



## FARM FAMILY INNOVATION

### MARKET CHALLENGES MEANT HARD WORK & NEW THINKING

Story by Lee Hart. Photos courtesy Mark Higgins, [@migginsphoto](#)

**W**hen the bottom fell out of the alfalfa seed market three years ago, it delivered a devastating one-two punch to Jed and Kathy Williams of Imperial, Saskatchewan. Two key sources of income for their central Saskatchewan farm — the alfalfa seed business itself and the leaf cutter bees (which are an important contributor to seed production) — were hit hard. The value of both of those products the Williams family marketed across North America tanked almost over night.

It placed them in a tough spot. They had invested so much time, money and energy over the previous 15 years into building an alfalfa seed business with the complimentary leaf cutter bee operation and suddenly the markets had either disappeared or were significantly reduced, and prices had hit rock bottom. What were they to do?

#### ROLLER COASTER RIDE

The past 20 years has definitely been a journey for Jed and Kathy Williams. Jed was born and raised on a sheep farm in Australia. In 2000, he met a Saskatchewan farm girl named Kathy at a church picnic during a visit she made to Australia. He followed her back to Canada. They got married in 2001, and started farming with partners in 2002, near Kathy's hometown of Imperial.

"I had some experience with seed production in Australia," says Jed. "And when I looked into alfalfa seed production they told me I had to learn about leaf cutter bees." So he did.

While building the seed business, he worked off-farm for a number of years. The farm and their experience grew and eventually they struck out on their own in 2012. In the midst of farming and off-farm jobs they also were raising a family that today includes two boys, Jody (age 14) and Miles (age 11) and a daughter, Juanita (age 9).

The super crop of 2017 delivered a setback to their farm business plans, but the Williams certainly weren't knocked out.

"It has been a roller coaster ride, particularly over the last three years," says Jed, choking up a bit as he considers the challenges the farm and family have faced. "But I was raised on a farm and being a farmer has been my life long passion ever since I was a kid. It might have been easier to give it up, but I wasn't really interested in working again in the corporate world, which sometimes doesn't treat people very well. And maybe my ego gets in the way a bit too, as I consider myself to be one of the best leafcutter bee producers in the world."

#### THE CHALLENGE

So when the market suddenly changed, they could have sold out at fire sale prices, at a significant economic loss with an accompanying emotional toll. Perhaps they could have scaled back, producing a fraction of previous crops until the market recovered, and worked off their farm. Or they could look for ways to restructure their alfalfa seed business, diversify, and develop value-added products. The latter was the gamble they chose. It meant a lot of hard work, but the Williamses weren't just going to quit.



*A hopper full of baby bees after being extracted from the nesting blocks.*

"I started working when I was 18 and I'm 48 years old now," says Jed Williams. "I didn't spend 30 years working just so I could go broke."

"We had invested everything we had — time, energy and money — into building this farm and this business," says Kathy. "We couldn't just walk away."

Realizing they could no longer rely on prices offered by brokers to sell seed and bee larvae, the circumstances led the central Saskatchewan farmers to embark on a whole new marketing program to keep their farm business afloat. One part of the program involved Jed hitting the road and using online services to sell Grower Direct Alfalfa Seed directly to farmers.

Another part of that program involved partnering with and supplying products to a well-established, prairie-based retailer Peavey Mart. With its national market reach into eastern Canada it opened market opportunities to carry them through the storm.

Peavey Industries' 89 stores across five provinces carry Williams' alfalfa seed as an item in their Harvest Goodness private label product line. And in another creative marketing program, leaf cutter bees are available to hobby gardeners both online from the farm and in Peavey Mart stores, offering an attractive bee-rearing kit called the Backyard Pollinator.

Doing their own marketing hasn't put the Williams family on Easy Street, but it has hopefully got them over the hump. "We're still here and we are starting to see some profitability," says Kathy. "Producing alfalfa seed and leaf cutter bees is a niche market, but it's not something you can jump in and out of. We're hoping if we can keep operating through this downturn we will be in a good position when the market does recover."

## HOW SEED AND BEES FIT

Alfalfa is a forage crop important to livestock producers around the world as a high quality feed source. It is either used as pasture for grazing animals or cut and put into some form of storage as a fall and winter feed supply for beef and dairy cattle, horses and other classes of livestock.

While the Williamses annually crop about 1,760 acres of grain, oilseeds and pulse crops at their Imperial farm, they also have a working partnership with another farmer about an hour further west at Kenaston to produce another 2,000 acres of alfalfa for seed — a higher value specialty crop.

The alfalfa seed market crash of 2017 was profound. Jed Williams says the market was hammered by a "super crop" which happens every so many years.

"It was a year when conditions aligned so that just about every alfalfa seed crop in the world produced double or triple the normal yield," he says. Crops that normally produced 700 pounds of seeds per acre, for example, yielded up to 2,200 pounds of seed. The niche alfalfa seed market was flooded with millions of pounds of excess seed. Seed brokers that once would have offered Williams \$2 per pound for seed were now offering 40 cents per pound or less, far below even his breakeven cost of production.

