## New System Uses CO<sub>2</sub> To Eliminate Underground Pests

If you have tunneling pests around your place, Al Dentone has a solution for getting rid of them. His EPA-approved IGI Pesticidal  $CO_2$  will do the job safely and easily. He developed it for his own use.

"I had tons of ground squirrels going through thousands of dollars of bulbs and plants each year on my property," explains Dentone. "When I looked at control options, such as chemical baits and oxygen/propane detonation, they all had potentially lethal and/ or toxic side effects."

One common alternative was carbon monoxide, such as engine exhaust. Unfortunately, it had a success rate of only 67 percent. Inject it into a tunnel, and rodents smelling it would often escape or, in the case of gophers, block off the tunnel.

 $CO_2$  has no odor, but had never been tested as a pesticide. What was known was that it was heavier than air and would penetrate deep into a tunnel system. Not only was it unlikely to seep out, but it would also be beneficial to plant roots. Also, it only takes an 8 percent concentration to kill air-breathing organisms. Seeing an opportunity, Dentone set up a new company, Inert Gas Injection (IGI), LLC. He developed the IGI Eliminator to inject the CO<sub>2</sub> and funded research at 3 sites with more than 100 ground squirrels and gophers at each site. The 3 sites demonstrated better

than a 92 percent effective rate. EPA requires only a 70 percent effective rate for pesticides. Based on the data submitted, they approved a label for IGI  $CO_2$ , a necessary step for any licensed pest control operator or municipality. A patent is pending for the IGI Eliminator.

Dentone is now setting up distributors. He has partnered with Airgas, a national retailer, to supply IGI  $CO_2$ . Initial marketing efforts are concentrating on the West Coast, Nevada and Idaho with plans to expand to the East Coast and Midwest. IGI  $CO_2$  is not



yet approved in Canada.

Dentone sees other markets for IGI  $CO_2$ . He is currently exploring its use to control bed bugs, with plans to seek an expanded EPA label.

Dentone suggests eradication costs of about 40 to 50¢ per ground squirrel. The IGI Eliminator is priced at \$999 and includes a



IGI Eliminator kit injects carbon dioxide into underground tunnels where it eliminates pests safely and easily.

25-ft. hose, regulator and delivery bar with a handle. The only thing needed is a tank of gas.

Contact: FARM SHOW Followup, Al Dentone, IGI, LLC, P.O. Box 193, Acampo, Calif. 95220 (ph 209 366-1859; www. eliminatorbyigi.com).

## **Orbit Motor Powers Conveyor On Aging Silage Wagon**

When the gears that drove the conveyor on his old front unloading silage wagon wore out, Eugene Wimmer couldn't find replacement parts. He came up with an inexpensive solution by bolting an orbit motor off an old combine reel on front of the wagon. The motor operates off his tractor's hydraulics.

He went to a salvage yard and paid \$40 for the orbit motor, which came off a Deere 6600 combine. Then he removed the 2 wornout gears on the conveyor driveshaft and bolted the motor directly to it.

"I installed the orbit motor 3 years ago and it still works great," says Wimmer. "The wagon is more than 20 years old and the company that built it went out of business, so parts for it are no longer available. A local company wanted \$750 to custom-build new gears," says Wimmer. Wimmer uses the tractor's hydraulic control lever to adjust the motor's speed. "At first I considered installing a gearbox to chain-drive the conveyor, but if anything got caught on the conveyor chain it could have easily stripped the gearbox. With the orbit motor, if something catches on the conveyor chain the motor will just stop."

Running the conveyor separately from the wagon's main floor apron provides some flexibility, says Wimmer. "If the wagon box or the floor apron ever wears out, I can unbolt the front conveyor and use it separately with the motor; for example, to deliver silage out of a silo into feed bunks," he notes.

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Gears driving the conveyor on his front unloading silage wagon wore out, so Wimmer removed them and bolted an orbit motor directly to the conveyor driveshaft.



Boomsaver guard protects boom ends, nozzles and hoses on Deere sprayers from damage caused by obstacles along edges of fields.

## **Deere Spray Boom Protector**

"Our new Boomsaver guard is designed to protect the booms on Deere sprayers, preventing damage to the boom ends, nozzles and hoses," says Joshua Curry, Boomsavers LLC, Butler, Ind.

The patented guard is made of galvanized steel with zinc-based primer and powder-coat industrial paint, and bolts onto both ends of the boom. It's designed to prevent damage from fences, trees and power poles along field edges.

Company co-founder Joshua Curry has been a custom spray operator for nearly 15 years, and says he was tired of the damage caused when large booms encounter obstacles along the edges of fields. "Lightweight aluminum frames, delicate nozzles and foam tubing are all exposed to battering. My colleague Joe Collie and I designed this fitted guard for Deere sprayers, and we're also working on models for other sprayer brands as well."

Two different kits are available. One is designed for new-style, stock-length Deere aluminum booms ranging from 60 to 120 ft., including booms found on Deere's 4-series 4030, 4038, and 4045 self-propelled sprayers. The other kit is designed for old-style Deere steel booms.

Boomsaver shields sell for \$134.99 a pair and can be ordered online at www. Boomsaver.com.

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Mark Majerus used panels made of heavy 10-ga. metal with 6-in. wide, 4-in. deep corrugations to build a sturdy, inexpensive shelter for his horses.

## Pole Barn Built With Corrugated Flooring Panels

Mark Majerus, Farmington, Minn., used heavy corrugated metal flooring to build an inexpensive 15 by 30-ft. pole barn with a sloping metal roof for his horses.

The metal is screwed to 4 by 6-in. upright wooden beams, and to double stringers on front and back of the building. The shed has no floor but stands on a hill so water drains away.

"A neighbor gave me the corrugated steel, which was left over from a shopping center project where it was used as the base for Terrazzo tile floors," says Majerus. "This is thick, heavy 10-ga. metal with 6-in. wide, 4-in. deep corrugations. To make a floor, contractors place the metal over steel bar joists and then cover it with concrete. It results in a very solid floor. "A big advantage of these panels is they're built strong enough to clear a wide span without needing any joists or stringers for support. The roof on my shed is 15 ft. from front to back, yet I didn't have to install any joists or stringers which saved a lot of work."

The metal came in 30-ft. long, 40-in. wide panels. Majerus used his skid loader to load them onto a flatbed trailer, then used the same loader to hold them up while he screwed them onto the beams. A cut-off saw equipped with an abrasive bit was used to cut the metal panels to length for the roof.

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