

Driving Decisions Newsletter

Issue 12

January 2023

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Crop Intelligence Summit Review

We held our 4th annual Crop Intelligence Summit in Regina on December 8th and 9th. The Summit opened with a panel discussion about Change in Agriculture featuring a professional from the seed business, fertilizer industry, food processing sector, and financial services. Each of these individuals brought a unique perspective on the biggest changes they've experienced in their careers and what they see coming. This included conversations around instantaneous data driving decisions and integrating more biologicals. The evening closed with a show from comedian and mental health activist, Big Daddy Taz, who got everyone laughing and ready for the next day.

Bet the Farm – Using Data and Technology to Win at Farm Management – Evan Shout CPA, CA

On today's farms, data and technology can take the decision-making out of producers' hands. During this session Evan shared his "cheat sheet" for farm management; how benchmarks, technology results, trials, and other tools can help you cheat the house and know the outcome before it happens. The 5 biggest things Evan discussed for farm operations were: human resource management, compounding growth, equipment utilization & efficiency, working capital optimization, and debt structure. Each of these plays an intricate role in a farm's success and it is important to understand that a farmer's journey spans a lifetime and not one season to the next. In closing the crowd was left with a new mindset on how to approach their own farming operations.

Rain is a Good Thing – Thinking Like a Plant in 4D – Elston Solberg

"If you don't have rain, the rest doesn't matter." Elston Solberg, Senior Agronomic Coach to Crop Intelligence, shared this quote before diving into how to think like a plant using tools widely available to all farmers. Bringing together soil tests, tissue tests, soil moisture probes, and time creates a 4-dimensional level of thinking like a plant in relation to nutrient needs - where is the water, where are the roots, and where are the nutrients. Elston's key agronomic message is to remember which nutrients are mobile in the soil (nitrogen, sulfur, chloride, boron, and molybdenum) and which nutrients are mobile in the plant (nitrogen, phosphorus, potassium and magnesium). How can you start to think like a plant? Growers and agronomists were challenged to start with a benchmark soil test around the

probe, 0-6", 6-12", and 12-24" samples, and complement it with 2-3 tissue tests of old and new leaves around the probe to track the nutrient status of the plant and pair it with the mobile nutrient knowledge. If you want to learn more about thinking like a plant, you can reach Elston at sunmountaininc@gmail.com

Soil Moisture Insights in a Drought – Michael Palmier

It's our nature to want to act or try something new when conditions are favorable, like when there is rain and positive Water Driven Yield Potential, but what can we learn in a drought? Mike Palmier founded Max Ag in 2019 and now manages 39 Crop Intelligence stations with 21 customers in the area of Kerrobert in west-central Saskatchewan. Mike opened with the importance of crop stubble on soil moisture recharge with observations in 2022 after leaving a standing crop in 2021. Not only could you see the effect in 2022 NDVI imagery, but it was also visible in the google satellite image! His presentation continued with a deep dive into 2021 and 2022 data and learning about the impact of extreme drought on yield. Key takeaways from the data: 1) When precipitation is below normal and temperature is above 30 degrees Celsius, heat plays a significant role in the yield gap between WDYP and actual yield and 2) Heat has a stronger impact on durum yields than wheat and canola. Mike ended his talk on collaboration and is always open for conversation and more learning, you can reach him at mike@maxag.ca

Rain or Shine – Scott Kehler

Scott Kehler, President and Chief Scientist at Weatherlogics, uncovered the difference between weather and climate and why this impacts what is reported as 'normal' in western Canada. In addition, Scott discussed how precipitation forecasting is modeled and where current pitfalls are in these methods. It should be noted that weather model forecasting is based on 2 main models, Global Forecasting System and the European Center for Medium Range Weather Forecasting. These two models are used for the majority of Western Canada's weather modeling. To close out his presentation Scott brought light to how agriculture influences weather, such as evapotranspiration, which is the largest contributor to the water cycle. Evapotranspiration in crops helps encourage thunderstorm activity and increase the likelihood of rain when evapotranspiration in an area is high. If you would like more information about weather and climate please contact Scott at scott@weatherlogics.com or visit www.weatherlogics.com

