EnviroMonitor®

Gateways

Nodes

Sensors

Mobilize

Measure, Monitor, and Manage

Easy to install, affordable, and third-party sensor compatible. Track site-specific weather and use the easily expandable EnviroMonitor system to build a custom network of sensors to help make critical crop decisions.

KRITECH & Co sprl
Meteorology - Hydrology - Air & Gasflow

EnviroMonitor: **Make critical decisions from anywhere at anytime**

EnviroMonitor is a simple and cost-effective way to get critical field data continuously transmitted from the field to your mobile devices or computer. Get the timely and meaningful information you need to manage your crops, reduce risks, and save money.

EnviroMonitor Gateways

EnviroMonitor Gateways collect all essential data from the Nodes and push it securely to the WeatherLink Cloud via either cellular connectivity, Wi-Fi, or Ethernet. The data can then be accessed on your phone, tablet, and computer. Mounting hardware is included. Requires an Annual Service Plan and a one-time activation fee. (See Annual Service Plans on page 29 for details.)

EnviroMonitor Gateway
Cellular+Mesh Network

Solar-powered Gateway uploads using cellular connectivity. Includes a 5-watt solar panel and a rechargeable 6-volt backup battery encased in a weather-resistant housing. Works with EnviroMonitor Nodes and any cabled sensor suite.

6802A EnviroMonitor Cellular Gateway (USA)
6803 EnviroMonitor Cellular Gateway (Global)

New EnviroMonitor IP Gateway
Wi-Fi/Ethernet+Mesh Network

The IP Gateway uploads via Wi-Fi or Ethernet. AC-powered with 4 AA batteries (not included) for backup. Includes AC adapter and optional Ethernet cable. Mount indoors or outdoors with a Universal Shelter (6618). (See page 34.) Works with EnviroMonitor Nodes and any wireless or cabled sensor suite.

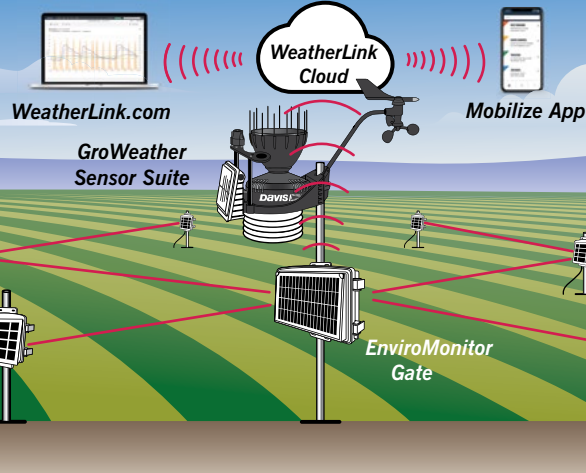**6805 EnviroMonitor IP Gateway**

EnviroMonitor Nodes

Nodes connect over a self-optimizing mesh network and transmit critical sensor data to the EnviroMonitor Gateway. Nodes communicate with each other, allowing complete network flexibility around barriers and across distances. Each EnviroMonitor network can host up to 32 Nodes. The solar-powered Node is self contained and weather resistant. Includes a 3-watt solar panel and mounting hardware.

Node Features

- Connect up to 4 sensors to each Node
- Communication range: Up to 10,000 ft. (3,000 m), Node-to-Node and Node-to-Gateway with 8 dBi Long-Range Antenna (7678).
  Note: *Range varies with terrain and environment. (See page 32.)*
- Configures easily with a smartphone
- Rechargeable lithium-ion battery (included) powers the unit at night
- 4 D-cell batteries (not included) provide backup
- Optional AC adapter (6714) (see page 35.)

6810 EnviroMonitor Node

Never miss a sensor reading. EnviroMonitor uses a secure, self-optimizing mesh network to make sure you always get your data.

