It’s that time of year again when friends and family think about the Christmas of the past and plan for the coming holiday with their loved ones. As we reflect on this wonderful holiday, let it be a time for remembering, a time to share the goodness of your heart with others, and a time to enjoy family and friends. We wish you a blessed holiday season. May this Christmas bring you comfort, joy, peace and happiness to last throughout the coming year!

Yours truly

The AAPFCO

Board of Directors
COMING SOON:
AAPFCO Winter Annual Meeting 2015
The AAPFCO Winter Annual Meeting will be held in Jacksonville, FL at the Hyatt Regency River Front. February 14-20, 2015. The room rate is $83.00 a night. The meeting is guaranteed to be informative and productive. The city is filled with good food and drinks, and a rich history. Aside from the meeting there is plenty to do, see, and taste. Our hotel is conveniently located on the river walk, with a four-mile river walkway right out our front door teeming with activities.

UPDATES:

27th Administrators’ Seminar
The AAPFCO’s 27th Administrators’ Seminar was held in Annapolis, Maryland on October 21st through 23rd, 2014 at the Historic Inns of Annapolis’ Governor Calvert House. Twenty-eight control officials attended representing twenty-four different states. Topics discussed at the seminar included the purpose and functions of AAPFCO, using the Official Publication, use and review of the Product Label Guide, a report from the Nation Fire Protection Association meeting concerning ammonium nitrate storage, fertilizer tonnage and inspection fee audits, state’s referee lab policies, when a plant nutrient is a pesticide or not, how to handle soil health claims, and how states handle noncompliant products. In addition, Wade Foster, from The Fertilizer Institute, updated the group on Capitol Hill issues pertaining to the fertilizer industry. All new control officials are encouraged to attend the seminar along with veteran control officials to share insights on the
Missouri D bulk fertilizer probes and fertilizer bag sample probes
Probes are available for sale. These are less than what you can purchase thru a catalog or machine shop. The Association purchases in bulk and sell at cost plus packaging and shipping. Total cost will vary depending upon zip code. For more information contact Jamey Johnson at Jamey.Johnson@aspb.ar.gov

New Board Member
Lance Kunneman graduated from Oklahoma State University in 1987 with a Bachelor of Science degree in Agricultural Economics/Farm and Ranch Management. He was involved in production agriculture for 18 years. Lance started as an Ag Resource Field Inspector for the Oklahoma Department of Agriculture, Food, and Forestry in 2005 and moved into the office in 2010 as the Fertilizer Program Administrator in the Consumer Protection Services Division. He lives in Okarche, OK with his wife Donna who works as a legal assistant. Their daughter Macy is in her final semester of nursing school at the University of Central Oklahoma. Zac, their son, is a sophomore at Oklahoma State University studying agribusiness and plant science. Lance enjoys helping out on the family wheat farm and stocker cattle operation in his spare time.
“New and Improved Methods of Analysis for Plant Food Materials” Featured as Special Guest Editor

Section in AOAC’s Journal May/June Issue

A special collection of analytical method papers on fertilizers, soil amendments, and beneficial substances is now available as open access on the Journal of AOAC INTERNATIONAL’s website. Visit http://ingentaconnect.com/content/aoac/jaoac/pre-prints for 13 fully referred papers in J. AOAC Int.’s May/June 2014 issue. J. AOAC Int.’s reputation for excellence is based on nearly 100 years of publishing top papers in the analytical field, and these papers, with unrestricted online access, are the culmination of studies undertaken by the AOAC Fertilizer Community’s Method Forum. They promise to be used and referenced repeatedly.

The papers cover analytical testing of phosphorus, potassium, sulfur, secondary micronutrients, heavy metals adulterants, slow-release fertilizers, and beneficial substances. Of special note are three Medina et al. papers introducing the first validated analytical methods for slow-release and controlled-release fertilizer products. This long awaited work was completed by Carolina Medina as a fulfillment of her doctoral research under the direction of Jerry Sartain and Tom Obreza at the University of Florida. Two papers authored by James Bartos et al. and Sharon Webb et al. present validations of ICP methods for metals. ICP is a widely used technology for metal determination, and validated methods for fertilizer materials are in high demand to standardize use of the technology for regulatory decisions. A paper authored by Jean Bernius et al. offers a validation for determination of total sulfur using combustion—a new application for an existing technology.

