

Canadian Hog JOURNAL

Canada's national
hog magazine

**Carbon tax
harms hog
farmers**



Also inside:

**Getting back
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Volume 43 | Number 1

Summer 2021

Date of Issue: July 2021

Published by Alberta Pork with cooperation from producers and partners across Canada.

Subscriptions

For new subscriptions, change of address or other subscription inquiries, please contact:

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Publications Mail Agreement

No. 40062769

Return Undeliverable

Canadian Addresses to:

Circulation Department

4828 - 89 Street NW

Edmonton, Alberta T6E 5K1

Advertising

Please direct advertising and marketing inquiries to WTR Media.

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Cover Photo

Bacon cooked on a cast iron pan over fire



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Message from the editor

The Summer 2021 edition of the Canadian Hog Journal is here!

To what extent has the federal carbon tax impacted Canada's hog farmers? In this edition, we take a look at the numbers, along with the political context and possible solutions to overcoming this unavoidable problem.

What goes into determining hog futures? The ability to anticipate ups and downs in the market is a specialized skill – a bit like fortune-telling, but instead of using a crystal ball, analysts reverse-engineer quantifiable predictions using historical data and trends. Get the details in this edition.

Can pigs really fly? Ask most major pork processors and pig genetics companies, and they would certainly have you believing so! Thanks to opportunities for selling fresh pork and live pigs abroad, this unique and somewhat unexpected transport channel continues to gain traction in the industry.

Ontario Pork is celebrating its jaw-dropping 75th anniversary, and the organization is pulling out all the stops to make the celebration memorable, while looking ahead to the future. Board of directors changes in Ontario and Manitoba are also helping to lead the transition, and you can read about that work as well. With the lingering fog of CO-



VID-19 finally starting to lift, find out how the pandemic has re-shaped agri-food industry events altogether.

In research, learn about new strategies being explored for feeding weaners more efficiently, along with the potential for feeding hybrid rye. All in the spirit of saving money and increasing productivity for producers.

Summer is in full swing, hog prices are high, and it seems that in-person gatherings are slowly coming back. Frankly, I am very eager to start seeing produc-

ers and industry partners again, as I have sorely missed the handshakes, conversations and laughs that are impossible through videoconferencing and phone calls.

On those treasured warm-weather days, my wife, daughters and I have been taking advantage of local parks for picnics and spending our weekends outdoors with friends and family. The cover image for this edition comes from my recent camping trip at Touchwood Lake in northern Alberta, and the editorial image comes from one of many visits to playgrounds in the greater Edmonton area, where we live.

Send me story suggestions and comments by emailing andrew.heck@albertapork.com. I would love to publish your perspectives, and I can work with you if writing is not your forte. (Some of us thrive in barns; others, in offices. That's just the way it is!) Got any hot topics? If it's interesting to you, it's probably interesting to someone else, too. Pull up a chair at the fire pit so we can enjoy a beverage and hash it out. My ears are open and ready to listen! ■

A handwritten signature in black ink that reads "Andrew Heck".

Andrew Heck
Editor

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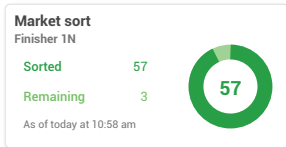


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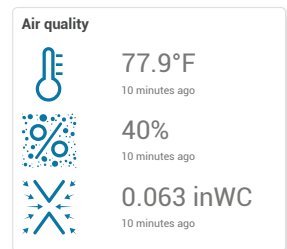


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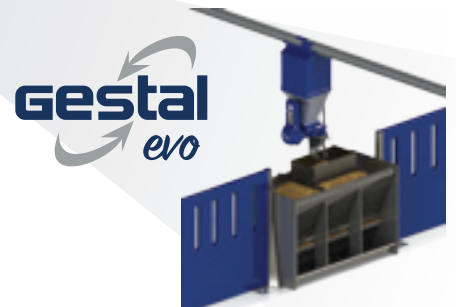
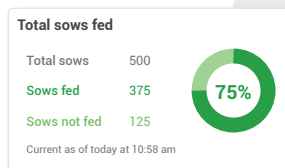
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Carbon tax harms hog farmers

Shawn Halter & Bijon Brown

Editor's note: Shawn Halter is Manager, Industry Development & Analysis at Sask Pork. He can be contacted at shalter@sask-pork.com. Bijon Brown is the Production Economist for Alberta Pork. He can be contacted at bijon.brown@albertapork.com.

Flash back to early February: the annual polar vortex had just descended upon the prairies, shrouding much of the landscape in a blanket of extremely cold air approaching wind chills of minus-50 degrees Celsius in some cases. Just the thought of those temperatures is enough to chill any person – or animal – to the bone.

