NCERA013 Meeting Minutes 21-22 February, 2011
The Lodge, Bettendorf, IA

Present
Mauricio Avila – University of Wisconsin
Jon Dahl – Michigan State University
Fabián Fernández –University of Illinois
Dave Franzen – North Dakota State University
Ron Gelderman – South Dakota University
Brad Joern – Purdue University
Daniel Kaiser – University of Minnesota
Antonio Mallarino – Iowa State University
Dave Mengel – Kansas State University
Robert Mullen – The Ohio State University
Manjula Nathan – University of Missouri
John Peters – University of Wisconsin

Day 1—Meeting started at 1:00PM
Meeting was called to order by John Peters

Minutes from the previous meeting were approved

Current officers and rotation schedule was reviewed

Ken Grafton was not present to provide the Administrative Advisor's Report.

State Reports:

Illinois
Illinois does not have a state-supported soil test laboratory, so there are no samples or analysis numbers to report. The 2010 fall started with an early harvest and was prolonged by warm and dry conditions. There were many fields that were soil sampled. There was also a lot of tillage performed this last fall in many cases to try to relief some of the compaction caused by field traffic on wet soils the previous fall and previous two springs. Last fall there were many fields receiving fertilizer. In fall 2008 high fertilizer prices deterred many from applying fertilizer and in 2009 the late harvest and wet conditions prevented application over much of Illinois. This year fertilizer applications started about 3 to 4 weeks earlier than normal and in some locations fertilizer dealers were completely out of fertilizer and waiting for a new supply by late October.

The state is undergoing a large restructuring of extension to trim $4-7 million in the budget. The current 76 county offices were cut to less than 30 now. This reduced cost associated with rent of office space and eliminated 46 directors. Starting in summer 2011, there will be only six crop and livestock educators based at the research centers. These individuals will work closely with campus-based extension faculty. Extension faculty is looking at ways to generate tuition revenue. This year several faculty members with no teaching appointment developed and started to teach a new course on principles of crop advising.

As many states, in Illinois there is increase pressure on nutrient management and in reducing potential for losses to the environment. Many groups including Illinois-EPA, Illinois-Department of Agriculture, NRCS, Universities, environmental groups and the fertilizer industry are meeting to discuss some of the current environmental issues. Related to environmental concerns over nutrient applications, last year the Illinois legislature passed a bill that restricts any application for hire from applying P containing fertilizers to a lawn unless a recent soil test indicates deficiency. This change was made without any information from the university to determine what might be considered a deficient test value.

An important change introduced in the Illinois Agronomy Handbook is that we no longer mention the possibility of fall application of anhydrous ammonia with a nitrification inhibitor when soil temperature at the 4 inch depth is 60ºF. The recommendation now talks about applications only when temperatures are 50ºF and decreasing. Many in the fertilizer industry are working hard to make sure no N applications occur before the 50ºF temperature.

Fertilizer Research and Education Council (FREC) funds (Fertilizer Check off) were swept last year by the Governor of Illinois. Currently the Illinois Fertilizer and Chemical Association is trying to privatize these funds that are used for nutrient management research and education.

We are currently conducting substantial work on corn response to sulfur fertilization, nitrogen inhibitors, and we are currently starting work to re-evaluate our current P and K recommendations.

Indiana

Like most states, budget issues are a major concern in Indiana. Current budget cuts at the state level include a 7.5-15% reduction in Purdue University Extension funding. The Department of Agronomy is conducting a search for a soybean breeding/genetics faculty position with interviews scheduled for late March-early April 2011. Significant efforts are underway to strengthen our relationship with the two largest commercial soil testing laboratories in the state. One major project evaluating soil test phosphorus relationships to soluble phosphorus measures is currently underway. These two laboratories analyze hundreds of thousands of soil samples from Indiana each year. Soil sampling in the early fall of 2009 was delayed due to high moisture and late fall soil sampling was difficult in 2010 due to unusually dry soil conditions. Despite these fall soil sampling challenges the number of soil samples analyzed has increased significantly over the last two years. In addition, more soils testing low in phosphorus and potassium have been submitted in the last two years. The increase in soil sample numbers is likely due to more intensive soil sampling as producers try to increase fertilizer use efficiency in light of increased fertilizer costs. The increased number of low testing soil samples may be due to bringing marginal lands into production as a result of higher commodity prices. Both laboratory managers expressed a strong desire to be more actively involved in NCERA013 in the future and hope that NCERA013 meeting times can be moved from late fall as this is their busiest time of the year.

