview

2/17/21 Opening Session 2:15 - 2:20 pm – Welcome, Format, Goals - Bill Hall

### 2/17 Technical Session I Instrumental Analysis Metals, Ions & Compounds 2:20pm – 5:30pm Moderator – James Bartos

**Goals & Outcomes – Identify & engage experts in areas of most interest to the industry; identify methods in need of improvement; provide information to instrument users that will improve their efficiency, accuracy & precision.**

Presentation #1 – Expanding Instrument Applications to Fertilizer Matrices - James Bartos, OISC - 25 Min.

Presentation #2 – Extraction Techniques for Soluble Micronutrients - Solomon Kariuki, U. of Kentucky Reg Serv. - 25 Min.

Presentation #3 – Results of TFI Micro Survey & Magruder Data Mining Project - Bill Hall, N-P-K Consulting, LLC – 25 Min.

Presentation #4 – Results of Magruder Data Mining Supporting AOAC 2017.02 - Sharon Webb, U. of Ky Reg. Serv. – 25 Min.

Presentation #5 – Running High Level Concentration Options by ICP-MS - Christine Rivera/Mark Kelinske, Agilent – 25 Min.

Presentation #6 – Optimizing Sulfur Analysis by ICP - Dion Tsourides, SPECTRO Analytical Instruments Inc – 25 Min.

Presentation #7 - Ion Chromatography for Cl<sup>-</sup>, NO<sub>3</sub><sup>-</sup> and/or ClO<sub>4</sub> In Fertilizers - Jay Gandhi, Metrohm USA - 25 Min.

Open Forum – Questions, Comments, Action Items - 15 Min.

### 2/18 Technical Session II Improving Sample Prep. & Test Portion Selection 12:30 pm – 3:00 pm Moderator – Patty Lucas

**Goals & Outcomes – Inform users of the need to understand and manage critical steps in equipment, sample preparation and test portion selection; provide access to expertise and resources related to best lab practices.**

Presentation #1 – Results Of Pre-Meeting Survey - Sample Prep Processes – Patty Lucas, FL Dept. of Ag & Cons. Serv. – 15 Min.

Presentation #2 – Bad Assumptions = Bad Outcomes - Bill Hall N-P-K Consulting and Nancy Thiex, Thiex Consulting – 30 Min.

Presentation #3 – Principles of Sample Selection/Reduction & Managing Test Portions - Chuck Ramsey, Envirostat – 45 Min.

Presentation #4 – Implementation of Principles – User Results TBD - 30 Min.

Open Forum – Questions, Comments, Action Items (Potentially Schedule a Virtual Training Class in the Future?) 30 Min.

### 2/18 Technical Session III Slow & Controlled Release/Enhanced Efficiency Methods 3:15pm – 5:15pm Moderator – Bill Hall

**Goals & Outcomes – Update users on the latest methods to assess nutrient release of slow & controlled release products for regulatory compliance, product assessment and nutrient release characteristics.**

Presentation #1 – Review of Analytical Methods for Slow-and Controlled Release Fertilizers, Michael Hojjatie, TKI 20 Min.

Presentation #2 – Development of The Most Recent Methods (AOAC 2015.15) Bill Hall, N-P-K Consulting, LLC 20 Min.

Presentation #3 - Update on the EPA/USDA “Next Generation Fertilizer Innovation Challenge” Job Fugice, IFDC 20 Min

Presentation #4 – Implementation & Application of AOAC 2015.15 – Dr. Beth Guertal, Auburn University 30 Min.

Open Forum – Questions, Comments, Action Items (Schedule a Virtual Training Class?) 30 Min.

### 2/19 Session IV - Biostimulant Ingredient Evaluation & Methods Development 12:30pm – 4:30pm Moderator – Ed Thomas

**Goals & Outcomes – Inform the biostimulant community of the latest developments in the scientific process of assessment of product characteristics relating to regulatory compliance, label claims, and verification of ingredients.**

Presentation # 1 – Why Are Universally Accepted, Validated Methods Needed? - Bill Hall, N-P-K Consulting, LLC - 25 Min.

Presentation # 2 - Understanding the Need for Analytical Support & Cooperation – Hugh Rodrigues, Thornton Lab – 25 Min.

Presentation # 3 –Analytical Innovation (FTIR - Tools to Assess Humic Acids) – Eric Johnson, Chemical Dynamics – 20 Min.

Presentation # 4 - Plant Biostimulant Industry: Product Criteria and Standard Development - Terry Stone Corteva – 20 Min.

Break 1:50 – 2:00

Presentation # 5 – Product Efficacy Criteria - Patrick Doyle, Plant Response - 20 Min.

Presentation # 6 – Product Safety Criteria – Helen Harrison, Novozymes – 20 Min.

Presentation # 7 – Product Composition Criteria - David Hiltz, Acadian Seaplants – 20 Min.

Breakouts on Efficacy, Safety & Composition Criteria Group Leaders - Presenters #3, #4, #5 (Via Zoom Meetings) – 40 Min.

Break 3:40 - 3:45

Breakout Reports - Discussion of Potential Standards and Methods That Satisfy Industry & Regulatory Needs - 30 Min.

Closing Session - Wrap -Up And A Look Ahead – 5 Min.