

NCERA103 committee on Specialized Soil Amendments and Products, Growth Stimulants and Soil Fertility Management Programs.

Minutes of Annual Meeting - November 15, 2012 at Airport Holiday Inn, Des Moines IA

Representatives present:

Camberato, James – Purdue Univ., jcambera@purdue.edu 765-496-9338
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Lentz, Ed – The Ohio State Univ., lentz.38@osu.edu 419-422-3851
Ritchey, Edwin – Univ. of Kentucky, Edwin.Ritchey@uky.edu 270 365-7541 *301
Sawyer, John – Iowa State Univ., jsawyer@iastate.edu 515-294-1923
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Advisor

Rosen, Carl – Univ. of Minnesota, crosen@umn.edu 612 625-8114

Representatives absent:

Ruark, Matt – Univ. of Wisconsin, mdruark@wisc.edu 608.263.2889
Ruiz Diaz, Dorivar - Kansas State Univ., ruizdiaz@ksu.edu 785-532-6183
Steinke, Kurt – Michigan State Univ., Ksteinke@msu.edu 517 355-0271

Before the official meeting began, Chair Jim Camberato introduced industry representatives that included representatives from Dow, Koch, Mosaic and Agrium. In addition, Bill Bell from the Assoc of Amer. Plant Food Control Officials (AAPFCO) was present. Tim Healey, Koch, presented a proposal (handout) to the committee to help facilitate a standards setting process for Enhanced Efficiency Fertilizers. In essence, a “seal of approval” for those products meeting the standards.

After the proposal presentation there was much discussion with industry on the pros and cons of such a process. Pros included:

With an approval rating, would be simpler for potential users to judge a product’s value

Would give credibility to effective products

More credibility to the industry as a whole

Some concerns expressed were:

Legal liability of the committee issuing a “seal of approval”

Some states can’t give a product recommendation. Are we recommending for sale?

Time and paperwork involved with evaluating products

Establishing limits of where a product should be used

The comm. can’t jeopardize its autonomy

Establishing research protocols for evaluating products

Establishing a research base and what we are currently lacking

After considerable discussion the industry representatives departed.

The official meeting was called to order at 1:22 pm

Discussion of the industry proposal continued and included:

Perhaps comm. should evaluate products only and not give an approval, leave that for another organization.

How the comm. would develop a budget for the process

Publishing mode of action, how, why and when the product is likely to work

Perhaps start by limiting the range of products, for example, just to N efficiency products

First step – C. Rosen will bring up to NC dept. head meeting and check on legal implications

State Reports

North Dakota, Dave Franzen

J. Goos had paper at ASA that included work on Nutrisphere. Australian film on Avail was discussed. Goos has also done work with NZone as a nitrification inhibitor.

Nebraska, Richard Ferguson

Nothing really new. Discussion on Nutrisphere - is any influence a pH effect?

Kentucky, Ed Ritchey

More than Manure (SFP). It appears to be a mix of Avail and Nutrisphere. Not aware of any research data testing its efficiency. Mainly hear from in the Amish communities and organic folks.

ProAct (Plant Health Care) technology purchased from Eden Biosciences where the product was known as Messenger. I looked at the messenger product about 8 years ago and did not see anything with it for tobacco. Others at UK had tested with tobacco and had similar results.

Terra-One (Alpha Ag Solutions). Claims to be an all natural soil enhancement and mycorrhizal association of “trained microbes” that restore and strengthen the ecosystem within the soil, accelerate the process of breaking down the nutrients.

Montey’s liquid Carbon. Promoted to reduce runoff of excess nutrients. (Know of some current testing in KY, no data yet).

RyzUp SmartGrass PGR. This product contains gibberellic acid and claims to increase your yield and bottom line, increases dry matter production without losing feed quality and accelerates crop growth

even in suboptimal fall, winter, and early spring temperature conditions (<65 F). Another researcher (Chad Lee) tested this product under drought conditions and did not see anything at one location, and not sure if he did at the other (similar yields at 0 and 240 lbs N/A). I have not heard what the yield differences were between the two N rates.

In KY we have not seen a response to sulfur applications yet, but still get several questions and hear of labs making recommendations based on S levels. The labs making the recommendations on S will do with any sample that is submitted regardless of depth. These recommendations have to be based on crop removal instead of crop responses for the area. The same is true with micronutrients; many recommendations are not correlated/calibrated to yield responses. Several “micronutrient package” are being pushed by various companies.

Someone mentioned VitAg during the meeting. Based on talking with one of their agronomist, I was lead to believe that the municipal waste is injected with anhydrous ammonia somewhere in the process to cool the effluent. Sulfuric acid is used during the treatment process to up the sulfur content. The product has an analysis of 16-0-2 and 18% S as it is labeled now. I have it down on wheat and should have yield data next meeting.

There was discussion on generic NBPT – is carrier a factor?

