

# Ground Control system improves truck weighing efficiency

By **MARTHA BLUM**  
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DEKALB, Ill. — Farmers striving to improve efficiency and simplify data collection with their truck scale now have a solution with the Ground Control system.

This new system features wireless handheld PDAs (personal digital assistant) that can be placed in trucks, allowing the operator to weigh his truck as well as gather other data without ever leaving the comfort of his cab.

Johnson Farms, an operation near DeKalb, Ill., had the Ground Control system installed during the summer of 2005.

"Last spring we knew it was time to purchase a new scale," said Bob Johnson. "For more than 30 years we have used a 30-foot truck scale, but it was getting tired."

And, Johnson added, weighing a semi truck on a 30-foot scale means the driver has to pull on the scale, get out, weigh the truck, return to the cab and pull forward to weigh the second half of the load, get out to retrieve the second weight ticket and then leave the scale.

"For years, we have wondered if there was a way to weigh the truck without leaving the cab, but we had no idea what was available so we contacted several companies and started asking questions," Johnson explained. "We were looking for something to run the scale as well as gather the data we needed."

Johnson began working with Cream City Stateline Scale, Loves Park, Ill.

"We sat in our conference room and described the things we wanted to do," he said. "I really didn't have any expectations because I didn't know what was possible."

In addition to raising corn and soybeans, Johnson Farms, which is managed by several members of the family, also



AgriNews photos/ Martha Blum

Bob Johnson takes a look at the wireless PDA that is part of his new Ground Control system. The scale can be controlled with this PDA from the cab of the truck and the system keeps track of weight of the truck as well as several other pieces of

information. The system includes a 1,250-sow, farrow-to-finish swine operation. "We have two sites, a sow farm and the finishing site, so we also use our scale to weigh pigs and weigh manure that is applied to our fields," Johnson said. "So we needed a system to capture different kinds of information."

The software for the Ground Control system was developed by Certificate Retrieval Systems, Loves Park, Ill.

"There are a lot of ways to configure this system," said Dave Bowers, with CRS. "Every situation is different and every farmer has a different arrangement, so the system is structured to accommodate what the farmer needs."

For example, the PDA can be mounted in the truck or the

driver can just carry it in his pocket."

Johnson started by installing a 70-foot scale in front of the farm office, so a semi truck can be weighed all at once.

"We have a PDA that is assigned to a specific truck so when the driver pulls onto the scale, the system identifies the truck," he explained. "The driver then enters the crop and field into his PDA, the truck is weighed, the data is stored, the driver pulls off and unloads."

The scale, the PDAs and a computer inside the farm office all communicate through a wireless network.

"All our data is stored on the computer in the office and the

scale can be operated with a computer inside the farm office as well as the enclosure (pictured at the left). A weigh ticket can be printed at the scale and a tape of every load weighed is printed at the office computer.

system also prints a tape of every load that is weighed," Johnson said. "Since we buy corn from other farmers, a printed record is also important."

Cream City Stateline Scales installed a weatherproof enclosure containing the digital equipment and printer near the scale, which can be used to control the system as well as to print out a record of the load that is weighed.

"So the system can be controlled at the scale, from the truck with the PDA, or from inside the office," Bowers said. "That's the beauty — it is a simple solution to help farmers be efficient, especially at crunch time during harvest."

"And, you don't have to

worry about losing transactions because you can't find a ticket," said Jay Garnhart,



The 70-foot truck scale replaced a shorter scale that had been used at Johnson Farms for many years. This helps improve accuracy of weighing the contents of the truck since the entire load can be weighed all at once.

## Round baler marketed

PELLA, Iowa — A new 5-foot x 4-foot round baler designed to simplify the baling process — featuring a new wide pickup assembly with "direct crop feed" and revamped power bale ram and net wrap systems — has been introduced by Vermeer Manufacturing Co.

The new Vermeer 504M Baler bales high-density, "tin-can-shaped" packages that measure 47 inches wide and can vary anywhere from 24 inches to 62 inches in diameter (maximum bale weight 2,200 pounds).

According to Vermeer officials, the 504M is "surprisingly simple" to operate, easy to maintain and very user-friendly in various kinds of crops and conditions.

