**NCERA 103 Meeting 11/16/2023**

Present (Richard Roth and Mark Licht Iowa State), Dave Franzen (NDSU), Jim Camberato (Purdue), John Jones (Wisconsin), Emerson Nafziger (Illinois), Giovani Preza Fontel (Illinois), Giurbir Singh (Missouri), Kelly Nelson (Missouri), Dan Kaiser (Minnesota), Lentz (Ohio), Matt Ruark (Wisconsin), Kurt Steinke (Michigan), Carl Rosen (Admin Advisor – Minnesota), Dorivar Ruiz Dias (Kansas), Ritchey (Kentucky), Luis (PAQ)

Project update – Compendium Update – Invoice. Need to take care of the previous commitment ($4,830). Dorivar might have the list of who agreed to contribute to payment. This must be completed soon before people retire and gift funds go away. We need to update how reports are uploaded now that John Sawyer has retired, he reviewed and uploaded reports. Chair and Secretary might be a good option for this task or maybe keep the same person to keep continuity (easier than teaching new people each year). NCERA103.org – we own it and PAQ manages the website. They tried to make it clean and simple to use.

When a public user comes to the site they see participating state and associated reps, lists of purpose and definition of non-traditional products, criteria for submission and entry form (submission form for reports). The submission process starts with that then has to get approval. Search types (3 any word, all words, exact phrase) – searches the entire paper for terms - then takes you to titles and then new page when click on title (pdf format). Includes all Iowa State entered studies (old site maintained here).

Submission form, submitter information, file details, etc. must meet all 6 criteria to be considered (check boxes – honor system). The state rep will receive the submitted information. Chance to review/edit file information and confirm that it is reviewed and approved.

Back end of submission – who gets the submission/reviews the submission? The state rep the report was submitted from will see that state only, not other states (e.g., KSU will not see South Dakota submission). Submission reviews (need to be logged in)

Tracking metrics – we don’t know who is searching (if I need to create a log-in and other information), but I do know what they are searching, file access by title, file access by author, etc. We can “hide” papers if there is a reason (a manual process) in case they need to be updated (remove old pdf and add new one). Use Google Analytics to track statistics (good for showing impact and for NCERA 103 report). Shows uses by country, reports by pages, user count, number of new users,

Anyone can submit and goes into the cue to be reviewed for posting. When the user submits something, a submission email will be sent to the person who submitted it and let them know “it will be reviewed in …days (time frame we choose)”. Could bcc PAQ upon submission so someone can make sure it is being followed up on. How many people should review each submission? For example, like an editor over the process (NCERA 103 chair be additional editor).

The contract does not need to be signed yearly; it can be billed hourly as needed. Server hosting ($480 + $150), domain hosting and SSL will require an annual fee. SSL keeps the site from being considered spam ($150/year). Free storage unless we exceed 10 GB of data (should not exceed this with pdf files). Who received the annual maintenance fee ($630/year). They can divide invoices as needed and be divided between each state. The chair might be the best “contact person, " but invoices should go to individual state contacts. Don’t have a privacy policy in place, but shouldn’t need one. Now we owe $4,830 for the initial payment.

Non-profit is now covering conference planning, signing, etc, since TFI dropped out.

Standard procedures can be developed so that continuity is maintained.

Currently, as in the past, this room is included in the package deal for the use of the Des Moines room – included in the overall package for the conference.

Administrative update (Carl Rosen) stepped down as dept head in July 2023. Has agreed to stay on as administrator and has been allowed to do so. We have 60 days after meeting to get report into NIMS. It is then reviewed by North Central department heads and then submitted if acceptable.

In the report (e.g. Daves report is a good format to follow). Collaboration is good, and collaboration among states is very good for impact. Dorivar and/or Ritchey will be responsible for getting report submitted. Minutes are posted in the appendix. No detailed state report unless it is of collaboration as the main report of this meeting. State reports need to go into appendix. Main report, we worked on specific products – what the group did as a collaborative effort, grants across the committee are good to include in main report. Don’t have to worry about removal since it was recently approved. A mid-term report will be due next year.

Example of stuff to get into report: Compendium website is a good thing (include in main report). We need to show collaboration. Highlight analytics of the website (#1 thing in report). Include new information on website. How many new articles have been published on the website (good thing to report). Really need the impacts of group (website analytics are a good thing), and success stories. Carl will resend the example report that needs to be submitted by the group.

Curt (Michigan) struvite, functions similar to MAP, biologicals (worked with Purdue). Heavy metals in baby food (biochars) associated with soil health practices.

