Market Fresh
Unique business approach leads to homegrown ag success story
Join the Alberta Wheat Commission & Alberta Barley at your regional meeting this November

We invite you to connect with your neighbours, receive a Commission update and learn about timely industry issues from our informative line-up of speakers.

Watch our websites for regional meeting updates including news, agendas and registration information.

We hope to see you there.
Are you living in a constant state of dullness?
Wishing you could be a cut above the rest?

Tweet @grainswest and @knifewear a photo of your old, rusty, dull or otherwise second-rate knife.
The best (AKA worst) will be entered to win a cutting-edge prize pack including a brand new Fujimoto Gyuto chef’s knife courtesy of Knifewear! There will also be runner-up prize packs to be awarded.

Use the hashtag #bladetrade and you could be slicing and dicing like a master chef in no time!

*Contest only valid for Canadian residents
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Kevin Kent
Kevin Kent is the owner of Canadian knife retailer Knife- wear. Kent is just as obsessed with Japanese knives as he was the first time he held one, and a few times a year, he travels to Japan to meet with his blacksmith friends and learn more about the ancient art of knife making.

Rob McMorris
Rob McMorris is a Calgary-based photographer with deep prairie roots. He uses his ability to connect with people to capture images that tell a story, taking him on location across the prairies and beyond. In summer, you’ll likely see him two-stepping in Calgary or enjoying a cruise on the family pontoon boat in Manitoba.

Jordan Ramey
Jordan Ramey is the Brewing Science Instructor for the Brewmaster and Brewery Operations Management program at Olds College. When he’s not busy training the next generation of brewers, Jordan enjoys spending his spare time in the mountains with his family and enjoying a locally brewed craft beer.

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Sue Spicer has been a food stylist for more than 20 years and holds a bachelor’s degree in food and consumer studies from the University of Guelph. She owns and manages Food by Design, a food marketing and communications company she created in 1996 that works with a variety of clients, including several agricultural organizations.
It’s all here
EAT YOUR WAY THROUGH ALBERTA’S DELICIOUS FOODSCAPE

IT SEEMS LIKE AN EASY CONCEPT: eat local. There are thousands of Albertans who produce enough food for all of us, no matter what your dietary preferences are. Eating local isn’t hard to do. Sometimes, it may actually be harder to eat whole foods from outside the four walls of Alberta.

Thanks to the recent re-discovery of urban agriculture, people are once again producing more of their own fresh veggies and fruits. On the larger scale, commercial farmers continue to produce everything from tomatoes and cucumbers to peppers and kale on their land in grocery-store-sized quantities.

Eating is often accompanied by drinking. In Alberta, craft beer is now bordering on recognized religion status and it’s easy to see why. Regulatory changes by the Alberta Gaming and Liquor Commission within the last two years mean it’s much easier to get into craft beer (making or drinking) than ever before. One common theme of craft is the amount of barley used. Unlike some larger breweries, many craft breweries have a strong barley presence in their beer, giving it a distinct Prairie flavour. With more hops being grown domestically, this vital ingredient is becoming increasingly localized, too. Cheers to that.

Alberta brewers such as the Dandy Brewing Company, Half Hitch Brewing Company and Tool Shed Brewing Company (p. 38) are small, but their size gives them complete control over every aspect of their operations and they have the province’s tight-knit beer community behind them. Alberta also happens to produce some of the finest-quality malt barley in the world, giving brewers another Alberta connection.

If you’re stuck for how to turn quality homegrown ingredients into a delicious meal, look no further than our recipe spread (p. 29) for eight mouthwatering creations.

Start sourcing ingredients for your kitchen creations locally, too. Farmers’ markets are always an excellent place to start your local sourcing. There’s also the popular Sunterra chain (p. 24) with locations in Calgary and Edmonton that feature locally sourced ingredients of all types. Started in 1990, Sunterra has grown into a true agribusiness success story for its Acme-born and -raised founding family, the Prices. Sunterra is a clearing-house for Alberta food and has achieved what they call “a balance between fresh-to-order, great quality and good variety.”

Lastly, don’t forget to stop off at your local bakery. We spoke to bakers (p. 42) to see what they have to say about keeping up on trends and responding to consumer demand. Their responses revealed that the ancient trade is as unique as it is innovative.

So, please, get cooking, eat local and enjoy. It’s easier than you think.

On the cover
Glen Price (left) and Chris Alladin (right) are two of the brains behind the immensely successful Sunterra market chain. Price is one of seven siblings who have built Sunterra from the ground up, and Alladin, who oversees operations at nine Sunterra market locations in Calgary and Edmonton, has been with the company for more than a decade.
A GENETICALLY MODIFIED (GM) apple, designed to resist browning when sliced, bruised or bitten, has been approved for cultivation and sale in Canada, making it the first GM fruit that will be commercially grown on Canadian soil.

Okanagan Specialty Fruits developed the non-browning “Arctic” apple by inserting a gene that reduces the level of polyphenol oxidase, an enzyme that causes apple flesh to brown when exposed to oxygen.

A browned apple might not seem like such a terrible thing. However, it’s possible that the discolouration is prompting some consumers to avoid buying the fruit in the first place—a problem the Arctic apple is designed to eliminate.

“Arctic apples have the potential to increase apple consumption and really put more apples in more places,” said Neal Carter, president of Okanagan Specialty Fruits. “I think the industry should be excited about that prospect.”

Browning also reduces the value of apples and other fruits in the food industry, where presentation is extremely important. Fresh-cut apples often need to be treated with antioxidants to preserve their colour, and apples are frequently passed up in favour of other fruits for use in processed products because they brown so quickly.

“We know there’s a host of new products that will come out of this, because we’re going to be able to use apples in products that currently they’re not used for at all because of the enzymatic browning,” Carter said. “Businesses can commercialize new products from it because of this trait.”

Despite all of its potential benefits, the Arctic apple has its fair share of detractors, including anti-genetically modified organism (GMO) advocates to preserve their colour, and apples are frequently passed up in favour of other fruits for use in processed products because they brown so quickly.

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PREMIUM MILK GARNERS MIXED REVIEWS
Coca-Cola Looks to Fairlife to Diversify Its Drink Offerings

IN FEBRUARY, COCA-COLA’S Fairlife milk hit store shelves across the United States. The company has been diversifying its drink offerings in an attempt to boost revenues, which have been dealt a serious blow by declining soft-drink consumption.

Fairlife milk is produced through a process that separates milk into its water, vitamin and mineral, lactose, protein and fat components. These are then recombined in different ratios to create a lactose-free milk product with 50 per cent more protein, 30 per cent more calcium and half the sugar of regular milk. There is one major downside: it retails for about twice as much as its conventional counterpart.

Since the release, reviews of the drink have been mixed, and it remains to be seen whether premium milk sales will be enough to improve Coca-Cola’s fortunes.

Over at popular online news outlet BuzzFeed, several staffers took it upon themselves to taste-test Fairlife milk. Their results were not encouraging, as reported by BuzzFeed’s Rachel Sanders in a post titled “We Tried Coca-Cola’s New ‘Premium’ Milk So You Don’t Have to”: “Fairlife is a little bit creepy to drink. The texture is much more viscous and thick than regular milk, and the odour is really strong, to the point that it smells almost spoiled.”

However, Sanders did acknowledge that, despite its shortcomings, Fairlife milk might appeal to certain people. “Fairlife doesn’t taste quite like normal milk, but it doesn’t NOT taste like milk, either,” she wrote. “So, if the nutrition or lack of lactose is a selling point for you, it might be worth a try.”

Fairlife milk is not available in Canada, but it can be purchased at several U.S. retailers, including Target, Walmart and Kroger.

EUROPEAN UNION APPROVES NEW GMO IMPORTS

IN APRIL, THE EUROPEAN Commission authorized the importation of 10 new genetically modified organisms (GMOs) for food and animal feed into the European Union. The Commission also renewed the authorizations of seven other GMOs.

“All the GMOs approved today have been proved to be safe before their placing on the EU market,” the Commission said, in a release. “Any products produced from these GMOs will be subject to the EU’s labelling and traceability rules.”

The approved products include GM corn, soybean, cotton and rapeseed varieties, 11 of which were produced by Monsanto. With these new additions, there are now 68 GMOs approved for food and feed uses in the European Union. The new authorizations are valid for 10 years.

The decision prompted a fierce backlash from environmentalist groups and anti-GMO advocates in the European Parliament. One of the main criticisms of the move is that many people in EU member states are against GMOs.

“Giving the go-ahead to these GMOs is an affront to democracy,” said Bart Staes, food safety spokesperson for the Greens in the European Parliament, in a release. “A majority of EU member states voted against the authorization of almost all of these GMOs in Council and there is a clear and consistent majority of EU citizens saying no to GMOs.”

The Commission also introduced a proposal to allow individual EU member states to ban imported GM crops within their borders, even if the crops have been approved for use in the European Union as a whole.

Currently, the only GM crop grown in Europe is Monsanto’s corn variety MON810, in Spain and Portugal.
SOYBEAN HEALTH CLAIM COULD BOOST ALBERTA ACRES DOWN THE ROAD

SOY CONSUMPTION LINKED TO REDUCED CHOLESTEROL

IN MARCH, HEALTH CANADA approved the use of a health claim linking regular soy consumption to reduced cholesterol.

For more than three years, Canadian soy industry group Soy 20/20, Agriculture and Agri-Food Canada and contract research organization Nutrasource Diagnostics worked together to make the claim a reality. Similar claims already exist in other countries, including the United States, Brazil and Japan.

“When those claims, particularly in the U.S., came into play, it really helped the whole business move forward,” said Jeff Schmalz, CEO of Soy 20/20. “It created an environment where the soy food business could take off.”

According to the new claim, consumption of at least 25 grams of soy protein daily helps reduce cholesterol, which is a risk factor for heart disease.

Soy foods have other health benefits as well. Soybeans are a good source of calcium and iron, are cholesterol free and contain isoflavones—antioxidants thought to have health benefits. Soy is also a source of high-quality, complete protein.

“Typically, consumers get their protein from animal protein or whey protein, which is cheese,” Schmalz said. “There are other sources, and, in this case, soy protein is a very effective protein. It has all the amino acids that are needed for human health.

“Sometimes with animal protein there’s a fairly high level of saturated fat that goes along with it. One of the benefits of soy protein is that it has a great, healthy profile, and it doesn’t have any of the saturated fats.”

According to Schmalz, the Canadian soy market is worth $400 to 500 million, about 10 per cent of the value of the U.S. market.

In Alberta, a small number of soybeans are grown on the irrigated land in the southern portion of the province. Industry estimates indicate that roughly 10,000 to 12,000 acres of soybeans were grown in Alberta in 2014. Currently, the crop can only be grown in southern Alberta, because existing varieties require plenty of warm weather to reach maturity.

Ron Gietz, co-author of a 2014 Alberta Agriculture and Rural Development (now Alberta Agriculture and Forestry) report on the potential for soybeans in Alberta, said the development of new varieties that require less heat to mature is crucial if soybeans are going to capture more acres in the province. That being said, more and more Alberta farmers are giving soybeans a try.

“It’s sort of an ongoing process, but probably every year a few more in
different districts are trying the crop,” Gietz said. “You don’t need a lot of special equipment or anything, so you can try it with what you have.”

In addition to their health benefits, soybeans also provide benefits to farmers by fixing nitrogen in the soil. “The end result is that the soil is enriched, and the next crop can benefit from that,” Gietz said. “Some guys that have done these field-scale trials have noticed that they get a good bump in yields in the next barley or wheat crop.”

In recent years, soybean acres have skyrocketed in Manitoba and eastern Saskatchewan, and Schmalz is optimistic that a similar surge could be in the cards for Alberta. “The projections for growth on the Prairies are very aggressive,” Schmalz said. “A lot of major seed companies are spending a lot of time and energy developing varieties that will work on the Prairies.”

One obstacle to the growth of soybean acres in Alberta is the crop’s profitability. Currently, soybeans do not yield as large of a return on investment as other oilseed crops, such as canola, so they have a hard time competing for a spot in farmers’ rotations.

“They have relatively low input costs, but the yield is not super high. It’s about 30 to 40 bushels per acre, so they have lower revenue as well,” Gietz said. “That’s probably the main reason that they’re having trouble getting a strong position in irrigated land, because the land here is so valuable. If you look at where the acres have taken off in Manitoba and eastern Saskatchewan, that’s happened on dryland acres.”

