

## Portable Plant Scanner Measures Nutrients

ATP Nutrition's portable soil and feed source scanner has been upgraded, modified, and calibrated to scan nutrients in plant leaf tissue. The handheld NutriScan uses the same hardware as its counterparts, featuring a near-infrared light source and technology that makes spectral readings at variable wavelengths.

"We gather a representative selection of leaves from about 20 plants for the test," says ATP CEO and founder Jarrett Chambers. "It's best to sample a good area separately from a poorer spot in the field. The NutriScan completes 10 scans in about one minute. These are grouped for an average spectral reading which travels to the database."

The plant tissue scanner is calibrated for wheat, corn, soybeans and canola and measures nitrogen, phosphorus, potassium, sulfur, calcium, magnesium, boron, zinc, manganese and copper levels, plus seven connected nutrient ratios. ATP is working on adding potatoes to the scanner's capabilities in 2025.

NutriScan data is stored in the cloud for easy app access.

"It provides numerical numbers, highs and lows, plus a chart showing where it sits," Chambers says. "It identifies a deficiency and makes a practical recommendation outlining what will happen to the plant if it isn't addressed. We don't recommend how much or what product should be used."

Leaf tissue sampling proactively diagnoses nutritional issues in near real-time, providing valuable insights into soil management and fertility programs. Nutrient levels can be quickly addressed to enhance crop quality and yield.



**Leaf tissue sampling proactively diagnoses nutritional issues in near real-time, providing valuable insights into soil management and fertility programs.**

ATP Nutrition holds the exclusive North American licensing rights for the NutriScan and owns the tissue database. The gathered data is licensed to AgroCares, which creates the unit's algorithms.

The tissue scanner is available throughout North America. Current buyers include agricultural retailers, independent crop consultants, and large growers.

ATP's support team distributes the portable unit and handles the hands-on onboarding process, including demonstrations and test runs.

The NutriScan can be obtained similarly to a cellphone plan with an initial hardware cost and choices of 1 to 3-year subscriptions. Discounts and cost savings apply depending on subscription lengths and soil scanner inclusion.

Contact: FARM SHOW Followup, ATP Nutrition, 190 Agri Park Rd., Oak Bluff, Manitoba, Canada R4G 0A5 (ph 877-538-5511; info@atpag.com; www.atpag.com).

## Spray Companion Makes Filling Sprayers Safe And Easy

Setter Manufacturing developed a safe device for loading chemicals into crop sprayers on the farm.

The Spray Companion allows operators to load chemicals contact-free quickly and efficiently. The unit features a 42-gal. plastic tank with an upper knife blade to cut chemical jugs and a 13-hp. gas motor to power an M350 Banjo pump. Electric valves are programmed with 2 1/2-second closing speeds to eliminate hose jarring. Slots for forklift tines make moving the unit from the ground onto a trailer or truck deck simple.

Loading is done through a venturi capable of delivering over 200 liters/min (about 52.8 gals.) from a tank or chemical tote. Sprayer water filling can be completed at 550 gpm. when fed with a 4 in. line.

"It's computerized with a programmable monitor and electric valves," says Setter owner Greg Setter. "If you're loading chemicals from a tote and want to top up the water, the monitor will turn the right valves on and off and continue loading any other product in succession."

Setter says a 1,600 gal. sprayer can be loaded in under 3 min. when in automatic mode.

"It's also self-cleaning," Setter says. "To flush the lines, no chemicals are drawn through the pump, eliminating contamination. Chemicals are diverted away from the plastic tank. Every tank of product has its



Setter says a 1,600 gal. sprayer can be loaded in under 3 min. when in automatic mode.

own direct line, so there's no cross-contamination."

The Spray Companion is manufactured in Manitoba and available across North America.

Basic units begin at \$12,500 CAD with additional costs for options like electric valves, computerized monitors, and top-up water capabilities.

Contact: FARM SHOW Followup, Setter Manufacturing, P.O. Box 686, 166125 Road 121N, Russell, Manitoba, Canada R0J 1W0 (ph 866-708-8902; greg@settermfg.com; www.settermfg.com).

## Locks Protect Trailers From The Inside

Thunderbolt Lock produces durable vehicle locks that utilize existing remote-control systems along with a machined steel deadbolt engaged within the door. "We're a small business just outside Chicago," says John Scaletta, CEO and Director of Operations. "Every product is hand-made. We specialize in high-security locking solutions, primarily designed for cargo trailers, vans and box trucks."

