

UF/IFAS Plant Nutrient Oversight Committee Meeting

Meeting Minutes

September 13, 2023

Attendees:

Andra Johnson, Tom Obreza, Saqib Mukhtar, Gopal Kakani, Eric Simonne, Lincoln Zotarelli, Mabry McCray, Jango Bhadha, Cheryl Mackowiak, Sanjay Shukla, Rao Mylavarapu, Zack Brym, Jerry Fankhauser

Opening Remarks & Comments:

PNOC COO Tom Obreza opened the meeting at 1:01 PM, welcoming all in attendance. The agenda was sent out last week and the minutes from the May 3, 2023 meeting are now available. Since Sanjay Shukla has another engagement at the Tomato Conference in about an hour, further opening comments were suspended so Dr. Shukla could cover his presentation before he had to leave.

Central and South Florida vegetable research update – Sanjay Shukla:

Please see accompanying PDF “Central and South Florida Tomato Potato Bean summary for PNOC 13 Sep 2023.”

Dr. Shukla described his large team doing the work. He is taking a systems approach, looking at plant response from various angles and multiple responses.

- Central Florida potato: Response model choice determines significance of response. Not much difference in yield with respect to P fertilizer rates in central Florida. Lack of statistical significance.
- Central Florida tomato: Some yield response to P fertilizer was observed. These experiments suggested a rate of 50 lbs P₂O₅/acre was sufficient for maximum yield.
- Central Florida green beans: Yield mean comparison between the fertilizer rates revealed no significant differences, but the regression of yield vs. P rate was significant.
- South Florida: Results showed a clear response of potato to P fertilizer even where soil test P was high. We may be looking at a provisional recommendation for tomato like the provisional potato recommendation issued in Oct 2022. First year tomato results showed a P response in two out of three experiments. Second year results showed P fertilizer response above the zero rate in three out of three experiments. It appeared that around 50 lbs P₂O₅/acre was sufficient for top yields where soil test P was high. Bean yield also responded to P fertilizer at high soil test P, but one trial showed no P response.

Dr. Shukla pointed out that top yields are necessary for the grower's bottom line, particularly in favorable economic years. He indicated that 1 more year of experiments is coming. Dr. Mukhtar queried Dr. Shukla about water quality in these experiments. Dr. Shukla responded that while water quality is not being directly measured, he will get an idea about P movement through deep soil sampling below the root zone.

Northeast Florida potato research update – Lincoln Zotarelli:

Please see accompanying PDF “NE Florida Potato summary for PNOC 13 Sep 2023.”

Dr. Zotarelli showed work done by one of his graduate students that provides support for new potato P recommendations. He stressed the need to look at nutrient balance in the field, including P exported in the potatoes. We need a more comprehensive strategy and a systems approach to nutrient management. The NE Florida potato group still has a lot of data to collect (Waters Lab has been experiencing delays) and analyze into the fall. Statistical modeling of multi-year data is the next task. Recommendations will be made based on crop response, P balance, and economic analysis. The latest evidence from Spring 2023 supports continuing the provisional P recommendation of up to 120 lbs P₂O₅/acre regardless of soil test P in NE Florida.

Proposed provisional hemp nutrient recommendations – Zack Brym:

Please see accompanying PDFs “Hemp Provisional Nutrient Mgt Recommendations for PNOC 13 Sep 2023” and “Nutrient mgt recommendations (proposed) for hemp.”

Dr. Brym provided his evidence for the first ever nutrient management recommendation for hemp production in Florida.

FDACS-AES nutrient management project update – Tom Obreza:

- More field work completed since May (corn, veg crops).
- 12-month no-cost extension of FY 22-23 contract.
- FY 23-24 proposal accepted by FDACS - \$6.2M.
 - New contract execution Aug 1
 - Notice of award Sep 5
- Continuing projects from 2022-23: tomato, potato, snap bean, citrus, corn watermelon, cotton, peaches, limpgrass, hemp, soil testing, artificial intelligence. (14 projects)
- New projects in 2023-24: sod, blueberry, bahiagrass, lettuce, site-specific. (5 projects)
- 68 UF/IFAS faculty involved: 23 on Gainesville campus, 25 at RECs, and 20 county agents.
- First-year summary report to legislature delivered in August.

Carry-forward PNOC items from May meeting – Tom Obreza:

- Do we have a provisional tomato P recommendation? Not yet.
- We will revisit the provisional potato P recommendation? Yes, but in the fall.
- We have implemented a communications strategy to increase transparency of our work:
 - Webinar specifically for vegetable growers, FFVA, FFBF.
 - Faculty discussions with local advisory committees.
 - Faculty are hosting/participating in field days and workshops.
 - Lakesh Sharma’s BMP Summit (Aug).
 - Citrus & Specialty Crop Expo (Aug).
 - Meeting with FDACS/FDEP (Aug) – Talked about IFAS recommendations.
 - Hired a new communications specialist (Mike Loizzo in August).
 - Dr. Obreza’s departmental seminar last week.
(<https://soils.ifas.ufl.edu/academics/seminars/>).
 - Public comment period re. PNOC activities.

Doing PNOC business on TEAMS, outside of meetings – Tom Obreza

- Recommendation proposals coming:
 - Hemp
 - Tomato
 - Review potato
 - Corn
- Recommendation format and access – Working with Saqib and Diana Hagan.
 - We have at least 18 EDIS publications displaying recommended N and P fertilizer rates. Many others discuss management w/o mentioning rates.
 - Format: 2 pages – Rate, Source, Placement, Timing, Water – Customize as necessary.
 - Access: Recommendations “library” in EDIS.
- Can we do PNOC business on TEAMS? (Next meeting is late January 2024.) Answer: We will try!

Tom Obreza adjourned the meeting at 2:58 PM.

Submitted by: Tom Obreza