Two papers propose to extend existing AOAC Methods: Michael Hojjatie and Dean Abrams propose the extension of AOAC 2003.13 for LC determination of biuret, and Webb et al. propose a modification and an extension of 2006.03 to both improve recoveries of some metals and extend the method to additional metals. Soil amendments and beneficial substances are highlighted in addition to fertilizer methods. A collaboration of the International Humic Substance Society and the Humic Products Trade Association yields a soil amendment method for determination of humic and fulvic acids in hemic products authored by Richard Lamar et al. (In 2013, Dennis Sebastian et al. published a beneficial substance method for the determination of soluble silicon in nonliquid fertilizer as part of this effort.)

Other papers include work undertaken by the International Fertilizer Association on determination of acid-soluble phosphate in internationally traded phosphate fertilizers; work undertaken by the Florida Department of Agriculture and Consumer Services and the Florida Fertilizer and Agrochemical Association on the effect of varying particle size on the ability to mix and sample bulk fertilizers; and work authored by Keith Wegner at the Colorado Department of Agriculture on laboratory process improvement.

Many of the methods included in the section will be proposed as international standards. Special guest edited by Nancy Thiex, Professor Emerita, South Dakota State University, and Agricultural Materials section editor for the Journal. “It is with great excitement that we present these papers,” says Thiex in the section’s introduction. “As a collection, they represent a leap forward with respect to analytical methodology for the discipline.”

With a few exceptions, the work presented in the special collection was undertaken as activities of AOAC’s Methods Forum, which acts as a stakeholder panel for the Fertilizer Subgroup of the Agricultural Inputs Community (previously called Agricultural Materials Community). The Methods Forum is an annual event, held in February following the Association of American Plant Food Control Officials Winter Annual Meeting. At these events, volunteers take on the challenge of establishing methods needs, and then procure a “champion” to work on method development and validation. The volunteers are comprised of scientists from industry, regulatory agencies and laboratories, academia, commercial laboratories, and instrument vendors who discuss how to best meet the need for new or improved fertilizer analytical methods. Validation data are presented, examined, and discussed during the Forums. The work and data review is very much a community effort.
According to Thiex, the Methods Forum was conceived, organized, and driven, in all aspects, by Bill Hall, of The Mosaic Company, who organized and led each of the 13 past annual forums. His energy and foresight are reflected by the success of the Methods Forums, and how these papers also reflect the work of top analytical scientists.

As part of this team effort, several entities contributed to the open access rights for most of these manuscripts, including the Association of American Plant Food Control Officials (AAPFCO), the Colorado Department of Agriculture, Elementar Americas, the Florida Fertilizer and Agrochemical Association (FFAA), Harsco, the Magruder Check Sample Program, Potash Corp, Tessenderlo Kerley Incorporated (TKI), The Fertilizer Institute (TFI), The Mosaic Company, and Thornton Laboratories. The Special Guest Editor Section includes the following contributions:

- "Optimization and Validation of an Accelerated Laboratory Extraction Method to Estimate Nitrogen Release Patterns of Slow- and Controlled-Release Fertilizers" by L. Carolina Medina, Jerry B. Sartain, Thomas A. Obreza, William L. Hall, and Nancy J. Thiex
- "Determination of Phosphorus and Potassium in Commercial Inorganic Fertilizers by Inductively Coupled Plasma-Optical Emission Spectrometry: Single-Laboratory Validation" by James M. Bartos, Barton L. Boggs, J. Harold Falls, and Sanford A. Siegel
- "Simultaneous Determination of Arsenic, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Selenium, and Zinc in Fertilizers by Microwave Acid Digestion and Inductively Coupled Plasma-Optical Emission Spectrometry Detection: Single-Laboratory Validation of a Modification and Extension of AOAC 2006.03" by Sharon Webb, James Bartos, Rhonda Boles, Elaine Hasty, Ethel Thuotte, and Nancy J. Thiex
- "Validation for the Determination of Biuret in Water-Soluble, Urea-Based Commercial Inorganic Fertilizer Materials, Urea Solutions, and Sulfur-Coated Urea Products by Reversed-Phase Liquid Chromatography: Single-Laboratory Validation of an Extension of AOAC Official Method 2003.14" by Michael M. Hojjatie and Dean Abrams
- "New Standardized Method for Quantification of Humic and Fulvic Acids in Humic Ores and Commercial Products" by Richard T. Lamar, Daniel C. Olk, Lawrence Mayhew, and Paul R. Bloom
- "Determination of Total Sulfur in Fertilizers by High Temperature Combustion: Single-Laboratory Validation" by Jean Bernius, Sabine Kraus, Sandra Hughes, Dominik Margraf, James Bartos and Natalie Newlon, and Hans-Peter Sieper
- "Determination of Total Arsenic and Arsenic (III) in Phosphate Fertilizers by Hydride Generation Atomic Absorption Spectrometry After Ultrasound-Assisted Extraction Based on a Control Acid Media" by Hélen Cristine Rezende and Nívia Maria Melo Coelho
- "Evaluation of Commonly Used Methods for the Analysis of Acid-Soluble Phosphate in Internationally Traded Inorganic Fertilizers" by William L. Hall and Sanford Siegel
- "Testing of Commonly Used Mixing and Sampling Procedures To Evaluate Fertilizer Blends Prepared with Matched and Mismatched Particle Sizes" by William L. Hall, Charles Ramsey, and J. Harold Falls
- "Process Improvement for Regulatory Analyses of Custom-Blend Fertilizers" by Keith A. Wegner
- "Determination of Kjeldahl Nitrogen in Fertilizers by AOAC Official Method 978.02: Effect of Copper Sulfate as a Catalyst" by Dean Abrams, David Metcalf, and Michael Hojjatie

