Wright Rain

Pivot-Master
Rain Maker

**Leaders in Soil
Moisture Data
Logging and
Plant Science**

Soil Moisture Products

OPTIMISE IRRIGATION

Irrigation, horticulture and agriculture

Research grade sensors and systems now available to growers

* Monitor soil moisture
* Improve yields and quality
* Demonstrate water-use efficiency

Take control of your watering needs with the latest generation of accurate, dependable soil moisture sensors. The sensors and systems are designed to integrate easily with existing time-based controllers and save water by preventing unnecessary irrigations when the soil or substrate is already moist.

WS-GP Weather Stations

- n Powerful, rugged weather stations
- n *WS-GP2 for advanced control applications (illustrated left)*
- n *WS-GP1 for compact, highly portable system*
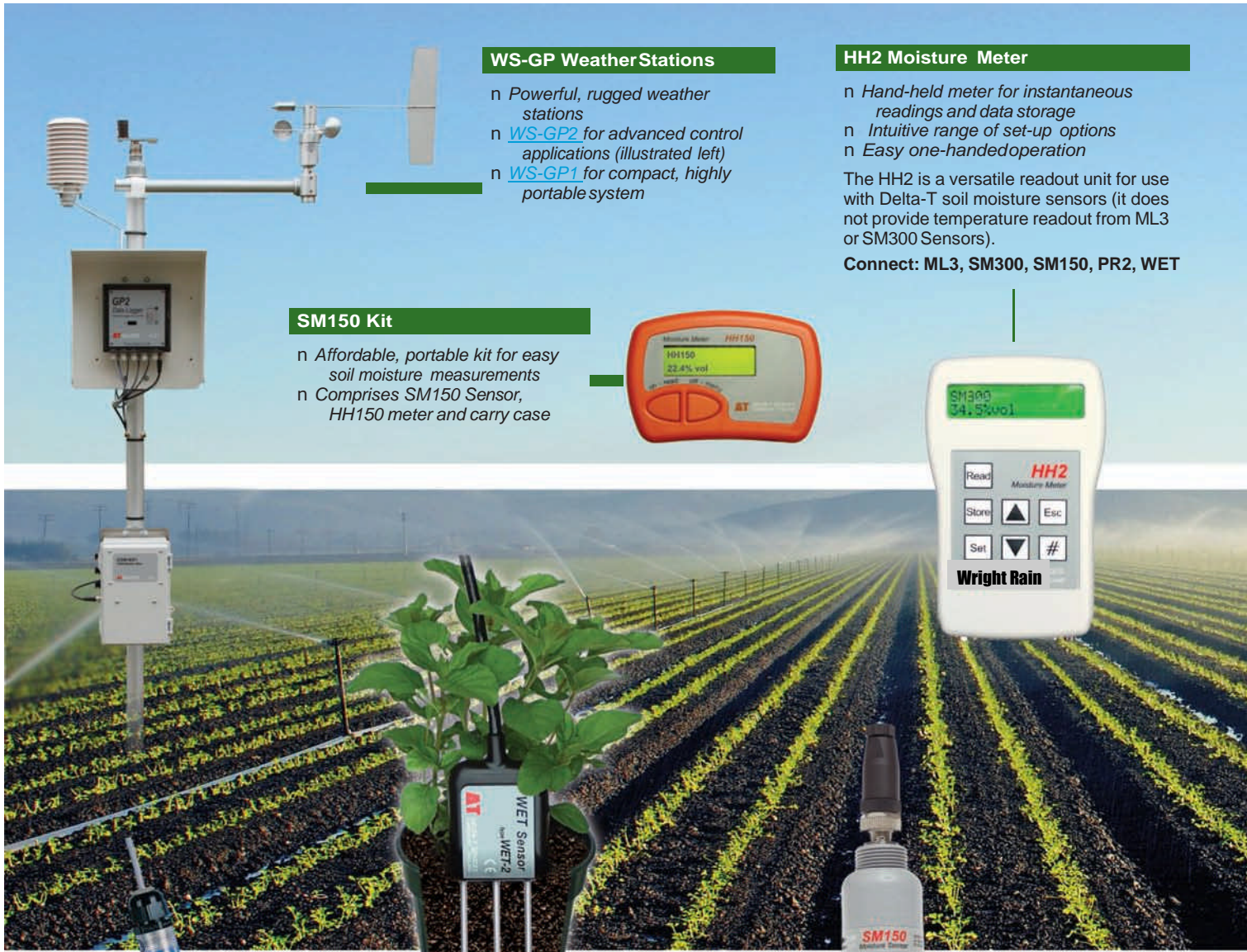
HH2 Moisture Meter

- n *Hand-held meter for instantaneous readings and data storage*
- n *Intuitive range of set-up options*
- n *Easy one-handed operation*

The HH2 is a versatile readout unit for use with Delta-T soil moisture sensors (it does not provide temperature readout from ML3 or SM300 Sensors).

Connect: ML3, SM300, SM150, PR2, WET

SM150 Kit

- n *Affordable, portable kit for easy soil moisture measurements*
- n *Comprises SM150 Sensor, HH150 meter and carry case*

WET Sensor

- n *Measures Water content, Electrical conductivity and Temperature*
- n *Rapid monitoring for consistent growing conditions*

In just 5 seconds *the WET Sensor* checks 3 crucial variables that influence plant growth.

Connect: HH2, GP2, GP1

SM150

- n *Cost effective soil moisture sensor*
- n *±3% accuracy*
- n *Good temperature and salinity stability*

The SM150 Soil Moisture Sensor is a simple, reliable, low cost option. Also available in a convenient kit with a dedicated HH150 Moisture Meter and carry case.