Western Canada's millions of hogs are thankfully able to brace for those potentially lethal temperatures by using barns, heated with energy sources derived from fossil fuels. Few, if any, other practical options exist, as alternative heating systems and non-petroleum fuels are virtually unobtainable, highly cost-prohibitive or simply ineffective.

Despite this overwhelming reality, the carbon tax has hammered at pork producer profitability for several years now. Just how much? Data from the prairie provinces is being evaluated to weigh the burden on hog farmers,

while other sectors have been spared much of the pain. As carbon pricing in Canada seems to have become a political inevitability of late, its existence has raised the cost of doing business, and hog barn operators – without readily available alternatives at their disposal – are left footing the bill.

The Government of Canada's price on carbon, in principle, is designed to encourage consumers to consider the environmental degradation caused by their day-to-day carbon emissions, resulting from gasoline and diesel for transportation, natural gas and coal for power generation and heating, or even propane for firing up barbecues.

The carbon tax is intended to reduce consumption and spur investment into alternative forms of energy. But how can petroleum product use go by the wayside when these products remain vital for survival in our climate and necessary for figuratively and lit-

erally 'putting food on the table?' At the moment, it is unfeasible.

Mapping the on-farm carbon landscape

Twenty pork producers in Alberta and seven in Saskatchewan were recently surveyed to estimate the impact of the carbon tax on their farms. The survey asked producers with metered barns to share the usage for electricity and heating, along with any propane usage and the distance traveled to market hogs, during the 2020 calendar year.

While there are other sources of carbon emissions that can be linked to hog production – such as feed mill operations or off-farm feed purchases that require pick-up or delivery – and since hog market destinations differ from one farm to the next, only the fuel cost to transport hogs to market is captured in that part of the overall estimation.



Pigs raised in frigid climates require shelter. Without additional heat, animal welfare suffers. The image of this barn near Shackleton, Saskatchewan – about 275 kilometres southwest of Saskatoon – is worth a thousand words.

CONTINUED ON PAGE 8

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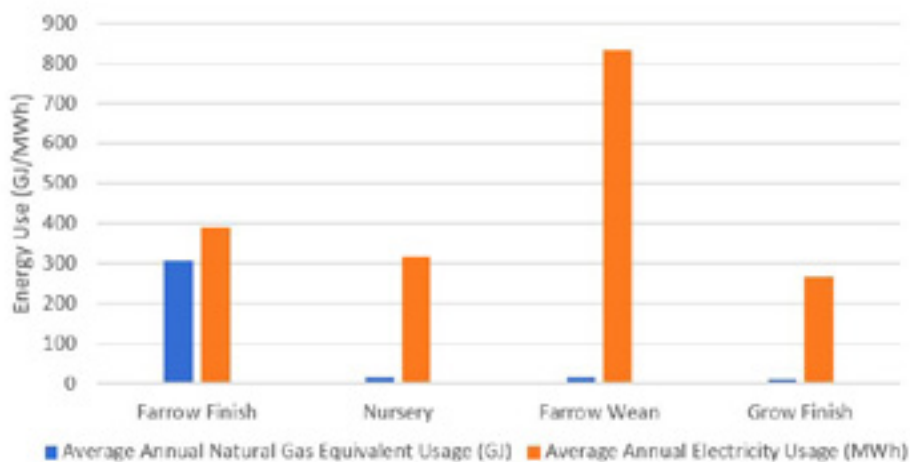
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Comparing the natural gas and electricity usage levels for four types of hog operations

In Alberta, usage varied greatly depending on the farm type. For example, farrow-to-finish operations used substantially more heating fuel than grow-to-finish, farrow-to-wean and nursery operations. On the other hand, farrow-to-wean operations used considerably more electricity than the other previously noted types.

Breaking down carbon tax costs for hog farmers

When comparing Alberta and Saskatchewan, separate coefficients are used for electricity, as the provinces' electricity markets are different. Provincially owned SaskPower sources electricity from independent producers and then retails it to end-users, while the electricity market in Alberta consists of pri-

vately owned wholesale buyers (energy suppliers like ATCO, Enmax or Fortis) and producers of electricity interacting by bidding on the price and quantity of electricity each hour of the day. Where supply meets demand, the market clears, and the wholesale price of electricity is realized. Retailers then sell electricity to end-users, including farmers. This disparity between the provinces makes it difficult to track the carbon composition of electricity at any point in time, as successful sales to the grid may consist of electricity from fully renewable sources, fully fossil-fuel-generated sources or a blend of the two.