FIRST TIME CONTROL OFFICIAL ATTENDEES FROM THE WINTER ANNUAL SAN DIEGO MEETING

FIRST TIME INDUSTRY ATTENDEES FROM THE WINTER ANNUAL SAN DIEGO MEETING
SUMMARY OF COMMITTEE MEETINGS,
AAPFCO ANNUAL MEETING 2014 SACRAMENTO, CALIFORNIA

Terms and Definitions Committee

Action Items

N-56 **Calcium Nitrate-Urea** - is the compound formed by the reaction of Calcium Nitrate and urea ammonium nitrate Ca(NO$_3$)$_2$•4CO(NH$_2$)$_2$. The compound contains approximately 33% nitrogen and 9% calcium.
- **Motion to delete Calcium Nitrate-Urea (Eddie Simmons/Sharon Webb)** Motion Passed

T-? **Biochar** - is a solid material obtained from thermochemical conversion of biomass in an oxygen-limited environment. Labeling biochar materials shall be designated by prefixing the name with the feedstock from which it was produced; i.e. poultry litter biochar, green waste biochar, papermill biochar, etc. When more than one feedstock is involved, all feedstocks greater than 10% of the total volume are to be listed by decreasing volume. Their uses include soil amendments.
- **Motion to move Biochar as tentative (Don Wolfe/Matt Pearson)** Motion passed

Low Phosphate Fertilizer – do we need to add “with available phosphate levels equal to or above 0.5%”
- **Motion to move the Low Phosphate Fertilizer back to tentative status to add “equal to or above 0.5%”. (Matt Pearson/Sharon Webb)** Motion passed.

Non Action Items

T-93 **Soluble Silicon** – is that portion of the silicon contained in fertilizer or fertilizer materials that is soluble in a mixture of 0.94 Molar Sodium Carbonate and 0.20 Molar Ammonium Nitrate by a validated or approved method, which is an indicator of available silicon.
- **Motion to vote on Soluble Silicon after the Laboratory Services Committee meets to get their recommendation, vote via E-vote before October 2014. (Lance Kunneman/Don Wolfe)** Motion Passed

Fe-19 **Ferrous Ammonium Sulfate** – also known as Ammonium ferrous sulfate is a double iron (II) salt, (NH$_4$)$_2$Fe(SO$_4$)$_2$•6H$_2$O resulting from the ammonization of sulfuric acid containing iron. Anhydrous Ferrous ammonium sulfate has the formula Fe(SO$_4$)•(NH$_4$) 2SO$_4$
- Editorial change.
Biostimulant – “Biostimulants - Substances, including micro-organisms, that are applied to plant, seed, soil or other growing media that may enhance the plant's ability to assimilate applied nutrients, or provide benefits to plant development. Biostimulants are not plant nutrients and therefore may not make any nutrient claims or guarantees.”

Report of the Biostimulant Workgroup of the AAPFCO Terms and Definitions Committee

Our Charge: After the Terms and Definitions Committee failed to approve a definition of “biostimulants” at the 2014 Winter Meeting the Biostimulant Workgroup was charged with determining whether it is appropriate to instead define biostimulant substances as beneficial substances, and if so, how to implement categorizing or defining substances within this term.

“Beneficial substances or compounds” (T-73) are defined as “any substance or compound other than primary, secondary, and micro plant nutrients that can be demonstrated by scientific research to be beneficial to one or more species of plants, when applied exogenously.”

Our Findings:

1) The previously proposed definition of biostimulant stated these materials were not nutrients, could be applied to plants, seeds, or growing media, and were applied to enhance or benefit plants. It is the opinion of the Biostimulant Workgroup that individual biostimulant substances may be defined in ways that can be included under the term “beneficial substances or compounds.” Definition of categories of biostimulants as beneficial substances or compounds may also be appropriate.

