## **Electric Tape Scares Birds Away**

Farmers use electric fences to keep livestock in. Now you can use the same idea to keep birds away.

Mark Ravenelle originally designed KABA electrical bird tape (keep all birds away) for billboards. It's not very appealing for restaurants to advertise on billboards covered with bird droppings, Ravenelle points out.

The peel-and-stick clear tape is 1 3/4 in. wide by 1/16 in. thick and encases two aluminum wires. "When a bird's foot touches it, a spark jumps, traveling through the bird's foot," Ravenelle says. "It's harmless, but it gets their attention."

He explains that direct current pulses are emitted every second. The system is powered by a DC power board that plugs into a standard 110-volt AC receptacle for up to 3,000 ft. of tape. Or it can be run off a solar-powered battery for up to 2,000 ft.

The flexibility to contour to objects and the ability to blend the tape into the environment sets it apart from other pest bird products on the market, Ravenelle says.

"It will get a stronger and stronger bond as it dries," Ravenelle says. Once it dries the tape will stay on in both hot and subzero temperatures. Ravenelle says tests indicate that the bonding strength grows for 20 to 30 years.

Ravenelle sells the tape, connectors and power boards through his website. Tape starts at \$4/ft. retail, with volume and contractor discounts. When customers call, Ravenelle asks for details about the site and type of birds that are a problem to help the customer create an effective system. A few rows of tape may be needed on a ledge where small birds land, for example, while one row may be sufficient for pigeons.

Customers rave about how well KABA works, Ravenelle says. Usually one or two jolts are enough to keep a bird away for good. Besides business owners, other customers have come up with other applications, such as wrapping it around a bird feeder pole to deter squirrels. At a marina it's being used to keep seals and pelicans away.

Contact: FARM SHOW Followup, Mark 566-8595; int Ravenelle, KABA Corp., 654 Daniel Webster kabatape.com).



Electrical bird tape has the flexibility to contour to objects and blends in wherever it's placed.



Peel-and-stick electric tape is 1 3/4 in. wide by 1/16 in. thick and encases two aluminum wires. "When a bird's foot touches it, a spark jumps, traveling through the bird's foot," says Mark Ravenelle.

Highway, Merrimack, N.H. 03054 (ph 603 566-8595; info@kabatape.com; www. kabatape.com).

**Inexpensive Goat Milker** 

**Saves Aching Hands** 

A 48-in. wide, 24-in. dia. steel lawn roller forms the base for Jerry Now's aerator.

## Sickle Knife Aerator Cuts Up Lawn

A sickle knife aerator does an ideal job slicing into a yard to aerate it without tearing it up, says Jerry Now, Rockford, Ohio.

"I welded the knives straight on," says Now. "If you put them at an angle, they would tear it up more."

He started with a 48-in.wide, 24-in. dia. steel lawn roller from his local Tractor Supply store. A tray on front lets Now add weights as needed, but he quickly realized the axle stubs welded to the drum needed to be reinforced.

"One tore loose the first time I used it," says Now. "I cut off the stubs and welded big washers to the drum and then welded the stubs to the washers and the drum for more strength."

He built a jig using a 1 by 4-in. board with slices in the edge to hold the knives in place as he welded them, alternating rows of five and six blades about six inches apart.

The last steps were to add wheels and a cover. He attached a steel U-bar to the sides of the unit with wheels that move under the roller, lifting the knives out of the ground when the bar is lifted up. Pushing it down moves the wheels out of the way, lowering



Unit's sharp sickle knives are protected by a metal cover.

the knives into the ground.

To make the cover, he went to a local machine shop and had them roll some tin. "I hinged it to the frame in front of the roller. I also extended the frame around the back of the roller and latched the cover to it. It keeps people from running into the blades, yet it can easily be moved out of the way."

Contact: FARM SHOW Followup, Jerry Now, 5627 Shelley Rd., Rockford, Ohio 45882 (ph 419 363-3226).

## **Rock Spreader Lays Trails In Woods**

When people around Kansas, Ill., need something built, they turn to Sam Honnold. The 85-year-old former farmer runs a welding shop and teaches welding at the local school. It was only natural that a local man with a shooting range asked Honnold for help when he needed to put in trails.

"He needed a way to spread gravel in 4-ft. wide paths, and he wanted to pull it with his Kawasaki Mule," recalls Honnold. "He had shooting stations in the woods, and they were hard to get to except with a four-wheeler."

Honnold started with two house trailer axles, cutting them down to fit inside the 4-ft. limit. The rear one is the full 4 ft., while the front one is only 2 ft. apart. The front axle swivels beneath a support post at the front of the rock box.

The V-shaped box is about 4 by 5-ft. at the top. It's fabricated from 10 ga. steel on the sides with 4 by 6-in. angle iron wrapped around the box at the mid point and the top to add support. The front support and a matching rear support post over the back axle are 5 by 6-in. rectangular tubes that Honnold made in his shop.

Honnold extended the sides of the rock box so gravel could be heaped in the center. The sides also were reinforced with angle iron. To unload the gravel, he installed a commercial spreader that he cut down to fit the 4-ft. spread.



Honnold invented this rig to evenly distribute gravel along the trails of a shooting range. The variable speed electric motor slowly rolls gravel out in a 4-ft. wide path.

"It was a chain drive, so I mounted an electric motor on a sprocket," says Honnold. "The motor is designed to use from 6 volts to 92 volts, depending on how fast you want it to run. Two 12-volt batteries gave it just the right speed."

Honnold mounted a shelf with space for the batteries on the cart and across from the motor.

"It holds a little more than two tons, and it takes him about two hours and 15 minutes to spread," says Honnold.

Contact: FARM SHOW Followup, Sam Honnold, 101 East North, Kansas, Ill. 69133 (ph 217 948-5487; slhonnold@mchsi.com).

Jack Grimmett built a mini goat milker for less than \$10 from off-the-shelf parts. The Ft. Towson, Okla., man says the main component is a hand-operated fuel transfer pump available at most discount stores.

"The pump comes with all the hoses needed," Grimmett says. He connected the discharge end to the lid of a 1 1/2-gal. bleach jug, which holds the milk. Another hose connects to a 60cc syringe placed on the goat's teat to draw the milk.

"The hardest thing is to find the long- neck syringe. You need that size because it's the perfect size for goat teats and the hose fits it," Grimmett says.

Simply push and pull the transfer pump handle to milk the goat. It takes most goats a week to 10 days to get used to it. But he's had some goats adapt right away.

While it saves some milking time, the best thing about the milker is that it's a way for older people with arthritic hands to keep milking goats. Grimmett has heard of several older people who sold their goats because they couldn't hand milk them.

Another advantage is very clean milk. The bleach lid has just a couple of air holes and Grimmett says he puts a split plastic cup over the top so no trash gets into the jug. The more expensive commercial hand milkers have small containers that need frequent emptying, he says.



Main component of Grimmett's mini goat milker is a hand-operated fuel transfer pump.

After milking, everything is thoroughly washed with soap.

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