Iowa
The number of soil samples received at the ISU Soil and Plant Analysis Laboratory rebound somewhat from the low numbers of samples received in 2009, helped perhaps by higher crop prices last fall and normal fall weather after two very wet years. The lab processed about 16,000 soil samples and about 3,500 plant tissue samples. About 6,000 soil samples and 600 plant tissue samples (mainly for the late-season cornstalk nitrate test) were submitted by homeowners or farmers while the others were submitted by researchers. We also determined nutrients on about 10,000 pre-extracted soil or plant tissue samples through agreements with researchers, and analyzed about 250 limestone samples. Our lab Manager, Brian Hill, took another job in late July and his replacement has not started yet. Dr. Renuka Mathur (from Cornell) will start as the new manager on March 15. The lab continues paying all salaries, minor equipment, and operating expenses with lab fees (except electricity and water), but the University is charging a 7% overhead fee for all external samples. An intramural grant application for equipment allowed us to buy a new and bigger microwave digester, which will help further develop the capacity to analyze plant tissue samples. Plans to switch from the SMP buffer pH method to the Sikora buffer method were put on hold because the lab Manager left, and we are in a transition period. Last year, based on research conducted in Iowa and other NCERA-13 committee members, the Iowa Soil Test Certification program accepted the Sikora buffer-pH method as an alternative to the currently used SMP buffer method. The University continues having serious budget problems, further complicated by rumors of new cuts. As promised in 2009, however, in January the department filled an Environmental Soils faculty position (ex-Blackmer position re-defined), and its focus mainly is on nitrogen cycling and transport issues. After cuts from 10 to 15% for Agriculture in each of the last two years, Extension reduced 99 county extension offices to 20 regional offices. The agronomy, ag engineering, and other field specialists' positions were maintained, but have to come up with a percent of their salary. In other general news, the Secretary of Agriculture put together a Nutrient Strategy Task Force, to study where Iowa is concerning N and P management (application rates, soil-test values, budgets, etc.), list a series of practices with potential to cut N and P export to the Gulf of Mexico, provide an effectiveness index for each practice, and a cost to each practice. The Task Force members (about 15 members) come from ISU, USDA/ARS, USDA/NRCS/ and DNR). The work began in late November, and we are supposed to have a final report by July.

Kansas
The K-State Soil Testing lab provides soil, plant and water testing services to support extension and research activities for K-State faculty and analytical services for a number of state and federal agencies. In addition, the lab does soil testing for the general public and analytical service work for industries, universities and agencies outside Kansas.

Funding: The lab is a 100% fee supported activity, with the exception of salary of the faculty member assigned to the project (Mengel, 20% time assigned) and a portion of a Research Assistant.

Personnel: Current staffing includes Dave Mengel as faculty supervisor; three analysts, Kathy Lowe, Melissa Urick and Marietta Reba-White; a ¾ time secretary, Melissa Pierce and a PhD student/RA. Kent Martin, previous RA, completed his Ph.D. in January 2009, and took a position as SW Area Agronomist at garden City KS.

John Hoben who was hired to replace Kent as a working lab manager, resigned in December. Currently we are looking for a 0.8 time PhD candidate to work in the lab with efforts focused on quality control, fertilizer recommendations and method development to replace John. This will be a return to the tradition of having a PhD research assistant working in the lab which has been so successful for us in the past. The supervisory activities of the manager will be taken over by Mengel and Lowe.

Sample volume: Sample volume remains fairly constant at 15,000 to 17,000 public samples annually. A similar volume of research and agency samples are also run each year. Plant analysis work is increasing. We provide free diagnostic services for county agents and state specialists, which comprises 200-300 plant and soil samples annually. We also have been making a point of emphasis in extension programming to focus on plant analysis rather than soil testing for many of the secondary and micronutrients. With relatively wet years since 2007, water sample volume has been increasing.