If new varieties are developed that expand the planting range for soybeans and allow them to compete with other crops from a financial perspective, they could gain traction as a rotation oilseed for farmers across the province.

“Farmers are capitalists. They’re going to grow what there’s a market for,” Schmalz said. “If they can make a little bit more money growing soybeans than growing canola, then they’re going to do it.”

**“KNOW GMO”**

**BALANCING THE DEBATE**

**DOCUMENTARY HOPES TO DISPEL NEGATIVE BELIEFS ABOUT GENETIC MODIFICATION**

**PRODUCTION IS IN FULL SWING**

for a documentary film project designed to educate the public about the benefits of biotechnology for agricultural use and the food system.

Know GMO: An uplifting discussion about food will feature farmers, scientists and a variety of other groups involved in the genetically modified organism (GMO) debate, in an effort to combat anti-GMO sentiments that are pervasive in popular culture and on social media.

“What we want to do is change the conversation from one of fear mongering to one of possibilities,” said Rob Saik, the film’s executive producer and CEO of the Agri-Trend group of companies. “It’s all negative, and we wanted to change that focus.”

Saik came up with the idea after watching another film that was intensely critical of GMOs without seeking out both sides of the issue. “They were not interested in hearing anything positive about GMOs, only the negative side, and that’s when I got mad and said, ‘Somebody has to do something,’” Saik said. “I looked in the mirror and said, ‘Why not me?’”

Luckily, Saik’s son Nick is a cinematographer. Together, they assembled a team and started fundraising, with a goal of $1 million. To date, they have raised more than $700,000 for the project from a variety of sources, including agricultural organizations, retailers and Saik’s own pocket.

Fittingly, the crew started filming in Hawaii, where the first commercial genetically modified (GM) fruit, the Rainbow papaya, has been grown since 1998. They have also filmed in locations across the United States, with stops in California and Missouri, where GM crops, such as GM corn and soy, are grown. Before production wraps up, they hope to visit several countries at the centre of the GMO debate, including India, Uganda and the Philippines.

Saik hopes to screen the finished documentary at several film festivals. It will also be made available to the general public and schools at no cost, so that it can be used as a teaching tool.

“We’re designing it to be used in schools,” Saik said. “We’re also designing anywhere from 30-second to 10-minute vignettes that would provide discussion for classrooms, so that people can have a greater understanding of what genetic engineering technology is truly all about.”

GM corn, soy and canola are already common in a variety of processed foods we eat every day.

According to Saik, it is vital that people accept GM crops, because without them, it will be difficult for agriculture to continue to feed the rapidly expanding world population.

“Agriculture needs tools and technology to ensure food security for a global population that’s going to increase to nine-billion-plus people. Genetic engineering is an absolutely essential science to seeing global food security,” Saik said. “Let’s embrace the technology through understanding and realize that it’s one piece of the puzzle for agriculture to do its job in feeding the planet.”

If production stays on schedule, Saik plans to premiere Know GMO in Saskatoon in early December.

grainswest.com
You call that a knife?

THE ONLY THREE KNIVES YOU’LL EVER NEED

CHOOSING NEW KNIVES IS A DAUNTING TASK, especially when a single store can offer hundreds of knives to sort through. The first step is to find a store with a wide selection and knowledgeable staff, and make sure you can test many knives before you buy. I wouldn’t buy a pair of shoes that I couldn’t try on.

Quality knives will last your entire life, so taking the time to make the right choice is key. That being said, it doesn’t have to be difficult. Normally, you can tell whether you love or hate a knife the second you hold it in your hand. Each style of knife offers several different weights and balances, so it’s important to try a few different models to see which one suits you best. You really only need three knives to do almost everything in the kitchen, but I have many more because that’s the kind of guy I am. I love having a collection.

THE CHEF’S KNIFE—known as gyuto in Japanese. These are the all-rounders. Great for chopping vegetables, slicing small pieces of meat and many other jobs, this knife is the one you’ll pull out all the time. I find there are two main approaches to the chef’s knife: German and French. German-style knives tend to have a larger, more pronounced curve to the blade; they’re great for those who like to rock-chop. French-style (and most Japanese-style) knives tend to be a bit flatter, which makes them preferable for fine vegetable and meat slicing. As these knives normally come in lengths of anywhere from 150 to 300 millimetres (six to 12 inches), every size of person can find one that fits. Keep in mind that a long chef’s knife is suitable for more jobs, so I generally recommend getting the largest that you’re comfortable holding. You can always choke up on a big knife, but you can’t make a small knife longer.

My current favourite: Maboroshi 210-millimetre gyuto, handmade by Fujiwara san

THE PARING KNIFE—often known as a petty knife. These generally come in lengths between 75 and 150 millimetres (three and six inches), and they have a narrower profile than a chef’s knife. For smaller jobs like peeling and coring fruit, and fine slicing jobs, the paring knife is king. When the knife is closer to the 125- or 150-millimetre (five to six inches) length, it is often called a utility knife. I like to use this for boning and filleting, as well as for the jobs of a paring knife. Whether you like a shorter or longer paring knife is personal preference, though extra length does give a bit more versatility.

My current favourite: Masakage Kiri 120-millimetre petty, handmade by Kato san

THE SLICER—known as sujihiki in Japanese. If the paring knife is for the jobs that a chef’s knife is too big for, this knife is for the jobs that a chef’s knife is too small for. Slicing primal cuts of meat into smaller steaks or chops and shaving paper-thin slices of fish are the main things I use this for. They’re long and slender—usually over 250 millimetres (10 inches)—so you can make that slice in one smooth motion instead of sawing. This will give you better texture for cooked and cured meat, and produce a steak that will have more contact with the grill or pan.

My current favourite: Masakage Yuki 270-millimetre sujihiki, handmade by Kato san

Kevin Kent is the owner of Knifewear and a self-proclaimed knife nerd. Follow him on Twitter @KnifeNerd
Most people have always had a sustainability strategy, but it hasn’t been called that. We soil test for our fertility needs. We use the right blend of nutrients for the right crop. Every crop that we grow uses a different balance of nutrients. For economic and environmental reasons you want to feed that crop the appropriate amount of nutrients, but not too much because that leads to runoff and excess costs. We also use up-to-date equipment with features like GPS that limit the amount of overlap so we’re not applying extra fertilizers or chemicals.

Cropping in rotation is key to our sustainability. This year we’ll be putting in nine different types of crop. The more types of crops that you grow, the more it helps to limit disease and weeds. By growing diverse crops that are not all affected by the same diseases and weeds, it helps to reduce the amount of other pesticide products I have to use in my crops.

Our aim is always to grow more so that we can feed that burgeoning population. We choose the newest, higher-yielding crop varieties. That means you are getting more commodity with the same amount of crop protection product and fuel consumption. This is a plus for the environment.

All crops are “scouted” many times throughout the growing season so problems can be spotted early, and beneficial insects can also be taken into account. All empty oil jugs, chemical containers and used grain bags are recycled. In our fertilizer program, we coat some of our nitrogen with a product that prevents the nitrogen from escaping into the atmosphere. Wetlands are retained in our fields and we support biodiversity. As we replace equipment with newer models, we are switching to a higher tier engine to reduce pollution.

There is also the benefit of fixing carbon in the soil to counteract the destruction of our atmosphere by other industries.

My goal is to improve the land so that it’s better than when I started. We are in an area with less moisture and sandier land, and one of the things that threaten sustainability on our farm is wind erosion. Years ago, we went to zero-till farming to protect the surface of the soil from the wind. By keeping the stubble from last year’s crop on top of the soil, we also preserve moisture.

Zero-till farming reduces fuel consumption and preserves the health of the soil. In the past, farmers used tillage to kill weeds, but the side effect is that you disrupt the ecosystem that is in your soil. There are flora and fauna in the soil, and many of them have a symbiotic relationship with the crops we grow. If we can preserve that ecosystem, it enhances the ability of our crops to produce. We’re managing millions of little biological units—we have to be good stewards of that resource.
A craft brewery renaissance

MEETING THE DEMAND FOR CRAFT BREWS IN CANADA

In 1980, the United States had only 92 functioning breweries; now a new one opens its doors every day. In Canada, we are seeing the same trend. From 310 breweries at the end of 2010, the number has steadily risen to the roughly 450 breweries we see today.

Partly as a result of Prohibition, beer spent much of the 20th century going stale. The industry saw breweries closing their doors. The successful ones bought out their competitors and consolidated. Beer styles died out or, at best, waned, but as the century drew to a close we saw that hope was not lost. A vigorous home-brewing movement across the United States and Canada re-sparked the love affair with full-flavoured brews and began the craft brewery renaissance that we enjoy today.

Today, the craft brewing industry is expanding at an almost inconceivable rate, and the need for skilled workers has never been higher. We are entering a phase of exponential growth.

This increase does not necessarily mean that more beer is being produced and consumed; rather, it points to an increase in local micro- and nano-craft breweries popping up to serve local markets. Following the trend of “farm to table,” folks are more concerned than ever about the origin of their food and drink. Local sells, ingredients matter and the less it travels, the fresher it will taste.

Small-scale operations require more brewers to produce each litre of beer. These small breweries must therefore charge a premium for their hands-on approach to beer production, and people are willing to pay. This increase in breweries, labour requirements and a readily available revenue stream have led to the industry experiencing a shortage of skilled workers.

In addition, breweries are brewing with more malted barley, more hops and more specialty ingredients. The demand for brewing ingredients is higher than ever. Some craft beers will use three times the amount of malt and 10 times the amount of hops as a traditional lager beer. Thus, the growth of the brewing industry is further enhancing the need for high-quality agricultural commodities. To top it all off, almost every small brewery is expanding, increasing production or both. All of these factors combine to brew up an industry becoming increasingly desperate for an influx of new staff to fill current vacancies and anticipated future vacancies.

Breweries don’t simply need brewers. They need scientists to run quality assays and prepare yeast for fermentation. They also need sales and marketing staff to promote their brand in an increasingly crowded marketplace. The need for individuals with industry knowledge and business savvy has never been higher. The number of associated positions for breweries is diverse, including packaging technician, cellarman, brewer, assistant brewer, delivery and bar staff trainer, salesperson, marketer, lab technician, research scientist, operations manager, brewmaster and many others. Enter Canadian brewing institutions to prepare folks for these varied career paths.

The rise in the number of brewing institutions across North America is clear evidence that there is a need for more skilled workers in the brewing industry. Niagara College founded the first Canadian brewing program in 2009, with its two-year diploma in Brewmaster and Brewery Operations Management. Olds College acknowledged the industry need and quickly partnered with Niagara College to offer the program in Western Canada, founding a pan-Canadian partnership. In 2014, B.C.’s Kwantlen Polytechnic University launched its two-year diploma in brewing and brewery operations. Finally, Simon Fraser University will be offering a Craft Beer and Brewing Essentials certificate starting in the fall of 2015. Even with the recent rise in brewing diploma and certificate programs, there are still not enough trained workers to fill the industry’s need for new brewers and brewery workers.

The beer is flowing freely, but our thirst is far from slaked. When folks declare there are too many breweries and the bubble is sure to pop, stop and ask yourself, “Has anyone ever said there are too many wineries in the world?” The need for skilled workers will increase, and the need for education is paramount to ensuring that high-quality beer is poured into our glasses.

Jordan Ramey’s background is in biomedical research, brewing consulting and sensory science. In 2011, he moved to Canada with his wife to work as a brewing consultant before joining the Olds College Brewmaster and Brewery Operations Management program as brewing science instructor in 2013.
Person: Sue Spicer
Place: The Food by Design test kitchen
Thing: Learning the ins and outs of the food styling business
EVERY TIME YOU SEE A TIM HORTONS SANDWICH ON A BILLBOARD, WATCH A MCDONALD’S COMMERCIAL ON TV OR buy a box of frozen chicken strips because of how delicious the picture on the package looks, you are being influenced by the work of a food stylist. All around us are compelling images of food—each carefully selected to market a product to a specific end user. Whether the food in question is a pork chop or a pot roast, getting the perfect shot requires tremendous preparation, skill and creativity. Sue Spicer is one of the best in the business.

