

## A product to warm up to

The next step for Chris Norgaard's septic heater manufacturing business is finding out how to reach a niche market of home and cabin owners who want an easy fix to a messy problem.

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Special to the Pioneer Press

Article Last Updated: 11/16/2007 07:37:40 PM CST

Chris Norgaard is among the legions of frustrated homeowners who've tried rigging up a homemade solution to a less-than-glamorous problem: the frozen septic system.

Now, he's trying to spin his idea - which he's patented - into a business.

When cold snaps catch septic owners unprepared, folks have tried dropping everything from light bulbs to livestock heaters into their tanks.

When Norgaard's septic tank froze in 2003, he called a plumber to come out and thaw it with a blast of steam. A week later he had to make the same call, he said.

Feeling like he was flushing money down the toilet just to keep sewage from backing up, the 36-year-old Gully, Minn., man set out to brainstorm a better way.



And he knew a successful invention might have several thousand potential customers.

University of Minnesota Extension officials estimated that during that winter, more than 200,000 septic systems around the state froze.

Homeowners can expect to pay between \$100 and \$200 each time a professional thaws their system, which can add up over a season if the problem persists.

Several months and melted pipes later, Norgaard came up with a device that uses heat coils and a tiny fan to fill septic systems with hot air. It's contained in a weatherproof control box that hooks up to any access pipe and can withstand temperatures down to 40 degrees below zero.

"It has to perform when nobody wants to go outside," Norgaard said.



With the heater patented, tested and refined, Norgaard hired a few Amish neighbors as subcontractors to assemble the products. He set up a cell phone for sales calls and in January 2005, the Septic Heater Co. was up and running.

Norgaard's wife, Jenny, set up and maintains the Web site. "When a person starts in business, they need to do as much as possible on their own without hiring others," Norgaard said.

Since then, his challenge has been finding ways to reach his niche customer base, not to mention warming them to the idea of spending \$1,000 to \$1,400 on a product that, with a little yard work each year, could be unnecessary.

Minnesota has more than 600,000 septic systems, according to University Extension Service. Most won't have freezing problems as long as they're consistently used year-round.

But if recent winters are a sign of climate change, septic systems could become more vulnerable. Snow insulates the ground and keeps frost from penetrating very deep. With spotty snow cover, a sudden cold snap can send frost as deep as 10 feet below the surface.

Subzero temperatures have arrived before major snowfall for the past few winters. Under those conditions, septic system owners need to pay more attention to their systems, said Valerie Prax, an on-site sewage treatment educator with the U's Extension Service.

Still, there are plenty of free or cheap solutions, she said. In fact, Norgaard's main competition might be mulch.

A layer of leaves or hay spread 8 to 12 inches deep above the pipes, tank and soil treatment area can insulate the ground as well as snow does, Prax said. She offers several other tips. They include fixing leaky plumbing, rerouting furnace drips into a sump and keeping vehicles off the area.

Jim vonMeier, an environmental specialist from Zimmerman, Minn., teaches community education classes on septic ownership. He said the septic heater is an

effective safeguard for people who don't have the time or interest to follow through on the low- or no-tech solutions.

"It's a very well thought-out product," vonMeier said. "This really fits for people with lake cabins, if you leave for extended periods of time."

The septic heaters are not meant to thaw systems that are already frozen. They'll only help prevent freezing, Norgaard said.

Norgaard's strategy has been to market to that crowd first. Not only do cabin owners often leave their systems unattended over winter, but the fact that they own a second home suggests they can afford his product, too.

He started with some general advertising in newspapers and on talk radio in the Twin Cities. Next he placed an advertisement in a specialty magazine for cabin owners. He also started setting up a booth at cabin and outdoor shows.

The biggest boon has been his Web site, where he's taken orders from 25 states and three provinces. He learned he could increase Web hits by paying for sponsored links on search engines. The site comes up first, for example, on a Google search for "prevent frozen septic." He's paid for placement on about 150 different phrases.

So far, he's sold about 500 heaters, and about half of the orders came from the Web site.

Just like piecing together an invention, his marketing plan contains a bit of trial and error, too.

In September he went to a home expo in Anchorage, Alaska, where he learned freezing septic systems aren't a problem in that part of the state.

The trip wasn't a waste, though. People asked him about whether the heater might help septic systems perform better year-round in Alaska's colder soil conditions. He set up a test station before leaving and hopes the results might open a whole new use for his heater.

#### COMPANY SPECS

Name: Septic Heater Company

Business: Manufactures heaters that prevent septic systems from freezing

Location: Gully, Minn., about 50 miles northwest of Bemidji

Web: [septicheater.com](http://septicheater.com)

Founded: 2003

Employees: 4 subcontractors

2006 revenue: \$300,000

Competition: mulch and plumbers

Challenge ahead: Finding niche customers, selling new product