WeatherLink.com

WeatherLink Cloud

Mobilize App

GroWeather Sensor Suite

EnviroMonitor Node

EnviroMonitor Gate

Easily Expandable: EnviroMonitor is compatible with hundreds of different Davis and third-party sensors

GroWeather 6820C

EnviroMonitor Gateway

Temperature & Humidity

Wind Speed & Direction

Rainfall & Rain Rate

UV

Solar Radiation

Barometric Pressure via Gateway

Calculations include:

Dew Point

Wind Chill & Heat Index

Evapotranspiration

Wet Bulb

It all starts with the weather

Connect a Davis Sensor Suite to the Gateway to get all the benefits of complete weather monitoring. These rugged, low-maintenance sensor suites are available with Solar and/or UV Sensors and a variety of radiation shield options. The IP Gateway can pair with any sensor suite, while the cellular Gateway works with any cabled sensor suite.

See pages 10-11 for sensor suite details.

Expand effortlessly with Davis and third-party sensors

Each Node can support up to four sensors from Davis and other leading sensor manufacturers. EnviroMonitor is an open-sensor platform that is compatible with hundreds of industry-leading sensors from the manufacturers you know and trust.

See pages 33-35 for Davis sensors.

Soil Moisture

Soil Temperature

Soil Salinity

Water Level

Leaf Wetness

Weight

Pressure Sensor

Pressure Switch

Flow Meter

Solar Radiation

PAR (PPFD)

EnviroMonitor Node

Temperature & Humidity

Temperature

Wind Speed & Direction

Rainfall

Carbon Dioxide

Compatibility

EnviroMonitor is compatible with SDI-12, analog voltage (i.e. 0-3V; 0-5V; 0-12V), contact closure, pulse, and I2C sensors. We are constantly integrating new sensors to expand the capabilities of the EnviroMonitor platform and software.

Please contact us if you would like a sensor added.

Supported Sensors: www.davisinstruments.com/em-sensors

McCROMETER · Seametrics · SIERRA · Dwyer · apogee INSTRUMENTS

Spectrum Technologies, Inc. · Gems · NASON · PROense · TRANSDUCERS direct

OMEGA · SSI Technologies, LLC · Acclima · AquaCheck

CAMPBELL SCIENTIFIC · GIROUETTE ANEMOMETRE A ULTRASONS LCJ CAPTEURS · TriBus · METER ENVIRONMENT · Sentek technologies

IISTi · IRROMETER · AtlasScientific · SNC · AT Delta-T Devices

Easy to Install

Install and manage your entire EnviroMonitor sensor network with Davis Instruments' EnviroMonitor iOS and Android app. **Download for FREE!**

See page 27 for more information on the EnviroMonitor app.

Measure, Monitor, and Manage

Track all of the data from your EnviroMonitor sensor network with Davis Instruments' Mobilize iOS and Android app. **Download for FREE!**

See pages 26-27 for more information on the Mobilize app.

Use Case: **Getting to the root of the issue**

Located in California's beautiful Livermore Valley, this historic boutique winery was built in 1889 and is still producing award-winning wines.

To help use resources wisely and reduce the damage brought on by environmental conditions, they installed an EnviroMonitor system and have been acting on the data since 2018.

The system includes:

- 1 EnviroMonitor Gateway (6802A)
- 1 GroWeather Sensor Suite (6820C)
- 4 EnviroMonitor Nodes (6810)
- 3 Watermark™ Soil Moisture Sensors (6440)
- 1 Leaf Wetness Sensor (6420)
- 1 Temperature/Humidity Sensor (6830)
- 2 Sentek™ Soil Moisture Probes
- 4 Gems™ Pressure Switches
- 1 Decagon/Meter™ Soil Moisture Sensor
- 1 Aquacheck™ Soil Moisture Probe

Water is a precious resource in California. With pressure switches and soil moisture sensors, the grower knows when the irrigation system is on and runs it only long enough to penetrate the vines' roots. The Leaf Wetness and Temperature/Humidity Sensors give the team insights on conditions where the grapes are growing. With forecasted data in hand, they can take actions to reduce damage caused by frost, freezing conditions, and heat while tracking chill portions, growing degree days, ET, and much more.

With this installation, the team has the data they want and the ability to add additional Nodes and sensors when they're ready.

The Fenestra Winery installation has been made publicly available for viewing on WeatherLink.com. Search for "Fenestra Winery" and click "bulletin" to view a selection of weather sensors.