Spicer has been in the food-styling business for more than two decades and holds a bachelor’s degree in food and consumer studies from the University of Guelph. Her career began in Toronto with photography apprenticeships at Canadian Living magazine and McCann Erickson. She then moved to Calgary in 1986 to work with the marketing and advertising department of Calgary Co-op.

Today, Spicer is the owner of Food by Design, a food marketing and communications company she started in 1996. Through her company, Spicer runs sampling demonstrations, assists consumer education programs, develops recipes, and markets products at trade shows. Her work has appeared in countless print and television advertisements, cookbooks, public relations campaigns and educational videos. Spicer’s clients have included large food-service companies, such as Subway, TacoTime and Edo Japan, as well as a number of agricultural organizations, including Alberta Barley, Alberta Wheat Commission, Alberta Pork and Egg Farmers of Canada.
GW: How did you decide to become a food stylist?
Spicer: Nobody is at all surprised that I ended up in some aspect of the creative food industry. When I was four, I was out playing in the sandbox and I made a bunch of mud pies. I put them in the oven like I’d always seen my mom do, closed the oven and walked away. My mom then came in to make dinner and she turned the oven on to preheat. I was in a lot of trouble. Between that and apparently decimating my grandmother’s house plants for salad—thank God I didn’t eat it—it was always sort of known that I liked to muck around, and my preferred craft or creative outlet was food. My mother was also a food stylist, and I started working with her. She was one of the first professional food stylists. Then I went to the University of Guelph and took a degree in food and consumer studies, so I learned a lot more about why food behaves the way it does.

GW: What are the most important aspects of food styling?
Spicer: There are so many different areas a food stylist works in: commercial, editorial, cookbook illustration and media. So you work on all these different platforms. I tell a story, that’s what I do. A client will come to me and say, “We would like you to develop 100 recipes for us that fit these criteria, and we would like a photograph to go with each recipe.” The photograph tells the story of the recipe, and within that there is the propping, which is really important. If you’re telling a story about a really nice roast beef that you’re going to serve, you don’t put a bottle of ketchup in the picture. You’re trying to capture the viewer’s attention and build an “I can” moment—I can buy this, I can make this or I can eat this. That’s what food stylists do. They tell stories, engage, and capture and create “I can” moments with the end consumer. A food stylist affects you and your decision-making every day, usually many times. Isn’t that weird when you think about it? It’s marketing, and it’s a food stylist that’s been behind that. It’s not somebody saying, “Well, let’s slap an omelette on there.”

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GW: Is all the food you work with 100 per cent real?
Spicer: We don’t fake out food anymore. It’s all real. Not that I would eat it afterwards, but that’s because it’s been so handled and sitting out. It hasn’t been prepared for consumption. It’s been prepared for photographs.

GW: What is it like working with so many agricultural organizations?
Spicer: They’re my favourites. They often come to the table without an art director and an artist and a whole expensive team, so I’m valuable to them because I provide a lot of those little nuances. I love working with agricultural products because it’s just a real passion for me, personally. As a home economist, these are education moments. We’re doing educational videos, we’re doing cookbooks and we’re doing ads that really speak to what this product is for the end consumer. That end consumer is Canadians and their families. You’re showcasing the bounty, and I’m all over that.

GW: What’s next for you in terms of future projects or career goals?
Spicer: I’d like to be more involved in the artistic direction of a food shoot and working on larger platforms. I love doing the styling, but I wouldn’t mind being on the other side of the camera sometimes and saying, “Yeah, that looks good.” But I’m very happy to do what I do, which is working with a fabulous, developing food industry. It’s natural for Alberta to be growing more into the food industry, and creating those images for the end consumer is a huge part of that industry, so I’m just really excited about that future.
A disrupted cycle

WATER IN ALBERTA IS AS PRECIOUS AS IT GETS

BY MICHAEL FLOOD • PHOTOGRAPHY BY RON MCMULLIN
You’re craving a cool drink on a hot day. You go into your kitchen, turn on the faucet, and there it is—pure, free-flowing, seemingly endless water. In any modern home, it’s a convenience so basic we don’t even think of it as a source of security.

That sense of security, born of a certainty nearly as deep as the certainty that our next inhalation will pull oxygen into our lungs, is rooted in the hydrologic cycle—the endless transport of water around the world, from oceans to mountains to rivers and back to sea.

On the Canadian Prairies, our water comes from rain, snow and the vast snow packs of the Rockies. Water evaporated from the oceans falls on mountaintops, where it freezes in winter, then melts in the spring and summer, cascading down the rough hillsides to collect in streams that merge into rivers. In these rivers, it flows out across the land, cleaned by riparian areas rich in plant and animal life. Municipalities divert some of it, treating it and delivering it through an immense system of pipes to your home.

After you’re finished with it, the water leaves your home through an equally immense waste system to treatment facilities where it is cleaned. From there, it is returned to the rivers, where it rejoins the flow to the oceans—which ocean depends on where you live. If you’re an Edmontonian, your water comes from the North Saskatchewan River and returns to Hudson’s Bay. In similar fashion, if you live in Calgary, drawing your next drink from the Bow River, the water leaving your home also returns to the Hudson.

Many water experts think that our faith in the endlessness of that cycle, its invariance, is misplaced. Robert Sandford, Epcor water security research chair at the United Nations University, has been thinking a lot about the mistakes that sense of security leads to: “We are beginning to realize that we have accepted and encouraged wasteful water use as a social norm. We have, at enormous cost, overbuilt water infrastructure to support that wasteful norm. Now we find we cannot afford to maintain and replace the entire overbuilt infrastructure that supports that waste, which increases the risk of public health disasters like [the E. coli outbreak in] Walkerton [Ontario].”

That complacency and sense of security, and the wasteful choices it has led to, will soon require us to rethink how we manage our most precious resource. As we look ahead to the rest of the 21st century, we can start to see the shape of a long-lasting disruption coming—a change in the whole water cycle itself. To begin to understand what that would mean in the future, it’s important to understand how we currently use water in Alberta.

Oil and Water
Urban users are allocated roughly 11 per cent of Alberta’s water resources for their homes, lawns, gardens and pools. Many would guess that the province’s famous (even infamous) oil and gas industry uses much of the rest. To free up the 168 billion barrels of extractable oil in northern Alberta, the third-largest reserves in the world, takes roughly three barrels of water for each barrel of oil produced. Water is used to boil the sand, allowing the heavy bitumen to rise to the top; to cool the massive machinery; and to make hydrogen and oxygen for a range of other industrial chemical uses. However, the oil and gas industry accounts for only about six per cent of the annual water allocation in the province.

The majority of Alberta’s water—60 to 65 per cent of all water consumed in the province on average—is used to irrigate more than 625,000 hectares of agricultural land. Irrigation is vital to agriculture in many areas and Alberta is an irrigation powerhouse, encompassing 65 per cent of Canada’s irrigated land area. Irrigation is also tremendously productive—while less than six per cent of cultivated land in the province is irrigated, nearly 20 per cent of Alberta’s gross agricultural production comes from irrigated land.

Growing crops on irrigated land takes enormous volumes of clean water. To visualize just how much, picture all the water needed in a season pooled on the land. The water to grow spring wheat would be 42-48 centimetres deep, canola 40-48 centimetres deep and potatoes 40-55 centimetres deep. Imagine that depth of water stretched over the province’s irrigated land and you can begin to grasp just how much water needs to be available throughout the year.
SUSTAINABLE THINKING

Too often, the people who use the most of a resource, the ones who benefit the most from it, are the ones most reluctant to change. In the case of farmers, who use most of the province’s water, that couldn’t be further from the truth. Farmers need little reminding about how vital water is to their livelihood, and they work hard to find more sustainable ways to use it.

One such farmer is Matthew Stanford who, with his father and brother, farms 2,500 acres of alfalfa, wheat, canola and flax near Lethbridge. Drawing his water from the St. Mary River, Stanford knows how vital water is to his livelihood. The alfalfa he grows for the dairy market can be harvested three times a year, in June, July and August. Relying on just natural rainfall, he would be harvesting only once before summer dryness stunted the crop.

The need to think about water resources is especially acute for southern Alberta farmers who draw from the St. Mary River. “We have to share the water flow with the U.S. as well as with Saskatchewan,” Stanford said. “So a portion of the water is not for us right off the bat.”

Priding themselves on adapting ahead of necessity, Stanford and his fellow farmers have been modernizing their water infrastructure. They’ve been replacing open ditches, from which water can evaporate or seep away into the surrounding soil, with covered pipes, as well as running their irrigation lines to take as much advantage of gravity pressure as possible, reducing the need for expensive pumps.

They’ve also taken steps to reduce water wastage on their farms, right where the water gets on the fields—the pivots on irrigation machinery. “All of the pivots that we’ve bought in the last seven years have computerized panels that allow us to do variable-rate applications, to divide the field up into as many pie-shaped pieces as we want,” Stanford said. “So if the northeast quadrant is a hilltop, we slow the pivot down, but when it is spraying on clay we can speed it up, because the soil holds water better.” This saves not only water but time as well, since Stanford doesn’t have to adjust the pivots by hand—he can do it from his mobile phone.

Every year, Alberta farmers are bringing more and more computerized pivots online, incorporating a range of water-saving technologies. Stanford and his fellow farmers provide a model of proactive thinking for Albertans and other Western Canadians about how to manage water. It’s an important step, and small savings go a long way.

PRESSURES ON WATER IN ALBERTA

All of this—thriving communities, large and small; an employment-generating oil and gas industry; and productive agriculture—depend on a steady, continuous flow of water. We are used to water being available in unlimited quantities, at our command, and for a very low price. Because of this, we project our use into the future and imagine that it will never be interrupted. Unfortunately, unless we change our thinking and our habits, the change that is already happening in the water cycle will creep up on us.

Sandford’s biggest concern is what climatologists refer to as an “energized hydrologic cycle.” The last few decades have seen steadily warming average temperatures around the globe. One of the most basic facts in atmospheric science is that warmer air holds more water vapour—each degree of temperature increase enables air to hold seven per cent more water.

The effects of this increase are varied. Wet areas like the coast of British Columbia, where the landforms and climate already produce significant precipitation, will become even wetter. Drier areas like the American Midwest and Canadian Prairies, on the other hand, will be even drier, as the higher temperatures increase evaporation over the land and the wetter air carries the water away.

“Glaciers are disappearing, and precipitation patterns are changing in our western mountains, which will affect water supply in Alberta”

—Robert Sandford

Sandford believes that Albertans (and Canadians in general) have been overly complacent about our water resources and the new threats we are facing. Measured by outflow, the amount of water that leaves the province to return to the oceans, we use eight per cent of the province’s surface water. That may not sound like much, but our entire water infrastructure, an investment worth billions of dollars, is oriented towards where the water is readily available now.

WATER FOR LIFE

Acknowledging these threats to the sustainability of Alberta’s water, and all the life and livelihood that depends upon it, the Province introduced the Water for Life strategy in 2009. Designed as a comprehensive plan to address the growing pressures on the water system from both population and the economy, it outlined the policies the government will implement over the next 10 years. The primary goals outlined were ensuring Albertans have access to safe, secure drinking water; preserving healthy aquatic ecosystems; and maintaining a reliable supply of quality water for a sustainable economy.
Sharon McKinnon is the alternate member for the cropping sector on the Alberta Water Council, a body set up by the province to implement the Water for Life strategy. She’s directly involved with efforts to make water sustainability a working reality for all Albertans. One major initiative that launched in June 2015 is a comprehensive new plan for managing the province’s wetlands. “In the past,” McKinnon said, “provincial policy was directed towards draining wetlands to create more arable land for agriculture.” Wetlands often covered large parts of farmers’ fields, bogging down heavy equipment in the early spring planting season. Now, that policy is being reversed. “We’re realizing now how vital those wetlands are for biodiversity, water retention and flood control,” McKinnon said. After the disastrous flooding of the Bow River in 2013, inundating much of Calgary, flood control is now a major concern.

With the Watershed Resiliency and Restoration Program and the Agricultural Watershed Enhancement Program, the Alberta government is identifying and prioritizing wetlands and riparian areas for conservation, and encouraging farmers and local communities to protect and restore the ones on their land. “Restoring wetlands can be very straightforward,” McKinnon said. “By plugging drainage ditches the wetlands can come right back.” The programs make grants available to individuals and groups for wetland restoration and water quality improvement practices.