Getting to Know Your Soil – Andrea De Roo

A third of a crop's biomass is below ground, but we have never properly utilized tools like a soil moisture probe to learn what the crop is experiencing in the soil. In her presentation, Andrea covered how to read a soil moisture graph, the plant health signatures Crop Intelligence has learned below ground, and why this all matters to agronomic decisions and Water Driven Yield Potential. Wondering what to look for this year? Leaching and saturation events could create some challenges in wetter areas of Western Canada, dry topsoil may limit nutrient availability in season, and soil compaction may limit what your crop can access for moisture. A driving component to all these insights is soil texture. The crowd was then invited to get their hands dirty and learn how to texturize soils, so they could dig into

their own fields this spring! If you are interested in learning more, watch for agronomic insights and webinars this year from Crop Intelligence or reach out to Andrea at derooandrea@cropintel.ca

On Farm – Field Scale Trials – Laird Lampertz

Using all the tools in your toolbox is crucial for success. Handy man of past and today accomplish the same thing, just differently using different tools, just like the farmer of past and present. Laird's presentation took attendees on a journey using a trial completed at the Pitura Seeds farm over the last three years. In the trial, they try to utilize the greatest number of tools possible to tell the story of the results, data capturing, and data utilization. Laird's trial utilizes deep tillage, NDVI imagery, yield mapping, Crop Intelligence, and economics to explain how to narrow the yield gap. Over the course of 3 years, Laird has been able to increase profitability by more than \$120/acre in his first trial field. If you are interested to know more about this trial, please contact Laird Lampertz at Laird@pituraseeds.ca

Prairie Watershed Climate Program - Nicole Moffat

The Prairie Watersheds Climate Program (PWCP) is led by the Manitoba Association of Watersheds (MAW). Funding for this project has been provided by Agriculture and Agri-Food Canada through the Agricultural Climate Solutions – On-Farm Climate Action Fund. The PWCP provides up to \$40 million in financial support, through OFCAF, to producers in Manitoba and Saskatchewan to accelerate their adoption and implementation of on-farm beneficial management practices (BMPs) to reduce Greenhouse Gas (GHG) emissions, support production efficiency, sustainability, and resiliency on their farm operations. To assist producers with their adoption of new BMPs, the program offers producers resources to support BMP implementation and provide BMP design recommendations. If you would like more information about the PWCP program, please contact Nicole Moffat at n.moffat@saskwatersheds.ca

Roundtables

The Roundtable session gave customers the opportunity to engage with experts from FieldAlytics, AgExpert, or JD Operation Center before moving into a Q&A and discussion.

FieldAlytics stores and layers all a producer's geospatial data from EC and topography maps to satellite imagery and field yields. Ultimately, this tool turns a farmers as-applied activity and fertility formulas into financial data for a virtually automated production and financial planning for each field and farm. If you would like more information about FieldAlytics please visit <https://www.fieldalytics.ca/>.

AgExpert is an FCC software product focused on Accounting and Field Management for Canadian farms. AgExpert Accounting is a full accounting software package that can be enabled to share your data with your financial partners. AgExpert Field documents field inputs and tasks then creates a year-to-year history of field activities that is fully traceable. Together, they can help you make better spending decisions and improve your bottom line. Check out more information at <https://www.agexpert.ca/>

John Deere Operation Center is a free farm management program accessible on desktop and phone to help customers setup, plan, monitor, and analyze farm data. We heard from a local grower who uses it to manage his farm team, equipment, task planning, and analyzing agronomic data for future cropping decisions. You can find more information on Operations Center at your local John Deere Dealership or go to <https://operationcenter.deere.com>

Leveraging Data for Farm Decisions – Christian Hansen

Data can be overwhelming, hard to interpret, and difficult to scale to your farm size, but can also help make rational decisions and even automate work. Christian Hansen, Small Grains Agronomist with John Deere, opened his presentation with the 4 most common types of data on the farm: Agronomic, Environmental, Economic, and Operational. These layers can be very useful, especially with on-farm trials that provide site specific results. He then shared a new tool built by John Deere for dealership agronomists in the LEAD network called Agronomy Analyzer. This platform helps plan, prescribe, and execute trials before analyzing the data and turning it into something useful. And in honor of our theme 'Change in Agriculture', Christian shared what he is most excited for in the future – plant to plant management with a company called InnerPlant. You'll have to reach out to him at HansenChristian@JohnDeere.com to learn more.

Thank you to all our customers, vendors, and partners that joined us in Regina. We are looking forward to the upcoming season and seeing you at the next Crop Intelligence Summit!

Have questions? Reach out to your Crop Intelligence partner for more information or email us at info@cropintel.ca.