As the alfalfa seed market fell due to the glut of seed, so followed the leaf cutter bee market.

Leaf cutter bees are a specific strain of bees that have a symbiotic relationship with alfalfa. The bees don't produce honey; their simple goal in life is to reproduce themselves. The alfalfa crop needs to be pollinated to produce seed, and the leaf cutter bees need leaf material and pollen and nectar from the alfalfa plant so they can provide nesting material for their eggs, followed by food for the bee larvae after they hatch.

While alfalfa seed is the primary crop, seed growers must also provide the structures, equipment and management to culture the bees. It is a time sensitive and sometimes labour intensive operation over 10 months of the year. Through rearing facilities, they harvest leaf cutter bee larvae, not just to pollinate their own seed crop, but to also sell any surplus larvae directly (or through brokers) to other alfalfa seed producers.

With a tremendous over-supply of alfalfa seed in 2017, many seed producers simply went out of business or scaled back production acres. Along with that, the demand for leaf cutter bee larvae retracted as well. For example, bee larvae — which mature into adult bee pollinators that in 2016 traded for \$130 per



*Alfalfa seed.*

gallon — suddenly dropped to \$10 per gallon in late 2017. (A gallon or kilo represents about 10,000 bee larvae).

As production soared and markets collapsed in 2017, Jed and Kathy Williams had about 1,700 acres of alfalfa in seed production. With a slight improvement in the supply and demand situation by 2020, they have increased alfalfa seed production to about 2,000 acres, and have developed rearing equipment and facilities to harvest 100 million bee larvae.

While it is difficult to put absolute numbers on bee requirements, they'll need about 60 million or 6,000 gallons of bee larvae for their alfalfa crop during the 2021 growing season, with any surplus sold in to other markets.

While leaf cutter bees are particularly well suited for pollinating alfalfa seed crops, they are also effective on a number of horticultural crops and are also used widely to pollinate hybrid canola seed production.

Direct marketing alfalfa seed has been rewarding but it is also a great deal of work. Jed markets seed online through the website [www.acceleratedseed.ca](http://www.acceleratedseed.ca), as well as through social media outlets such as Facebook and Kijiji. He attends farm trade shows and gets the word out with free seed samples and business cards left at livestock auction marts.

Through a combination of personal contact and by offering a quality product, he has sold tonnes of alfalfa seed to producers from Prince George, B.C. to Quebec.

"I have a high yielding, high quality alfalfa variety that I sell as common seed," says Jed. "It's produced, pollinated and harvested here in central Saskatchewan. It is cleaned to foundation seed standard, has a very high germination rate and an ultra low-weed seed count."



*Nests in fall.*

It's a tap rooted alfalfa with good winter-hardiness, tolerates grazing well and is also well suited for hay and forage production.

The idea of marketing pollinator bees to the home gardener and hobbyist came after several sleepless nights in 2017 as the Williams' wondered what to do with surplus leaf cutter bees. Working with an organization in Humboldt, Sask. which manufactures the wooden houses ("like a bird house, except it is for bees"), the Williams cut styrofoam nesting blocks that fit inside the houses. Those blocks have tunnels cut into them that will hold bee larvae.

*Tubes of leafcutter bee cocoons.*



The home gardener can set the boxes outside as the gardening season starts, with anywhere from 200 to 400 ready-to-hatch leafcutter larvae inside. After the bees develop and hatch in warm weather, they begin pollinating plants around the yard, bringing nesting material to

the tunnels inside the bee box, and laying eggs that will turn into larvae. With proper care, those larvae can be overwintered and then produce a new batch of pollinator bees the following year.

The Backyard Pollinator boxes are marketed on line at [backyardpollinator.ca](http://backyardpollinator.ca). "And it has been a tremendous opportunity to be able to market them through the Peavey Mart retail chain, as well," says Kathy.

### TOWARD THE FUTURE

Jed and Kathy are determined to make the farm work and also build something for the next generation, as well.

For the time being, 2,000 acres of alfalfa for seed production and raising 100 million bees is plenty to manage. Jed hopes over the next few years to establish his own seed cleaning facility and provide custom alfalfa seed cleaning services to other farmers. And while direct marketing seed demands a lot of time, often keeping him in the farm office until past midnight, he hopes to see that expand as well. He's also been approached by other farmers asking if he could market their seed too.

"We're doing something that we love and also working to build a sustainable and profitable farm business as well," says Kathy. "We are raising our family and who knows what their interests will be, but we want the farm to be a viable career option for them to consider."

*As a journalist for more than 40 years, Lee Hart has focused on reporting on and commenting about the Canadian agriculture industry for the past 30 years. A former field editor for Country Guide Magazine, he has been a writer and editor for Grainews for the past 15 years — based in Calgary, AB.*

*Do you want to share your agricultural family's story? If so, we'd certainly be interested in considering you for the next issue's Rural Spotlight. Please contact [Marketing@PeaveyIndustries.com](mailto:Marketing@PeaveyIndustries.com) with your information.*