CHANGING, CONSERVING AND EDUCATING

Even with the new wetland-restoration policies, and with new drives for sustainable water use by the province’s farmers, our water is still vulnerable. Part of the problem stems from the way the province’s water-use licensing system is structured. Water is primarily allocated on a first-come-first-served basis, where the holder of an earlier license has priority over all licenses issued later. In the past, this system of ‘prior allocation’ determined priority for all water users in the province, and licenses could be held indefinitely. However, the introduction of the province’s Water Act in 1999 ensured that domestic and household water users would always have the highest priority—superseding all existing licenses. The Act also instituted a term limit for water licenses, most of which now need to be renewed every five years.

The Act includes clauses for overriding licences during emergencies, but leaves forward-thinking to prevent emergencies up to Alberta Environment and Parks, the ministry that issues the water licences.

The powers given to the government can be major tools. For example, Alberta Environment and Parks can define water-use goals for different water sources, and is in the process of revising and changing a range of these goals for important bodies of water to encourage conservation. But all these changes are insufficient unless the people of Alberta are aware of both what is at stake and what they can do about it. One of the major initiatives of the Water for Life strategy, and a key one being pursued by the Alberta Water Council, is fostering awareness among Albertans about the vulnerability of their water. The goal is to encourage conservation and prepare Albertans for changes in how they will have to use water in the future.

As a first step, the Alberta Water Council has been surveying the current state of knowledge about water to gauge where to start new educational efforts. Regional water-use-planning bodies are also identifying water vulnerabilities and making them known to the public, along with the triggers that will start water-conservation measures during droughts and other water emergencies.

“Drought and floods are facts of life in Alberta,” McKinnon said. “It’s vital that everyone take an interest in and realize their individual responsibility for making sure our water is clean and plentiful for generations to come.”

To reach that sustainable future, it might be useful to talk to those who know how much we depend on water—our farmers and ranchers. “If glaciers are shrinking and that natural reservoir is reducing, we have definite cause for concern,” Stanford said. “Without water we would have no cities, no oil sands, no agriculture, no Alberta. We have to protect it.”

grainswest.com
Gluten has made its way into our everyday life. It’s right up with there with breathing, selfies and saying “literally.”

Gluten is a combination of proteins commonly found in wheat, barley and rye, and it’s “literally” been around longer than any of us.

Gluten is fairly ubiquitous in our daily lives. From mascara to salad dressing, it’s hard to escape gluten. You may frequently interact with gluten in your daily life without even knowing it. Despite being originally limited to bread products, gluten has a surprising number of uses in the modern food industry. To understand its present role as a food additive, it helps to trace its history.

**WHAT IS GLUTEN?**

1) Gluten is the combination of proteins found naturally in wheat, barley and rye: gliadin and glutenin.

2) When flour is mixed with water and kneaded into dough, the gliadin and glutenin proteins combine.

3) Together, they form gluten, a protein compound known for its elasticity and strength.

Before the use of steel rollers in the late 19th century, wheat grown in Canada was ground in stone mills. With stone milling, wheat is ground between two large circular stones. The top stone is rotated while the bottom stone remains still. Wheat is poured through a hole in the top stone, and the ground flour is pushed out from the edges of the two stones.

Gluten gives bread its chewiness. It also traps carbon dioxide in the dough during yeast fermentation, which helps make the bread light and fluffy. The strongest gluten (like that found in durum wheat) is used to make pasta. Other types of gluten are found in a range of bread products.

A hundred years ago, gluten was eaten as an ingredient in bread, muffins, bagels and pasta.
Plant breeders in Canada continually work to ensure grain plants can be as strong as possible by selecting genes that increase both disease resistance and yield. The use of gluten has also changed, since the properties that make it a key component in bread and pasta also make it a good additive for other products. Gluten extraction is carried out on an industrial scale and is added to a wide range of products to add elasticity, strength and shelf life.

The use of steel rollers sped up wheat processing greatly and allowed processors to strip away the wheat kernel’s bran and germ to create white flour. Steel-roller gristmills used steel rollers to crush kernels into flour. They were easy to maintain and processed flour in much higher volumes than stone mills.

Gluten’s properties allow products like pizza dough to stretch and spin without breaking during processing. They also help to increase shelf life.

Gluten is used in a surprising number of products, not just food. It can be found in some types of mascara, pickles, licorice, pet food, medications, ice cream, hot dogs, french fries and soy sauce. The next time you curl your eyelashes or have a lick of ice cream, just remember you might be getting up close and personal with gluten.

Gluten has been a natural part of grains for years, but a new idea is that heritage wheat varieties like Red Fife are better to eat than modern varieties grown today. One of the charges of William Davis’s well-known book, Wheat Belly, is that nutritional characteristics in wheat varieties, including gluten content, have been altered over time, and not for the better. The Heritage Wheat Study conducted by Agriculture and Agri-Food Canada (AAFC) sought to answer whether there have been any changes in Hard Red Spring Wheat varieties over time and, if so, what they are. The study included 20 wheat varieties, both heritage and modern. These varieties were analyzed for their milling and baking properties as well as bioactive components such as antioxidants, carbohydrates, fibre and proteins (including glutenin and gliadin).

The study’s final report found no substantial differences between heritage varieties and modern varieties in terms of proteins, antioxidants, carbohydrates and other nutritional characteristics, according to Nancy Ames, an AAFC research scientist who worked on the project.

1. Mix wheat flour with water and knead into dough.
2. Run cold water over the dough to wash the starch out.
3. Stop when you have a yellowish, stretchy blob, and voila—you now have gluten!
QUALITY OVER QUANTITY

A true success story for an Alberta farm family

By Ian Doig • Photography by Rob McMorris
It was lunch hour at Sunterra Market Keynote in Calgary, and it was elbow-to-elbow at the self-serve salad bar. Office folk in casual-Friday finery heaped cubed ham, spinach and shredded cheese into plastic take-home boxes. Within minutes, the sandwich cooler was emptied of its egg-salad, roast beef and turkey packs. Two helmeted construction workers searched for other convenient cartable options.

Determined shoppers roamed the tight main-floor produce aisles and surrounding counters for the night’s dinner. At the prepared-food kitchen, servers doled out containers of marinated meats and a rainbow array of cold salads. Over at the butcher counter there were glistening chicken-and-pepper kebobs and a perfect selection of steaks, while the packaged-meat cooler displayed Sunterra Farms porkback ribs, Carmen Creek bison and Maple Hill Farms chicken.

At the deli kiosk, olives and fine cheeses complemented Valbella Landjaeger sausage, and portly Sunterra ham and beef roasts were ready for slicing.

The fishmonger’s crushed-ice coolers displayed scallops, salmon fillets, lobster and a showy half-metre halibut; the adjacent bakery counter featured a profusion of pies and pastries, and a wall of fresh Sunterra bread.

The balance of the main floor featured shelving and coolers chockablock with packaged goods, from premium jarred tomato sauces to artisan sodas, quinoa chips and endless tangles of packaged pasta.

Storewide, service was quick and attentive, and at the tills, lineups had little time to form. It may have looked it, but operating this premium grocery chain is not easy work. The business model cuts no corners and demands the best foods be cooked, packaged and served in multiple convenient configurations, explained senior vice-president of operations Chris Alladin. He oversees the operation of nine Sunterra market locations in Edmonton and Calgary.

A trained chef with a background in restaurant management, Alladin has been with Sunterra almost 13 years. “When I first got here, I saw how proud the people were. Everybody was just so enthusiastic about the quality of the products they were working on,” he said. Staffing is always challenging in Alberta, but Sunterra’s cachet is its own hiring tool.

“The bigger chains tend to give up on service,” said Alladin. “They try to be quick. We try to find a balance between fresh-to-order, great quality and good variety, and still offer speed and service.” And yet, keeping prices competitive is a mantra here. Copycat concepts have tried and failed to duplicate this cost-versus-quality feat.

Sunterra may be perceived as expensive among the uninitiated, but once visitors try it, they understand why they’re paying a premium price, said Alladin. The chain’s marquee example is its own pork products. While fattier supermarket pork may require trimming at the kitchen counter, Sunterra offers lean, delicious and perfectly aged cuts of pork at a comparable cost.

Patricia Derbyshire is a regular patron of Sunterra Market in Calgary’s West Market Square. “If I’ve ever needed a quick meal, particularly when my son was growing up, I always found Sunterra better than a restaurant and as convenient as fast food,” she said. “I don’t compare Sunterra [prices] to other grocery stores, but to what I would spend if I ate out.”

The owner-operator of a seniors concierge, Catherine Cartmill shops at Sunterra and recommends it to clients who may benefit from its services, including grocery and meal delivery, to make their lives easier. “I used to think Sunterra was more expensive than other stores, then I did a cost comparison,” she said. Sunterra’s pricing can be “all over the map,” but the prepared foods are more interesting and less generic than typical grocer fare.

Cartmill is also a fan of Keynote’s third-floor restaurant, Marketbar, which serves made-to-order pasta dishes and “big pan” meals such as sausage with perogies. At $20 for two entrees with

Glen Price spent more than a year in Hong Kong working for supermarket chain ParknShop, gaining experience that helped the Price family launch its Sunterra market chain in 1990.
coffee and juice, it also serves the best breakfast deal in town, she said.

Sunterra’s magic formula, said Alladin, is the foresight of the Price family, its founder and majority owner. Years ahead of their time, they anticipated consumer demand for healthy, convenient groceries and prepared meals. They’ve also married commodity agriculture with direct-to-consumer retail in a unique and determined way.

Less than an hour’s drive northeast of Calgary, the apparent sleepiness of Acme’s evergreen-lined Main Street belies the area’s history as a hotbed of forward-thinking agricultural practice. The Sunterra Group of Companies is headquartered here, in a nondescript, one-floor office block.

The modest situation suits the self-effacing clan that operates one of Alberta’s most conspicuous entrepreneurial success stories. Sunterra employs a staff of close to 1,000, with sales of approximately $150 million annually. Majority-owned by the Prices, two other local families, the Woolleys and the Fredeens, are minority partners.

Sunterra Group president Ray Price leaned on the boardroom table surrounded by posters of beautifully prepared Sunterra take-home meals. He said the Canadian grocery and meat industries do a very good job supplying good product at a good price. Diplomacy aside, with its high-quality product and above-and-beyond customer service in tandem with competitive pricing, Sunterra has not only differentiated itself with consumers—in Alberta, it has virtually no competition within its admittedly modest slice of the grocery market.

Ray Price is one of seven siblings, four of whom are active Sunterra managers. The Price family farm, just west of Acme, was established by Florence and Stanley Price in 1950. Price family and Sunterra farmland comprises about 2,000 acres in the same general area. Annually, the farming operation produces up to 120,000 bushels of wheat and up to 80,000 bushels of canola, predominantly for the commodity market, as well as a small amount of barley for silage production.

Sunterra Farms operations in Alberta, Ontario and Iowa produce 300,000 pigs annually, and it operates two meat-processing facilities—one near Acme, the other in the nearby town of Trochu. Supplying the beef side of the operation, brother Doug Price operates a cattle ranch and feedlot north of Acme, with land around Rocky Mountain House, Drumheller and Czar.

Florence’s father was born on the Burns Ranch south of Calgary in the late 1800s. He settled in the Crossfield area where Stan’s father’s family farmed. Flo and Stan met here, and subsequently purchased land in the Acme area. Stan, who died in 2012, established himself in pig breeding and was well known in horned-Hereford circles. Stan and Flo passed on their passion for livestock to their children, and all seven worked to manage various farm operations through their school years.

Dave Price is past president and a company director, and
his duties include interfacing with government. As a young man in 1968, he spent a year in England working with the Pig Improvement Company, a new pig-breeding concept. It so impressed him, he convinced his family to launch Pig Improvement Canada, 50 per cent owned by the U.K. group at that time. It would later become Sunterra.

Pig Improvement Canada launched in 1970 with Dave as manager, Stan providing directorial vision and Flo bringing the financial expertise. With stock from the U.K. operation, Pig Improvement Canada began breeding operations in Acme, which in turn provided stock for the launch of Mexico and U.S. operations. The Prices and their partners were instrumental in turning the Pig Improvement Company network into what is now by far the largest pig-breeding network in the world. By the late ‘90s, it was the largest supplier of breeding stock in Canada, but growth levelled off. Rather than compete with other Pig Improvement Companies in the international marketplace, all decided it was best for the business and for the family to sell the breeding stock marketing business.