Iowa (Mark Licht) Pivot Bio, 3 N rates (100, 120, and 140 lb N/A), 4 different formulations. Basically there were no differences in treatments. Other in Iowa saw ~35% success rate, but nothing consistent (might or might not be published, not sure where submitted).

Mark Ruark (Wisconsin) Pivot-Bio. Farmer groups can apply for funding to conduct N research. Several involved biologicals

Ed Lentz (Ohio State). Utrisha New person (state specialists Manvir Rakkar) is now hired and will replace Ed on the NCERA 103 committee. She will not have to teach. She received MS as NDSU then to Nebraska for PhD. Then to Minnesota at the soil lab, then to Montana working with acid soils.

Dan Kaiser – not much biological work, Pivot Bio as in 2021. Nitrogen extenders in sugar beet, Instinct, Anvil, Agrotain. Getting more questions based on the recent NCERA 103 paper. Questions mostly due to biologicals, extenders, humic acids). Carl Rosen working with Pepsico - Utrisha (no response). Pepsico has interest in polymer coating.(?) Europe will stop allowing the use of polymers as coating. Needs to break down in a certain time frame, maybe 4 years or less. Might be a future topic of interest. Alan Blaylock said ESN will not meet European standards.

Kelly Nelson/Gurbir Singh (Missouri) – funding research looking at products that have a “low probability of success”. When Anuvia went out of business and stopped making Symtrx (waste water by product).

Giovani/Emerson (Illinois) – Pivot Bio, Emerson was approached to be part of their team. Looking to capture ½ of seed market. If not marketed to increase yield then it is being marketed to make practices more sustainable. Different levels of Proven (60, 80 etc). The discussion went to… How much seasonal photosynthate needed to cover the carbon needs of biological product (normal corn plant producing ~1000 lb mucilage per year). Corn plants make ~500 lb biomass / day during grain fill.

Sidebar discussion - Richard Roth asked why do people keep buying the material? Because neighbors use it, split field, etc. Or farmers know less about soils and fertilizers and it sounds good. If a farmer asks for product and dealer can get it to the producer in time and makes “the sale to the producer”. Never know that the product didn’t work most of the time as stuff was sufficient. Margin based sales drive from supplier end.

John Jones (Wisconsin) Pivot-Bio John had a picture of him as collaborator but not contacted. He put out a trial - harvesting now. Many of the trials are set up without reducing N rates.

Jim Camberato (Indiana) According to the Indiana state chemist around 35% of products didn’t have what label said or had no viable organisms. Tony Vyn worked with Pivot Bio. Dan Quinn working with some N fixing products. Jim retiring at the end of the year. There is a non-tenure track position being offered through the college. Dan Quinn might be the interim.

Franzen (North Dakota) Many people read the NCERA 103 biological publication. He had many calls after publication came out wanting to know how to avoid “train wreck”. How to know if organisms are viable after leaving manufacturing plant. Utrishia not really showing anything and wanted to know some of the “whys” it didn’t work. Talk to producers about being skeptical and doing replicated research before carrying or using the product. Retiring August 2nd and someone else will be representing NDSU next year.

Richard Roth (Iowa State) – started in September. Filled John Sawyer’s position. PhD at Purdue, was at UGA as corn/soybean specialist.

Ritchey – Research was conducted on Kentucky's Utrisha, Pivot Bio, Liquid Lime. Asked if other states were hearing negative comments regarding the NRCS CSP program. What about holding this meeting Wednesday morning since many travel here the day before. Depends on NCERA 13 meeting date and time. Will consider it. If so, make sure to get the room for Wednesday morning (make sure PAQ knows). This will allow us to get home earlier. Grove sent out the NCERA 103 biological publication to UK agent listserve. Chad Lee did work with producer using 160 and 200 lb N/A with and without Pivot Bio. No response to N rate, but a consistent response to Pivot bio.

Dorivor Ruiz Diaz (Kansas) Biologicals being researched with Chuck Rice leading. No response yield reported but maybe some reduction in N2O production. N2O might be reduced but NO3 leaching increased. Struvite being pushed a little in Kansas as being better environmentally (wasn’t sure if it was recycled or not?). One angle being pushed is less soluble therefore more plant available, plant taking up as it solubilizes (controlled release).

What kind of “standard protocol” needs to be in place – state minimum criteria used for research protocol and on-farm testing. MUST have proper controls. Lentz - Nebraska has a nice protocol and website for on-farm testing. Iowa also has one.

Need to get money for the webpage development plus annual fees. $4,200 for initial setup, $630 annual fees. Total $4,830 due when?

Kansas is current chair, Kentucky secretary to be chair following year. Michigan would be next secretary then to chair. Each term is for two years.

Meeting started at 12:30 and ended at 2:38.