Temperature/Humidity Sensor (6830)
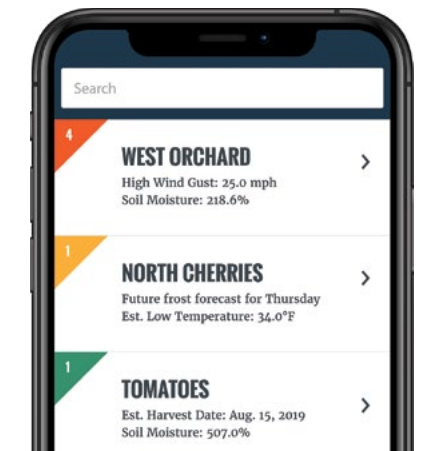

Leaf Wetness Sensor (6420)

Gems Pressure Switch

EnviroMonitor Gateway

GroWeather Sensor Suite 6820C

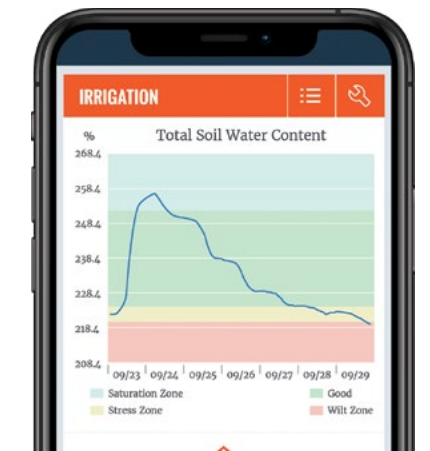# Mobilize: **Critical field data delivered to your mobile phone**

Mobilize is an agriculture-focused, decision-making app with some of the latest advancements in agronomy. You can easily create custom views of your farm, receive alerts, and browse sensor data to track specific report conditions related to weather, frost, irrigation, growth cycle, pest management, and more.

Mobilize Home
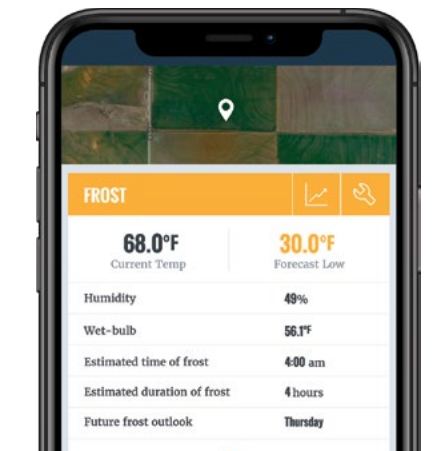
See custom views of your fields or crops.

- Color-coded flags alert you immediately to conditions that require your attention.
- Click through for more information on each view.

Irrigation Management

Track soil moisture levels to know when, where, and how much to irrigate.

- Custom soil moisture thresholds
- Irrigation alerts
- Evapotranspiration (ET) data
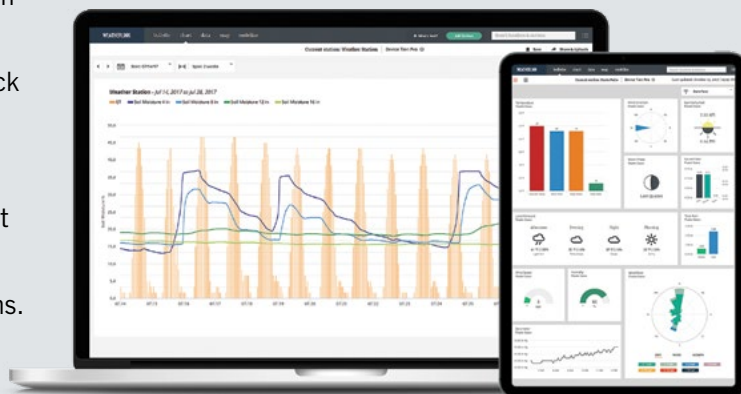- Past and forecast rain totals

Frost Tracking

Precise forecasting allows you to stay ahead of critical conditions.

