

# SENSOTERRA

Grow more, waste less...

## CASE STUDY



## From farm to tap

How a Saskatchewan hop grower used smart data to increased yield, and ensure crop quality in the face of drought

Craft brewing is a fast growing market in Canada, and the demand for locally sourced ingredients a key driver in maintaining beer quality.

JGL Shepherd Farms - a pioneering hops grower in Western Canada, introduced Sensoterra soil moisture data after installing a **subsurface drip irrigation system**, in order to guide the irrigation schedule.

In the face of an **enduring summer drought**, they saw an **increase in crop yield of 3-4 times what was expected**. With plans to expand of the hops field in the 2019 season, Justin Shepherd intends to bring smart data to his fields.

*"Sensoterra probes helps growers identify soil moisture behavior at the root zone. You learn plant behavior to seasonal changes, daily moisture, and growth sequence"*



### CUSTOMER

JGL Shepherd Farms

### CROP TYPE

Hops, row crops

### CUSTOMER SINCE

May, 2018

### PROJECT

10 Sensor pilot for new irrigation system

### CONNECTIVITY PROVIDER

The Things Network

### HIGHLIGHTS

1.5 acre pilot plot

Subsurface drip irrigation

Plans for expansion to 300 acres hop fields

Optimized irrigation throughout extended drought

Yield increase of 3-4 times expectations

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For further details: [info@sensoterra.com](mailto:info@sensoterra.com) or find out more at [www.sensoterra.com](http://www.sensoterra.com)



## MORE HOP PER DROP

Corn, soy, canola, and wheat are the most common crops grown in Western Canada. So when Justin Shepherd decided to introduce hops to his farm as a response to local demand by craft breweries, he was taking a leap into the unknown.

*"To be a pioneer demands fast learning about the functionality of new things, with no previous references to guide you."*

He allocated 1.5 acres for a pilot field, growing five varieties of hops, and installed subsurface drip irrigation to prevent evaporation and run-off as well as maintain the longevity of the system.

### Growth in the face of drought

Over the 2018 summer, Canadian farmers suffered from an 8 week drought. In order to set irrigation schedules, Sensoterra probes helped Shepherd know exactly when and how much to irrigate.

*"We had a fantastic growth season"*

The post drought harvest, resulted in **yield that was 3-4 times more than expected**, and Shepherd attributes it to the data from Sensoterra sensors.

### Smart choice for IoT

With the rapid increase of IoT as a precision agriculture technique, Shepherd believes the expansion of LoRaWAN connectivity is essential for the future of Ag Tech.

*"I'm excited to see the future of IoT, LoRa and soil moisture probes. Their potential to work with high-tech efficiency will add great values for farmers who make use of it."*

*"Growers who adopt IoT technology like Sensoterra will be successful with their ability to learn and innovate."*

With this season's plans for expansion, JGL Shepherd Farm's hops are sure to be found across Saskatchewan craft breweries.



*"The probes pay for themselves within one season - and they return the value to your crop"*

Justin Shepherd  
JGL Shepherd Farms



### About JGL Shepherd Farms

JGL Shepherd Farms are the largest hop growers in Western Canada, and the go-to source for high quality hops in Saskatchewan. With 100% locally grown hops, JGL Shepherd Farms enables the best hops for a sustainable approach - farm to tap.

Sensoterra, world leader in wireless soil moisture sensor solutions, provides data-driven solutions for optimizing land and freshwater resources for agriculture, horticulture, landscaping and nature restoration. Empowering better decision making for land management through smart soil moisture measurements. Sensoterra was founded in 2014 and is based in Amsterdam, the Netherlands. Today there are over 5,000 Sensoterra sensors in the ground, globally.

Sensoterra | Science Park 106 | Matrix VII | 1098 XG | Amsterdam | The Netherlands

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