



Product Bulletin

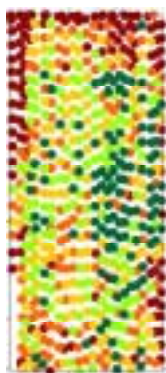
MOBILE SENSOR PLATFORM (MSP)

At last, on-the-go pH and soil EC sensing are here...



PRECISION LIME APPLICATIONS START WITH VERIS MSP MAPS

It's common knowledge that soil pH typically varies more than what a sample taken every 330' (2.5 acre grid) can capture. Researchers have documented it, consultants and precision suppliers know it, and growers realize it too, but it hasn't been feasible to sample densely enough to capture the true variability of soil pH—until now. The Veris Mobile Sensor Platform features the Soil pH Manager—an on-the-go automated pH sensing system that shows pH variability as it really is. The MSP produces between 5 and 10 pH samples per acre. That's up to 25 times as many points as a 2.5 acre grid map. Most importantly, that accuracy pays off in "pounds on the ground"—lime goes where it's truly needed, not where a too-coarse map guessed it should go.



VERIS MSP—CONFIGURE IT TO FIT YOUR FIELDS

The Veris MSP can be equipped with both the Veris EC Surveyor 3150 and the Soil pH Manager. Collect soil EC data for management zones and yield goals at the same time as you map soil pH. Or, get the MSP with just the EC Surveyor and add the pH Manager later. If you already own a Veris EC System, all you need is the MSP with the pH Manager module. The MSP can be configured as a 3-Point mounted model, or as a pull-type. The EC coulter-electrodes on the XA model can be adjusted to fit down a 30" row crop—extending your mapping window into the early growing season. Or, drop the outside coulter-electrode toolbar extensions and operate in narrow vineyards. The Veris Mobile Sensor Platform is designed to fit your fields.



HERE'S HOW THE pH MANAGER WORKS...



The Veris pH Manager is a simple, user-friendly farm implement—not an intricate mobile soil testing lab. Here's how it automatically collects and measures a soil sample every 10-12 seconds—without stopping and without any action from the operator. First, the row cleaner (1) clears away crop residue, while the firming wheel (2) presses loose soil for optimal soil flow into sampler. The sampler hydraulically lowers into the clean, firmed area and soil begins flowing through the sampling tube (3). The sampler is raised, bringing the soil sample core into contact with the ion-selective pH electrodes (4). After an 8-10 second stabilization period, the pH data is logged on the Veris instrument, and the unit starts another cycle. During each cycle, the electrodes are washed with tap water (5) stored in the 100 gallon tank. The furrow is covered with closing disks—minimizing soil disturbance (6).

In action...soil core flows through sampler, as soil from previous sample is washed off pH electrodes



MOBILE SENSOR PLATFORM (MSP)

SPECIFICATIONS AND STANDARD FEATURES

- Overall Dimensions: length 13' (3.96 m), width 7.5' (2.29 m), height 6' (1.82 m) Weight: 1400 lbs. (635 kg)
- Minimum horsepower requirement: 30 hp (note: requirements will vary based on speed, terrain and soil conditions)
- Electrical requirement: 10 to 15 volts DC; cigarette lighter and power cord included
- Hydraulic requirement: 6 GPM (38 lpm) open center
- Tire Size: P205 R75 highway tires
- 2" Ball coupler and safety chain -- maximum road speed: 55 mph (93 km)
- Maximum field speed: 15 mph (25 km)
- Capacity: 30 acres/hour @ 6 mph/50' transects (10 pH samples/acre)
- pH electrodes: ruggedized ion-selective combination pH
- Coulter electrodes: disk diameter: 17" (43 cm) disk thickness: 4mm; with tapered roller bearings and cast-iron hubs
- EC arrays: 0-18" and 0-36"
- Tank capacity 100 gallons (378 l)
- water usage approx. 1 gal/acre (9.33 l/ha)
- Pump pressure: 150 PSI
- Instrument microprocessor: 386 SX
- Instrument flash memory capacity: 26 hours of EC and pH data
- Data logging interval: once per second
- GPS compatibility: RS 232 port for input from GPS with NMEA-0183 protocol; input from GGA and VTG or RMC strings required
- Back-lit transfective display –sunlight readable
- Disk Drive: 3 ½" floppy --DOS format
- File Format: ASCII tab delimited
- Instrument Operating Temperature: 20 to 122°F (-4 to 50°C)
- Cabling: power cable to instrument, EC signal cable to implement, pH comm cable to implement, power cable for pH controller, pump and solenoid cables

For more information on Veris Soil EC products and technology, see Veris 4-page soil EC brochure



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