

COVER STORY: Struggling area ginseng producers face low prices, high costs and trade hurdles, but see big opportunities ahead

'It is not for the faint of wallet'

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These are hard, yet hopeful times in Ontario's ginseng gardens.

After building a tightly held family secret into the province's fifth-largest cash crop in just a couple of decades and turning Southwestern Ontario's sand plain into the North American capital for the revered root crop, ginseng growers are struggling.

"There were some really good years, but it is fairly tough right now. I can assure you there is no new entry into this game," says Denton Hoffman, manager of the Ontario Ginseng Growers Association, which represents 220 farmers.

"The market right now is about as low as you could go without creating red ink."

And price is not the only challenge.

The crop itself requires intense management, is prone to diseases, and can only be planted once on the same land because a soil disease will wipe out subsequent crops.

And there is also what some in the industry refer to as their "dirty laundry" -- the use of DDT on the land 70 years ago.

Used by both Asians and North American natives, ginseng is reputed to fight off colds and the flu, increase sexual stamina in men, reduce blood pressure, lower stress and help treat Type 2 diabetes, even cancer.

Traditionally, the earthy-flavoured root has been consumed as a



Reporter John Miner finds surprising optimism among regional producers beset by high costs, low prices and other challenges. (CRAIG GLOVER/Sun Media)



Standing in a three-year-old ginseng field, grower Doug Bradley says one challenge facing Ontario's industry is it is growing more of the root than the market can absorb. (JOHN MINER/Sun Media)



Emerging ginseng plants (JOHN MINER/Sun Media)

tea, but some people now take it in capsule form.

The commercial history of the North American variety of ginseng, *Panax quinquefolius*, can be traced back to a Jesuit priest in 1702, who read a description of the woodland root written by a colleague in Manchuria. He checked and found American ginseng in what is now Ontario.

In less than 20 years, ginseng was being shipped from North America to Asia and rivaled the fur trade. One who made his fortune was Daniel Boone, better known as an American fur trader.

But the ginseng boom eventually went bust with the slowgrowing herb largely disappearing from the hardwood forests under the harvesting pressure.

Ontario first passed a law to protect America ginseng in 1891 and added it to its list of endangered species in 2000.

But 100 years ago, a few families in the Waterford area started cultivating ginseng in their fields, growing it under wooden slats to mimic woodland conditions.

It remained a close-knit enterprise with the seed tightly controlled for generations.

But in the late 1970s, the seed started to leak out to other farmers just as the first wave of tobacco farmers started looking to exit their industry.

"People were looking for an alternative crop," says association president Doug Bradley, a ginseng grower near Scotland, Ont.

"They knew there was a pretty good chance someone was going to come along and buy this ginseng for you if they grew it."

Farmers jumped in, paying \$150 a pound for seed for a crop. To plant one acre costs \$15,000 for seed alone.



Emerging ginseng plants are part of a plot planted last fall under a protective shade structure. It costs about \$40,000 to grow an acre of ginseng, with the crop ready for harvest after four years in the ground. (JOHN MINER/Sun Media)



Ontario Ginseng Growers Association manager Denton Hoffman, says Ontario grows the world's best-quality North American ginseng. (JOHN MINER/Sun Media)



Ginseng researcher Ed Lui examines a sample of locally grown root at his lab in the University of Western Ontario Medical Science building. (SUSAN BRADNAM/Sun Media)

Then there was the expense of the shade structure, another \$15,000 an acre for a crop that doesn't produce a harvest for at least three years.

With no sprays licensed for weed control in ginseng, gardens must be hand-weeded, another expense.

Current costs are about \$40,000 to grow one acre.

"It is not for the faint of wallet," says Hoffman.

In the '80s growth period, the numbers worked well, with North American ginseng commanding more than \$50 a pound.

With a fourth-year crop typically yielding 3,500 to 4,000 pounds an acre, a farmer could gross more than \$175,000 an acre.

But Asian economies slumped in the '90s, knocking down demand for North American ginseng, which was prized for its high quality, but more expensive than homegrown Asian varieties.

"In the last seven or eight years, we had one or two years the prices were over \$20 a pound. The majority of those years, it was probably between \$13 and \$16," says Bradley.

