Updated "Robotic Driver" Works In Drilled Beans, Down Corn

Paul and Dave Kieser of Bloomington, Ill., have two combines, both of which are equipped with Tri-R Innovations' latest robotic guidance system. The system automatically keeps the combines perfectly on row during harvest.

The company's latest "Robotic Driver" is designed to accurately steer combines in 15-in. rows and in drilled beans, and works especially well in down corn, says Ralph Baille, Tri-R Innovations. "We've redesigned the sensing mechanism using heavy duty plastic 'whisker' sensors that are heat-treated and shaped so they bounce right back into place. They'll take a lot of abuse.

"The whiskers mount under one of the combine's snouts. For harvesting beans they mount in the middle of the head. We've downsized the control box system in the cab. It's now smaller than a cell phone. You simply press a button to activate the system. Stepping down on the brake disengages it."

The sensors send signals to a hydraulic steering valve mounted on front of the cab. There's also a sensor mounted on the tie rod on the combine's rear axle. The combine automatically steers through the field, leaving the operator free to drop the wheel while he monitors the workings of the equipment, watches for rocks, or whatever. An alarm sounds as the tractor or combine approaches the end of the field, alerting the driver to get ready to manually turn the rig around and into position for the next pass. As soon as the turn is made, it's back again to "hands off" steering as the automatic pilot takes over.

"The system is easily switched from one piece of equipment to the next, such as from tractor to combine," says Baille.

For harvesting beans, curved sensors mount in middle of head.

Plastic whiskers are heat-treated and shaped so they bounce right back into place.

Contact: FARM SHOW Followup, Tri-R Innovations, Inc., 628 S. Sangamon, Gibson City, Ill. 60936 (ph 217 784-8495).

Self-cleaning loader bucket extends reach by 1 1/2 ft. and operating height by 2 ft.

New Loader Bucket Dumps Itself

"It's the handiest loader bucket ever built," says the inventor of a new "self-cleaning" bucket that eliminates the need to dump the bucket which, in effect, extends your reach.

The pusher plate inside the bucket is hinged in the middle so it'll fold flat against the back of the bucket. It attaches at the top to a steel shaft that extends the width of the bucket. Two hydraulic cylinders are used to rotate the shaft. Extending the cylinder causes the plate to fold flush against the back of the bucket, and retracting it moves the plate forward to eject the bucket's contents.

"It works great to clean out sticky materials that would otherwise cling to the bucket," says inventor Ron Berg, noting that Erskine Mfg. is marketing the unit. "It also increases the bucket's operating reach by 1 1/2 ft. and operating height by 2 ft. which allows you to load bigger trucks or spreaders and do it from one side. Overall, it can increase productivity by 15 to 30 percent depending on the situation. Another advantage is that the bucket never has to extend inside the truck box which can reduce the potential for damaging it."

Pusher plate hydraulically moves forward to eject bucket's contents.

Comes in widths of 60, 66, and 72 in. and sells for $1,795 to $1,995.

Berg says he also plans to manufacture self-cleaning buckets for tractor loaders.

Contact: FARM SHOW Followup, Erskine Mfg. Co., Inc., 121 Bradley Blvd., Box 100, Erskine, Minn. 56535 (ph 218 687-4045; fax 5293).

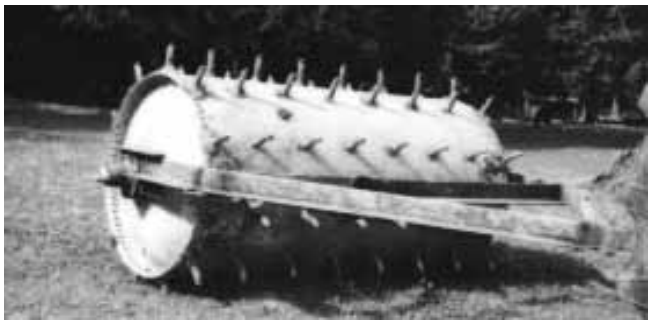
"Lifetime Corral" Built From Power Poles

This corral will no doubt outlive the life of the Nebraska farm where it's located.

When Dave Kirkpatrick bought his ranch near Anselmo there were no corrals. He's a guy who likes to build strong so he used old powerline poles to construct pens and alleys that would stand up to the toughest beating.

Poles are stacked on top of each other to make sides. They're held in place by vertical poles set in the ground on either side. Gate openings are reinforced by horizontal cross pieces. Swinging gates are made from heavy-walled steel tubing covered with mesh wire panels. ***(Draft Horse Journal)***

Poles are stacked on top of each other to make sides.



Built from a 150-gal. well tank, the aerator weighs 1,800 lbs. when filled with water.

Pasture Aerator Built From Water Tank

After seeing a farmer-built pasture aerator in FARM SHOW recently, Charles George decided to build one of his own to use on a 5-acre cow pasture.

"It doesn't tear up the ground like the 8-ft. field harrow I used before," notes the Graham, Wash., rancher. "It just punches holes in the ground so water can wash manure down them."

He started with a heavy-duty, 150-gal. well tank that's 6 ft. long and 3 ft. in dia. He welded spindles off a boat trailer in the center of each end of the tank to serve as stub shaft axles. He built an A-shaped tongue out of angle iron that bolts to the spindle hubs. The design allows the tongue to be easily removed so bearings can be serviced or replaced quickly.

He fitted the tank with 11 in-line rows of eight 4-in. long spikes. The spikes were made from 8-in. long pieces of square stock. He simply cut each piece in half at a 45 degree angle to produce a pair of pointed spikes.

George estimates the tank weighs 1,800 lbs. when filled with water. The weight is enough for the spikes to penetrate the full 4 in. in most conditions.

He uses his Ferguson TO 30 tractor to pull the aerator at up to 5 mph.

"It works like a charm, allowing water and fertilizer to penetrate the soil and aerating roots," he says.

Out-of-pocket expense was $40, including square stock.

Contact: FARM SHOW Followup, Charles George, 7411 288th St. E, Graham, Wash. 98338 (ph 253 847-7204).

Udder Test Sheets Detect Mastitis Early

You can detect mastitis three to five days earlier than you can with conventional chemical testing methods with these new "litmus"-type udder test sheets developed in Germany.

Four inches wide by 5 in. long, the test sheets read out in different colors to indicate the severity of the infection, says Bob Smale, North American distributor.

To use, you wash the udder and strip out the first milk, applying one drop of fresh milk from each quarter of the udder to each of the four indicator dots on the test paper. In seconds, the dots change color indicating "normal" or presence of mastitis depending on the color.

"Because the papers read the beginning of a change - at the earliest stages of mastitis - it's easy to react to the problem before it becomes serious," Smale notes. "This translates to earlier detection, earlier treatment, reduced severity, and earlier return to full production."

A "zip lock" package of 20 sheets (which fits easily in a shirt pocket) sells for $7.50 (Canadian), $5.40 (U.S.). Multi-packs are available.

Contact: FARM SHOW Followup, W.H. Smale Co. Ltd., 4583 Putnam Road, R.R. 2, Mossley, Ontario, Canada N0L 1V0 (ph 519 269-3754; fax 3795).