Research projects: The primary efforts over the past two years have been on fertilizer recommendations. Cotton, canola and sesame were added to the crops for which recommendations are offered in 2010. Sensor based N recommendations for wheat and grain sorghum went on line in 2009. A revision/update of our down loadable fertilizer recommendation program is currently underway. Work will start on additions/revisions of several annual forage crops to the fertilizer recommendation package, particularly sorghum and millet based forages. Reviews of pH and liming and N fertilization recommendations are in various stages of completions.

We also are in the process of developing environmental metal analysis for Pb, Cd, Zn, Ni Co, As and Cr. This will use a 4 hour digest with nitric acid and analysis on ICP. Target users are urban homeowners.

Equipment upgrades: Over the past four years we have upgraded our ICP, LECO and AA. Our next planned purchases are replacements of driers in the lab and grinding room and replacement of the Labfit 3000 pH machine. We finance all these purchases by setting aside 10% of our gross operating revenue for equipment and infrastructure updates.

One additional upgrade will be the replacement of the lab operating software which is desperately needed. We are considering a number of options for this project, and hope to get started once the RA has been hired and brought on board.

General Comments:
Leadership: K-State is currently in a leadership transition, with new president, Kirk Schulz, new Provost, April Mason, interim Dean of Ag, Gary Pierzynski and interim Department Head, Bill Schapaugh. We had a failed search for Dean last spring, so the terms under which Gary Pierzynski is serving as interim dean have changed. From not being allowed to apply to being requested to apply for the permanent position. A second search is expected to be initiated in the Fall.

Funding: Like most landgrants, we have suffered some severe budget cuts, and are currently operating on FY 03 level funding. Faculty and staff have not seen salary increases for three years, and most support positions have been eliminated or moved to soft money. The department has closed two experiment fields and combined operations at two others. The state is projecting $50 million shortfall for the current fiscal year and a $500 million shortfall for FY12. The legislature has cut the current FY 11 budget to reduce the current shortfall, and will cut the FY12 budget to bring it in line with projected revenue.

Faculty: However, we are hiring. Agronomy has just completed one search and has four others, KRV Ex Field, Forage Teaching, Weed Physiology research and Environmental Science Ext active. This is exciting as total faculty numbers are finally rebounding and the mix of junior/senior faculty has changed dramatically over the past 5 years. Currently we are about evenly split with experienced people and young people with <10 years experience.

Michigan

Budget cutting is still the number one topic in the College of Agriculture and Natural Resources (CANR). The Provost indicated the college is behind other colleges at the university and is pushing to get the reorganization of the college completed as soon as possible. CANR will go from 14 departments down to 6 or 8. Nearing the implementation stage of the process, Dean Armstrong left the University for a Position in California. Doug Buhler has moved from head of AgBioResearch (formerly the Agriculture Experiment Station) to interim Dean. The reorganization plan for the Extension Service has been implemented, but Extension Agent responsibilities are still being determined in a number of cases. The Soil Fertility/Nutrient Management position in the Department of Crop and Soil Sciences has been filled by Kurt Steinke. The number of regular soil samples analyzed by the MSU Soil and Plant Nutrient Lab has remained steady around 15,000. The proportion of homeowner samples continues to grow. Currently 60% of samples are from farms and 40% from homeowners. Twenty years ago homeowner samples constituted only about 10% of the total. Funding was received to pilot a self-mailer project for soil samples coming from lawns and gardens. The MSU self mailer will be similar to the one currently used by Clemson University. The web based program for interpretation of homeowner soil test reports is nearing completion. It is hoped the program will reduce the load for Extension Agents doing the interpretations. The program will first be tested on selected Master Gardeners this spring, then opened up to the general public by fall. Legislation has been passed in Michigan stating phosphorus cannot be applied to lawns without a soil test showing the need. It will take effect January, 2012.

