Drive-Through Electrified ATV Gate

Don Church of Red Deer, Alberta got tired of having to get on and off his ATV to open gates, so he came up with a simple drivethrough electrified gate that swings open like the doors leading to a restaurant kitchen.

The gate measures 54 in. wide – the size of his ATV - and is made from 1/2-in. pvc tubing formed into a pair of rectanglular "swing doors" that have 14-ga. non-insulated electrical house wire wrapped around them. The "swing doors" swivel at the top and bottom on homemade metal brackets, which attach to a 6-ft. sq. frame made from 1 1/4-in. pvc conduit. Both sides of the frame are strapped to wooden posts on either side of the gate.

Church simply lets the ATV's front wheels push the doors out of the way and drives through. After the ATV has passed through, the spring-loaded doors automatically swing back into place.

"I have to slow down to pass through, but I never have to stop," says Church. "It works great for checking cattle in my pastures. Livestock won't touch it, yet my ATV can pass through without stopping. The gates

swing 90 degrees in each direction, so there's plenty of room to get through."

He built the gate 3 years ago and has used it a lot. "I practice rotational grazing and go through the gate at least twice a day, so I've passed through it 500 to 600 times with no problems. I've never had an animal get through the gate, either," says Church.

He says he used 14-ga. electrical wire because he already had oddball lengths of it on hand. "It's the same kind of wire used in houses and other buildings, so it's fairly pliable and easy to use," says Church. "I stripped the insulation off to expose the bare wire, then soddered different lengths together as needed. It took a lot of trial and error before everything worked right.

"I didn't want to drive over the bottom of the frame and possibly damage it, so I dug it into the ground and covered it with soil," he notes.

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Electrified ATV gate is made from pvc tubing formed into 2 rectangular "swing doors" with non-insulated electrical wire wrapped around them.

"No Slip" Pig Feeders

Kevin Birschbach has heard of many uses for recycled conveyor belts, but using them to make no-slip pig feeders was a new one. Jeremy Janssen, a Nebraska customer, attaches belting to the bottom of his confinement pig feeders.

"He used 18-in. wide belting on the 6-in. wide feeders, which left plenty of room on either side for the pigs to stand," explains Birschbach, Atlas Belting, L.L.C. "When they stand on the belting, that secures the feeder in place. At the same time, any feed pushed out of the feeder falls on the belts, not through the slats."

Janssen sent FARM SHOW pictures of the feeders on the slatted floor, before and after attaching the belting. In the first picture, before attaching belting, the feeder had been pushed to one side of the pen. Only 20 min. after feeding, the slats were covered with feed, and the feeder was empty.

With the belting attached, the feeder was still away from the gate and feed remained in the feeder half an hour after feeding. By the time an hour and a half had passed, the feeder and the belting had been cleaned up completely by the pigs. Virtually no feed could be seen on the slats.

"No more wasted feed," says Birschbach.
"It's another great idea to be shared with other farmers for how to solve a problem with conveyor belting."



Jeremy Janssen attaches 18-in. wide conveyor belting to the bottom of his 6-in. wide confinement pig feeders, which leaves room on either side for pigs to stand.

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Ellis Black converted 30-gal. herbicide barrels into bait trap barrels to keep his chicken coop mouse-free.

Bait Trap Barrels Control Rodents

Ellis Black keeps his chicken coop mouse and chipmunk-free with his bait trap barrels. He didn't want to put poison around his chicken coop, but he was having a hard time getting rid of the rodents. Not only did they contaminate the feed, they also attracted rattlesnakes.

"We had mice all over the place coming for the chicken feed," he says. "We raise a lot of Roundup Ready cotton around here, and it can be hard to get rid of empty 30-gal. herbicide barrels. I decided to use them to solve the mouse problem."

Black cuts the barrel off just below the top rib and also cut off the bottom third of

the barrel. He then cuts slots in the bottom section so he can slide the top of the barrel over it.

"I drill $\sin 1$ 1/2 to 2-in. holes in the bottom of the barrel and toss in a handful of wheat and bait," he says. "The bait is inside an old brake drum or heavy pan to keep it so the chickens can't reach it."

Black says the bait barrels have worked well. "After a few months, we've only seen one mouse. He ran into the bait barrel, and we haven't seen him since."

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Grain Temperature Monitoring Goes Really High-Tech

"When Rich Cook started his own grain temperature monitoring company, TSGC, in 1982, I'd wager he had no idea how popular the product would be, where the technology would go, or how many countries it would be sold in," says Dan Winkowitsch, General Manager of TSGC, located in Storm Lake, Iowa. "Originally Rich thought he'd be doing business in 3 states, so he named the business Tri-States Grain Conditioning. Today our products are used in every state and province that grows or ships grain, and in more than 40 countries worldwide."

Winkowitsch says that one of TSGC's most popular products is GrainTRAC, a system that reads and sends temperature data to a cell phone, tablet, computer or any other device with internet access. "It's a 24/7 anywhere in the world application that removes the

guesswork from grain storage monitoring," says Winkowitsch.

Opening the app on a smart phone, tablet or computer reveals a color screen. Winkowitsch says. "If the screen is green everything is good. If it's orange, that's caution, and if it's red, you'd better move fast to fix it."

Recently the company added a theft control device to its product line. The monitor attaches to the loadout auger motor on a grain bin and sends an alert to the owner's phone if the auger is operating when it isn't supposed to. The company also markets portable grain monitors, bearing monitors and thermocouple temperature cables. Its temperature cables can also be used to monitor all types of commodities, including hay temperature, when bales are

stored in stacks or barns.

Over the years Winkowitsch says the company has heard numerous horror stories about farmers and even commercial operations that have left grain temperature monitoring to chance, or who have outdated equipment. "Grain is a living mass that's constantly affected by its environment, so monitoring is vitally important," Winkowitsch says. "In 2016, there will be large amounts of grain stored in piles, on slabs, inside machine sheds, and even outside on the ground. We have the products to monitor and report temperature with instant and accurate information. Our sensors work virtually anywhere."

Winkowitsch says a typical TSGC GrainTRAC system for a 36-ft. bin with a 26-ft. side wall retails for about \$2,500 and includes temperature cables, transmitter and



Phone and table app reads grain temperature through sensors inside bin and displays it visually on any device with internet access

monitor

Contact: FARM SHOW Followup, TSGC, Inc., P.O. Box 468, Spirit Lake, Iowa 51360 (ph 712 336-0199; www.tsgcinc.com).