Retaining the Alberta farms and Canadian marketing rights, the Prices once again employed visionary flair, anticipating production and retail agri-food trends. “What we believed we saw coming was that packers were going to get more involved in pig production and pork utilization,” said Ray. As early as the mid-’80s they began to explore meatpacking and the retail sector. “We were experts in pig production but we needed to be experts in pork production,” said Ray. They worked with packers to understand their needs, touring farms and packing houses in Europe.

The knowledge, expertise and high-quality pork developed by the Pig Improvement Company was the impetus for this ambition. Its genetic improvements produced leaner, faster-growing pigs exhibiting better feed conversion and bigger litters. “We felt we had really high-quality pork, and it was being lost in the system,” explained Ray. “We also knew we had to understand more about pork qualities.”

Purchasing a small Trochu meat plant that handled pigs and cattle, the Prices began testing the pig-to-pork transformation and traceability. With the meat supply and processing system in place, the market beckoned, said Ray. “We said, ‘Well, why don’t we just get into a retail store and find out what consumers think of us?’” A commodity-based family farm launching a consumer-direct retail operation was unheard of in the late ’90s. It was a step into the complete unknown, said Ray with a chuckle. “Crazy farmers thinking we could go downstream and sell products into a store situation. But we really believed that high-quality pork and beef at a competitive price would sell.” This was prior to the eat-local trend, so
success would be predicated upon quality and value. “We had a better product and we could sell at a similar price to everybody else, so why wouldn’t we do that?”

The family wasn’t flying blind. Glen, the youngest brother, had just spent 14 months in Hong Kong working for ParknShop, one of that market’s top grocers. The family put his expertise to work conducting a business feasibility study.

Determining that a meat-only business wouldn’t work, Sunterra launched in 1990, mirroring the one-stop shopping of European markets. Sunterra market in Calgary’s Bankers Hall opened that year and continues to serve customers 25 years later. Its structure was suggested by the Prices’ own busy lives. “Who has time to cook?” posed Ray. “We went into it thinking we needed to have prepared and ready-to-cook meals.” Careful attention was also paid to store layout, shelving and product presentation.

“We needed to get people into the store and tasting the food,” said Ray. “We felt once they tasted it, they wouldn’t go anywhere else.” Its high-quality alternatives to TV dinners and better consumer experience proved a hit, with unexpectedly high demand for sit-down restaurant service.

As the Sunterra chain has expanded, the evolution of its goods and services has been based almost exclusively on in-store consumer feedback. The subsequent tailoring of this quality-plus-value equation has informed its penetration of foreign export markets, notably the Japanese premium grocery sector. Sunterra now also sells into China and Hong Kong, where even a sliver of market share is highly lucrative.

Over coffee at the CrossIron Mills food court, Dave and son Matt are on a short break between rural business meetings. Not surprisingly, as a next-generation Price, Matt is a big fan of producer self-determination. As Sunterra crop manager, he also handles special projects.

He said the dissolution of the Canadian Wheat Board monopoly has been entirely positive, allowing improvement to the bottom line through hedging and forward selling as well as marketing into the United States. “It just gives you a lot more control. The Wheat Board was a pretty restrictive system.”

Grain is but one Sunterra revenue stream. Though the bulk of Alberta production is tied to the commodity system, the integration and production of multiple high-quality products is key for Sunterra’s success, said Dave. Selling to China wouldn’t be possible without Sunterra’s ability to process its own raw product. It can easily act on its own marketing insights while maintaining the stability for growth.

As with new retail locations, the Prices have learned to take measured steps into new export markets. “We look for opportunities that, with focus and due diligence, we might do a better job [with] than somebody reacting to opportunity as opposed to planning for it,” said Dave.

The pendulum has swung towards the Sunterra model in the greater grocery industry, he said. It was to be expected, he added, but he believes Sunterra’s high-end market segment remains secure because it’s a specialty, not a sideline.

Dave spoke fervently of bettering the agriculture sector, and both father and son see vast new opportunities for Prairie producers, notably in California. With a population equal in size to Canada’s, its agricultural operations are shutting down due to water shortage. There is opportunity for California-bound dairy and poultry product exports and a subsequent spinoff for local feed-grain production that Dave predicts will grow in tandem.

“We can land product in California more cheaply than they can out of the U.S. Midwest, which is the major production centre for pork and beef,” he said. Gearing some of Alberta’s crop and animal production for that market is an obvious move, he added. “That’s the lowest-freight target market for our meat products anywhere in North America, other than close at home, because of the backhaul opportunity.” All it will take, he advised, is federal and provincial government help to eliminate American trade entanglements. “Just facilitate it, get that stuff out of the way, and we will grow like mad.”

After all of Sunterra’s big-city success, Dave (left), Ray (right) and the rest of the Price family remain intimately connected to the farm and their agricultural roots.
When it comes to food, there are so many choices. Unfortunately, the easiest choices—such as fast food or other pre-prepared and heavily processed meals—are often the least satisfying. Instead, why not give Alberta wheat and barley a try? Both of these nutritious grains are packed with flavour, and they’re versatile enough to incorporate into any dish—breakfast, lunch or dinner. Best of all, you don’t need to be an experienced chef or home cook to enjoy them. So the next time you’re hungry, don’t settle for something boring or unhealthy. Reach for one of these eight tantalizing recipes, and unleash the power of gourmet grains!
ROASTED BARLEY & RADISHES WITH BALSAMIC MAPLE GLAZE

It is surprising how roasting radishes brings the real vegetable out—mildly nutty and sweet, no harsh bitterness. This is a wonderful side dish for poultry, especially suited to a fall turkey dinner.

Ingredients
2 Tbsp (30 mL) butter
2 cups (500 mL) cleaned, stemmed and halved radishes
8 peeled and halved shallots
½ cup (125 mL) pot or pearl barley
1 cup (250 mL) no-salt-added vegetable broth
1 ½ cups (375 mL) water
1 Tbsp (15 mL) balsamic vinegar
1 Tbsp (15 mL) maple syrup
Salt and pepper to taste

Instructions
Preheat oven to 350°F (180°C).

In a wide saucepan, over medium heat, melt butter. Add radishes, shallots and barley and brown lightly, just until a few barley kernels start to “pop.”

Slowly add broth and water. Cover, and place in oven for 30 minutes. Remove cover, stir in vinegar and maple syrup. Return to oven, uncovered. Continue to cook 10 to 15 minutes, until all liquid is absorbed. Season with salt and pepper.

Makes 6 servings, ¾ cup (175 mL) each.

Nutritional Information (per serving):
Calories: 136
Protein: 3 g
Carbohydrate: 24 g
Fibre: 3 g
Sugars: 5 g
Fat: 4 g
Saturated Fat: 2.5 g
Trans Fat: 0.2 g
Cholesterol: 10 mg
Sodium: 225 mg
Potassium: 541 mg
This is a moist quick bread, bursting with texture and flavour, and could easily become a new family favourite.

**Ingredients**

- ¾ cup (175 mL) granulated sugar
- ¼ cup (60 mL) canola oil
- 1 egg
- 1 cup (250 mL) diced peaches (drained if using canned)
- ½ cup (125 mL) strong chai tea
- ½ cup (125 mL) milk
- 2 cups (500 mL) whole-barley flour
- 2 tsp (10 mL) baking powder
- 1 tsp (5 mL) baking soda
- ½ tsp (2 mL) salt
- ½ tsp (2 mL) each, ground cardamom, ginger and allspice
- 1 cup (250 mL) chopped pecans

**Instructions**

Preheat oven to 350°F (180°C). Lightly grease a 9 inch × 5 inch (23 cm × 13 cm) loaf pan.

In a medium bowl, beat sugar, oil and egg until combined. Stir in peaches, tea and milk. In another bowl, blend flour, baking powder, baking soda, salt and spices. Add the dry ingredients to the peach mixture, and stir just until blended. Fold in pecans, just to combine.

Spoon into loaf pan and bake for 45 to 50 minutes, until a cake tester or toothpick inserted in the centre comes out clean. Place pan on a wire rack to cool for 5 minutes before turning out loaf. Allow loaf to cool completely before slicing.

Makes 1 loaf, 12 slices.

**Nutritional Information (per slice):**

- Calories: 230
- Protein: 2 g
- Carbohydrate: 29 g
- Fibre: 3 g
- Sugars: 15 g
- Fat: 15 g
- Saturated Fat: 1 g
- Trans Fat: 0 g
- Cholesterol: 17 mg
- Sodium: 274 mg
- Potassium: 85 mg
**PROVENÇALE CHICKEN AND BARLEY**

The herbs in an *Herbes de Provence* blend are those typically used in southern French cooking. The combination of herbs will vary by cook, but often includes rosemary, savory and thyme, with marjoram, sage, lavender and fennel sometimes in the mix as well.

**Ingredients**

3 tsp (15 mL) Herbes de Provence, divided  
1 tsp (5 mL) grated lemon rind  
1 tsp (5 mL) Dijon mustard  
2 Tbsp (30 mL) fresh lemon juice, divided  
1 Tbsp (15 mL) canola oil  
6 large chicken thighs, bone-in, skin removed  
2 large carrots, thinly sliced  
1 zucchini, chopped  
1 small onion, diced  
1 cup (250 mL) pot or pearl barley  
2 garlic cloves, minced  
¼ tsp (1 mL) salt  
2 cups (500 mL) reduced-sodium chicken broth

**Instructions**

Preheat oven to 325°F (160°C).

In a small bowl, whisk together 1 tsp (5 mL) Herbes de Provence, lemon rind, mustard, 1 Tbsp (15 mL) lemon juice and oil. Brush mixture over chicken. Set chicken pieces aside to marinate in the fridge for 30 minutes.

In a 3-quart (3-L) casserole dish with a lid, place carrots, zucchini, onion, barley, garlic, salt, broth, and remaining 2 tsp (10 mL) Herbes de Provence and 1 Tbsp (15 mL) lemon juice. Stir to combine. Cover and bake for 30 minutes.

Remove from oven, and place chicken on top of the barley-vegetable mixture. Cover and bake until chicken is cooked, barley and vegetables are tender, and most of the liquid is absorbed—about 1 hour.

Makes 6 servings.

**Nutritional Information (per serving):**

<table>
<thead>
<tr>
<th>Nutrients</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calories</td>
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</tr>
<tr>
<td>Protein</td>
<td>34 g</td>
</tr>
<tr>
<td>Carbohydrate</td>
<td>32 g</td>
</tr>
<tr>
<td>Fibre</td>
<td>7 g</td>
</tr>
<tr>
<td>Sugars</td>
<td>3 g</td>
</tr>
<tr>
<td>Fat</td>
<td>9 g</td>
</tr>
<tr>
<td>Saturated Fat</td>
<td>2 g</td>
</tr>
<tr>
<td>Trans Fat</td>
<td>0.2 g</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>125 mg</td>
</tr>
<tr>
<td>Sodium</td>
<td>482 mg</td>
</tr>
<tr>
<td>Potassium</td>
<td>687 mg</td>
</tr>
</tbody>
</table>
These barley and vegetable pancakes are light and lacy, with a crispy exterior and satisfying, chewy texture. Serve with sausages for breakfast, lunch or dinner!

**Ingredients**

- 1 cup (250 mL) cooked pearl or pot barley
- 1 cup (250 mL) shredded yellow potato
- ½ cup (125 mL) shredded carrot
- 2 green onions, thinly sliced
- 2 Tbsp (30 mL) whole-barley flour
- ½ tsp (2 mL) salt
- 2 eggs, beaten
- Freshly ground pepper, to taste
- Cooking oil spray
- Unsweetened applesauce (optional)
- Plain 2% yogurt (optional)

**Instructions**

Preheat oven to 425°F (220°C).

In a large bowl, combine barley, potato, carrot and green onions. Toss with flour and salt. Stir in eggs and ground pepper.

Spray a baking sheet thoroughly with cooking oil spray. Spoon 2 Tbsp (30 mL) of mixture onto baking sheet and spread slightly to make a 2-inch (5 cm) pancake. Repeat with remaining mixture, forming 12 to 14 pancakes.

Bake for 7 to 8 minutes. Flip pancakes and continue baking for 7 to 8 minutes more, until golden and crisp. Serve immediately, topped with a spoonful each of applesauce and yogurt, if desired.

Makes 12 to 14 pancakes.

