CropVue™

Automated In-canopy Weather

For Microclimate Monitoring

- For orchards, vineyards, and row crops
- Just hang and power up
- Connects to local cellular service
- Measures temperature and relative humidity every 15 minutes
- Transmits weather data to CropVue™ cloud for accurate degree day modeling
- Supports frost detection and sensors for leaf wetness and full weather

The CropVue™ In-canopy weather sensor detects accurate, local weather data, monitors frost, and supports 3rd party hardware for leaf wetness (disease monitoring) and full weather (wind, rainfall, solar radiation). Based on an all-in-one design, CropVue™ combines an integrated solar panel, built-in GPS for auto-location on a map, and built-in cellular connectivity to upload data to the cloud powering accurate degree day modeling.

Micro-Climate Weather

Weather data can vary significantly with geography and distance. CropVue™ In-canopy weather sensors are placed locally, in the crop, to deliver the best accuracy for measuring frost and temperature inputs to drive degree day models.

Degree Day Modeling

Degree day data is calculated from measuring low and high temperatures every 15 minutes. Degree day models use this data to predict pest egg hatch, leaf diseases, and crop maturation.

3rd Party Sensor Support

The CropVue™ In-canopy sensor supports leaf wetness sensing by directly plugging in a Phytos-31 sensor. For full weather station reporting, special in-canopy sensor models are available.
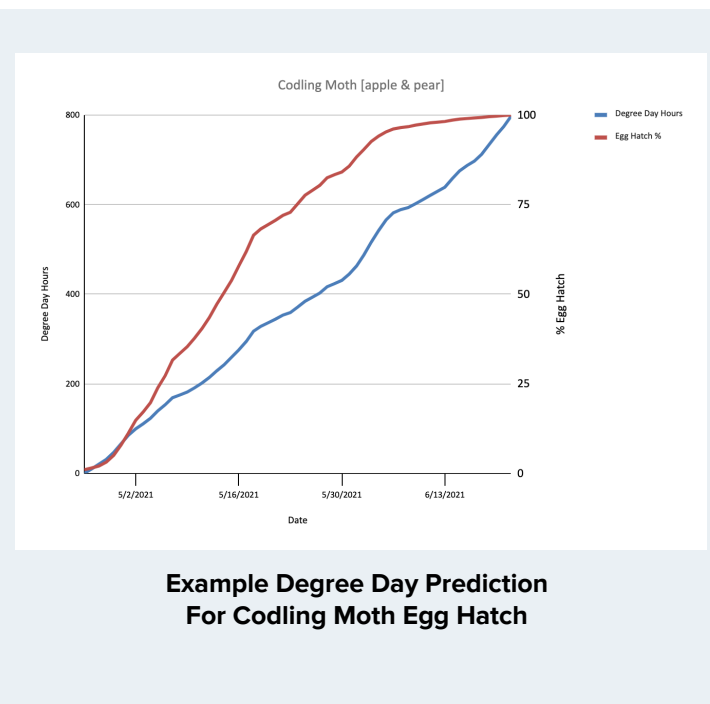
Example Degree Day Prediction For Codling Moth Egg Hatch

Specifications

Dimensions	192.6mm x 92.5mm x 44.8mm
Temperature and Relative Humidity	Temp: +/- 0.5℃ accuracy Rel. Hum.: +/- 2% accuracy Measured every 15 minutes
Power source	Single lithium ion battery w/ solar panel recharging, expected life: 3-5 years, requires sunlight exposure
Power on	Single push in switch to power on w/ built-in LED indicator that flashes 10 seconds after power on to report battery level. Flashes indicate battery charge level (no flashes=dead, 5 flashes=full charge).
Cellular service	Check field for cellular service before using. CropVue™ sensors require LTE-M, NBIoT, or GSM/2G service. In many cases, LTE service may also work.
GPS	Built-in GPS will automatically determine trap location for mapping in the CropVue™ web application. Device must be placed outdoors for reception.
Mounting	Not supplied. Plastic coated hanger wire can be used to attach the trap suitable for orchards (hanger/hook) or row crops (post).
Built-in Leaf Wetness Sensor	Phytos-31 (www.metergroup.com) purchased separately

Special in-canopy model orders required for the following configurations:

Full weather station	Supports Davis 6322c (www.davisinstruments.com) purchased separately
Sample Data From Full Weather Station	

Forecast Weather

✿ DATE	✿ LOW(°F)	✿ HIGH(°F)	✿ HUMIDITY(%)	✿ BAR PRESSURE(IN)	✿ WIND(MPH)	✿ WINDDIR	✿ RAINFALL(%)	✿ CLOUD COVER(%)
02/07/2022 13:00:00	47.1	71.4	33.5	102.5	1.4	NE	0	0
02/08/2022 13:00:00	50.5	76.2	30	101.9	1.5	NE	0	2
02/09/2022 13:00:00	50.9	76.9	26	101.8	1.6	NE	0	0
02/10/2022 13:00:00	52.3	77.4	27	101.7	1.3	NE	0	0
02/11/2022 13:00:00	52.9	77.9	35	101.9	1.4	NE	0	0
02/12/2022 13:00:00	54.6	79.1	24	102.3	1.2	ENE	0	0
02/13/2022 13:00:00	49.8	71.2	37	102	1.5	W	0	36
02/14/2022 13:00:00	45.3	57.6	46	101.2	3.6	WSW	27	36
02/15/2022 13:00:00	42.9	58.4	47	101.5	2.7	E	75	25
02/16/2022 13:00:00	40.1	61.6	42	101.8	1.6	W	0	0
02/17/2022 13:00:00	41.3	59.2	59	101	1.5	W	0	48
02/18/2022 13:00:00	41.9	64.4	34	101.9	1.3	WSW	0	0
02/19/2022 13:00:00	42.7	60.6	50	102.4	1.6	WSW	0	100
02/20/2022 13:00:00	42.1	66.3	41	102.2	1.4	W	0	0
02/21/2022 13:00:00	43.1	62.2	45	102	1.4	WSW	0	90