"From this point forward, we want customers to raise their expectations in all facets of performance on everything from the baler pickup assembly to the quality, density and appearance of the package when it rolls off the ramp," Jay Van Roekel, Vermeer product manager

The 504M features combination hydraulic/spring belt tension plus a bottom drum roller with a vertical bale chamber for superior bale density and appearance and a new patented direct crop feed system (DCF) that simplifies hay pickup using a new integrated pickup design. DCF consists of a wide, reinforced five-bar pickup and exclusive double augers tucked directly in front of the bottom drum roller of the baler. This eliminates unnecessary stuffers or rotors and, as a result, reduces extra parts, maintenance, hay wrapping and excessive hay handling (of fragile leaves).

Split tine bars, solid center support and an adjustable dual cam track provide excellent stability for each tine bar all across the pickup. Rubber-mounted pickup tines improve pickup action and extend replacement intervals. Heavy-duty offset tines feed hay to double augers located on each side of the pickup. Semi-pneumatic gauge wheels and pickup springs ensure smooth, consistent flotation; hydraulic pickup lift is standard. Six 6.8-inch wide 3-ply belts create excellent belt-to-bale contact. Drop 'n Go Bale Ejection eliminates the need to disengage and re-engage the PTO when discharging a bale.

Other features include a robust center-pivot, electric twine tie system with adjustable dual twine feed slots; six-ball twine storage; highway light assembly; hydraulic hose guide; and sloped PTO cover shield.

For more information, visit [www.vermeerag.com](http://www.vermeerag.com).

## Soybean checkoff-funded products open new doors

ST. LOUIS — Year after year, the United Soybean Board and soybean checkoff have helped build new demand for U.S. soybeans through news uses — and last year was no different.

A total of 81.8 million bushels were utilized in soy-based products in 2005, which was an increase of 12.6 million bushels from 2004.

From soy-based plastics used in tractors to transformer fluids made from soybean oil, the soybean checkoff continues to partner with manufacturers to introduce new markets for soybean farmers.

Nineteen new soy-based products were commercialized in 2005, thanks to the support of the soybean checkoff.

USB funds the development of soy technology by universities and research facilities across the country and continue to gain access to new markets, including plastics, lubricants, solvents and others.

"We are forecasting a record of over 90 million bushels of soybeans used in industrial products this year, and nobody has a bigger stake in new markets for soybean farmers," said Todd Allen, chairman of the USB New Uses Committee.

"That's why the soybean checkoff is so committed to working with industry to develop new uses. We can't do it alone, but we can certainly show some of the biggest manufacturers out there how soy-based technology can benefit them."

Among the variety of new products introduced this year is an innovative soy-based resin system that is being used in a variety of applications.

Ashland Specialty Chemical Co.'s

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Envirez soy-based resin is used in making soft and rigid plastics. Examples include a newly formulated low-profile thermoset sheet-molding compound from John Deere and Case New Holland for tractor hoods and covers.

Other companies have stepped to the forefront of engineered soy-based products. Cooper Power Systems and Cargill Industrial Oils and Lubricants created Envirotemp FR3 Fluid, an electric power transformer fluid.

More than 10 electric co-ops around the country have picked up on this technology, allowing soybean oil to help power rural communities and farms.

BioSpan Technologies developed two unique specialty products: Activate, a methyl soyate asphalt activator, and Replay, a methyl soyate pavement restorer. These products are being used by state departments of transportation in the Midwest.

Other notable innovations include Green Products Inc.'s Agri Seal, a soy-based caulking compound, and Oregon State University's soy flour with Kymene, which is a paste resin for plywood, devel-

oped with the assistance of Cargill, Hercules Inc. and Columbia Forest Products.

Additional soy-based technology includes the following products:

■ Agrol by BioBased Technologies — A variety of flexible and rigid foam applications.

■ Soyol by Urethane Soy Systems Co. — A chemical in plastic formulations that reduces viscosities, acid and odors.

■ Emulsified Oil Substrate by Industrial and Environmental Services — A product that cleans contaminated groundwater.

■ Purge by Cesco Solutions — A recycled paper pulp cleaner.

■ Soyfast Soy Technologies — A general-purpose cleaner concentrate.

■ Soygreen 5000 by Soy Technologies — A parts cleaner concentrate.

■ Soygreen 6000 by Soy Technologies — An adhesive remover.

■ Soy Stop by Soy Technologies — A graffiti-remover system.

■ Environmental Liquid Membrane System, or ELMS, Natural Metal Jacket by Green Products Inc. — A soy-based metal coating.

"I am excited to think about where soybean checkoff-funded technology will take us in the future," Allen said.

"With soybean farmers working with industry partners to build new markets, we can build new markets for our soybeans and increase the demand for our soybeans, all through our soybean checkoff."

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