Minnesota

No major changes in lab volume over the last year. The lab ran 7013 regular series tests (Bray or Olsen-P, NH4OAc-K, LOI -OM, Water pH, Buffer Index and Estimated Texture). Of those regular test samples, 1974 had additional Special Tests (Nitrate, Sulfate, Sol. Salts, Lead, DTPA, Ca + Mg, or Boron). An additional 1886 Greenhouse samples (Water pH, EC, NO3, NH4, P, K, Ca, Mg, Na, Fe, Mn, Zn, Cu, Mo, B and Alkalinity for water samples). There were also 178 Limestone samples for ENP (taken over from the MN Department of Agriculture). The University is offering a Retirement Incentive package for 2011 that will almost certainly prompt at least two retirements (Russ and Tom). All the lab staff is on 80% time since last July. There have been no procedural changes in the lab over the last year, but there is an interest in switching

over from the SMP to the Sikora buffer. The lab is currently in the process of doing comparisons between the procedures and likely will switch within the year. We still are only recommending the Bray and Olsen P tests and that likely will not change. Ammonium acetate for K, SMP, DTPA-Zn are still recommended. We also are in the process of developing a soil fertility website that will include a nutrient calculator based on our current recommendations. We have been in discussions internally about modifying the P recommendations, but that will likely not change any of our recommendations. There has been a lot of interest in zinc and sulfur for corn, but we have not had any data to recommend changes in how we recommend either nutrient.

Volume has steadily increased in most private labs over the past few years. Most of the private labs have switched the SMP to the Sikora. We have also seen a steady increase in plant tissue analysis, especially with the stalk nitrate test due to government payments. Random sampling for nutrients seems to be increasing, especially for micronutrients. Some labs have switched over to air drying for potassium samples over oven drying. Other news in the state involves the setup of a Discovery Farm network similar to that of Wisconsin. Dr. George Rehm retired soil fertility specialist is helping out with establishing sites for the network in Minnesota.

We have had some major changes in the Department of Soil, Water, and Climate since the last meeting. Dr. Gyles Randall recently retired and we have heard nothing about replacing his position at this time. Also, Dr. Carl Rosen replaced Dr. Ed Nater as department head last summer. There also will be another retirement, Dr. Paul Bloom who is a soil chemist and has worked on issues such as the Minnesota P index will be retiring within the next year. Our budget situation is similar to other states so it is unlikely that new positions will be added. We also had a change in the name of our grad program changing from Soil Science to a degree in Land and Atmospheric Science.

Missouri

University of Missouri President Gary Foresee resigned as of Feb 1, 2011 due to family emergency. Search process for a new president is underway. The state funding for Missouri Higher Education is expected to be cut by another seven percent for this year. Hiring freeze is still in effect. However, the Division of Plant Sciences was able to get approval to fill three positions. Lee Miller was hired for Turf Pathology faculty position at Columbia campus. The Rice Research and Weed Science faculty positions were filled with Wong Jung and Jason Weirich at the Delta Research Center. The budget situation continues to remain tight and Chancellor Deaton requested to continue with restrictions on spending to manage with the anticipated 7% additional cut from State funding for the coming fiscal year.

The MU soil and plant testing labs had a productive year. Both labs together analyzed a total of 35,633 soil samples out of which 20,942 samples were for field crops, 4821 lawn and garden, 521 commercial horticulture and 9,328 for research. In addition the MU Soil and Plant Testing Lab analyzed 1602 special tests, 1842 plant, 732 water, 20 greenhouse media, 85 compost samples and 294 manure samples this year. The labs budget remains sound and stable.

A field study is underway to evaluate the Sikora, Mehlich and Woodruff buffers before adopting the best buffer test method suitable for Missouri soils. Since there were discrepancies in predicting lime requirements from lab incubation and field study, a field incubation component

will be added for 2011 growing season. The soil fertility working group at MU has made revisions on MU soil test recommendations. Major revisions are made on nutrient removal values for P and K and on build up rates. The lab faces the big task of re-writing the soil test database program to implement all the changes that are made in the recommendations. We are planning to update the soil test data base and recommendation program from a client based system to web based system.

North Dakota

The NDSU Soil Laboratory analyzed about 20,000 in 2010. About 5,000 of these were grower/grower-consultant sample, about 10,000 samples were internal NDSU samples and the rest were homeowner samples. As a state, about 200,000 samples are analyzed for soil nitrate for growers that represent field areas of 6 million acres, or about 25% of state cropland. There are more plant samples being taken and analyzed during the growing season for in-season correction of nutrient 'deficiency', however, there is little recent data to verify that recommendations from the plant leaf analysis are correct for current varieties and crops. Soil testing for soil nitrate and other nutrients is growing in the state.

