

# Budding business

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**G**len Metzler knew the idea of growing poppies in southern Alberta held promise but had he known how many hurdles he'd have to jump ahead of time, he might have thought twice.

Perhaps it's a good thing he didn't. Now more than five years later the first field trials of thebaine poppies is underway and the hard work of the team at API Labs Inc. is beginning to bloom.

## RESEARCH & INNOVATION

"We're really quite excited about it," said Metzler, managing director of API (Active Pharmaceutical Ingredients) Labs.

The process to the first field trial has been time-consuming to say the least as the pertinent government departments, health, foreign affairs, agriculture and public safety, each have their own regulations.

Metzler is careful to draw a distinction between thebaine poppies and morphine poppies. Morphine poppies are the source of codeine and morphine, from which heroin is derived. Thebaine poppy plants have no narcotic value as thebaine must be processed before it can be used to produce medications. Thebaine is a Schedule 1 controlled substance under the Controlled Drugs and Substances Act but it can't be converted to heroin.

"We have to take that thebaine and convert it to codeine and oxycodone in the lab," Metzler said. "There are models out there that demonstrate we can do this in a safe way and still see the benefits for the economy, agriculture and the health of Canadians.

Thebaine poppies are already grown in Australia, the United Kingdom and France and Metzler sees no reason why they can't be

grown in Canada.

Metzler inadvertently stumbled on the idea of thebaine poppies as a crop when he worked with a trading company. He had a request for poppy seeds and started making calls to find a source. When his calls weren't returned he started doing some research and learned poppy seeds were a byproduct of pharmaceutical processing of poppies. Poppies are highly controlled and yields can be affected by bad weather, thereby producing a shortage of poppy seeds used in baking.

"I could see the opportunity that was there," Metzler said. "I believe poppies would grow well in this area."

Metzler has found plenty of evidence to support his thinking. The demand for morphine- and thebaine-based medications will continue to grow as populations age. In the last five years thebaine poppy production has increased by more than 200 per cent. Annual retail sales of medications derived from poppies in Canada was nearly \$570 million for the year ending Sept. 1, 2009 and 10 of the 200 most prescribed drugs are derived from poppies. And Canada is second only to the United States in importing codeine.

Metzler began working on assembling a team to move the project forward. Directors bring expertise in politics, manufacturing, seed distribution, investing, food processing, horticulture, systems control and security.

Igor Kovalchuk, principal investigator in the plant biotechnology lab at the University of Lethbridge, has been working on developing poppy plants that produce high levels of thebaine since 2006. Now with licence in hand, outdoor plot trials on an acre of land started this spring.

"Next year we're looking to expand our licence to 40 acres," Metzler said.

Growers have already signed up to grow poppies, a crop that could see them get returns five to seven times



Herald photo by David Rossiter

Igor Kovalchuk is growing poppies at the University of Lethbridge Hepler Hall greenhouse that will be void of narcotics.

higher than for traditional crops, and many investors in API are from the agricultural community.

Metzler hopes to start work on building a processing facility to convert thebaine into medications and to clean and package the poppy seed in 2014.

"It's our intention to be

processing by 2015," he said.

The facility could eventually employ 300 people, 200 of which would be positions requiring graduate level degrees. Development of a thebaine poppy industry could also create a centre of excellence in thebaine research at the U of L.