**Minutes of NCERA-13 meeting, Des Moines, IA, November 14-15, 2017**

Dave Franzen, recording secretary

**Attending**

Frank Casey, North Dakota State University, Administrator NCERA-13

Antonio Mallarino, Iowa State Univ. Chair, Iowa rep

David Franzen, North Dakota State Univ. Recording Secretary, ND rep

Renuka Mathur, Iowa State Univ., visitor

Anthony Bly, South Dakota State Univ., SDSU rep

David Karki, South Dakota State Univ., visitor

Sakmi Subburayalu, Central State Univ., visitor

Manjula Nathan, University of Missouri, Missouri rep

Shiny Mathews, North Dakota State Univ., visitor

Jim Camberato, Purdue, visitor

Carrie Laboski, Univ. of Wisconsin, Wisconsin rep

Dorivar Ruiz-Diaz, Kansas State Univ., Kansas rep

Jon Dahl, Michigan State Univ., Michigan rep

Dan Kaiser, Univ. of Minnesota, Minnesota rep

Andrew Stammer, Kansas State Univ., visitor

Steve Culman, The Ohio State Univ., Ohio rep

Bijesh Maharjan, Univ. of Nebraska, Nebraska rep

**Meeting called to order 1PM, Antonio**

**Administrator advisor comments-** Frank Casey, NDSU

Began this year, 2017. Role is to help the group along and be an advocate for the committee and

make sure the meeting is authorized and review activity reports. The committee is authorized

until September, 2021. The re-authorization process needs to begin December, 2020.

Encourages approval of minutes by group within a month after the annual meeting.

**Official rep status**-

Antonio contacted SDSU administration, and he selected Anthony Bly for now (attending), soon

to be succeeded by new hire Jason Clark, who will be in charge of the SDSU lab after January 1,

2018. The representative for Indiana and Illinois is yet to be determined. The new Nebraska rep

is Bijesh Maharjan, who attended the 2nd day of this meeting.

**NCERA-13 committee discussions-**

**Admitting other states?**

A couple of researchers from Washington State expressed interest in participating in NCERA-13.

Consensus is that including others in our discussions is acceptable as long as the committee

focus remains on issues important in the North Central region.

**A joint meeting is held with one or more soil/plant testing committees every 4 years.**

The next will be in 2020 (every 4 years)

**Education subcommittee report**

Flagship activities- Every 2 years there is a soil/plant analysis workshop for lab people-

The purpose is to teach industry soil/plant testing techniques. The meeting is usually in February

usually. The last workshop was in February 2017 with 70-80 people attending. The meeting

survey resulted in 70% of attendants responding with mostly positive comments. The next

workshop will be in 2019. Discussion of possible dates led the committee to tentatively plan on

afternoon February 26, 2019 to noon on February 27, 2019. The NCERA-13 meeting will be noon

February 25 until noon February 26, 2019. The meeting will be in Ames, IA. Sponsors will be

solicited for table displays, but no oral presentations. The workshop planning committee will be

led by Antonio Mallarino, with Dave Franzen, Dorivar Ruiz-Diaz, and Andrew Stammer assisting.

**Website discussion**

Website is administered through University of Missouri <http://ncera-13.missouri.edu/>

Although there was discussion of putting the annual report and minutes on the website, the

consensus was that the annual report and minutes should be better placed in the NIMMS

website <https://www.nimss.org/projects/18176> , while publications by group members of

interest to people in the soil testing industry or the general ag-production audience should be

on the NCERA-13 University of Missouri administered website. Franzen volunteered his

technician/programmer for use by the committee to help with the NCERA-13 MU website if

needed.

**NAPT oversight committee** **report**- Manjula Nathan, member of NAPT oversight committee.

The committee is considering adding soil heath properties as possible criteria to be evaluated.

Soil Health Institute (SHI) has recently defined 19 different criteria to possibly introduce

<https://soilhealthinstitute.org/about-us/>

SHI **Action Team Chairs for assessment tools**: Dr. David Myrold and Dr. Diane Stott

NAPT has decided to include a few tests, but not all (Tony Provin). The NAPT committee will

select about 6 tests to recommend to member labs.

NAPT has suggested that at least six member labs should decide run them as one of the criteria

to include in testing certification.

There was discussion that correlation of tests not best way to work with different soil tests as

potential diagnostic, predictive tools. The number of labs associated with NAPT has been

maintained. There is competition with the other group, ALP, Fort Collins, CO.

In regards to Soil Health test certification? A motion was put forward by Franzen- The NCERA-13

committee supports the efforts of NAPT to consider certification for Soil Health analysis based

on chemical properties, and supports NAPT sponsored training of technicians for soil physical

properties. The motion was seconded by Dorivar Ruiz-Diaz, and the motion vote was

unanimously in favor.

**Status of ongoing/new chapter revisions for method book**-

The **phosphorus** chapter- Manjula and Antonio, no rough draft yet. A revision of the **potassium**

chapter is also headed by Antonio, but it is still in development. There was discussion about the

detection instruments for K, ICP vs AA.