2) The term “biostimulant” will not be submitted for definition at this time. However, when an adequate base of materials and categories are defined the term may be submitted to the Terms & Definitions Committee as an overarching definition to describe a category of ingredients.

3) Industry participants will submit definitions for individual biostimulant substances and categories through the Terms & Definitions Committee application process.

4) To help guide the initial process, the Biostimulant Coalition asks the Biostimulant Workgroup temporarily continue as an advisory body, providing information and feedback as they develop the first definitions.

Biochar - is a solid material obtained from thermochemical conversion of biomass in an oxygen-limited environment that may be added to soils with the intention to improve soil functions.

Biochar - is a solid material obtained from thermochemical conversion of biomass in an oxygen-limited environment. Labeling biochar materials shall be designated by prefixing the name with the feedstock from which it was produced; i.e. poultry litter biochar, green waste biochar, papermill biochar, etc. When more
than one feedstock is involved, all feedstocks greater than 10% of the total volume are to be listed by
decreasing volume. Their uses include soil amendments.

- Motion to move Biochar as tentative (Don Wolfe/Matt Pearson) Motion passed

New Business

**Calcium Polysaccharide** – is an organic compound of calcium with polysaccharide long chain
carbohydrates

- Term died for lack of motion due to lack of information on analytical method, is this for Ca or polysaccharide source.

**Low Phosphate Fertilizer** – do we need to add “with available phosphate levels equal to or above
0.5%”

- Motion to move the Low Phosphate Fertilizer back to tentative status to add “equal to or above 0.5%”. (Matt Pearson/Sharon Webb) Motion passed.

Managing required statements for labeling of naturally occurring nutritive metals derived from phosphate materials – Bill Hall

- A working group of the following individuals was established to look at recommendations due to secondary/micronutrient background levels.
- Industry working group members: Vicky Childs, Michelle shot, Betty Joe Evans, Mary Provance-Bowley, John yzenas, Bill Hall, Bill Easterwood, Jack Peters, Sandy Simon
- Regulatory working group members: Ben Jones, Eddies Simmons, Don Wolf, Dale Woods, Frank Sikora

**SUlP on Globally Harmonized System (GHS) labels** – AAPFCO Acceptance?

- Motion to move to Uniform Bills Committee (Lance Kunneman/Ben Jones) Motion passed

**BSC-1 Calcium Silicate** – do we need to add “and is a source of Calcium” or is Ca-14 sufficient

- A motion to establish a working group to review BSC-1 as a source of Ca and/or monosilic acid. (James Bartos/Matt Pearson) Motion passed.
  - Mary Provance-Bowley, James Bartos, Hue Rodriguez, John yzenas, Sharon Webb, Kris Gulliver (Ca)
Uniform Bills

Committee Actions:
Create a GHL SUIP.

Old Business
State-by-State Regulation Inconsistencies
- Discussion by committee: Refocusing what the intentions of identifying the inconsistencies are.
  - Working group members: Ron Alexander, Vicky Childs, Robert LaGasse, Tonya Ritsch, Pat Johnson, Sandy Simon, Katie Laney, Patrick Hart and Steve McMurry.
  - The working group will continue to refine the list.

Education and Information Committee

Brett Groves gave an update on the Inspection and Sampling and discussed the BITS training program.
Lance Kunneman gave a report on the Fertilizer Administrator Seminar to be held in October 2014 in Annapolis, MD. He stated the info was located on the website.
Matt discussed the "Rookies Guide to AAPFCO Meeting" and stated draft would be available from the working group by the midyear meeting.

Wade Foster from TFI gave an update on training videos they are producing for lab training.
Katie Laney requested articles and topics for the AAPFCO Insider Newsletter.
Don Wolfe moved to adjourn meeting. Second by Lance Kunneman. Motion passed.
New members joining Education & Information committee:
Nick Young, California Department of Food & Agriculture
Suzanne Turcotte, California Department of Food & Agriculture
Patrick Hart, North Dakota Department of Agriculture
Amy Covington, Bayer Crop Science
Bethany Henderson, Helena Chemical Company
FIRST TIME CONTROL OFFICIAL ATTENDEES FROM THE ANNUAL MEETING IN SACRAMENTO

FIRST TIME INDUSTRY ATTENDEES FROM THE ANNUAL MEETING IN SACRAMENTO
AWARDEES

Thank you for your continuous service to AAPFCO. Your years of dedication are truly appreciated and make our organization better for future years.

Thank You Ms. Deborah Allen for your years of services to AAPFCO

Thank you Mr. Jamey Johnson for your years of service to AAPFCO.
WELCOMING THE NEW PRESIDENT

Thank you Mr. Ben Jones for your year of service as the President of AAPFCO

Welcome Ms. April Hunt