

Changes in Crop Production and Implications for Research

Theme: *Precision Agriculture*

Wednesday July 21, 2021

9:00 AM to Noon (SK/AB Time)

9:00 AM Welcome
Amaethon Report Summary: Precision Agriculture Cross Cutting Issues
Discussion
Guidance for sub-theme breakout discussions

9:45 AM Break

10:00 AM Sub-Theme Breakout Discussions on Cross Cutting Issues

Sub-Theme 1: Variable Rate (Issues from Amaethon Report)

- Variable rate technologies for nutrient, pesticide, seeding
- Need for independent studies
- Verification of ROI for precision agriculture technologies

Sub-Theme 2: Soil Management Zones (Issues from Amaethon Report)

- There are several different methods available to farmers. Are the methods employed good for farmers?
- Input predictions - Prediction of crop nutrient requirements. Can yield maps and real time crop quality information replace soil testing?
- Output predictions - Prediction of yield, quality.

Sub-Theme 3: Data (Issues from Amaethon Report)

- Data collection, management, analysis, integration, interpretation, and application to action
- What type of sensors do farmers need? While data and its management will aid farm management, there are no perfect relationships that precisely link back to crop yields and profitability. At the present time the accuracy of these integrated techniques to predict crop nutrient requirements, the most effective variable rate applications of pesticides and nutrients, early recognition of disease and insect outbreaks, selecting the best variety and maximizing profitable crop yields and crop quality are not

well understood, nor integrated, and will need much more independent study.

Noon Sub-Theme discussions complete. Thank you!

Pre-registration is required. **The deadline to register is July 12, 2021, at Noon CST.** Each breakout group will have a moderator and recorder. We hope to accommodate all registrants but reserve the right to limit participation if registration exceeds the capacity of our breakout groups. Please consider volunteering to help with the breakout groups.

Registration link: <https://forms.gle/t51pDY6t39attmx78>