**Nutritional Information**

(per pancake, ⅛ of recipe):

- Calories: 52
- Protein: 2 g
- Carbohydrate: 10 g
- Fibre: 1 g
- Sugars: 1 g
- Fat: 1 g
- Saturated Fat: 0.3 g
- Trans Fat: 0 g
- Cholesterol: 32 mg
- Sodium: 113 mg
- Potassium: 44 mg
HARVEST BREAKFAST STRATA

This easy strata puffs up into melty, cheesy goodness. For added flavour, use a maple-flavoured breakfast sausage.

Ingredients
- 8 slices whole-grain bread
- 1 tart apple, cored and diced
- 3 green onions, chopped
- 1 ½ cups (375 mL) grated sharp cheddar cheese, divided
- 1 lb (500 g) lean turkey breakfast sausage, cooked and sliced into rounds
- 9 large eggs
- 2 cups (500 mL) milk
- ½ tsp (2 mL) salt
- ½ tsp (2 mL) pepper
- 1 Tbsp (15 mL) prepared mustard

Instructions
Preheat oven to 350°C (180°F).

Cut bread into cubes. Place two-thirds of the bread cubes into the bottom of a greased 9 inch × 13 inch (23 cm × 33 cm) baking dish.

Spread the apple, onion and 1 cup (250 mL) cheese evenly over the bread. Add the remaining bread evenly over this mixture.

Beat eggs, milk, salt, pepper and mustard and pour over the bread mixture. Top with the remaining cheese.

Bake for 45 to 50 minutes or until firm and browned on top. Allow to sit for 5 minutes before serving.

Makes 6 servings.

Nutritional Information (per serving):
- Calories: 488
- Protein: 38 g
- Carbohydrate: 27 g
- Fibre: 4 g
- Sugars: 10 g

Fat: 26 g
Saturated Fat: 11 g
Trans Fat: 0.3 g
Cholesterol: 374 mg
Sodium: 1090 mg
Potassium: 545 mg
This soup freezes well; however, additional broth may need to be added to compensate for the swelling of the delicious, nutty and chewy wheat berries.

**Ingredients**
- 2 Tbsp (30 mL) canola oil
- ½ onion, diced
- 2 garlic cloves, minced
- 1 lb (500 g) lean ground turkey
- ½ cup (125 mL) wheat berries
- ½ tsp (2 mL) red pepper flakes
- ½ tsp (2 mL) dried thyme
- 2 bay leaves
- ½ tsp (2 mL) salt
- ½ tsp (2 mL) pepper
- 6 cups (1.5 L) reduced-sodium chicken broth
- 2 carrots, peeled and diced
- 1 zucchini, diced
- 1 cup (250 mL) packed fresh spinach
- 3 Tbsp (45 mL) soy sauce, optional to taste if desired

**Instructions**
In a 4-quart (4-L) pot, heat oil over medium heat. Add the onion and garlic, and cook until onion is translucent, about 2 minutes. Add the ground turkey and brown, breaking into chunks as it cooks.

Add the wheat berries, red pepper flakes, thyme, bay leaves, salt and pepper. Cook for 5 minutes. Add chicken broth. Bring to a boil, then reduce to simmer until wheat berries have softened and are chewy in texture, about 30 minutes. Add the carrots, zucchini and spinach until vegetables are tender, about 10 minutes. If desired add soy sauce just prior to serving. Remove bay leaves before serving.

Serves 8 to 10.

**Nutritional Information**
(per serving, ⅛th of recipe):
- Calories: 184
- Protein: 15 g
- Carbohydrate: 13 g
- Fibre: 3 g
- Sugars: 3 g
- Fat: 8 g
- Saturated Fat: 1.5 g
- Trans Fat: 0 g
- Cholesterol: 39 mg
- Sodium: 678 mg
- Potassium: 426 mg
WHOLE-WHEAT DINNERT BUNS

The combination of the whole-wheat and all-purpose flour makes these buns both nutty and fluffy.

Ingredients

- 2 ½ tsp (12 mL) (1 pkg) instant (quick-rise) yeast
- ¼ cup (60 mL) granulated sugar
- 1 ½ cups (375 mL) warm water (about 40°C/100°F)
- 1 large egg
- ¼ cup (60 mL) canola oil
- 1 tsp (5 mL) salt
- 2 cups (500 mL) all-purpose flour, divided
- 2 ½ cups (625 mL) 100% whole-wheat flour

Instructions

In a large bowl, gently stir yeast, sugar and water. Allow to sit until yeast dissolves and mixture is slightly frothy, about 10 minutes.

In a small bowl beat the egg, canola oil and salt. Stir into the yeast mixture. Add 1 ½ cups (375 mL) of the all-purpose flour and all of the whole-wheat flour. Mix well until the flour is combined.

Turn onto a floured work surface. Dough will be slightly sticky. Gradually knead in the last ½ cup (125 mL) of all-purpose flour and knead until dough feels elastic and smooth, about 5 minutes. Divide into 12 balls by forming dough into a large ball and pinching it in 2 using your thumb and index finger; pinch each half into 2 again and then each quarter into 3. Roll into loose, smooth balls.

Place balls into a greased 9 inch × 13 inch (23 cm × 33 cm) pan. Cover with a clean tea towel, place in an area free of drafts, and let rise for 1 ½ hours.

Preheat oven to 350°F (180°C) before placing buns in to bake.

Bake for 20 to 25 minutes, until tops are golden brown and the buns sound slightly hollow when tapped. Turn the buns out onto a cooling rack.

Makes 12 buns.

Nutritional Information (per bun):

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<th>Nutrient</th>
<th>Amount</th>
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<tbody>
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<tr>
<td>Protein</td>
<td>6 g</td>
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<tr>
<td>Carbohydrate</td>
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<td>Fibre</td>
<td>3 g</td>
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<tr>
<td>Sugars</td>
<td>4 g</td>
</tr>
<tr>
<td>Fat</td>
<td>6 g</td>
</tr>
<tr>
<td>Saturated Fat</td>
<td>0.5 g</td>
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<tr>
<td>Trans Fat</td>
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<tr>
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<tr>
<td>Sodium</td>
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Gnocchi are light little dumplings, easy to make and fabulous with savoury sauces. Enjoy with a side of steamed asparagus for an inspired vegetarian main.

**Ingredients**

<table>
<thead>
<tr>
<th>Amount</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>1 ½ cups (375 mL)</td>
<td>cooked, puréed and cooled butternut squash</td>
</tr>
<tr>
<td>½ tsp (2 mL)</td>
<td>salt</td>
</tr>
<tr>
<td>1 tsp (5 mL)</td>
<td>nutmeg</td>
</tr>
<tr>
<td>¾ cup (175 mL)</td>
<td>ricotta cheese</td>
</tr>
<tr>
<td>1</td>
<td>large egg</td>
</tr>
<tr>
<td>2 cups (500 mL)</td>
<td>all-purpose flour, divided</td>
</tr>
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</table>

**Instructions**

To cook butternut squash, cut into large chunks, remove seeds and roast, uncovered in a 350°F (180°C) oven until soft, about 30 minutes, or microwave squash chunks until soft. Scrape squash away from peel, and mash or purée. Do not add any additional moisture.

In a large bowl, combine squash, salt, nutmeg, cheese, egg and 1 ¾ cups (425 mL) of flour. Mix ingredients using your hands until just combined. Do not overmix, or gnocchi will be tough. Dough should be workable but still sticky. If it is too wet, gradually add the remaining ¼ cup (60 mL) of flour.

Remove ¼ of the dough to a clean, floured work surface. Roll dough back and forth with your hands to form a long rope approximately 1 inch (2.5 cm) in diameter. With a sharp knife slice the dough into 1 ½-inch (3- to 4-cm) pieces. Place gnocchi on a lightly greased cookie sheet. Repeat until all gnocchi has been formed.

In a large pot or pasta pot bring lightly salted water to a boil. In small batches, carefully add gnocchi, return to a boil and cook until gnocchi rises to the top of the water, about 5 minutes. Remove cooked gnocchi with a slotted spoon to a warm platter. Continue to cook remaining gnocchi in small batches.

**Brown butter sauce**

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>¼ cup (60 mL)</td>
<td>butter</td>
</tr>
<tr>
<td>1 cup (250 mL)</td>
<td>10% cream</td>
</tr>
<tr>
<td>2 Tbsp (30 mL)</td>
<td>Parmesan cheese, plus additional for garnish, if desired</td>
</tr>
<tr>
<td>1</td>
<td>Pinch nutmeg</td>
</tr>
<tr>
<td>½ cup (125 mL)</td>
<td>toasted, chopped walnuts</td>
</tr>
</tbody>
</table>

In a skillet over medium heat melt butter, stirring until it starts to brown slightly. Stir in cream, reduce heat and continue stirring occasionally until the mixture thickens enough to cover the spoon, about 5 to 7 minutes.

Add Parmesan and nutmeg, and stir to combine.

Add gnocchi to sauce in the pan and toss to coat. Garnish with toasted walnuts.

Makes 4 servings.

**Nutritional Information (per serving):**

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<td>Fibre</td>
<td>6 g</td>
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<tr>
<td>Sugars</td>
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<td>Fat</td>
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</tr>
<tr>
<td>Cholesterol</td>
<td>121 mg</td>
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<tr>
<td>Sodium</td>
<td>548 mg</td>
</tr>
<tr>
<td>Potassium</td>
<td>292 mg</td>
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Brewing revolution

Alberta's craft beer culture is more accessible than ever before

By Tyler Difley
looking to get their foot in the door. The Alberta Gaming and Liquor Commission’s (AGLC) minimum production capacity requirements of 5,000 hectolitres (500,000 litres, or about 1.4 million bottles) per year ensured only a select few brewers could secure the necessary financing and facilities to open their own operations in the province. Small breweries flourished in other parts of the country, while Alberta lagged behind. To get around the rules, Sherman and Orr were forced to contract-brew their beer on weekends at Dead Frog Brewery in Aldergrove, B.C., then import it back to Alberta for sale.

Everything changed in late 2013, when the AGLC eliminated the capacity requirements. Suddenly, one of the largest barriers to starting a microbrewery in the province was gone, and several brewers were quick to take advantage of the new situation. Sherman and Orr were the first to apply for a brewer’s licence when the changes took effect, but they have since been joined by several other Calgary-area startups, including Half Hitch Brewing Company and Dandy Brewing Company.

While Tool Shed evolved from Sherman and Orr’s beer-making hobby, the founders of Half Hitch Brewing Company in Cochrane took a different approach.

“We wanted to try and start our operation as a family business,” said Half Hitch president Chris Heier. “So [a] brewery wasn’t necessarily the first idea that was put on the table.”

Once the Heiers decided that a brewery would make a fine family venture, they immediately ran into a serious obstacle—they didn’t know how to make beer.

“I personally dove in to home brewing to figure out how beer is actually made,” Heier said. “I was brewing a batch of beer almost every week, sometimes twice a week, just to experiment and play around with different ingredients.”

Once Heier had learned the ins and outs of beer making, the family secured a development permit and started building their brewery from scratch. They hope to release their first batch of beers in fall 2015.

Among the new entrants to the Alberta brewery scene, Dandy Brewing Company stands out because of its small production volume—it currently holds the distinction of being the only nano-brewery in the province. With a brew house that produces only 3.5 hectolitres (350 litres) of beer at a time, Dandy’s founding trio of Ben Leon, Dylan Nosal and Derek

“When you see that you can actually have that effect on people around you with the beer that you’re making, it’s addictive.”

—Graham Sherman

Tool Shed produces three core beers for sale throughout Alberta: Red Rage red ale, Star Cheek IPA and People Skills cream ale.
Waghray take small-batch brewing to a whole new level.

“We like it because it’s so hands-on and we have so much control,” Leon said. “At our size, every step—from unloading the grains off the back of a truck to dropping off the cases of bottled beer at a liquor store—we have control over.”

Despite its small size and low profile, Dandy has already developed a sterling reputation for quality in Calgary craft beer circles. For Sherman, Dandy’s success is a testament to the positive impact the AGLC regulation changes have had on the brewer community in the province.

“They’re home brewers who have the tiniest system,” he said. “That’s the best part—guys like that can now come and challenge every brewery to raise the bar.”

As Sherman, Heier and Leon transitioned from home brewing to commercial production, they quickly recognized that making the jump from hobby to business is easier said than done.

