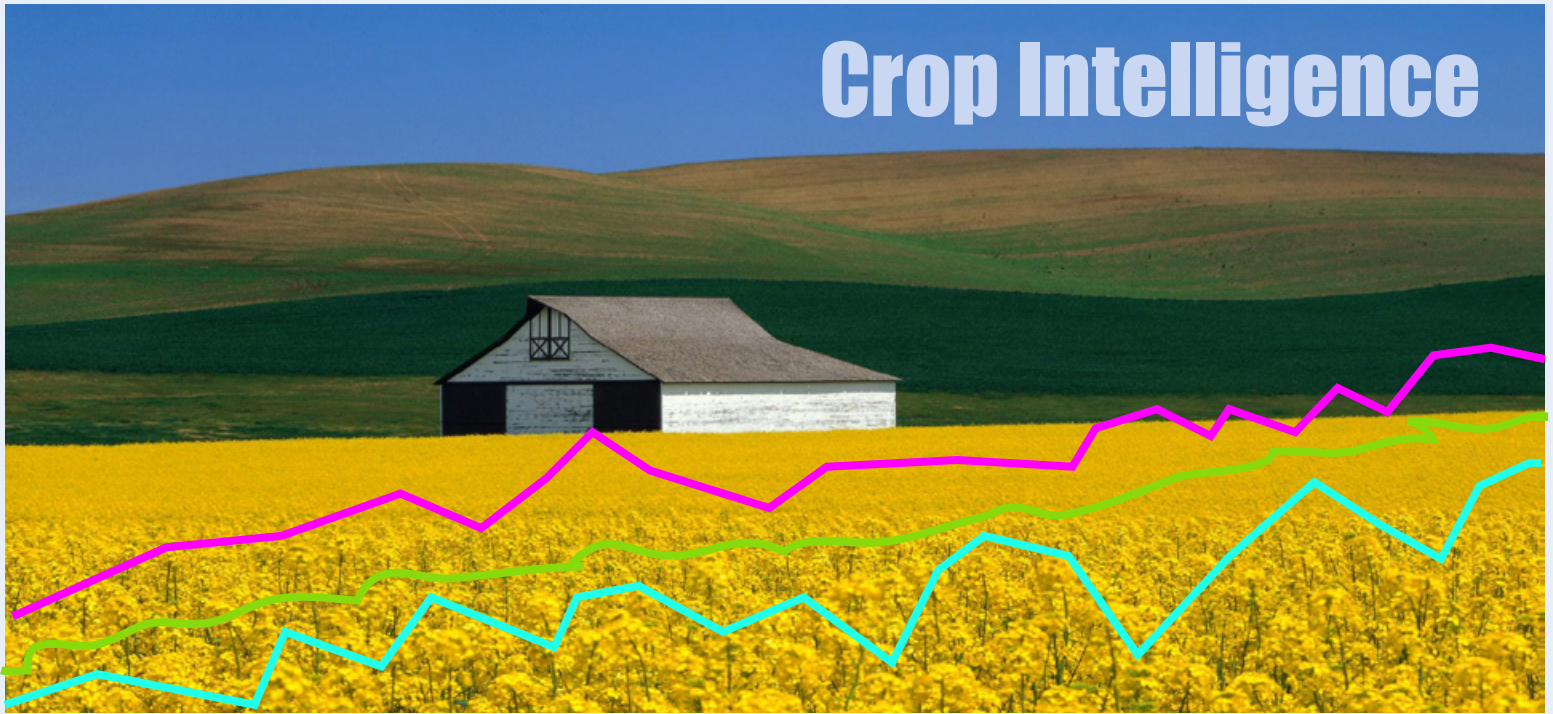


# Crop Intelligence



## BATTLE RIVER IMPLEMENTS

# AGRONOMY UPDATE

## JULY 2018



A prevailing topic of interest in just about any coffee shop I have been in over the last 30 plus years is trying to project crop yields. Every summer, as the crops mature, it becomes an endless source of speculation as producers look at their fields and try to guess how

that will translate into what goes into the bin.

Many management decisions and expenditures are made based on the idea that “it looks like a 50 bushel crop”, or “I’ve got so much money into this crop, I better not cut corners now”. There are ways to calculated yield once the pods or the heads fill, but by then all the agronomic decisions have largely been made. Earlier and accurate yield assessments would be invaluable in making in season management decisions. Well some people at South Country Equipment, in conjunction with Elson Solberg, have come up with a way to put some solid science behind the “art” of estimating

*...solid science behind the “art” of estimating yields*

yields, and they are doing it using an approach called “water driven yield potential”. The idea is to accurately measure soil moisture in the rooting zone of the crop and model it with expected rainfall during the growing season to give a dynamic view of the crop’s yield potential throughout the season. As Dr. Les Henry is fond of saying; “water in the ground is money in the bank” and this system uses that concept in its modeling.



I found this approach to be very intriguing. We do soil testing, apply the appropriate amounts of fertilizer, adjust seeding rates, seeding depth and do all the other things we can agronomically to maximize our potential for a good crop, and in the end what makes the ultimate difference between a good and a bad year? More often than not water makes that difference; or the lack of it does. In many years, precipitation ends up being our yield limiting factor, yet we pay almost no



John Deere Field Connect weather station

attention to that “money in the bank” beneath our feet when we are making our management decisions.

