



**MINUTES**  
**July 22, 2020**

The meeting of the South Dakota Nutrient Research and Education Council (NREC) was called to order by Chairman Ryan Wolf at 9:00 AM, July 22, 2020 via teleconference.

In attendance were council members Kevin Bachmeier, Jamie Chalcraft, Bill Gibbons, Tom Gere, Bruce Haines, Richard Jenny, Jim Loken, Colin Nachtigal, Ryan Schuchhardt, Richard Vasgaard, Robert Walsh, Paul Wegleitner, and Ryan Wolf. Council members absent from the meeting were Bryan Jorgensen and Dana Loseke. Also, in attendance were Kathy Zander, Executive Director, South Dakota Agri-Business Association and Angela Loftesness, Assistant to the Dean, College of Agriculture, Food and Environmental Sciences.

Ryan Wolf welcomed everyone to the meeting and asked for any additions or changes in the December 4, 2019 NREC meeting minutes. Robert Walsh moved to approve the minutes from the December 4, 2019 NREC meeting. The motion was seconded by Richard Jenny and the motion carried.

Jim Loken presented the financial report. The available balance was discussed along with expenses for some of the participants. Richard Vasgaard moved to approve the Financial Report dated June 23, 2020. The motion was seconded by Richard Jenny and the motion carried.

Grant Program Terms and Conditions were discussed including that all applications must be submitted via InfoReady, South Dakota State University's cloud-based platform for collecting, routing, and reviewing proposals for funding. Ryan Schuchhardt moved to approve the Grant Program and Terms Conditions. The motion was seconded by Jim Loken and the motion carried.

Robert Walsh left the meeting at 9:40 AM.

Updates for the 2021 Request for Preproposals were discussed and the updates and the deadline dates will be completed by Angela Loftesness and will be circulated to the Council. The need for 10% of the projects to be related to water-quality was discussed. Colin Nachtigal moved to approve the changes for the 2021 Request for Preproposals. The motion was seconded by Ryan Schuchhardt and the motion carried.

Updates for the 2021 Request for Proposals were reviewed and Angela Loftesness stated she would make changes to the deadline dates. Colin Nachtigal moved to approve the 2021 Request for Proposals and the motion was seconded by Richard Jenny. The motion carried.

Ryan Wolff reviewed the terms of Council members stating that Collin Nachtigal, Richard Jenny and Ryan Schuchhardt have terms that expire this year. They all agreed to serve another term and continue in their leadership capacities. Richard Vasgaard moved to approve a second term for Colin Nachtigal, Richard Vasgaard and Ryan Schuchhardt. The motion was seconded by Richard Jenny and the motion carried.

Bruce Haines left the meeting 10:25 AM.

Presentations of currently funded projects were presented, as follows:

- Ruanbao Zhou: Identifying solar-powered N<sub>2</sub>-fixing Cyanobacteria in native grasslands for soil health and bio-nitrogen fertilizer application in South Dakota (3SB423), Year 3 of 3 with no-cost extension until December 30, 2020, \$69,816
- David Clay: Building a South Dakota corn no-tillage N recommendation algorithm that considers improvements in soil health (3S9416), Year 2 of 3, \$96,998
- David Karki: Calibration of Nitrogen requirement of oats grown for grain in South Dakota (3SB340), Year 3 of 3, \$33,688
- Sandeep Kumar: Impacts of manure and inorganic fertilizer on soil fertility, water quality, and crop yield in South Dakota (3SD341), Year 3 of 3, \$80,000
- Peter Sexton: Sulfur and Nitrogen dynamics for rye raised as a cover crop (3SB424), Year 2 of 2, \$48,749
- Peter Kovacs: In-season N application in corn to improve fertilizer efficiency in eastern South Dakota (3CS427), Year 3 of 3, \$119,977
- Peter Kovacs: Sulfur source and application timing effect on soybean yield (3SB415), Year 1 of 2, \$72,305
- Shin-Yi Marzano: Exploring new microbial pathway for nitrate control by cover crop and bioreactor at the Southeast Research Station (3SB342), Year 2 of 2 with no-cost extension until December 30, 2020, \$70,790
- Chris Graham: Fertilization management to reduce potential yield declines following no-till adoption in South Dakota (3SB426), Year 3 of 3 with no-cost extension until December 12, 2020, \$41,707
- Dwayne Beck: The impact of soil test level differences on crop response, P leaching, and P runoff under long-term no-till management in South Dakota (3SC426), Year 3 of 5 with no-cost extension until June 30, 2020, \$36,496
- John McMaine: Identifying nutrient loss hot spots in tile drainage (3SA431), Year 1 of 3, \$67,743
- Jason Clark: Influence of interseeding cover crops on nitrogen fertilizer rate requirement for optimal corn grain yield in a no-till system (3SB417), Year 2 of 3, \$71,909
- Jason Clark: Nitrogen Fertilizer Recommendation Update for Corn (35C535), Year 3 of 3, \$76,581
- Jason Clark: Survey of South Dakota producer's nutrient management practices (3SB418), Year 2 of 2, \$28,249
- Jason Clark: Building potassium fertilizer guidelines that include soil classification information (3SA433), Year 1 of 3, \$97,575
- Jason Clark: Combining soil fertility and soil health to improve corn potassium, phosphorus, and sulfur fertilizer recommendations (3SA430), Year 1 of 2, \$53,606

The council resumed regular business and discussed the presentations. Kevin Bachmeier moved consent for all the projects to move forward except those that are complete or working with no cost extensions, as follows:

- Dwayne Beck: The impact of soil test level differences on crop response, P leaching, and P runoff under long-term no-till management in South Dakota (3SC426)
- Ruanbao Zhou: Identifying solar-powered N<sub>2</sub>-Fixing Cyanobacteria in native grasslands for soil health and bio-nitrogen fertilizer application in South Dakota (3SB423)





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- Sandeep Kumar: Impacts of manure and inorganic fertilizer on soil fertility, water quality, and crop yield in South Dakota (3SC341)

The motion was seconded by Jim Loken and the motion carried.

Under additional business, the timeline for pre-proposals and proposals for 2020 were reviewed:

- August 14 – Preproposal submission deadline
- September 11 – NREC select projects for full proposals
- October 16 – Full proposal deadline
- Early December 2020 – Researchers present proposals to NREC
- Mid-December 2020 – Researchers notified

The next meeting will be held during in early December of 2020 and Angela Loftesness will send the Council dates to be considered.

The meeting adjourned at 3:31 PM.

Submitted by:

Ryan Wolf, Chairman