Ohio

Like most other Land-Grant Universities across the region, we are battling budget constraints to keep our Extension programs running. We have survived fairly well to date, but more cuts are likely coming in the next few months.

On the research side, we continue work validating our phosphorus and potassium critical levels and subsequent recommendations (this is a planned long-term project). This project is partially funded by the International Plant Nutrition Institute. This work is conducted in a corn/soybean rotation. Dr. Edwin Lentz has conducted some work on phosphorus and potassium nutrition in wheat, but it was an industry funded project that does not have long-term investment. Dr. Lentz has also conduct some sulfur response work in wheat that not only focus on yield but also included a baking quality component.

We have been involved heavily in a project dealing with phosphorus concerns in the Lake Erie Basin. This involved both an Extension component and a research component. As a fundamental part of the investigation in to what is occurring, soil analytical information made available from commercial labs has been valuable information in our attempt to understand what is transpiring.

Just in case this has not been reported in the past, we have published a couple of articles relative to the use of the Sikora buffer as a replacement of the SMP buffer. Those publications are listed below.

- Herman, M.C., R.W. Mullen, A. Viswakumar, and K.A. Diedrick. 2009. An alternative buffer solution to SMP for determining lime recommendations. October 2009. AGF-510-09.
- Viswakumar, A., R.W. Mullen, K.A. Diedrick, W.A. Dick, and N.T. Basta. 2010. Evaluation of four buffer solutions for determination of the lime requirement for Ohio soils. Communications in Soil Science and Plant Analysis 41:424-437.

South Dakota

Budget shortfall: Not as severe as many states, only about 7% of total budget. However, governor's recommendation is a 10% across the board cut. For the experiment station and

extension, along with the federal cuts, it comes to about 10-12 % of their respective total budgets. The Deans recommendation is whole programs be cut rather than across the board. Looking at a whole new structure for extension – not yet decided on what that will be. By end of March should know the legislatures decisions.

Personnel: Dr. Lighari resigned ~ Feb 1 as SD Extension Director. He took similar position at Tennessee. Dean Barry Dunn will serve as Director for the short term, until budget crisis has been resolved.
Advertising for Experiment Station Director to replace Dr. John Kirby who left for Rhode Island as Dean.

Lab:
- Fall 2010 sampling season was good and samples were above 2009. However, Lab funds are still not very good.
- The experiment station and dept. purchased an ICP for the lab. Was delivered about a month ago. Not yet set up. Varian (purchased by another Co). Considering the budget crisis, we were very fortunate to have received this instrument.
- The lab moved to remodeled facilities this last April. Moved up from ground floor to 3rd floor of same building. Fortunately there is an elevator right there. About the same square footage as old space, but much more efficient.
- On campus itself, much building and remodeling. Most on private donations and some borrowed (issue bonds).

Calibration work:
- Doing some sulfur on corn studies especially central SD area.
- Hope to work on sulfur on wheat as well.
- In 3-5 years will try to update nitrogen on corn by reviewing a number of studies had in last 10 years and some new studies.

Crop Production, etc.:
- Producers again had close to record crop production in 2010. There is a lot of money in the country. Fertilizer prices seem to be no object with commodity prices this high.

Wisconsin
The University of Wisconsin-Madison continues to operate two soil testing labs: the Soil and Forage Analysis Lab in Marshfield and the Soil and Plant Analysis Lab in Madison. This past year Mauricio Avila was hired as the Lab Manager for the Madison laboratory. Also, John Peters returned from his two-year assignment working on a USAID funded agricultural development project in India. The UW lab continues to assist the Wisconsin Department of Agriculture, Trade, and Consumer Protection (WDATCP) soil testing lab certification program. A new five-year soil test summary (2005-2009) was completed this year. This data is used by many agencies and others to monitor long-term soil fertility trends in the state going back to 1964. The data is available in a searchable format at (http://uwlab.soils.wisc.edu/soilsummary/).

Dean Molly Jahn stepped down this past year and a national search is underway for a replacement. William Tracy is serving as interim dean until a permanent replacement can be found.