The Crop Intelligence system is a management tool that addresses that oversight by measuring soil available moisture and in season precipitation using the John Deere Field Connect weather station. The information from the weather station is transmitted every 2 hours throughout the growing season to the Crop Intelligence app. This app takes the soil moisture data, adjusts it based on soil texture and the water extraction characteristics of the crop being grown to give continuous yield estimates throughout the year. I can think of several advantages having an accurate idea on water driven yield potential. In a year with good yield potential, you have the ability to adjust fertility in-crop to match your expected yield. And in any kind of year, knowing the yield helps you make decisions on fungicides or micronutrients you may want to try. There are also benefits to having an accurate handle on your yields prior to harvest when it comes to marketing grain. It allows you to take advantage of the “weather markets” that often happen during the growing season, and gives you a better idea on how much forward pricing you are comfortable doing.

Currently, Battle River Implements is involved in a pilot project that includes 8 fields using Crop Intelligence, including our training field south of Killam. While we will know a lot more about the final accuracy of the system once the combines roll, I can definitely say that Crop Intelligence has already been invaluable in helping me decide on whether or not to go ahead with several in-crop treatments I was considering evaluating. As you can see by the screenshot of our field below, we have little chance of attaining our target yield this year and we have known it for quite some time. So why apply a bio-stimulant or a micronutrient to a crop that has water as the production limiting factor? On the marketing end of things, if I was considering forward pricing any production, now at least I have a solid number to work with. So, for example, if I was a producer that is only comfortable forward pricing 20% of my production, I'd still sleep well at night pricing out 8 bushels per acre, even though we are at less than 50% of our usual rainfall.

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Right now we are in the evaluation phase of the program. Once we have completed harvest we will be reviewing the year with our staff and cooperators. If all goes as we hope, this program will be expanded for the 2019 growing season. So if you are interested in participating, or just would like to learn a little more about what we are up to, be sure to give us a call. We'd be happy to help you with your questions!

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# Wayne Spurrill Zones

## BRI Training Field

18 Canola BRI Demo F

July 13, 2018

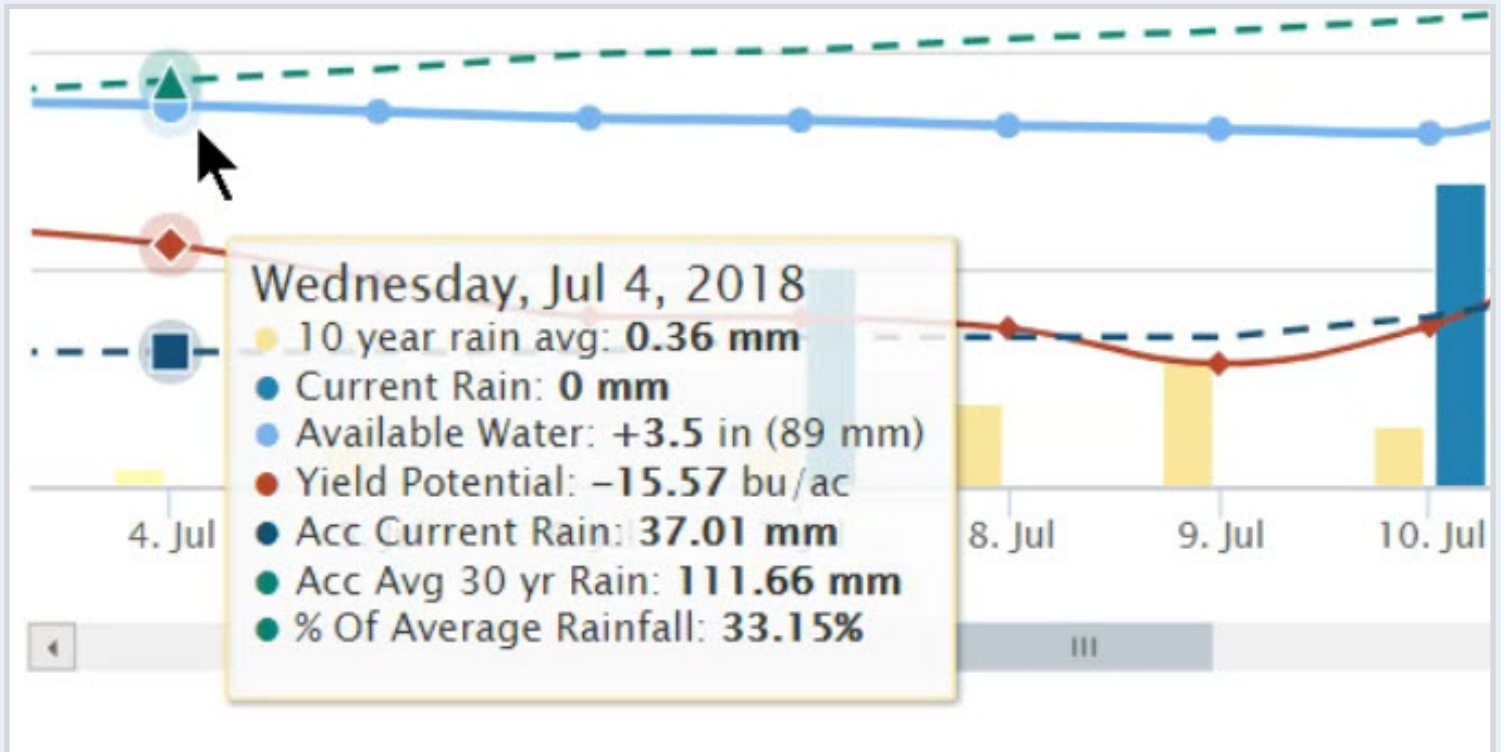
Seeding Date: May 11, 2018

Yield Goal: 55 bu/ac

24 Hour Rain: 0.0 mm

Last Zone Refresh: 40 minutes ago

Avail Water	Yield Potential	Acc 2018 Rain	30 Year Rain	% Avg Rainfall
89.3 mm	-16.8 bu/ac	56.8 mm	134.7 mm	42.2 %



The Crop Intelligence App