**Micronutrient** chapter, Dan Kaiser will continue to work on this chapter.

**White papers- regional publications**

**Sulfur paper**- this has been sent out for review, and should be considered for a regional

publication out of North Dakota. The process was requested of Dr. Casey. There is no formal

requirement for a North Central Publication, only consensus of the group to produce one. Logos

are available through Dr. Casey to place on the publication. The paper will be resent to

committee, reviews are expected in 2 weeks and the publication will proceed shortly thereafter.

**Phosphorus management and calibration**- Mallarino and Joern (who has left Purdue and is now

in private industry). A rough draft is available.

**Soil test correlation and calibration**. Mallarino and Ruiz-Diaz.

**Hot-topic discussions**-

**Discussion of the use of the Brinkman Colorimeter Probe for P**- Kaiser leading.

South Dakota State University, North Dakota State University and Michigan State University use the probe for P. There were questions on whether this method should be added to the methods handbook. Jon Dahl from Michigan State explained the P extraction procedure and the use of the Brinkmann Colorimeter probe. Shiny Mathews had brought the probe and it was passed around. Since the color development procedure was the same as in the methods handbook and only the color measuring equipment was different from other labs, it was decided that we do not have to add each and every aspect in the handbook. Dr. Mallarino asked Jon and Shiny to send him a procedure on the use of the probe out of curiosity.

**Public lab status**

Public lab status is generally decreasing. At least some states had budget issues.

Steve Culman said that the Ohio State lab does not take samples from the public. Their lab is difficult to maintain because of the low sample numbers received. Plant samples are not sent to the OSU lab because tissue processing and testing is time consuming. Private labs provide results for plant tissue faster than public labs. Antonio mentioned that private labs might provide feedback on the importance of private labs. Public labs can assist private labs when they need help. Public labs can provide the private labs with soil test calibration study data.

Manjula mentioned that NCERA is facing problems because the state or the University does not fund public labs. This is not the case with SERA where money comes from the lime and fertilizer funding. Why is SERA different from NCERA? Anthony Bly discussed the SDSU lab. Soil testing was a tool for outreach and engagement as customers would have contacted the lab or extension agents for the use of the lab. That connection has been lost. Lab space was promised to new incoming faculty and so space from the SDSU soil testing lab had to be used. The lab still has functional equipment and a part time technician for research samples, but not capable of taking in soil samples from the public.

Antonio mentioned that we should have tried harder for lab exposure.

Nebraska said that they did not think it was a problem when their lab was closed as private labs were easier to access.

Michigan had to find better ways of being visible when they did not have an Extension program that handled soil sample shipment and support. Michigan now has a self-mailer program where home owner clients can request for sample bags online, send samples and receive results online. Golf course clients also require soil sample tests. They also have student tours and student employment opportunities. Iowa does not see an increase in farmer samples.

Steve Culmer had the following suggestions:

1. List the tests that public labs can do that private do not and vice versa and improve accordingly
2. Find opportunities for public labs to partner with other state labs outside the borders for tests, support each other.
3. Make administrators aware of the lab and its benefits to the University.
4. Prepare a white paper similar to SERA and send to the administrators.

Antonio: We need to come up with a list of advantages and disadvantages of public labs and how they can be rectified. There are fewer people with hands on lab experience in state universities and universities do not understand the importance of having lab experienced people.

What do public labs do that private labs do not?

Why should states without labs think about having one?

The message on their value seldom leaves the University.

Put together paper on public lab value.

**New OSHA silica level standards**- Carrie Laboski

The Wisconsin lab was cited for failure to meet new OSHA standards for dust due to issues in

grinding room. Much better levels of cleanliness was required. In June 2018, the new OSHA

standards will be in force. The grinding room at Iowa State was presented as an example of

how labs might meet the new standards. Wisconsin has adopted the KSU ideas and equipment.

**Consideration of other soil tests**.

Steve Culman- related to topic- bigger picture- enhance the use of soil testing for environmental

concerns. How should we vet methods? Curious what are criteria for methods to be vetted?

There was general discussion of these issues, which extended into Wednesday, Nov. 15.

**Soil Health tests** (NATP discussion)?

Active C, Total N, Total C, chemical properties like what we do for nutrients

Aggregate stability, C and N mineralization

Should we include in book or not?

Discussion about what we could test-

Antonio and Dan- H3A- POXC -

Carrie- archived samples from N rate studies how much $ or if want to have a

proposal; long-term P/K response studies related to H3A

Sawyer CO2 burst and Dan also with private lab Carl Rosen water with soil

Dorivar- H3A corn and soybean

Manjula- nothing

Kurt- Michigan State Solvitas in field

Antonio- Ward labs have been open to collaboration- subset with Ward

to compare

Steve- active carbon, CO2 burst, protein, in-field measurements of physical

structure, wet aggregate stability

Anthony- to Ward, Chris Graham- calibration of N wheat in SD

Renuka- H3A comparisons with micronutrients H3B ICP/colorimetric

P methods with H3A

Missouri- Matt Yost- Haney Test

Indiana- Jim Camberato all of

The above list will be compiled and if there is enough data from the people examining

these tests, a series of white papers detailing procedures and usefulness may be

developed. Steve Culman will lead this committee.

**State Reports**- will be submitted soon and included in NIMMS website.

**Closing remarks**

In 2018 meeting Chair- Franzen, Manjula, secretary. (Meeting will be in February, 2019 ahead of

the 2019 workshop in Iowa City, IA.