Hoffman says the current low prices are partly due to the high Canadian dollar and competition from China, which has acquired North American seed and now grow North American ginseng in direct competition.

There's also supply and demand at play, says Bradley.

"We are growing in excess of 6,000 acres. That means we are probably just a little ahead of world demand, we are growing just a bit more than what the world can consume in a year," says Bradley.

Selling more would be easier, particularly into the massive Chinese market, if it weren't for a farming practice of 70 years ago that still haunts Ontario's ginseng producers.

Tobacco farmers used the pesticide DDT on the sandy land that's ideal for North American ginseng cultivation. It remains in the soil and shows up in Ontario ginseng at about two parts per billion.

That closes the U.S. border to Ontario ginseng and makes it impractical to ship directly to China.

"The world standard is .05 parts per billion. We are in the neighbourhood of .02. China's standard is .02. We should be able to get it in direct," says Bradley.

The problem is if a grower ships a container of ginseng to Shanghai or Beijing, the value of the shipment will be \$400,000 to \$500,000.

"It gets there and, 'Yeah, you've got the licence, but we've got to test it. We've got to do this, we've got to do that.'

"It may pass, it may not, but it will take you six to nine months to find out and nobody can afford that, to have \$400,000 to \$500,000 worth of ginseng sitting on a dock while someone determines whether they are going to let it in or not," says Bradley.

But despite the hurdles facing Ontario's ginseng industry, there is also deep-rooted optimism.

A lot of it is based on ginsenosides, the chemical compounds in the root believed to give it its medicinal and other properties.

Ontario's ginseng root has more ginsenosides than any other.

"This area produces the best in the world," Hoffman says with conviction. "We take little packages of slices when we go on trade missions, enough slices for a couple of cups of tea. When you are in China and you give a guy a slice of ginseng and say try that, he tries it and you just see his eyes light up because it is really good-quality stuff."

But Hoffman and the players in the ginseng industry have set their sights, and hopes of renewed prosperity, on a potential market closer to home -- the pharmaceutical and nutraceutical industries.

To get there they need to prove that the medical claims for ginseng are more than myth.

That's where Ed Lui of the University of Western Ontario comes in.

A member of Health Canada's advisory committee on complementary medicine, Lui heads an unprecedented research effort into the properties of Ontario ginseng, its genetic background and how it might be improved.

With \$6.9 million from the province and \$14 million from the industry, including major natural health product companies, Lui works with university researchers at McMaster, Guelph, Ottawa and Toronto, and Agriculture and Agri-Food Canada.

"There are skeptics out there, physicians trained in Western medicine who say there is no evidence it is good for anything. How we change that attitude is by providing scientific information that we have evidence ginseng grown in Ontario is good for diabetes, or for stimulating the immune system by increasing antioxidant effects," said Lui.

The researchers also are seeking genetic proof that Ontario ginseng is distinct from other ginseng, such as the North American variety grown in China, so Ontario farmers can brand their product.

In the long run, scientists aim to develop what they hope will be an elite Ontario ginseng plant.

"We want to select out the best one for medicinal property. We could then propagate this according to the genetic background into several distinct ginseng plants, maybe one for cardiovascular, one for physical endurance, one for mental capacity," said Lui.

Scientists also are studying ginseng berries, not just the root, to see if they hold useful materials.

Other work is aimed at using new extraction technology to refine the compounds in Ontario ginseng.

"Hopefully, with this new extract we could sell 10 times more ginseng. If we improve the demand for the ginseng, hopefully we will improve the marketing and industry as a whole," Lui said.

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GINSENG BY THE NUMBERS

220 Ontario farmers grow the crop

7,000 acres of ginseng gardens in the province

70 per cent of the North American\ginseng variety is grown in Ontario

GINSENG FARM CASH RECEIPTS

2005 \$45.7 million

2004 \$64.7 million

2003 \$67.3 million

2002 \$68.1 million

2001 \$60.0 million

2000 \$46.7 million

1999 \$45.2 million

1998 \$58.6 million

1997 \$63.4 million

1996 \$78.0 million

Source: Agriculture Canada

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