

**Minutes of the 2013 Mid-Atlantic Soil Testing and Plant Analysis Work Group
(MASTPAWG) Meeting
Southern States Headquarters, Richmond, VA
February 12-13, 2013**

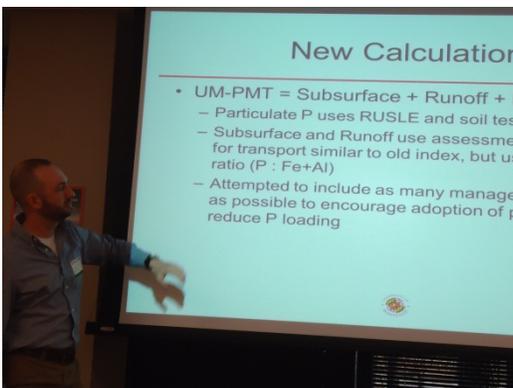
The meeting was called to order at 8:15 a.m. on February 12, 2013 by the chair, **Tim Hoerner** of Agri Analysis, Inc. Introductions were made and Tim informed the group of the status of those members unable to attend. The chair browsed through the program and acknowledged the participants and the various sponsors. For complete program information, please see this link:



Kevin Healy, Southern States' Crops Marketing Manager, welcomed the 15 participants from various laboratories and agencies, and shared some updates from Southern States. (**Tim will provide details...**)



Josh McGrath presented a paper on requirements from soil testing labs for Maryland's new P site index. His team is revising the existing Maryland phosphorus saturation index (PSI) and renaming it into University of Maryland – Phosphorus Management Tool



(UM-PMT). The new UM-PMT eliminates the very high interpretive category and all recommendations are now based on phosphorus management. In 1994 the University of Maryland began development of a phosphorus (P) index tool tailored specifically to Maryland's environment and agricultural practices. Over the years Maryland's P index has undergone many changes so that it more accurately reflects Maryland conditions. The newest version will be completed by the end of 2013 by

University of Maryland scientists. The biggest change to the UM-PMT in regards to soil testing is the inclusion of the Mehlich 3 P saturation ratio as a source measurement to be used in the surface dissolved P and subsurface dissolved P components.

Bob Isaac of Labfit gave an update of New AS-3000 Controller and software. The controller is faster, more responsive and accurate motion, the calibration is stored on PC, has an easy setup and has four RS-232 ports. For \$15,000 Australian currency, a new controller replaces the old one, new software replaces the older "Citect" systems, a manual, PCI Ethernet card, and Ethernet cable. Bob explained the benefits of upgrading including the quicker amortization of returns on returns on investment (ROI) because it increases the speed of analysis and therefore more samples are analyzed. Bob also showed the company's new liquid dispenser.

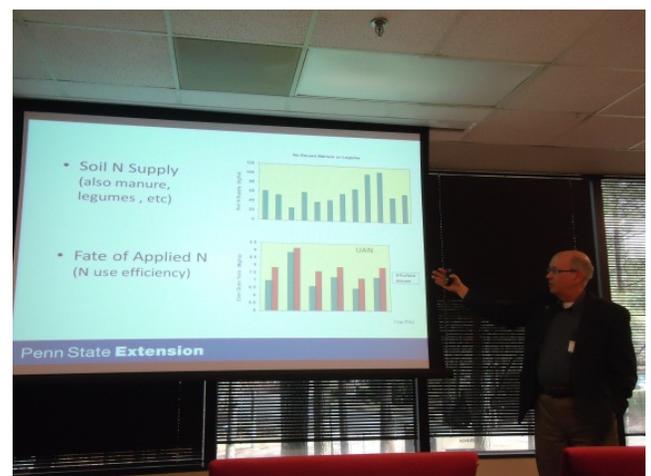
The new dispenser can accommodate 4 different solutions, and is capable of dispensing to 8 or samples in a column. The dispensing accuracy is high and allows the operator to stay away from actual handling of solutions.

After Bob's Labfit talk, he told the group that he is "retiring" from the company and may not be attending future meetings anymore. His replacement will soon be announced by the Labfit Management. Tim thanked Bob for his many years of service to the organization in a capacity as a soil scientist, Labfit rep, and as a mentor to the younger members.



Thank you, Bob. We will miss you!

Doug Beegle of Penn State Univ. delivered a talk on "Nitrogen Recommendations and Adaptive Management". He stressed the complexity of N management as it is very leaky, dependent on weather and therefore difficult to predict. Among other things, Doug suggested tools for adjusting N management, and these include in-season re-sidedress tests for corn and late season stalk nitrate test.



Bob Dussich of Spectro discussed about their newest ICP model in the market, Spectroblue. According to him, this model was manufactured to cater to the general public who is looking for less expensive but accurate instrument. Spectroblue is more expensive than the Genesis, but cheaper than the Arcos.