Discussion on gypsum. Nebr. power plants are source of gypsum.

Iowa – John Sawyer

Compendium had 4,830 page views – not the same as visitors. For the NCERA 103 website 1212 page views. They are being used and having an impact.

Products mentioned:

SUMAGROW (microbial inoculants) by BioSoil Enhancers

Elixor (fungicide and bactericide) by biovante, Dexter, MO.

PiNT Ca and PiNT K by Plant Impact

WAKE UP by Biobase

Chandler Bioproducts - soil enzyme products among others

Treble - hooks UAN to the soil. By Atlantic Pacific Trading Co. Reno, NV.

Jim C. will post these on website.

Illinois – Fabian Fernandez

Nutripel - a biosolid product used with irrigation

Humi-grow (soil conditioner) by Perma-Guard

SumaGrow (an organic yielding-enhancer by AgriBiotic Products Inc.)

Instinct trials – no positive results in Ill.

Purdue has found no positive results in lab yet with Instinct . Trying to measure release from encapsulation.

Jeff Vetch, MN, found positive results using Instinct with manure

Nebr. had positive response with Instinct

Minnesota - Dan Kaiser

There has not been a significant increase in questions regarding specific products around the state of Minnesota. Jumpstart and Avail had been marketed heavily about four years ago but fewer questions have been asked for those two products. More interest has been in N extenders due to EQIP cost sharing. The only questions on a product without data recently has been with Ascend which is a growth regulator marketed by Winfield. We are continuing work with AMS products Soilbuilder AF and Titan. Data is still being processed at this time but there does not appear to be any clear results from 2012 data. Research has been continuing on N inhibitor products. N Zone was tested with no clear increase in yield. Most questions have been focusing around plant analysis and micro-nutrient fertilizer sources including liquid fertilizer for foliar application for soybeans or corn.

Missouri- Peter Scharf

I was at two meetings with a Helena rep, he was pushing lots of products going through field trial results rapid-fire, no real claims as to modes of action. There was a picture of a magnified sand particle with and without Helena products that apparently explained all the yield increases though I didn't grasp how. Products pushed included HydraHume, NutrAsyst, ENC, Megafol, and N-Fixx (contains NBPT, Helena's version of Agrotain).

I don't think any of these products are in our product list.

I also had material sent to me on Accelegrow (website same name), X (slow release N & B plus propicon fungicide), and PhosAdvantage (Avail copycat, label says 'amino based polymers, as a sodium salt'). Again, none of these are in our list.

How are we adding new products to our list these days?

Is it you, John? I'm thinking I heard you say during the meeting that you hadn't received many new entries but that may have been for the compendium.

Also had some NaChurs activity.

Ohio – Ed Lentz

Not aware of anything new, similar to last year. Micronutrients, sulfur, humic acid, biologicals, and other growth stimulants are being pushed in the state. Some retailers are pushing Nutrisphere and Avail. ESN research on wheat has been completed and a few studies with Soil Builder on corn. Regulatory agencies very concerned that farmer fields are the cause of an increase in dissolved reactive phosphorus in the Lake Erie watershed and other bodies of water in the state.

Wisconsin – Matt Ruark

Working with Super U, NZone. ESN did poorly on sweet corn, release was too slow.

Both 2011 and 2012 work on ESN.

Indiana – Jim Camberato

Doing Instinct work.

VitAGcorp have biosolid products. Fairly good analysis.

WinField, AgriSolutions doing lots of plant analysis thru Midwest Labs and others. Their interpretation levels seem high compared to many university recommendations.

Discussion on plant analysis. A diagnostic tool, not for making in-season nutrient recommendations.

Nebr. corn board funding some work for PI. analysis. Looking at 300 bu and what it takes. Foliar applications with micros to be looked at.

Jim C. Corn nematode infestations produce very chlorotic corn plant but plant N levels close to normal.

Kansas – Dorivar Ruiz Diaz (email)

Unfortunately I can't stay for the meeting this afternoon. This past year in Kansas we been seeing many micronutrient products intended for application in very low volumes (foliar). Many questions about older products in the market such as Avail. Also some of the "N products" that we been seeing already in previous years (Nstay, Nutrisphere, Nzone)

This year many questions about one "new" product (SEA-90--sea salt) <http://www.seaagri.com>

We are continuing with the N product comparison study that others in the group are also conducting (support from Koch- Agrotain). This is second year for us, unfortunately with drought the last two years we been having very poor yields.

South Dakota – Ron Gelderman

Handout for products working with field trials for 2012. They include Soil Builder, Accomplish AM, ESN, NPBT (Agrotain), Instinct, NZone, Soygreen, Ascend and Humitech. There was a trend for higher yields with Agrotain at one site with spring surface N on no-till corn. Spring applied ESN reduced yield compared to urea for winter wheat, but increased grain protein levels. Other products had no influence.

Meeting adjourned at 3:22 P.M.