

# Driving Decisions Newsletter

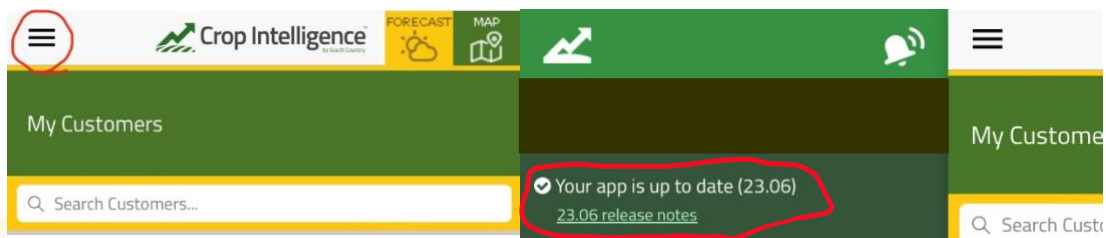
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[app.Cropintel.ca](https://app.cropintel.ca)

## \*APP UPDATE AVAILABLE\*

Crop Intelligence Version 23.05 is available on Google Play and the Apple App store. This update is required to utilize new Crop Intelligence Features, including Alerts. Version 23.06 will be available May 2 and includes all the new agronomy tools for 2023. You can check if your app is up to date by clicking the Menu List in the top left corner.



## \*Reminder\* 2022 On-Boarding and Feature Focus Videos

Drills and probes are headed to the fields! If you have not already, please onboard your field information to ensure your probes are installed in a timely manner. Below are also the links to all the recent Feature Focus videos. These videos review some of the new features available from Crop Intelligence.

Onboarding Wireless Stations <https://youtu.be/eKhNqOV2KV8>

Onboarding Wired Stations <https://youtu.be/3EVqwl4xpAw>

Soil Moisture Recharge <https://youtu.be/oUVF9rUgJoc>

Reports on the Website [https://youtu.be/1\\_KNK5nl11E](https://youtu.be/1_KNK5nl11E)

Reports on the App [https://youtu.be/lvWK8qJg\\_EA](https://youtu.be/lvWK8qJg_EA)

Alerts with Push Notifications <https://www.youtube.com/watch?v=ep-hRHIXCek>

## Importance of Agronomic Data

Probe data is measured every hour. If multiplied by 6 sensors, 24 hours in a day, ~130 days in the field, and 4300 site year of data, we start to realize there is a lot to learn about soil moisture and plant health! When paired with agronomic data during onboarding and harvest data in the fall, Crop Intelligence provides more value-added insights. Below are a few key insights we learned from Crop Intelligence data in 2019:

1. Producers with higher yield goals had higher yields. This likely comes with no surprise as higher yield goals would have planned fertility and input applications to achieve these goals. What was surprising, is yield goals had the strongest correlation to higher yields harvested over individual nutrients (nitrogen, phosphorus, and potassium).

*"If you want something you have never had, you must be willing to do something you have never done." – Thomas Jefferson*

2. Higher application of immobile soil nutrients, phosphorus and potassium, were correlated with higher yields. We as an industry often default to more nitrogen for more yield, but often miss the needs of other nutrients in relation to nitrogen.

*For example: 1 bu of canola needs approximately 3 lbs of nitrogen, 1.3 lbs of phosphorus, 2.1 lbs of potassium, and 0.62 lbs of sulphur. Nitrogen and sulphur are soil mobile nutrients that are relatively easy to manage in-season, but management of immobile nutrients needs more thoughtful planning.*

3. In 2019, we had room to improve wheat and barley yields by 25% and canola by 30%. In 2022, the gap in wheat shrunk to 12%, barley improved slightly to 22%, and canola was 22%. The average yield goal for canola was 50-55 bu/ac regardless of location, variety, or herbicide system in 2019 and 2022. Is 50 the status quo? What small changes could improve the gap between harvest yield and water driven yield potential of all crops?
4. At the inaugural Crop Intelligence Summit, Sean Taylor from MNP said "Four additional bushels of canola means 80% more profit." When the Water Driven Yield Potential shows greater than +15 bu, the most common response is something is wrong with the probe, but the reality is there are years where the opportunity is greater than what was planned for. Capturing an additional 15 bushels can be daunting, but 4 bushels could be as simple as a properly timed fungicide application. While there are many things to consider in order to achieve another 4 or 15 bushels, it was clear in 2019 that it started with what's in our heads!

## Next Year Potentials and Setting *Smarter* Yield Goals

If setting more aggressive yield goals means higher yields could be attained, then the Next Year's Potentials tool is a great way to determine a new smart yield target based on your chance of moisture.

#### Steps to Identify Smarter Yield Goals in 2023 Potentials

- Pick your crop type and productivity level.
- Set the expected winter precipitation so that the crop available water plus winter precipitation equals your average starting crop available water.
- Once calculated, find your normal yield target, and evaluate it against the average in-season precipitation.
  - o If your normal yield goal is on the lower end of the in-season moisture percentages, odds are you have ample room to bump up your yield goal based on moisture.
  - o If your normal yield goal is at the higher end of the in-season moisture, your ability to improve yields may have to come from improved nutrient efficiencies and input planning around the yield goal.
- In its simplest form, move your yield goal up by 5 bushels and start planning for those extra bushels. And if your yield potential is 'unbelievable' then maybe there is a place for some additional long term strategy planning to eventually hit that home run.

5.2"  
(131.9mm)  
CROP AVAILABLE WATER

4.1"  
(103.5mm)  
30YR AVG PRECIP (NOV 1 - APR 30)

8.7"  
(220.4mm)  
30YR AVG PRECIP (MAY 1 - AUG 15)

### Calculate Potential

Select Crop ?  
Canola

Field Productivity Level ?  
Medium

Expected Winter Precip ?  
100%

Calculate My Potential

### My 2023 Potential

22 Canola SCE Furrow -- JD Check

ASSUMPTIONS:

Crop: Canola

Field Productivity: Medium

Expected Winter Precip: 100%

AVERAGE IN-SEASON PRECIP	YIELD POTENTIAL
50% ☹	40 - 46 bu/ac
75% ☹	51 - 59 bu/ac
100% ☹	57 - 65 bu/ac
125% ☹	60 - 70 bu/ac

Have questions? Reach out to your Crop Intelligence partner for more information or email us at [info@cropintel.ca](mailto:info@cropintel.ca).