

But will the grass be greener?

Scum-hating septic tank is invented

By CRAIG PIECHURA

"Scum is the culprit in any septic tank system."

Dr. Oliver Marcotte of 25000 Ten Mile, Southfield, recites these words as if they were etched in gold leaf on fine parchment. He believes he has built a better septic tank.

Dr. Marcotte, 72, knows many people find it hard to take the subject of waste disposal seriously. He hears a great deal of bathroom humor. But those who laugh loudest may seek him out, he says, when their lawn suddenly becomes soggy with septic tank sewage that has seeped out of the ground.

Dr. Marcotte got into the business of inventing an improved septic tank rather late in life. As a general practitioner and chest specialist, Dr. Marcotte spent most of his early years working on human pipes.

He was city physician for 18 years and before that worked as a chest specialist and general practitioner. But Dr. Marcotte suffered a severe stroke in 1965 that put an end to his medical career. Recuperation was a slow process.

First he regained control of his left leg. It was several years before the doctor learned to speak coherently again.

"I WAS GONE FOR a while there," said Marcotte, dressed in a lab coat down in his workshop. "I had to go back to the first grade to study the first grade primer. And I had a helluva time in the second grade, don't

you know. I'm in pretty good shape today as long as I don't try to do stupid things."

During the recuperation process, Dr. Marcotte would trek downstairs to his tool bench and workshop. He'd constantly tinker with pipes and electric motors trying to come up with a septic tank that didn't need to be pumped out regularly.

Necessity, as usual, was the mother of Dr. Marcotte's invention. The septic tank at his home was inadequate. Early prototypes of the "Marcotte System" relied on a two interlocking, swinging wooden frames that bobbed up and down and broke up "that culprit called scum." An electric motor powered the device.

The next model used a massive water wheel that separated water and gas from the bacteria-rich sludge. But this process was discarded around 1972 when Dr. Marcotte developed a simpler, less-expensive, non-mechanical method.

The Marcotte System uses three 1,000 gallon septic tanks instead of one. Inside each tank are a series of four-inch plastic pipes that have a slit cut down the side.

Waste from the house goes down a pipe and dumps into the first of three septic tanks through an intake opening. Gaseous scum floating on top of the water in the first tank falls through the slit in the four horizontal pipes that are hung from the top of the tank at water level.

SLUDGE SETTLES to the bottom of

the pipes and is washed into the second tank, but not before it passes through a maze of baffles that helps release gas and prevents scum from accumulating.

"This innovation changes scum into sludge by flotation," Marcotte explains proudly. "Gas is released in the air and goes out through the vent on top of my roof."

It's important to know that in Dr. Marcotte's eyes, scum is a bad guy and sludge is a good guy. Bacteria is "good" too.

Scum is undesirable, the doctor explains, because if enough is allowed to accumulate on top of the water, it will kill the bacteria necessary to break down the sewage into gas, water and nutrients. With heavy scum, the water turns toxic and kills bacteria because methane gas produced in fermentation cannot escape through the heavy scum.

If allowed to decompose properly, water and nutrients are discharged into the septic field, not "gunk."

Gravity draws the water into the second and third tanks where the decomposition continues and the smell becomes more bearable. Every tank has about half the waste as the previous one. Consequently, Dr. Marcotte's septic fields are shorter in length.

Dr. Marcotte is waiting for word from the U.S. Patent Office on his invention. But after installing nine such systems in the area, and securing "experimental approval" permits from both the city and Oakland

County, he's convinced it has wide applications.

"THIS COUNTRY is still primitive in how it treats its waste," said Dr. Marcotte. "We should treat our sewage right here, not on West Jefferson. It's raining right now and those gates are open at the sewage treatment plant; raw sewage is being dumped directly into the Detroit River."

Frank Roch, of 25616 Ingleside, Southfield, is a believer. He's had the Marcotte System installed at his home for three years now and hasn't had a bit of trouble with it after experiencing countless headaches with a conventional septic tank. Roch is the breadwinner in a family of eight.

"A day like this (it was raining) would have been a disaster," Roch said. "Everything would get saturated and the sewage from the septic fields would be lying two inches deep on the lawn."

"I'd recommend this system to anybody having trouble," Roch said. "And Doc is the man I'd recommend they see."

The three-tank system at the home of Roch cost \$1,500 to install.

Al Hoffman, city plumbing inspector, says close to 10,000 homes in Southfield are serviced by septic tanks. And although it's too early to tell how Marcotte's septic system will stand up over a period of years, Hoffman says "he certainly seems to know what he's doing."


Hearing compliments like these puts a twinkle in Dr. Marcotte's eyes.

Monday, October 9, 1978

(F17A)



Dr. Oliver Marcotte holds the culprit that can foul most septic tanks. The former Southfield city physician has devised a new waste disposal system that he says ends worry about scum. (Staff photos by Gary Friedman)

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