

UF/IFAS Plant Nutrient Oversight Committee Meeting

Meeting Minutes

January 14, 2025

Attendees:

Michael Dukes, Rob Gilbert, Jay Ferrell, Andra Johnson, Saqib Mukhtar, Chris Gunter, Lincoln Zotarelli, Cheryl Mackowiak, Sanjay Shukla, Ali Sarkhosh, Franta Majs, Vimala Nair, Rao Mylavarapu, & Jerry Fankhauser

Meeting Summary

- Move from “provisional” rates to “interim” rate recommendations in terms of evolving rates and ongoing findings – approved by PNOC vote.
- Interim rate recommendations will be in place for two years after which the recommendation will sunset but could be voted to reaffirm the interim rate for one more year. After the third year, an additional year may be requested to re affirm or the recommendation will sunset. After three years total, the interim recommendation will have enough scientific backing to be voted into a recommendation or it will sunset.
- Peach nutrient management results to date are leading to guidelines (not recommendations) for growers.
 - Move soil sampling discussion earlier in the proposed EDIS document.
 - Link to existing documents, especially EDIS when available.
 - For low-chill peach production, convert pounds per acre pounds per tree. This is due to the different planting densities presently in commercial production.
 - With peach production, emphasize leaf tissue rather than soil testing.
 - Consider breaking up peach growth and nutrient management information into two separate EDIS documents.
 - Focus on most common peach nutrient management deficiencies with less content on others.
- Mehlich 3 analysis over-extracts Phosphorous (P) – should there be a change in the type of extraction process?
- P bioavailability varies by regions in state.
- Iron oxide extraction is hard to do but can better determine P bioavailability.
- Mehlich 1 extraction accuracy may be affected by supplemental irrigation.
- PNOC needs to consider identifying a smaller soil extraction group to work on this P bioavailability problem.

Opening Remarks & Comments

Associate Dean of Extension and Interim Chief Operating Officer for the UF/IFAS Plant Nutrient Oversight Committee (PNOC), Michael Dukes, opened the meeting at 10:05 am and welcomed all to both this meeting and upcoming Plant Nutrient Management Retreat at PSREU-Citra. Michael also introduced Lincoln Zotarelli who recently agreed to be a member of this committee.

Michael Dukes and others spoke about the minutes and others agreed that a more summarized approach would be better for all. Michael then asked Dr. Ali Sarkhosh to deliver his presentation on proposed guidelines for nutrient management in low-chill peaches. Saqib Mukhtar did note ahead of the presentation that these types of EDIS documents should be socialized with editors to ensure that the process for approval is followed.

Nutrient Management Guidelines for Low-chill Peach Production

Ali Sarkhosh then delivered his presentation – his PowerPoint slide deck and supporting information can be found on the PNOC Teams site. Production-oriented points presented included:

- Peaches are gaining interest due to continuing HLB-related damage with citrus production.
- The present farm gate value in Florida is around \$7 million.
- Approximately 2,000 acres in production in Florida.
- Market for Florida peaches in mid-March to mid-May.

Following Ali Sarkhosh's presentation, questions were entertained which included Rob Gilbert noting that it might be better to move the soil and plant tissue sampling information up in his draft EDIS document. Cheryl Mackowiak asked about information needed on the timing of peach flush and subsequent flowering... up in the Panhandle versus mid-Florida? What are the chill hour limits with peach cultivars? The idea of breaking up Ali Sarkhosh's EDIS document into two documents was mentioned but Sanjay Shukla reinforced that the majority of growers may desire for it to remain as one document.

Discussion then shifted to how to best structure nutrient management recommendations in peach with Saqib Mukhtar wondering if such recommendations should be on a per tree or linear foot basis – this idea was well-received by others. Chris Gunter recommended that this peach document focus on the most common nutrient deficiencies first with others to a lesser extent. Grove development (e.g., trees per acre and cultivar selection) was discussed by several members in attendance.

Conversation then shifted to the overall nutrient management recommendation process with Cheryl Mackowiak wondering if we need to include definitions of terminology used by PNOC. The appropriateness of calling evolving nutrient management recommendations “provisional” was debated with the outcome being that “interim” is a more descriptive and better understood term. There was consensus to start using interim for evolving nutrient management rates, but that interim period should only be for 2-3 years (i.e., 3-year maximum). There was also some discussion about the value and workload associated with entertaining public comments with evolving nutrient rate recommendations – all liked that PNOC will consider comments.

Mehlich 3 Extraction Discussion

Michael Dukes then introduced the soil P extraction method discussion and introduced Franta Majs who now heads up the ANSERV Lab in UF/IFAS and he provided his perspective on limitations with Mehlich 3. Vimala Nair also brought up challenging aspects of using Mehlich 3 as this extraction method is really

intended for acid soils and with the majority of soils in Florida, total P is extracted but there is uncertainty with what proportion is bioavailable. From a historical standpoint, it was noted that Mehlich 1 was dropped from use at the ANSERV Lab back in 2010 with reasoning at that time being that three reagents are more stable than one.

Discussion then focused more on what extraction method is possible to better estimate bioavailable P. Franta Majs briefly talked about how Mehlich 1 extraction success can be affected by soils under supplemental irrigation production systems. Vimala Nair reported that an iron oxide extraction procedure does more accurately predict what is available, but it is a more difficult extraction method. Cheryl Mackowiak then talked about the soil variability around the state and how different P extraction methods may lead to more or less accurate results (depending on soil type). Vimala Nair explained that with the iron oxide extraction process, bioavailable P from soils in a given area it could be a one-time effort. Lincoln Zotarelli then gave his perspective on P bioavailability and noted that even with Mehlich 1 and 3 challenges, progress is being made towards more site-specific recommendations across Florida.

Michael Dukes then began to summarize all the good informational exchange on P bioavailability and then proposed that a smaller soil P extraction working group be identified to work on this challenge and then report back to PNOC membership. This effort should be done sooner than later as clarity and a path forward is needed for more accurate P rate recommendations in key commodities.

Michael went on to note that UF/IFAS has submitted a \$6 million LBR request to the state legislature with this request being supported by UF central administration. This request is for continued nutrient management efforts for Fiscal Year 2025-2026. UF/IFAS will know by June if this request is approved by the state legislature and ultimately the governor. In terms of future meetings, it was agreeable to all that PNOC should meet two more times in 2025. Michael Dukes then thanked all for their time and input and the meeting was adjourned at 12:00 pm.

Submitted by: Jerry Fankhauser (with edits by M.D. Dukes)