“You don’t understand how to scale up from your homebrew system until you do it,” Sherman said. “Where in the brew you add ingredients makes all the difference in the world, so the timings of the things that happen when you’re brewing five litres compared to when you’re brewing 2,500 litres is very different.

“The other thing is you just have no concept of the sanitation of a brewhouse on a large scale. I don’t care if a beer gets infected in my basement—I dump it out. But when it’s $10,000 of barley, you can’t screw it up. I can’t afford to dump a batch, so you have to get things perfect in here.”

Many of these challenges were overcome with the support of the brewer community, both within Calgary and across the province. When one brewer hits a snag, another is usually quick to offer a helping hand.

“In our first few months, as we were ironing out our kinks, if we didn’t get a bottle shipment on time, [we’d] call Wild Rose [Brewery] and they’d have a palette delivered to us. When we started brewing, half our grain didn’t make it in time for the brew, so we called Village [Brewery] and they were more than happy to sell us a couple bags,” Leon said. “It’s crazy how tight-knit and supportive the community is across Alberta.”

That tight-knit brewer community includes professional and amateur brewers alike. The latter are currently enjoying a home-brewing renaissance of sorts. The practice of home brewing has come a long way in the last several years, making it more accessible than ever for casual craft beer enthusiasts who want to find out how the sausage gets made, so to speak.

Neil Bamford, co-owner of The Vineyard, a Calgary homebrew and winemaking store, has been home brewing since the early 1980s. Originally, he did it because he was a student trying to save money, but since then he has become vice-president of finance for Calgary’s Cowtown Yeast Wranglers homebrew club and one of the top home brewers in Canada. He has witnessed first-hand how rapidly interest in home brewing has grown, and how it has become popular among more than just cash-strapped students.

“At the store, the shift in the last five years has been from probably about 80 per cent wine and 20 per cent beer to 80 per cent beer and 20 per cent wine now,” he said. “You still get the young kids coming in and doing it to save money and have beer on the weekends, but you get a lot more older and middle-aged people that just want to make a good-quality craft beer.”

Calgary, in particular, has become a hotbed of quality home brewers. The Yeast Wranglers average around 200 to 250 members per year, but members of the wider home-brewing community in the city likely number in the thousands, Bamford said. The Yeast Wranglers have
been the top homebrew club in Canada three years in a row. This record of competitive success could be intimidating for more casual brewers looking to get involved, but the club welcomes all beer enthusiasts, regardless of experience.

Bamford works closely with several of the breweries in town, and many of the brewery founders still make test batches with supplies from Bamford’s store—often to try new ingredients or techniques. This co-operative relationship blurs the lines between professional and amateur brewers and further contributes to the sense of camaraderie among brewers of all stripes.

“Whether you’re in it for the fun or you’re in it for the money, it’s still a lot of fun to be in the community,” Bamford said.

Advancing from home brewing to a full-fledged commercial brewery is a daunting task. But the founders of Tool Shed, Half Hitch and Dandy have shown that, with the right knowhow, it isn’t a pipe dream.

In terms of advice for those who hope to follow in his footsteps, Sherman is blunt. “Learn that quote,” he said, referring to Roosevelt’s weighty words that never stray too far from his mind.

“There are so many bloody stumbling blocks that have come our way that probably should have shut our business down. But you get in that arena and it’s a fistfight every day. Once you commit to going after it, you just never look back.”
RISE AND SHINE

BAKERS TAKE US BACK TO THE FARM THROUGH OUR DAILY BREAD

BY TAMARA LEIGH
Rains and Flours may be common items in every grocery store, but when it comes to flagship products, bread carries the banner for wheat. While growers produce the grain, and millers transform it from commodity to food product, it’s the bakers who bring it all together into a much-loved food staple.

Today, most Canadians pick up their daily bread at grocery or convenience stores, but smaller retail bakeries continue to thrive by offering a personalized experience and products that promote a different kind of relationship with the customer.

“We are the connection between the farmers, the millers and the customers,” said Aviv Fried, owner and baker at Sidewalk Citizen Bakery in Calgary. “I think people want to know where ingredients are coming from, how they are grown and what exactly is in their food, and these questions are coming to us.”

Since the doors to the artisan bakery opened four years ago, Fried has created sourdough baked goods from locally sourced organic ingredients. He works closely with suppliers ranging from a small farmer who grows and stone-grinds the heritage wheat variety Red Fife, to organic white flour from a mill in nearby Saskatchewan.

“I enjoy learning more and digging into what’s happening in milling to try to find out why the flour this week is different from last week. We don’t always get satisfying answers,” said Fried. “I think there is still a bit of a disconnect between the production and milling process and the bakery.”

According to Paul Hetherington, president and CEO of the Baking Association of Canada, these challenges are not new. “Historically, bakers focused on meeting consumer demands and needs, and producers focused on yield. As a result, there is a conflict with regards to needs and expectations,” he said, noting that information available to consumers through social media is closing the gap.

“The curtain that producers have been behind for many years is now being drawn back, and now producer groups are being drawn more into the kinds of consumer-oriented discussion that we in the baking community have been engaged with for many years,” he added.

On-farm practices such as herbicide use are always top of mind for farmers and now, with much talk about food safety, consumers are increasingly interested as well. These factors tie in to the biggest trend in food today—health and wellness. What may begin with an article on Facebook one day becomes a question at point of sale the next, and bakers are often the ones to respond for the entire value chain.

Bon Ton Bakery has been an Edmonton favourite since 1956. Hilton and Michelle Dinner took over in 1998, and maintain a reputation built on high-quality European-style baked goods and strong relationships.

“My motivation is to do things local, healthy and current,” said Hilton Dinner. “I need to offer people the option of buying healthy or different. We were the first bakery in Edmonton to take out trans fat from our product—now I use non-GMO canola oil and trans-fat-free shortening.”
An estimated 2,500 customers per week come through the door of Bon Ton Bakery, and an increasing number of them have concerns about gluten and food sensitivities. Engaging these potential customers has been illuminating for both customer and baker.

“Thirty-five per cent of North Americans are either reducing their consumption or not eating wheat, and wheat producers are doing nothing to combat it,” said Dinner. “I explain the different ingredients and characteristics of the products to customers so they can make informed decisions about their diet, instead of just following the latest trends.”

Dinner’s search for specialized products and a closer relationship with his miller brought him to John Schneider, a sixth-generation farmer who also mills grain.

Gold Forest Grains is a certified organic farm near Edmonton producing farm-milled organic flour and whole-grain products from heritage and ancient grains. Schneider started the milling business in 2009 in an effort to maximize profits on his family’s 300-acre farm.

“It became obvious very early on that we could not operate a small farm profitably without some significant value-add on whatever it was that we produced, and grain was no different,” Schneider explained. “Milling the grains into healthful flour products seemed like an obvious choice for us.”

Gold Forest Grains sells through farm-gate sales, farmers markets, produce home delivery services (The Organic Box and SPUD), and a select number of retailers in and around Edmonton. Gold Forest’s flours are sought after by some of Edmonton’s best bakers. Bon Ton Bakery uses Park Wheat, a variety developed in Alberta in the 1950s, in its Heritage Whole Wheat and Heritage Multi-Grain baked goods.

According to Schneider, flavour and freshness are important to his customers, but so is being able to tell the story of organic, local, heritage grains.

“Really, we are still a fringe specialty product, and mainstream bakeries interested in high volume and lower margins do not use our flour,” said Schneider. “We like it that way, to be honest. We happily supply our favourite bakeries and benefit from their tremendous baking skills in our marketing.”

Diet trends aside, bread still touches most consumers at a very basic and personal level. While the Internet offers as much information about their food as people want to digest, bakeries offer a different kind of connection.

“I grew up with my mom making bread, so the quality of artisanal bread has always appealed to me,” said Tara O’Donovan, a loyal customer of Sidewalk Citizen.

“I like the community aspect of it as well—the bread is fresh-baked every day, locally sourced, and nobody is cutting corners anywhere,” she added. “The flavour particularly appealed to me, and they always make a point of telling me what kind of wheat the bread is made with.”

Bon Ton Bakery customer Marlee McGuire is motivated by a desire for quality and to support small business, rather
than the details of the ingredients. “The source of ingredients has been relatively low on my radar until recently,” she said. “I wouldn’t generally think to ask my baker, but it would be great if that were to become part of the culture of bakery purchasing to know those types of details.”

For the bakers, it’s all about balance and making sure the customers get what they want.

“Some people buy here because it’s sourdough, some because it’s organic. Everybody has their own relationship for why bread is something they want to spend the extra few bucks on,” said Fried, reflecting on his customers.

“I think people are looking for tasty, good-quality food, so we don’t really try to follow trends or do something that we think is hot right now. We try to do something that we think is good and that we like to eat.”

It didn’t take long for Sidewalk Citizen’s Aviv Fried to build a dedicated following among Calgarians with a hunger for quality baked goods and information about where their food comes from. Photo: Sidewalk Citizen Bakery

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ROUNDUP REBUFF

WIDELY USED HERBICIDE COMES UNDER FIRE

BY JEFF DAVIS

UT ON HIS ACREAGE IN RURAL SASKATCHEWAN, 33-year-old Todd Roberts happily went about his annual chores of clearing away weeds and turning over the garden for planting. “Fortunately, I’ve got the good stuff,” he said, referring proudly to a gallon jug of agricultural-strength glyphosate, better known by its ubiquitous trade name, Roundup.

Growing up on an expansive wheat farm, Roberts learned there is simply no equal to Roundup when it comes to tamping down stubborn weeds, whether in the kitchen garden or the seeded section. “I can hardly imagine farming without the stuff,” he said. “It’s just the best.”

And while glyphosate’s utility is not up for debate, its long-term health repercussions are. In March, the World Health Organization’s (WHO) International Agency for Research on Cancer (IARC) stunned the agricultural world by labelling glyphosate a “probable carcinogen.”

But with glyphosate being far and away the most used herbicide in global agriculture, the IARC’s reclassification of the crop chemical could have far-reaching effects on farming around the world. And while the highly relied-upon herbicide will not be blocked from use in Canada, there is growing agitation amongst cancer-prevention groups that its use be regulated for the protection of humans and the ecosystem.

Glyphosate was discovered to be an herbicide by Monsanto chemist John E. Franz in 1970, and has been a fixture of Canadian agricultural life ever since.

“Glyphosate is one of the most widely used and comprehensively evaluated herbicides on the planet,” said Trish Jordan, a spokeswoman for Monsanto Canada. “It’s used in many situations, agriculture being one of them. It’s used in conservation, parks and forestry. It’s a very common product and has a very well-documented history of safe use.”

Jordan also pointed to the WHO giving the same classifications to all kinds of everyday items in the same category, from coffee and cellphones to working the night shift and aloe vera cream.

“The ruling is quite concerning because it’s very misleading to the public,” she said.

Jordan also pointed to Health Canada’s stance on glyphosate as evidence that the herbicide remains safe to use.

Andre Gagnon, a media relations officer with Health Canada and the Public Health Agency of Canada, said the fear of glyphosate is overblown since Canadians are not exposed to the dangerous concentrations seen in lab tests. “The levels of human exposure, which determine the actual risk, were not taken into account,” he said.

Recently, Health Canada published a proposed re-evaluation of glyphosate’s use for public consultation, Gagnon said. The document proposed continued registration of products containing glyphosate for sale and use in Canada with implementation of further risk-reduction measures.

Health Canada’s Pest Management Regulatory Agency, under the authority of the Pest Control Products Act and Regulations, is proposing continued registration of products containing glyphosate for sale and use in Canada, according to Gagnon.

“Glyphosate is one of the most widely used and comprehensively evaluated herbicides on the planet,” said Trish Jordan, a spokeswoman for Monsanto Canada. “It’s used in many situations, agriculture being one of them. It’s used in conservation, parks and forestry. It’s a very common product and has a very well-documented history of safe use.”
Roundup is one of the most recognizable herbicides currently in use on farms and on residential gardens and lawns throughout the world.

In any case, she said, glyphosate is here to stay thanks to the recent decision by Health Canada. “This is a vital product to agricultural productivity, and if you talk to farmers, they agree,” she said.