- Forecast frost conditions
- View real-time temperature threshold alerts
- Wet-bulb temperature and humidity tracking

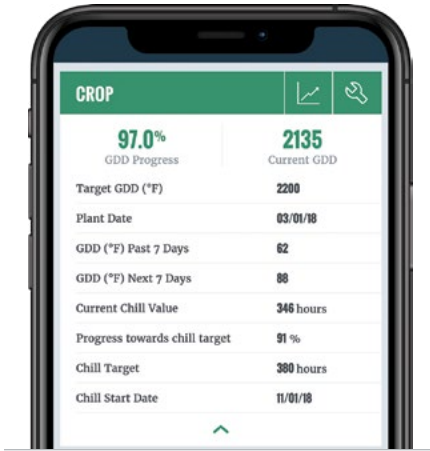# WeatherLink.com: **Your field data, your way**

WeatherLink.com is the web-based portal for accessing all of your EnviroMonitor data. The website displays reports created in Mobilize and provides more ways to utilize your sensor data.

- Build a custom bulletin dashboard of visual data tiles to track key current conditions.
- Visualize any combination of field data in the chart section.
- Analyze all of your system data in the data section, or export the data into spreadsheet-compatible formats.
- Set custom alerts for specific sensors or calculated conditions.
- Generate and share a daily data summary with anyone on your team.
- Securely share field data with colleagues.

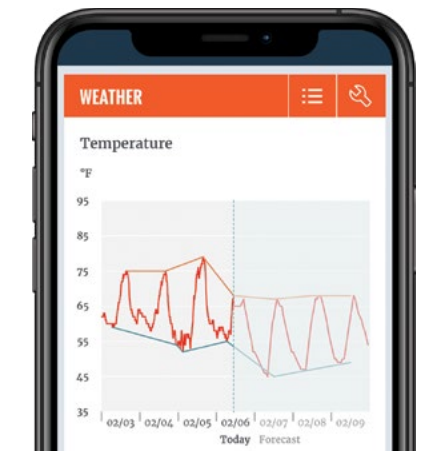# Forecasting Solutions: **Make decisions before problems occur**

Mobilize integrates forecasts into reports to help predict growing degree days for harvest, forecast frost conditions before they occur, and estimate future rain to help save water. Decisions are easier when you know what is coming.

Crop Management

Track key growing degree day (GDD) and chill requirements against custom targets by crop type.
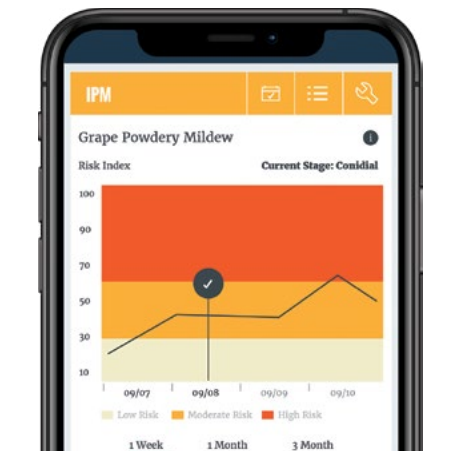
- Chill and growing degree day progress tracking
- Integrated forecasts for planning

Weather Monitoring

Improve daily decisions with real-time field conditions that help you plan with confidence.

- Spray effectively with location-specific wind data
- Document extreme temperature conditions
- Collect in-field rain data

Integrated Pest Management

Monitor pest/disease models specific to a long list of crops.

- Track Pest Risk Index
- Update IPM models with remediation actions
- Track past, current, and future pest stages

Temperature, humidity and leaf wetness sensors and Pro+ WeatherLink upgrade required.

EnviroMonitor: **Effortless configuration**

The EnviroMonitor configuration app is used to easily install, monitor, and interact with your EnviroMonitor hardware and sensor systems.

- Securely connect to Gateways and Nodes with your phone via Bluetooth.

- Easily install and modify sensor configurations on Gateways and Nodes.

- Quickly determine mesh network and Gateway connection strength.

- Remotely identify and troubleshoot any sensor issues.

- Share system access with team members to allow the ability to modify or view specific systems.