



Conférence

Agriculture de précision – attentes versus réalités

Questions non répondues et réponses

- **How do you see the use of Drone in precision agriculture in Quebec near future?**

Drones provide an effective aerial tool to collect remote sensing data with ultra-high resolution under cloudy conditions in a timely manner. The cost of operational logistics is a major limiting factor. Application of chemicals is another area of Drone usage. However, these types of operations have some safety regulation considerations that are under review.

- **How are you doing variable rate pesticides' applications in a field? I suppose there is a need for weed-mapping with a drone... Is it based on the density of weeds and species?**

Certainly, drones and/or other remote sensing platforms have been used to map weed coverage to prescribe herbicide application maps. In addition, multiple real-time sensors have been used to adjust chemical application rates (or at least switch the sprayer on and off, as needed) have been used as well. The latter has been extremely successful in specific settings (e.g., spraying plant protection chemicals on perennial crops while avoiding spraying dead or missing plants, weed control along roads and railroads, changing rates of chemicals in accordance with crop biomass, etc.)

- **For N variable rate management, what are the best technologies (or approaches) available and used in Quebec?**

There are a variety of both predictive and reactive solutions. The latter has the limitation of relatively low use in high-clearance vehicles suitable for a side-dress UAN application in corn between V6 and V12. Perhaps, there are a couple dozen producers across the province doing that. However, everyone is geared up for the predictive approach and can work on site-specified NUE field optimization per field as well as within a field (if a VRT controller is available on a spreader). Prescription maps can be built using a variety of layers ranging from historical yield to soil organic matter and topography.

- **What is the expected rate of adoption by growers related to proposed technologies and how do you suggest to maximize the integration?**

100% over time. A systems approach is important. Precision agriculture should be considered together with soil conservation, new cropping systems, new machinery, new products, etc. Common sense increases profitability, reduces environmental risks and improves ergonomics. Need to look for out-of-the-box solutions to assure farm production is sustainable with decent strategic planning in place.