Irmi Critcher is one of those farmers. She and her husband Barry farm 4,000 acres of grains and oilseeds in Taylor, B.C—part of the Peace Region. Critcher is the vice-president of the national farm advocacy group, the Grain Growers of Canada, and chairs its sustainability and sound science committee. Glyphosate is an essential tool for farmers across the country, she said, and the IARC ruling hasn’t changed that.

“It’s extremely important. We’ve all adopted it on our farms. We use it for all the registered uses, whether it’s pre-seeding burn off, whether it’s in-crop or whether it’s pre-harvest,” Critcher said. “It’s always been very effective on a broad spectrum of weeds and it still is and we’ve never had any problems with it as such.”

Critcher pointed to scientific studies from several organizations, such as the U.S Environmental Protection Agency and the German Institute for Risk Management, which both deemed glyphosate safe.

“Farmers care about their land, the food they’re growing and their families,” said Critcher. “We’d never do anything to jeopardize our way of life.”

and food, and in the air near areas where spraying takes place.

Glyphosate has been considered a “possible” carcinogen since 1985, after laboratory mice exposed to it developed tumors. Additional studies conducted in 2001 in the United States, Canada and Sweden again pointed to its carcinogenic potential. “For the herbicide glyphosate, there was limited evidence of carcinogenicity in humans for non-Hodgkin lymphoma,” the IARC report said. “Glyphosate also caused DNA and chromosomal damage in human cells.”

The recent reclassification of glyphosate from a “possible” to a “probable” carcinogen has renewed calls for Canada’s most beloved herbicide to be controlled more stringently.

Meg Sears is the chair of Prevent Cancer Now, which aims to build a Canada-wide movement to eliminate the preventable causes of cancer through awareness, education and advocacy. Sears, who holds a doctorate in biochemistry, said she supports the IARC’s decision to brand glyphosate a probable carcinogen.

While it’s certainly effective at suppressing annual and broadleaf weeds, Sears claims glyphosate has a number of cascading negative effects on both human health and the environment. "In areas where there is very heavy use of Roundup-ready crops and glyphosate use, there are epidemics of birth defects and very-quick-onset kidney disease that ends up killing people," she said. "It’s lethal."

Glyphosate in soils and water has the effect of destabilizing toxic heavy metals such as arsenic, mercury, cadmium and lead, Sears said. Once these metals are floating freely, it is much easier for them to make their way into animal and plant bodies.

Sears added that glyphosate can also impoverish soils over time by killing essential bacteria. "It’s an antibiotic, so it may impact bacteria important for breakdown of organic material, as well as for fixation of nitrogen to fertilize the soil," she said. "In humans, glyphosate may also affect the gut flora and essential nutrients it produces, playing into autoimmunity, inflammation and eventually diseases such as cancer."

Despite the IARC’s renewed warnings about glyphosate, the Canadian government recently decided, after a six-year review process, that it would continue allowing the widespread use of the herbicide on Canadian soils.

Jordan said the Canadian government’s decision is the correct one and she challenged the scientific soundness, as well as the underlying motive, of the IARC’s ruling: “Obviously, we’re in complete disagreement with the IARC ruling, and it’s completely inconsistent with numerous multi-year, comprehensive assessments that have been conducted by hundreds of scientists around the world.” She also pointed out that the WHO itself has disagreed with its cancer research wing in the past, adding the IARC “cherry picked” information from various older studies without bringing any new research to the table.
GENETICALLY MODIFIED (GM) crops and derived food have been part of our diet since 1996. Without a single documented case of harm, there should be no debate about these products.

In 1987, the United States National Academy of Sciences (NAS) looked at the safety of genetically modified crop technology. It stated: “There is no evidence that unique hazards exist either in the use of recombinant DNA techniques or in the movement of genes between unrelated organisms.”

Twenty-five years later, even the very GMO-skeptical European Commission agreed with the NAS statement in its report, A Decade of EU-funded GMO Research: “GMOs are not per se more risky than conventional plant breeding technologies.”

This has not stopped anti-GMO activists from disregarding globally accepted science. A great deal of false or misleading information about GM crops abounds on the Internet.

Two general categories of safety must be met before any GM crop can be commercialized—food safety and environmental safety.

There have been thousands of studies on food safety. This has led to a global scientific opinion of confidence in GMO safety, according to the American Association for the Advancement of Science: “The World Health Organization, the American Medical Association, the U.S. National Academy of Sciences, the British Royal Society, and every other respected organization that has examined the evidence has come to the same conclusion: consuming foods containing ingredients derived from GM crops is no riskier than consuming the same foods containing ingredients from crop plants modified by conventional plant improvement techniques.”

Critics of GM crops have said there is no long-term testing, but this is false. A 2012 Food and Chemical Toxicology review of “12 long-term studies (of more than 90 days, up to two years in duration) and 12 multigenerational studies (from two to five generations) do not suggest any health hazards.”

GM feed for animals has been studied equally thoroughly. A 2013 University of California scientific review of GM feed studies found more than 100 billion animals have safely consumed GM feed.

In 2012 Health Canada stated explicitly: “The overwhelming body of scientific evidence continues to support the safety of genetically modified food and feed products . . .”

Recently, critics have changed tactics to claim that glyphosate, one of the main herbicides used with GM crops, is a health hazard. Contrary to a recent press release from the World Health Organization’s International Agency for Research on Cancer, 30 years of research on this compound has found it to be safe. A recent German government report looked at more than 900 studies and concluded that glyphosate is not a carcinogen. The conclusions of this huge meta-analysis are important from both food safety and environmental perspectives.

Bees are essential to agriculture. Despite the doom-and-gloom headlines, recent data shows bee colony numbers are again rising according to the U.S. Department of Agriculture, which has stated that there is no connection between GM crops and colony collapse disorder.

In 2010, the United States National Academy of Sciences released a report, The Impact of Genetically Engineered Crops on Farm Sustainability in the United States. The general conclusion was this: “The committee finds that genetic-engineering technology has produced substantial net environmental and economic benefits to U.S. farmers compared with non-GE crops in conventional agriculture.”

The 2013 European National Academies of Science report, Planting the Future, summed up the GMO debate well: “It is vital that sustainable agricultural production and food security harnesses the potential of biotechnology in all its facets.”

Many people fear GM crops because of false information they have heard or read. This lack of accurate knowledge by laypeople cannot dismiss decades of GMO research nor should their fear be used to advance restrictive public policy towards GM crops and food.

GM crops are not a panacea but in order to feed nine to 10 billion people sustainably by 2050, we are going to have to use the best of every type of agriculture: conventional, organic and GM crops.

Robert Wager has been a faculty member in the biology department at Vancouver Island University in B.C. for the past 20 years and is a scientist trained in microbiology, biochemistry and molecular biology.
It’s too risky

WE DON’T YET KNOW ENOUGH ABOUT GMOs TO BRING THEM INTO OUR FOOD SYSTEM AND ENVIRONMENT

Everyone is talking about GMOs—genetically modified organisms. But what are they? And why does it matter?

The amazing bounty of all the varieties of fruits, vegetables and grains we eat is thanks to farmers selecting and breeding plants for hundreds of years. All of that hard work relied on the reproductive systems of organisms—until now. For the first time in human history, we can put genes from a fish into a tomato. This is very new and different. And it comes with new risks.

Genetic modification (GM) is also called genetic engineering (GE), and it means that scientists can make new plants and animals, using genetic material from totally different species. It’s a powerful technology that, in theory, means we can change foods to have any new properties we imagine.

But theory is different from reality. The reality is that organisms are highly complex, and they also live in a complex environment that can change how they behave. This tremendous complexity of nature means that, even though we can actually move genes from one organism directly into another, we still don’t know all of the impacts—inside the organism and in the wider environment.

When scientists move genes around in the lab, they often see changes they didn’t expect and couldn’t have predicted. This is the fundamental risk and concern about using this new technology. Do we know enough to be releasing GMOs into our environment and food system?

The risks get even more complicated because there’s a lot of money to be made from creating and owning new gene sequences. A critical problem is that our government doesn’t do any of its own safety testing, but relies on data from the companies who own the GM foods and want to get them to market. Most of the science behind the GM foods on our shelves is actually classified as “confidential business information.”

But we often accept risks when there are important benefits, so what are the benefits of GM foods?

Four GM crops are grown in Canada: corn, canola, soy and white sugar beet (for sugar processing). These crops are modified for two reasons. First, most of them are herbicide-tolerant so that the plants can survive sprayings of certain herbicides, while all the weeds around them die. Second, crop plants are genetically modified to be toxic to certain insects.

Herbicide sales in Canada went up 130 per cent between 1994 and 2011. Instead of reducing chemical herbicides, herbicide use has gone up with GM crops. One consequence is a 90 per cent decline in the Monarch butterfly. Intensive glyphosate use on GM glyphosate-tolerant corn in the U.S. has virtually destroyed the milkweed habitat for Monarchs.

Crops that kill insects might reduce the use of other insecticides, but only until the insects become resistant to the toxin in the plants. This is happening across the United States. More importantly, the plant itself functions as a pesticide, and the toxin it produces can harm soil organisms and other insects.

What does this all mean in the grocery store? Up to 70 per cent of all processed foods could contain GMO ingredients because most of our corn, canola and soy crops are now GMO. But none of these ingredients are labelled as being genetically modified.

Without mandatory labelling of GM foods, how do you know what’s on the shelves? Right now, the only GM fruit is a papaya from Hawaii. And the only GM vegetables are certain squash varieties grown in the United States and a small amount of sweet corn. The latest GM food to be approved is an apple that doesn’t turn brown after it’s sliced—for 15 to 18 days. This is the first GM fruit to be grown in Canada, and it might be on the market at the end of next year.

Genetic modification has, so far, offered little benefit, but it brings great risk. In the meantime, Mother Nature and traditional plant breeding have been very successful at bringing us the foods we need.

Lucy Sharratt works in Ottawa as the co-ordinator of the Canadian Biotechnology Action Network (cban.ca), a campaign coalition of 16 organizations including farmer associations, environmental groups and international development organizations, all of which have various concerns about genetic engineering.
The legacy of Sick Brewery

FRITZ SICK PROBABLY ISN’T A household name, even among today’s serious beer connoisseurs. But his legacy to the brewing industry and the city of Lethbridge, where he founded his empire, lives on today.

Sick opened the Alberta Brewery (later renamed the Lethbridge Brewing Company) in 1901. But it wasn’t a direct path from his home in Freiburg, Germany, where he was born in 1860. After immigrating to North America, he learned the brewing trade in Ohio, California and Washington, and tried establishing some breweries in British Columbia before moving to Lethbridge in 1900.

When he launched the business he was really a one-man show, backed only by about $8,000 in savings, his own two hands and his skill. He was once quoted as saying, “I built my own cooperage. I was my own brewer, my own maltster, my own salesman and office force. I had one helper in the brewery and one fellow on the outside, who drove a mule team I used for carting deliveries to our customers.”

His hard work and perseverance paid off as sales and production at the Lethbridge plant boomed during the first 10 years, growing from 3,000 barrels of beer a year to 100,000 barrels by 1912. The first beer Sick brewed was a lager called Alberta’s Pride, marketed as a “concentrated liquid food” to help maintain strong digestive organs and encourage appetite. Probably the most famous product produced by the Lethbridge Brewing Company was Lethbridge Pilsner, also known as Old Style Pilsner, developed in 1926, which is still brewed by Molson Coors today.

Sick’s son Emil joined him in 1923 and together they expanded the company—then known as Lethbridge Breweries Limited—picking up breweries in Regina, Prince Albert and Edmonton as well as some U.S. operations. Over their 50-year involvement in the brewing industry, the Sick family operated nine breweries and two hop farms, with five plants in Western Canada and four in the northwest U.S.

During Prohibition, Sick switched production to produce a low-alcohol (1.2 per cent) “near beer.” The plant even produced a soft drink line, which was eventually sold to 7Up.

Sick retired in 1930 and Emil continued to operate the main business until it was sold to Molson in 1989. The brewery was closed and demolished in 1991, 90 years after it was built.

The legacy of the Sick family lives on in Lethbridge. In 1943, Fritz Sick donated $100,000 to the city of Lethbridge to build a community centre and pool, and the Fritz Sick Memorial Swimming Pool continues to operate today. As well, in 1949, with the help of Dr. W.H. Fairfield of the Dominion Experimental Farm, the brewery established a flower and tree garden on the grounds of Brewery Hill.

Fritz Sick died in Vancouver in 1945 at the age of 85.
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