Additional Notes:

During the State Report Section there was a discussion about "rethinking" recommendation philosophies on soil testing calibration and correlation and some of the concerns associated with current recommendations in many of the Land-Grant Universities. This discussion was started because Fabián Fernández solicited feedback after his state report on a symposium he is organizing with Ann Wolf (S-8 chair) for the 2011 Soil Science Society of America annual meeting. The symposium title is "Development of Soil-Test Based Recommendations: Historical Perspectives, Current Issues and Future Directions."

Day 2—Meeting started at 8:00AM

Meeting was called to order by John Peters

Sub-committee reports:

Buffer pH sub-committee: J. Peters (Ch), C. Laboski, D. Mengel, M. Nathan. Dave Mengel and Antonio Mallarino are currently evaluating alternative buffers or have finished their work recently. Iowa and Minnesota are planning to change soon to Sikora buffer-pH method as an alternative to the currently SMP buffer method. Ohio and Missouri have done some work on the test as well. Antonio Mallarino reminded the group of a lengthy discussion on the change to Sikora during our meeting the previous year and the decision of the committee to go forward with the change. Following this discussion it was decided that the Sikora buffer should be added to the recommended methods publication (Publication 221). The question was asked about whether the double buffer be eliminated since probably no labs are using it. John Peters suggested that we should ask the labs later during the workshop portion of the meeting about their perspective. For 2011, the objective of this sub-committee is to revise the chapter on pH and lime requirement with an expected completion date of summer 2011.

A survey of member states was conducted in 2011 to determine what buffers are being used by various states and also who is considering making a change. A number of states have already switched to Sikora and several more will start using Sikora in the near future.

Location	Current buffer test	Considerations	Comments
Missouri	Woodruff	Mehlich, Sikora	Field calibrations ongoing to evaluate Woodruff, Sikora, and Mehlich buffers
Michigan	SMP	No change at this time	
Minnesota	SMP	Interested in changing	Plan to switch to Sikora by spring 2011

		method	
Kansas	SMP	Mehlich and Georgia direct titration method	Plan to look at Sikora in the near future
South Dakota	Sikora		Switched from SMP on July 1, 2009
Iowa	SMP	Sikora and Mehlich research done	Still using SMP, but will change to Sikora
Ontario	SMP	Discussed Sikora	labs indicated there was no compelling reason to make a switch
Wisconsin	Sikora	Evaluated modified Mehlich and Sikora	Mehlich was eliminated due to short shelf life. Lime requirement equations developed using Sikora (1:1) were the most highly correlated to actual lime needs.

Education and Publication sub-committees (NCR 221 publication and other publications):
It was a consensus of the committee the need to make timely revisions of some of the chapters. John Peters will take the lead and receive help from Manjula Nathan and Carrie Laboski in revising the pH and lime requirement chapter to include the Sikora method. Antonio Mallarino and Manjula Nathan will revise the phosphorus chapter to include the ICP Mehlich 3 method. Dave Franzen is currently working on the sulfur chapter. Dave Mengel will take the lead on revising a chapter, possibly on correlation calibration. Dave Mengel suggested having a 2-year deadline to get revisions done on the various chapters that were discussed. John Peters will provide deadlines for each of these chapter revisions. Fabián Fernández suggested that going methodically chapter by chapter might be a good strategy after changes are made to some of the chapters where changes or plans on changes are already underway. Several members of the committee suggested it would be better, in order to prevent delays in having the revised publication available, to make changes to the online publication and not taking the publication to print. This would also increase flexibility to make timely revisions in the future. One important point would be to make sure the date of revision is posted on each chapter. When a chapter is revised, for reference purposes, the entire book would be considered as a new revision. It would be also more manageable if the book is made available for print on chapter sections with the title page of the publication present as a cover page to link the chapter to the actual publication. Brad Joern mentioned that it would be good to ask commercial labs to do a review of the chapters and include their names in the reviewer section.

Manure sub-committee: On standby.

Website sub-committee: The webpage is up and running. Thanks Manjula!
Project renewal with outcomes should be added and this could be a good place to update/keep track of our progress towards accomplishing these goals.

