

# Agriculture 4.0

## Weather-based Precision Agriculture for Efficient Crop Protection

With a focus on precision agriculture, the internet of things (IoT) and the use of big data, the EOS-1000 & eSense-100 team aim to drive greater business efficiencies in the face of rising populations and climate change.

**EOS** WEATHER INSTRUMENTS



# Weather-based Precision Agriculture for Efficient Crop Protection

Climate change, microclimates and evolving weather patterns create more uncertainty for agriculture. EOS systems provide the ability to accurately measure high quality environmental data from a vast range of sensors.

The combination of our EOS-1000 and the eSense-100 will bring growers into the new age of Agriculture 4.0.

With Agriculture 4.0 a greater focus on precision agriculture, the internet of things (IoT) and the use of accurate current, forecast and historical data will provide greater business efficiencies in the face of climate change.

## EOS-1000 / eSense-100

The EOS-1000 is an advanced all-in-one weather station, which collects and remotely displays environmental data from multiple high precision sensors. It is also the base station for the eSense-100 remote station. The eSense-100 is a very small wireless weather station that can be installed up to 10km (depending on the terrain and obstructions) from the EOS-1000 base station. The eSense-100 will transmit high precision weather data from multiple sensors to the EOS Cloud up to once every 10 minutes. Because of the small footprint and modular setup of the EOS product line, it is now economical to get very localized high precision weather data from one or more sensors.

The eSense-100 can work in conjunction with the EOS-1000 or as a stand-alone sensor.

## Advantages of the EOS products in Agriculture

- Multiple hardware and software solutions tailor-made to the end-user requirements.
- High quality precision sensors with annual calibration services.
- Data available through real time data uploads.
- Historical data in local and cloud based databases.
- Email / "Pushover" alerting tools.
- Standard reporting to multiple internet services such as WeatherUnderground, PWS, and Metoffice UK.
- High definition camera – useful for pest monitoring.
- Numerous web based APIs to third party software.

## AVAILABLE SENSORS FOR THE EOS-1000

### STANDARD SENSORS

- Temperature
- Absolute pressure
- Humidity
- Wind speed / direction
- Rain
- Solar

### CALCULATED DATA

- Dewpoint
- Relative pressure
- Avr. wind speed / max. gust
- Wind run
- Rain rate
- % cloud cover

### OPTIONAL SENSORS

- UV
- Soil moisture
- Soil temperature
- Leaf moisture
- Snow height
- Water levels
- Lightning

## AVAILABLE SENSORS FOR THE ESENSE-100

### STANDARD SENSORS

- Rain
- Temperature
- Leaf moisture
- Humidity
- Soil temperature & moisture

### WIRELESS CONFIGURATIONS

- WiFi – 0 to 250 meters
- LoRa – 0 to 10km

