

The meeting of the South Dakota Nutrient Research and Education Council (NREC) was called to order by Chairman Ryan Wolf at 9:04 AM, July 11, 2023 at SDSU Raven Precision Agriculture Center, Brookings, SD.

In attendance were council members Kevin Bachmeier, Russ Daly, Jim Loken, Jerry Runia, George Sperry, Tavis Strasser, Paul Wegleitner and Ryan Wolf. Also, in attendance was Angela Loftesness, Assistant to the Dean, College of Agriculture, Food and Environmental Sciences and Kathy Zander, Executive Director of the South Dakota Agri-Business Association. The Council members absent from the meeting were Tom Gere, Kyle Gustafson, Bruce Haines, Colin Nachtigal, Bryan Jorgensen and Ryan Schuchhardt.

Ryan Wolf opened the meeting with Council members introducing themselves. The minutes of the December 1, 2022 were reviewed. Jerry Runia moved to approve the December 1, 2022 minutes as presented. The motion was seconded by Kevin Bachmeier and the motion carried.

Jim Loken and Angela Loftesness reviewed the Financial Reports dated July 10, 2023. All project financials for 2021 have been closed. The 2022 project financials were closed on June 30, 2023 and will have a zero balance after the accounts have had no action for 60 days.

Travis Strasser moved to accept the Financial Reports dated July 10, 2023. The motion was seconded by Jerry Runia and the motion carried.

The draft of the 2024 Request for Preproposals was reviewed and it was suggested that sunflowers be included in the list of crops for research for updated of NPK fertilizer recommendations. Another addition included Research of soil pH in varied tillage practices. Jim Loken moved to approve the 2024 Request for Preproposals with the two suggested additions. The motion was seconded by Kevin Bachmeier and the motion carried.

At 10:00 AM, project updates were presented, as follows:

1. Peter Kovacs: Investigating Impact of Starter Fertilizer Placement on Plant Development, Grain Yield, and Nutrient Uptake (3SC435), year 3 of 4, \$97,695.
2. Peter Kovacs: Investigating fertilizer response and requirement in high protein soybean varieties (3SC434), year 3 of 4, \$83,942. This will be the last year of the project.
3. Peter Kovacs: Investigating P and K Fertilizer Application Timing and Management Strategy on Crop Yield, and Nutrient Uptake – Equipment Acquisition and Research Initiation, (3S5183), \$103,078.
4. Jason Clark: Nitrogen fertilizer recommendation Update for Corn (3SG535), year 4 of 4, \$99,933. He will bring a new proposal for 2024.
5. Jason Clark (Robert Miller): Evaluation of Soil Test Potassium and Side Dress Application of Potassium and Biochar on Corn Nutrition and Grain Yield in Eastern South Dakota, (3S3182), year 2 of 3, \$97,442.
6. Jason Clark, Influence of Interseeding Cover Crops on Nitrogen Fertilizer Rate Requirement for Optimal Corn Grain Yield in a No-till System, (3SE417), year 5 of 6, \$83,674.
7. Jason Clark: Impact of Phosphorus Soil Test Level Differences on Crop Response in No-Till Soils in Central South Dakota, (3S3181), year 1 of 2, \$89,691
8. Jason Clark: Acquisition of a Combine for Soil Fertility Research Trials Crop Harvest, (3S3180), year 2 of 2, \$50,000. A used combine has become available and an additional \$50,000 is needed for its purchase.

9. Jason Clark (Lin Wei): Application of biosolid-based nitrogen control release fertilizers to improve nitrogen use efficiency of corn production and soil health in South Dakota, (3SB174), year 2 of 3, \$115, 019. He would like to continue for one more year.

The Council broke for lunch and moved into Executive Session. The project presentations were discussed, and Travis Strasser moved that projects 1, 5, 6, 7 and 9 become Consent Projects for the December agenda. The motion was seconded by Jim Loken and the motion carried.

The request for a combine purchase in project 7 was discussed and it was determined that Jason Clark should submit a project proposal immediately for 2024 but to be paid in 2023. The Council will vote to approve the project via email vote so that the combine can be purchased so it will be available for use for the 2023 harvest.

The draft of the 2024 Request for Invited Proposals was reviewed and Travis Strasser moved to adopt the draft. The motion was seconded by Kevin Bachmeier and the motion carried.

The list of terms for Council members was reviewed. Ryan Schuchhardt and Colin Nachtigal have completed two three-year terms and are eligible for one more three-year term. Kathy Zander stated that SD Agri-Business Association (SDABA) wanted Ryan Schuchhardt to continue to represent them and she will contact SD Soybean Association about the seat held by Colin Nachtigal.

The election for Secretary was held and Kevin Bachmeier moved to nominate Kyle Gustafson. The motion was seconded by Travis Strasser and the motion carried, electing Kyle as Secretary of the Council.

At 1:15 PM, project updates continued, as follows:

10. John McMaine: Identifying Nutrient Loss Hot Spots in Tile Drainage (3SE431), year 4 of 4, \$68,972.
11. Cody Moret (Peter Kovacs): Acquisition of nutrient applicator package on planter (3S3184), 1 year, \$48,000. Planter has been purchased.
12. Christopher Graham: Evaluating Selected Soil Health Indices for Predicting Nitrogen Fertilizer Requirement for Winter Wheat in Western South Dakota (3SG173), year 2 of 3, \$41,132.
13. Sunish Sehgal: Breeding for Improved Nitrogen Use Efficiency (NUE) in South Dakota Winter Wheat Under Regenerative Agriculture Management (3SB175), year 2 of 3, \$79,582.
14. David Clay: Influence of nitrogen stabilizers and application dates in no-tillage corn production on nitrogen use efficiency and N losses to the atmosphere and groundwater (3SC437), year 3 of 4, \$92,725. Will have a new proposal for 2023 for graduate students to write papers.

The project updates for presentations 10, 11, 12, 13 and 14 were discussed. Jerry Runia moved that 12 and 13 become Consent Projects for the December agenda. The motion was seconded by Travis Strasser and the motion carried.

The next meeting will be held in-person in December, 2023 and Angela Loftesness will send out a request for possible meeting dates. Ryan Wolf adjourned the meeting at 2:35 PM.

Submitted by:



Ryan Wolf, Chairman