The company sells three distinct lock types for trailers: a Cargo Trailer "Dual" Electronic Deadbolt Lock (\$669), an M1 Box Truck Roll-up Door (\$359 for one, \$619 for two) and an M2 Box Truck Roll-up Door (\$399 for one, \$699 for two.) Other variations include a Utility Truck Compartment Lock (\$699) and KUV 3-Compartment Lock Kit (\$979), along with the M1 (\$239), M1+ (\$259) and M2 (\$279) for van doors.

The lock types are divided into three categories: M1, M1+ and M2. Both M1 models operate from your factory key fob. While the M1 works without a lock inhibitor, the M1+ has one built-in. This improves safety by preventing the deadbolt from engaging while the ignition is on. It's the best choice for securing doors where passengers might be riding, while the M1 works best for cargo doors without passengers present. M2 models work for entry points without remote-controlled locks. They have a built-in remote-control module and operate from a Thunderbolt remote controller. Each order includes two pre-programmed remotes regardless of the number of locks purchased (additional remotes can be purchased separately).

"What makes our locks unique is their internal installation, which leaves no visible target for thieves," says Scaletta. "With over 20,000 deadbolt locks on the road and a



"What makes our locks unique is their internal installation, which leaves no visible target for thieves," says Scaletta.

perfect record of zero break-ins, Thunderbolt has become synonymous with superior security." He shares that installing the locks is straightforward. "Thunderbolt provides a full suite of support tools, including video tutorials, installation templates and detailed manuals," he says. "Our technical support team is just a phone call away, ready to connect you with an experienced Thunderbolt installer."

Consider the Distribution Block (\$59) for a more straightforward installation. This accessory is fused and connects directly to the battery while each lock connects to the block. The company also recommends installing a Keyed Manual Release (\$29) on the front door to reduce the risk of getting locked out in a battery or actuator failure.

"Whatever the reason, whatever you need to secure, and whatever the application, Thunderbolt Locks has a solution for you," says Scaletta.

Contact: FARM SHOW Followup, Thunderbolt Locks, Inc., 8700 47th St., Lyons, Ill. 60534 (ph 765-652-6587; info@thunderboltlocks.com; www.thunderboltlocks.com).



"The high spatial density data maps and the different moisture and protein readings help the operator see the overall grain quality and make real-time starting and stopping decisions," Scrivens says.

## On-Combine Grain Sampler Provides Real-Time Data

In 2019, CropScanAg, an Australian agricultural company, launched the 3300H On-Combine Grain Analyzer and N-Gauge app. Over the last 3 years, this innovation has entered North America.

The 3300H is an after-market solution compatible with all combine models except Case NH. It uses near-infrared transmission technology, shining a light through grain samples to measure moisture, protein, oil, fiber and starch levels.

Calibrations for up to 30 grains include wheat, barley, canola, lentils, chickpeas, lupins, rice, oats, corn and soybeans.

The sample head mounts to the combine's clean grain elevator. A small door opens and closes, taking seeds from the "up" side and dumping them back into the "down" elevator after completing a reading. The rugged sampling unit and chamber are designed for rough field conditions.

"Grain continuously comes in, fills the unit, and the spectrometer, which mounts in or under the cab, samples it," says Dean Scrivens, Technical Sales Specialist. "It's all solid-state with no moving parts other than the small door."

The system is fast and accurate, analyzing samples every 8 seconds on average, depending on speed and header width. It uses GPS for in-field mapping, providing immediate knowledge for the operator using its integrated Windows Surface Go 10-in. display screen. All data syncs directly to the N-Gauge app and server.

"The high spatial density data maps and the different moisture and protein readings help the operator see the overall grain quality and make real-time starting and stopping decisions," Scrivens says.

The 3300H analyzer is factory-set for all masses, including algorithms for the complete list of grains.

North American dealers install the units and offer support for inquiries and troubleshooting. Once installed, CropScanAg distributors use certified grain from qualified labs to test and calibrate the machine.

The On-Combine analyzer costs roughly \$30,000 CAD, including taxes and S&H.

Contact: FARM SHOW Followup, CropScanAg, Camrose, Alberta, Canada (ph 587-322-6979; dean.scrivens@cropscanag.com; www.cropscanag.com).