

Mussel mud: More than an old farmer's tale

By MARK LESLIE

Before World War II, the lifeblood of just about every Prince Edward Island farm within carting distance of an estuary shellfish bed was "mussel mud," a mucky organic material and broken shells from generations of shellfish that died and decomposed under water.

Fifty years later, the almost-forgotten fertilizer is being resurrected with modernized harvesting techniques, and may be just what the superintendent ordered in Canada and the United States.

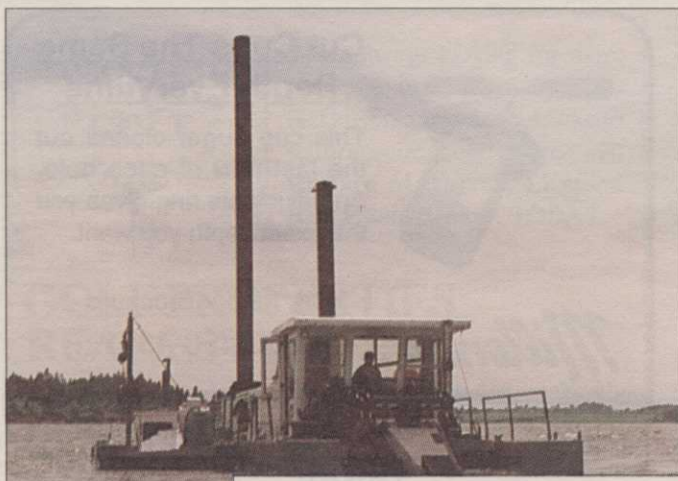
"It looks very promising," said Oswald MacEachern, who used the product P.E.I. Mussel Mud Plus last fall as top dressing and also in the root-zone mix for a green he rebuilt at his Clyde River Golf Course outside Charlottetown, PEI.

Farmer and golf course owner Delmar Currie said he decided to try the product because "years before my time in farming, mussel mud was used to help grow hay and pasture." Currie top dressed his Glen Afton Golf Club outside Charlottetown in late September 1991. After a deadly winter which caused a lot of winter kill on PEI courses, "we had none on ours," he said.

"I go out to a golf course, put down a bag that can do a 500- to 1,000-foot patch, then come back in 10 days. They [superintendents] can see the results. It doesn't take much more than that to sell it," said Gus Hillstrom, head of marketing and sales for PEI Mussel Mud Co. of Winsloe, PEI.

Hillstrom, who sold the product to two golf courses in 1991 and a dozen last year, said: "We're always going back to buyers to see what kind of results they've gotten. The end results have always been favorable. We tend to find that in a situation of a dry summer, the places with Mussel Mud Plus survive a lot better, and also after winter burnout. The reason is that it tends to develop a good root structure. You have a healthy root system that will hold more water. It turns a good rich color.

The growth isn't excessive in length — just greener, richer and thicker."



Harvested from the waters off Prince Edward Island in the Canadian Maritimes, mussel mud has proved useful to golf course superintendents. Its applications include fertilizer, top dressing and rootzone mixtures.

MacEachern, owner and superintendent at Clyde River Golf Course, said that in rebuilding his green, he added potato compost and Mussel Mud Plus and had "great results... I'm really pleased."

Back at PEI Mussel Mud Co., Hillstrom and owner Ron Sampson love to hear these testimonials. They add credence to old farmers' tales — stories about there being some 106 "mud diggers" on the Mill River alone in the 1920s when mussel mud was called a "miracle fertilizer."

Back then, diggers shoveled the heavy

muck out of the bay and sold it for 25 cents a load. Farmers still recall, with awe, the job mussel mud did for their crops in PEI's acidic soil.

PEI Mussel Mud Co. has brought the harvest into the 20th century.

Using a 350-hp pump, "we use a suction dredge that can suck up two tons [of mud] a minute," Hillstrom said. "In one week we dig 5,000 to 7,000 tons, enough for one year. If we had to dig more, there's millions of tons off estuarial waters in PEI."

Dr. Umish Gupta, a scientist at Agriculture Canada, has reported that packaged Mussel Mud Plus has performed as well as chemical fertilizers in agricultural plots.

What is this stuff, anyhow?

"Mussel mud is really a misnomer," Hillstrom said, explaining that 70 percent of its content is oyster and mussel shell. That provides the calcium.

"A lot of the nutrient content comes from the composting of the dead sea life — seaweed, fish bones, et cetera," he said. "After we get the pure mussel mud harvested we spread it out on land to dry, then add lobster, crab and fish meal as nitrogen sources.

"The product golf courses are buying is fortified mussel mud [thus the name Mussel Mud Plus] using the nitrogen additives, rock phosphate and sulphate of potash magnesia [trade name Sulpomag]."

All the contents are crushed into fine particles. Whatever the mix, superintendents are satisfied.

"Lime is much easier to work with and cheaper [\$40 a ton compared to \$200 a ton]. And I don't know any machine that could spread mussel mud over a large acreage," MacEachern said. "But, you have to use lime every two or three years. With Mussel Mud, you're getting a lot of nutrients and micro-nutrients you're not getting in lime.

"Plus, any time you can use a natural product, that's good."

MacEachern said he won't drop all his chemical fertilizers. "But I could see being able to use three applications versus six applications with chemical fertilizers.

"It's too premature to say we can only do it [on occasion]. As far as stress management... I want to see how it will stand up to modern-day golf courses."

Hillstrom is not recommending that superintendents replace their normal maintenance procedures. "It's like cooking," he said. "We just want people to try it and let them see for themselves."

He said testing at the research station shows a residual fertilization effect from year to year. "We're hypothesizing that after a length of time you will use less and less [Mussel Mud Plus] but still maintain the desired effect.

"In the long run, financially it will become feasible. And environmentally, which is the big issue, it is perfect. We're using byproducts that are being dumped and turning them into fertilizers."

Hillstrom estimated the cost of application at \$500 an acre or more — depending on the distance from the Mussel Mud Co.'s plant. "You could do all your greens and tees for \$1,000. And that's once a year," he said.

The product is marketed in the Canadian Maritimes, Quebec and Ontario and should be available in the U.S. in spring 1994. But Hillstrom said he can ship anywhere, right now.

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