



IN DEPTH
Canadian companies

Natural Newfoundland Nutraceuticals

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By Denise Flint

At first glance, a winery in the heart of Newfoundland appears about as plausible as a cod fishery in Ontario. But appearances can be deceiving.

Newfoundland's wind- and water-battered shores may seem harsh, but the island's unspoiled valleys and cliffs teem with wild berries, something Hilary Rodrigues was quick to take advantage of when he started Rodrigues Winery 14 years ago. His audacious

little company, producing boutique wines from hand-picked cranberries and blueberries, as well more obscure fruits like cloudberrries and partridgeberries, was soon garnering national attention and international awards.

Not content to rest on his laurels, Rodrigues has now turned his entrepreneurial eye on nutraceuticals and functional foods, a fast-growing branch of food chemistry.

The word nutraceutical is a blend of nutrition and pharmaceutical. Nutraceuticals are products extracted from food that have demonstrated medicinal benefits, which are used in medicinal form such as pills or capsules. Omega-3 fatty acid, for example, isolated and purified from fish oil, is a nutraceutical.

Functional foods are conventional foods demonstrating the same benefits, which may or may not have been modified. Carrots and berries such as blueberries are full of antioxidants, for example, and a growing body of evidence suggests that antioxidants can play a role in alleviating a host of medical conditions, from cancer to aging.

According to Fereidoon Shahidi, a Memorial University research professor, interest in nutraceuticals is growing, if one can forgive the pun.

"People will pay an arm and a leg for them. I think nutraceuticals will keep growing for the foreseeable future," he said. "It's like biotechnology was a few years ago."

Statistics bear him out. More than 75 per cent of Canadians say they chose foods based on their health benefits. The global functional food and nutraceutical market is now growing faster than the traditional processed food market. There are more than 300 nutraceutical companies in Canada, making the country a leading supplier worldwide.

"I don't like chemicals," says Rodrigues. "Junk foods are full of artificial flavours and colours ... and parents are now becoming aware of what food is doing to their kids."

"We want to enhance human health and mitigate against the pollution we are inhaling with naturally occurring nutrients, not artificially added vitamins, because I believe the human body can recognize 'real' nutrients."

Rodrigues wines are made with naturally grown, pesticide-free and carefully washed fruit using micro-filtration rather than sulphites to keep them free of additives. So the launch of Natural Newfoundland Nutraceuticals Inc. (NNNI), to be housed in a state-of-the-art facility overlooking the former cottage hospital turned winery, is a natural next step for a man always looking for new challenges.

Rodrigues has a simple explanation for what drives him: "I have one life to live," he says, in a deep voice still inflected with a Tanzanian accent, although he emigrated to Newfoundland more than 30 years ago. "I want to do a grand job and have fun doing it."

Rodrigues has spent the past couple of years working in a pilot plant, perfecting the techniques he will use on a grander scale when the new plant goes into production in spring. The company will turn berries into powders,

concentrated juices and purees.

When producing quality nutraceuticals, the process is as important as the materials used, he said. NNNI uses a countercurrent extraction technology that can extract 10 to 92 per cent of a berry's juice without doing any other damage to the berry. That's almost double the rate of other extraction methods. It's a gentle process that doesn't rely on nutrition-damaging heat processing.

Different concentrations of extracted juice can be mixed with other juices, bottled or powdered. Tests have shown one gram of blueberry powder has the nutrition of 12 grams of fresh berries, Rodrigues said, and that gram can be stirred into yogurt, sprinkled on ice cream or even incorporated into pancake batter. Juices can be mixed to produce beverages that specifically target certain conditions.

The berries that have been drained of juice can also be reinfused with something like apple juice and sold as raisin-type snack food or fruit leather.

Rodrigues recognizes that being located in rural Newfoundland may be seen by others as a disadvantage, but he disagrees. After all, that's where the berries are — and not just any berries, the best berries, he says.

Newfoundland blueberries are smaller than blueberries growing in gentler climates. The richest part of the berry is right under the skin, so smaller berries have a proportionally greater nutraceutical value, Rodrigues and Shahidi both said.

Rodrigues's operations won't just produce healthy products — he says they will be environmentally friendly and waste free. With markets already in place, he believes that leading-edge technology, access to sea transportation and a combination of federal and provincial support will give his company the edge it needs to succeed.

It's a strategy Rodrigues is ready to export once the Newfoundland factory is running at full capacity, processing an expected 12 million pounds of fruit a year and employing as many as 80 people. He is drawing up plans to build factories in Simcoe, Ont., Argentina and Goa to take advantage of those locations' supplies of apples, peaches, cherries and other fruits.

