Stainless steel wand is used to fill rodent burrows with pressurized carbon monoxide.

No special use permits are required and crop damage is minimized.

By Janis Schole, Contributing Editor

Pressurized Exhaust Kills Underground Rodents

The patent pending H & M Gopher Control system uses the carbon monoxide from pressurized engine exhaust to kill rodents such as gophers, ground squirrels, moles and voles.

According to the company, exhaust gas is one of the most potent, yet safe and least expensive poisons for killing pest animals underground. But until now there hasn't been an economical, efficient delivery system.

According to company owners Allen Hurlburt and Virginia Massey of Tulelake, Calif., the PERC (Pressurized Exhaust Rodent Controller) method involves a 1/4-in. stainless steel wand that fills rodents' burrows with a lethal concentration of carbon monoxide before they have a chance to block the burrow or escape. The holes don't need to be sealed off because the gas is heavier than air and settles down into the tunnels.

The carbon monoxide is generated by the system's internal combustion engine, which also pressurizes it to 125 psi.

The PERC 412 model is a 4-hose, trailer-mounted unit with ATV tires and a 13 hp gas engine, while the "PERC 206," is a 2-hose, skid-mounted unit with a 6.5 hp gas engine. Both are made to pull behind an ATV, and leave no tracks in growing crops or on golf courses or parks.

"No special use permits are required and crop stands are not damaged," Hurlburt says. "It's simple to use and safe for the operator, since there's no poison bait or explosions involved. No other control method is as effective, efficient and inexpensive as ours."

A PERC system can treat moderately infested alfalfa fields at about 3.5 acres per hour with a single operator, he adds. Each probed location requires only 15 or 20 seconds of injection time.

"Recent tests conducted by the University of California Extension Service show that the PERC can reduce rodent populations by 66 to 75 percent with a single treatment," Massey points out.

The larger model sells for $5,995, and the smaller one is priced at $3,295 (plus S&H).

"We've shipped models from southern California to close to the Canadian border, to Oregon, and to Nevada. Most of our markets have been with alfalfa producers, but PERC has also been very successful in orchards," Hurlburt says.

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He Takes Mobile Milking Parlor To His Cows

By Jim Ruen, Contributing Editor

Mark McAfee has taken rotational grazing to the next level. As he rotates his cows through a series of paddocks, McAfee also rotates his milking parlor, moving it about once a week throughout the year as his 300-cow herd moves around his dairy farm.

"It looks like a 65-ft. mobile home, but it weighs 55,000 lbs. It has a welded steel superstructure that's sheeted with stainless steel on the inside. It's a raised parallel design with 20 stalls. We can milk 100 cows per hour with two guys," says McAfee.

Water is piped to the parlor via an underground plastic pipe with 40 docking stations, one every 250 ft. The pipe and the parlor follow a road at the head of the pasture paddocks. A 120 hp diesel-powered generator powers the parlor, including the cooling system that chills milk from 99˚ to 34˚ in less than a minute. Stainless steel 1,000-gal. milk tanks on trailers move the freshly chilled milk to the on-farm bottling plant.

McAfee had been producing organic alfalfa for other dairies until he and his family set up Organic Pastures Dairy Company in 2000. Cattle spend all their time on pasture, which McAfee says eliminates pathogens. Wastewater from the parlor is returned to recently grazed paddocks through a field irrigation system.

"We put the cows first, and when you change the conditions where cows eat and rest, you change the conditions of milk," says McAfee. "We figured out how to make pathogen-free milk."

McAfee credits the mobile parlor for helping the farm maintain its status as a legal supplier of not just organic milk, but raw milk. He also suggests that the expense of setting up the mobile parlor requires getting the highest possible return for your milk.

"We went to $12 per gallon when we started selling raw milk," he says. "We're now in 250 stores with 10 trucks making deliveries."

The high value return justified the investment of $50,000 in engineering and nearly $900,000 in construction costs to build the parlor. Detailed plans are available for $1,000, and McAfee says he has sold several, though none have yet been built.

"I wouldn't recommend it for a super wet area," he says. "We only get about 10 in. of rain a year. I also can't really argue for a mobile milk parlor unless you have a market for raw or organic milk."

While the organic market is very strong, raw milk sales are limited. McAfee notes there are five or six states that allow sale of raw milk, and laws against it are being challenged. "State by state, things are changing," he says. "I can't post health claims, but I have asthma patients lining up for our milk and an Air Force doctor writes prescriptions for raw milk to prevent bronchial problems."

Secure that he has a growing market, McAfee is currently planning a next generation parlor. It'll be lighter weight, less costly to build, and designed to be operated by a single person.

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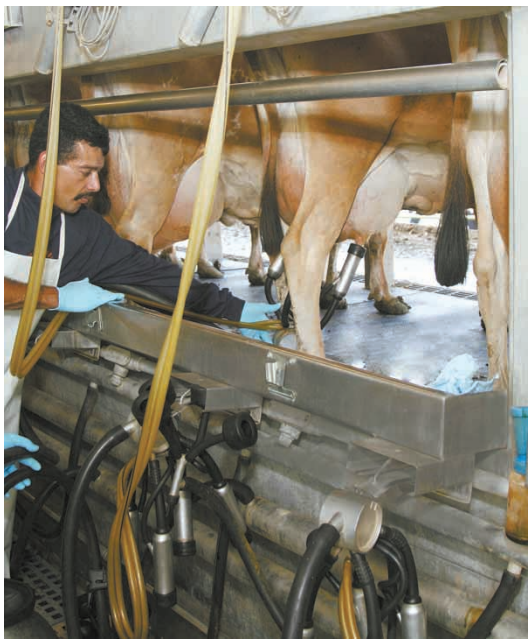
Once a week, Mark McAfee rotates his milking parlor as he rotates his cows through a series of paddocks. It looks like a 65-ft. mobile home, but it weighs 55,000 lbs.



Mobile milking parlor has a raised parallel design with 20 stalls.