Tim Hoerner of Agri Analysis and David Kissel of the University of Georgia facilitated the discussion on the role of public agricultural testing labs, their future, and the effects of their future on commercial/private labs was facilitated by. Tim opened the discussion by showing a slide on the mission of the Mid-Atlantic Soil Testing and Plant Analysis Work Group, which is to increase the awareness, understanding, and interpretation of soil, plant, water, and waste analysis and its proper application to land and resource management through unbiased, scientifically sound information. He emphasized that MAST-PAWG is a cooperative effort among the major university, commercial and private soil, plant, and waste analysis labs in the Mid-Atlantic U.S. region to regionalize the soil calibration or correlation processes for the development of nutrient and resource management guidelines among geographic areas that share similar soils, climate, and environmental concerns; encourage both analytical proficiency and adequate quality control/quality assurance for laboratories in the region that perform nutrient analyses; provide

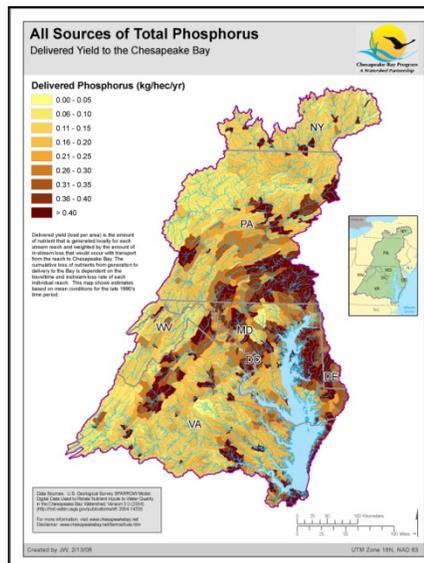
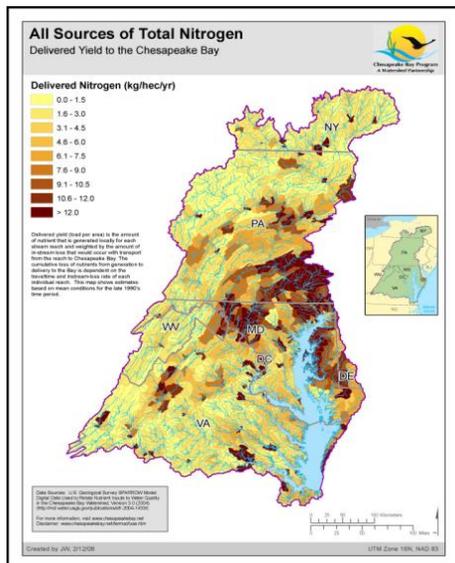


unbiased scientific reasoning for the use and interpretation of soil, plant, water, and waste analyses and its application to resource management; and facilitate the dissemination of research data and educational materials among public institutions, laboratories, and other entities that use information generated from soil, plant, waste and water analyses.



Sandy Hughes of Elementar gave a talk on argon as the replacement gas for helium in combustion analyzers with C and N data for various soil types and plant tissue. The topic was particularly interesting to laboratories that recently experienced shortage of argon. From 1960 to 1975, US Government stockpiled helium (rocket fuel coolant for Cold War), but in 2000, the US government began to deplete the helium stockpile and complete depletion is expected in 2015. The low supply is expected to create problem considering that the US supplies 70% of world's helium demand. Elementar introduced a CN model that can operate using argon in place of helium. The Vario Max cube has a 10 year furnace and TCD detector cell warranty with three-tube furnace for complete combustion, and has an automatic ash removal system.

Doug Beegle gave his second paper on the challenges and progress in the Chesapeake Bay. He presented a holistic view of the pollution problems with the Chesapeake Bay and discussed the factors impacting the health of the bay and watershed. He disproved common misconception that farmers are mismanaging nutrients causing pollution of the bay. He stressed that addressing pollution problems is more than just improving on-farm management, it requires strategic changes and restructuring of agricultural systems.



Sources of nutrients in the Bay

Bill Rohrer of AgroLab presented a virtual tour of his laboratory facilities. He emphasized the linear design of the lab where samples are moved in a straight fashion using a conveyor. The laboratory is relatively young, three years old, but has gained clients within a short period of time. The sample volume has increased. Bill's challenge is to solve the dust problem in the laboratory.

Tom Murphy of Thermo Fisher Scientific updated the group with the new ICPs in the market. He described iCAP 6500 ICP Spectrometer as a reliable, accurate ICP in the market and offers the best detection capability of any optical ICP, and is flexible.

In addition to Southern States as the main sponsor of the meeting, vendor co-sponsors included Spectro (Bob Dussich), LabFit (Bob Isaac), Elementar (Sandy Hughes and Mark Larson), and Thermo (Mike Black and Tom Murphy). Each vendor presented new developments and updates in their respective instrument companies.

The MASTPAWG website (<http://aesl.ces.uga.edu/MidAtlantic/>) has been updated. Check out the pictures of MASTPAWG members in their early years (<http://aesl.ces.uga.edu/MidAtlantic/history.htm>).

Tim Hoerner will remain as chair for the 2014 meeting, following a 2-year rotation of leadership in MASTPAWG. The group also discussed plans for the 2014 meeting including dates and possible topics.

Complete program of activities and presentations may be viewed by clicking the link below: <http://aesl.ces.uga.edu/MidAtlantic/2010.htm>

Meeting Date:

The group expressed their appreciation to the sponsors especially to Southern States for free use of the meeting venue, snacks, and lunches.

The meeting adjourned at 11:45 am, February 13, 2013.