Connect: SM150 Kit, GP1, GP2, DL6, HH2

SWT4, SWT5

- n *A range of accurate, high quality water-filled tensiometers*

Connect: GP2, GP1 (requires adapter board)

Moisture sensors and controllers

GP1 Irrigation Monitor

n *Low cost data logger with monitoring and control options*
n *2 analog channels, plus temperature and counter inputs*

The GP1 is a compact, sealed data logger and moisture control unit. It can be used to enhance time-based irrigation systems to include moisture control.

Connect: ML3, SM300, SM150, WET

GP2 Advanced Logger & Controller

n *Powerful and rugged field data logger*
n *12 differential channels*
n *Up to 6 control relay outputs*
n *Simple connection to Profile Probes*

The GP2 is an advanced 12 channel data logger that is easy to use, versatile and rugged. Ideal for demanding research and monitoring projects / irrigation control / advanced control applications.

Connect: ML3, SM300, SM150, WET, PR2

DL6 Data Logger

n *Powerful data logger with monitoring and control options*
n *Simple connection to Profile Probes*
n *6 analog channels, plus temperature and counter inputs*

The DL6 is optimised for use with Profile Probes, but its versatility enables it to store readings from other moisture sensors, a rain gauge and/or temperature input.

Connect: ML3, SM300, SM150, PR2

ML3 ThetaProbe (New Model)

n *Outstandingly accurate soil moisture sensor*
n *Built-in temperature sensor*

The ThetaProbe is respected worldwide for its accuracy, reliability and ease of use. It is exceptionally tough and can be used in all soil types and substrates, including sand, clay, peat and saline soils.

Connect: HH2, GP1, DL6, GP2

SM300

n *High quality soil moisture sensor at low cost*
n *Built-in temperature sensor*
n *Simple insertion into pots, substrates and soils*

The SM300 is an ideal sensor for irrigation control and monitoring.

Connect: HH2, GP1, DL6, GP2

PR2 Profile Probe

n *Portable, simple and accurate soil moisture profiles*
n *Dual purpose – installed and portable*
n *PR2/4 – 4 readings, down to 0.4m*
n *PR2/6 – 6 readings, down to 1m*

With *the Profile Probe* you can easily record soil moisture changes over time, then create a water balance or optimise irrigation scheduling. Readings are taken in robust GRP access tubes.

Connect: HH2, DL6, GP2

ML3, SM300 and SM150 Installation

The ML3, SM300 and SM150 sensors can be buried at depth by augering or trenching.
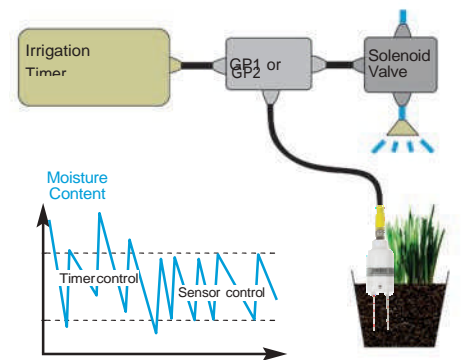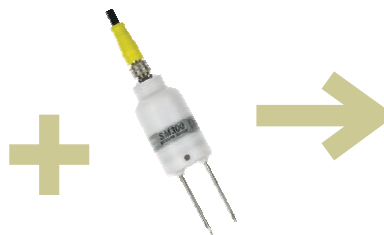
ater Management

Water content sensors

	ML3	SM150	SM300	WET Sensor	PR2
Measurement	Soil water content, Temperature [2]	Soil water content	Soil water content, Temperature [2]	Soil water content, EC, Temperature	Soil water profile (4 or 6 depths)
Accuracy [1]	±1%	± 3%	± 2.5%	± 3%	± 4%
Moisture range	0 to 50%	0 to 70%	0 to 50%	0 to 100%	0 to 40%
Temperature range	±0.5°C, 0 to +40°C [3] ±0.75°C, -20 to +60°C [3]	–	±0.5°C, 0 to +40°C [3] ±0.75°C, -20 to +60°C [3]	0 to 50°C	–
Frequency	100 MHz	100 MHz	100 MHz	20 MHz	100 MHz
Typical applications	Soil moisture research	Cost effective moisture monitoring and irrigation control	Soil moisture, temperature monitoring and irrigation control	Monitoring soil moisture and EC for protected crops	Monitoring soil moisture profiles for field crops

1) % volumetric water content 2) ML3 and SM300 must be fully buried to accurately measure soil temperature   3) Excluding logger or cabling error

Data loggers and meters

	HH150 Meter	HH2 Meter	GP2	GP1	DL6
Input connections	1 water content sensor	1 water content sensor (HH2 does not provide temperature indication from the SM300 or ML3)	12 differential analog inputs 4 digital inputs 1 WET Sensor channel 2 Profile Probe channels (option)	2 analog channels 1 temperature 2 counters	6 analog channels 1 temperature 1 counter
Readings stored	Readout-only device	1,500	2.5 million (approx)	600,000	16,000
Recording rate	–	–	1 second to 24 hours	1 second to 24 hours	1 second to 24 hours
Control options	–	–	2 relay ouputs – expandable to 6	1 relay output	1 relay output
Typical applications	Readout-only device for SM150 Sensor (no PC connectivity)	Instantaneous reading of soil moisture / profiles / WET sensor	Demanding research and monitoring projects / irrigation control/advanced control applications.	Monitoring soil moisture and controlling irrigation	Monitoring soil moisture profiles and controlling irrigation

Demanding research and monitoring projects / irrigation control / advanced control   applications

Irrigation control

The GP1 & GP2 can be used to integrate soil moisture sensors into existing irrigation control systems.

Representative:

WET Kit:

For portable applications the WET Sensor is used with an HH2 Moisture Meter and is normally supplied as complete kit.