There is a lot of work (reports, etc.) done by the committee that are not available anywhere (in "the box" Brad Joern currently has) which could be added in the webpage under a "Historic document subcategory."
A short biography of each member of the committee could be added. Manjula would request these biographies.

Remote sensing sub-committee: Dave Mengel mentioned that there is a community in ASA now. It was decided to put this committee in standby for now and maybe eliminate it later.

K testing sub-committee: Antonio Mallarino mentioned that the last time the group worked as a sub-committee was in 2003. He has continued working on the analysis of moist soil samples and has a lot of the correlation work done, the question now is whether we want to move forward with this as a method. Antonio Mallarino reminded the committee that the method was in the book before, but it was taken out because no one was using it. Antonio mentioned that one lab is interested in doing moist analysis in Iowa now. Manjula mentioned that NAPT certification requires at least seven labs doing the test in order to provide the certification. A discussion followed about adding methods that are expensive/more cumbersome (such as moist soil K) to the NCR 221 publication. It was observed that it is beyond the scope of this committee to decide on whether or not a method should be included in the publication on reasons other than strictly the level of performance of the test. If the method is found to be acceptable and provides value for agronomic fertilizer recommendations, it should be included. Individual labs can then decide whether or not to use it. During summer 2011 Ron Gelderman and Antonio Mallarino will begin work to update the Sample Preparation chapter, specifically to bring back the old portion about the slurry preparation. That said, it was decided that it will be better to focus on the publication of the ICP Mehlich method for P (discussed earlier) and then use that publication as a blueprint to write a revision on moist soil analysis that might present some more complications relative to the P method. The buffer pH revision will also take precedence over revisions to include the moist K test.

QA/QC sub-committee: Nothing further to discuss. Objectives of this sub-committee were already accomplished. The sub-committee should be taken out of future agendas.

Additional notes on sub-committees: Dave Mengel volunteered to be chair of a sub-committee on seasonal variability in P, K, and pH.

There was a short discussion on a sub-committee for on-farm trials using precision agriculture technique. It was decided to keep this sub-committee in standby.

Renewal:

Brad Joern discussed the renewal document and the discussion focused on how to accomplish the five objectives and measure of expected outcomes. Some of the previous discussion of sub-committees covered the efforts of the committee in accomplishing the objectives present in the renewal. Two additional efforts were discussed. The first discussion was on the end-of-season lower stalk nitrate test. Robert Mullen will be in charge of writing a publication and will be

contacting committee members to solicit data and information. The second was a regional P publication that Antonio Mallarino, Brad Joern, and Carrie Laboski are considering. Fabián Fernández indicated that he would be interested in participating in this effort as well. It was also mentioned that a similar publication on K would need to follow.

Proficiency testing (NAPT report):

Antonio Mallarino as the representative of this committee to the NAPT program provided a report and took notes from our committee to provide feedback to the NAPT program. He reported that there are over 160 labs in the program. The process of certification seems to be working well and the program now is directed by Grant Cardon from Utah State University. There was a discussion regarding how to increase the visibility of the NAPT. One of the possibilities would be adding fact sheets to the webpage. There was also a discussion of dividing labs into regions to better serve those labs. One concern was that the NAPT is not very responsive to feedback from labs and there is a need to improve communication. Another issue was that while the program may provide a good service at the national level, the regional needs are not always met. There was a discussion regarding samples sent to labs as part of the proficiency test that had extremely high P levels. Some committee members considered this important in terms of analysis of samples sent for environmental issues (P-index) while other members of the committee considered it irrelevant because the service they provide is related to fertilizer application to soils within agronomic soil test ranges. Finally, there was discussion on the national NRCS-590 that list NAPT as "the only" proficiency program in the US and Canada. While NAPT currently provides a very good service, there are others that are providing similar programs. They should not be excluded by the exclusive language used in the national NRCS-590.

Future meeting:

The committee is responsible for organizing a joint meeting with SERA-6 and the NEC-67 (North East group) for 2012. This meeting will be in the summer probably between late June and the middle of July since that when the other groups normally meet. John Peters and Brad Joern will work on getting the arrangements made. Madison was suggested as one of the most likely locations. This meeting would also constitute our annual meeting for year 2012.

Meeting was adjourned at 11AM.