The meeting of the South Dakota Nutrient Research and Education Council (NREC) was called to order by Chairman Ryan Wolf at 9:06 AM, July 14, 2021 at the SDSU Cow Calf Education and Research Facility, Brookings, SD along with some members present via teleconference.

In attendance were council members Kevin Bachmeier, Bill Gibbons, Tom Gere, Richard Jenny, Bryan Jorgensen, Colin Nachtigal, Jerry Runia, Ryan Schuchhardt, Robert Walsh, Paul Wegleitner, and Ryan Wolf. Council members absent from the meeting were Jim Loken and Bruce Haines. 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 opened the meeting by moving David Clay up on the agenda for presentations of his currently funded projects:

* David Clay: Building a South Dakota corn no-tillage N recommendation algorithm that considers improvements in soil health (3SC416), year 3 of 3, $100,000
* 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 (3SA437), year 1 of 3, $88,000.

Ryan Wolf reverted to the business agenda items and welcomed Jerry Runia, who is representing Farm Bureau to the Council. Corrections or additions to the December 2, 2020 minutes were considered and Richard Jenny moved to approve the December 2, 2020 minutes as presented. The motion was seconded by Ryan Schuchhardt and the motion carried.

Angela Loftesness reviewed the Financial Reports for 2019, 2020 and 2021. The Council continues to have a good financial standing with $1 million in reserves. Ryan Schuchhardt moved to accept the Financial Reports dated July 11, 2021. The motion was seconded by Richard Jenny and the motion carried.

The draft 2022 Request for Preproposals was discussed. “Research of Carbon and How it Affects Nutrient Management” will be added to the Topics of Interest list on page one. Ryan Schuchhardt moved to approve the changes for the 2022 Request for Preproposals. The motion was seconded by Richard Jenny and the motion carried.

Following a short break, the meeting continued with the following presentations of currently funded projects:

* Peter Kovacs: Sulfur source and application timing effect on soybean yield (3SC415), year 3 of 3, $75,000.
* Peter Kovacs: Investigating fertilizer response and requirement in high protein soybean varieties (3SA434), year 1 of ?, $79,221.
* Peter Kovacs: Investigating Impact of Starter Fertilizer Placement on Plant Development, Grain Yield, and Nutrient Uptake (3SA435), year 1 of ?, $85,000.
* Sandeep Kumar: Influences of manure and fertilizer application in corn-soybean-spring wheat/cover crops rotation on Water availability and quality, soil fertility, and crop yield (3SA438), year 1 of 1, $80,000.
* John McMaine: Identifying Nutrient Loss Hot Spots in Tile Drainage (3SB431), year 2 of 3, $12,820.

After the presentations, Ryan Wolf asked the Council to review the draft 2022 Request for Proposals. Kevin Bachmeier moved to approve the 2022 Request for Proposals with the 2022 date changes and the motion was seconded by Richard Jenny. The motion carried.

Ryan Wolf reviewed the terms of Council members stating that Kevin Bachmeier and Bryan Jorgensen have terms that expire this year and they each agreed to serve another term. Ryan Schuchhardt moved to approve the additional terms for Kevin Bachmeier and Bryan Jorgensen. The motion was seconded by Colin Nachtigal and the motion carried.

The Budget Revision and Extension of Grant Period (number five) on the Grant Program Terms and Conditions form was discussed. It was determined that the officers (Chair, Vice Chair, Secretary and Treasurer) would approve any emergency extensions that may occur and report back to the entire Council by email along with an update during the next Council meeting.

A discussion of how NREC research projects can be published or presented followed. It was determined that the researcher needs to submit an abstract to the Council and the Council members have ten days to object. If no objection occurs, permission is granted for the project to be published or presented.

Ryan Wolf led a discussion concerning the need to update NREC bylaws to reflect the merger of the South Dakota Department of Agriculture and the South Dakota Department of Environment and Natural Resources into the South Dakota Department of Agriculture and Natural Resources (DANR). Kathy Zander and Angela Loftesness will work on drafting new language to have to Council members by October so that they can be finalized during the December Council meeting.

Following a lunch, the meeting continued with the following project presentations:

* Srinivas Janaswamy: Synthetic nodules for nitrogen nutrition in cereal crops (3SA436), year 1 of 5, $49,932.
* 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 (3SD426), year 4 of 5 with no-cost extension until June 30, 2021, $49,752
* Jason Clark: Nitrogen fertilizer recommendation Update for Corn (35D535), year 4 of 4, with no-cost extension to 06-30-21, $87,713.
* Jason Clark: Influence of interseeding cover crops on nitrogen fertilizer rate requirement for optimal corn grain yield in a no-till system (3SC417), year 3 of 3, with no-cost extension to 06-30-21, $73,170.
* Jason Clark: Combining soil fertility and soil health to improve corn potassium, phosphorus, and sulfur fertilizer recommendations (3SB430), year 2 of 2, with no-cost extension to 06-30-21, $68,641.
* Jason Clark: Building potassium fertilizer guidelines that include soil classification information (3S3433), year 2 of 3, with no-cost extension through 06-30-21, $108,741.
* Jason Clark: Survey of South Dakota producer’s nutrient management practices (3SB418), year 2 of 2, with no-cost extension through 12-31-21, $40,434.
* David Karki: Calibration of Nitrogen requirement of oats grown for grain in South Dakota (3SB340), Year 3 of 3, $34,063

The next meeting will be held in-person on December 2, 2021. Colin Nachtigal moved for the meeting to adjourn and the motion was seconded by Jerry Runia. The motion carried and the

meeting adjourned at 3:26 PM.

Submitted by:

Ryan Wolf, Chairman