It is indicated from the estimates that the carbon tax on electricity in 2020 ranged between \$0.19 and \$0.48 per marketed hog. For natural gas, the carbon tax was between \$0.38 and \$0.47 per marketed hog. The carbon tax on propane was around \$0.10, while the carbon tax on diesel for transport vehicles was between \$0.04 and \$0.12 per marketed hog.

Carbon Tax Coefficients						
Year	\$/tonne	Electricity per kWh Saskatchewan	Electricity per kWh Alberta*	Natural Gas per m ³	Propane Per litre	Diesel per litre
2020	30	\$0.0048	\$0.0149	\$0.0587	\$0.0464	\$0.0805
2021	40	\$0.0064	\$0.0199	\$0.0783	\$0.0619	\$0.1073
2022	50	\$0.0080	\$0.0249	\$0.0979	\$0.0774	\$0.1341
2023	65	\$0.0104	\$0.0324	\$0.1273	\$0.1006	\$0.1743
2024	80	\$0.0128	\$0.0398	\$0.1566	\$0.1238	\$0.2146
2025	95	\$0.0152	\$0.0473	\$0.1860	\$0.1471	\$0.2548
2026	110	\$0.0176	\$0.0547	\$0.2154	\$0.1703	\$0.2950
2027	125	\$0.0200	\$0.0622	\$0.2448	\$0.1935	\$0.3353
2028	140	\$0.0224	\$0.0697	\$0.2741	\$0.2167	\$0.3755
2029	155	\$0.0248	\$0.0771	\$0.3035	\$0.2399	\$0.4157
2030	170	\$0.0272	\$0.0846	\$0.3329	\$0.2632	\$0.4559

*Electricity markets in Alberta are deregulated and there is now way to definitively assess composition by source of electricity supplied to the market. It is assumed that carbon emissions follow the share of production capacity

Source: Revenue Canada, SaskPower, Government of Alberta

Carbon tax coefficients by product and cost per hog marketed over the coming decade

Annual Carbon Tax per Marketed Animal*					
Year	Electricity	Gas	Propane**	Diesel***	Total
2020	\$0.19-\$0.48	\$0.38-\$0.47	\$0.10	\$0.04-\$0.12	\$0.79-\$0.99
2021	\$0.25-\$0.64	\$0.51-\$0.63	\$0.13	\$0.05-\$0.16	\$1.06-\$1.32
2022	\$0.32-\$0.80	\$0.63-\$0.78	\$0.17	\$0.06-\$0.21	\$1.32-\$1.65
2023	\$0.41-\$1.04	\$0.82-\$1.02	\$0.22	\$0.08-\$0.27	\$1.72-\$2.15
2024	\$0.51-\$1.29	\$1.01-\$1.25	\$0.27	\$0.10-\$0.33	\$2.12-\$2.64
2025	\$0.60-\$1.53	\$1.20-\$1.49	\$0.32	\$0.12-\$0.39	\$2.51-\$3.14
2026	\$0.70-\$1.77	\$1.39-\$1.73	\$0.37	\$0.14-\$0.45	\$2.91-\$3.64
2027	\$0.79-\$2.01	\$1.58-\$1.96	\$0.42	\$0.16-\$0.52	\$3.31-\$4.13
2028	\$0.89-\$2.25	\$1.77-\$2.20	\$0.47	\$0.18-\$0.58	\$3.70-\$4.63
2029	\$0.99-\$2.49	\$1.96-\$2.43	\$0.52	\$0.20-\$0.64	\$4.10-\$5.12
2030	\$1.08-\$2.73	\$2.15-\$2.67	\$0.57	\$0.22-\$0.70	\$4.50-\$5.62

* Marketed animal includes market hogs, iso-weans, weaned pigs, culls and breeding stock in Saskatchewan and Farrow-Finish Hog in Alberta.
 **There was no data submitted by Alberta Producers.
 *** Diesel use was for transportation of animals to market. For animals shipped to the United States, it is assumed that carbon tax is paid only on fuel used within Canada.

Carbon tax coefficients by product and cost per hog marketed over the coming decade

Overall, the carbon tax for the survey respondents, on average, was between \$0.79 and \$1 last year. Based on data from Commodity Professionals Inc., it is estimated that producers in western Canada lost about \$12 per hog in 2020, not including the carbon tax. Factoring in the carbon tax, that added expense served to drive another nail into the coffin of some operations, making them financial unviable, and even forcing some producers of varying size to go out of business.

In the coming decade, the price on carbon is expected to jump to \$170 per tonne of CO2 equivalent. If consumption patterns remain the same, then the carbon cost would jump to between \$4.50 and \$5.62 per marketed hog. Placed in context of the most recent cost of production study conducted by Alberta Pork for the 2019 calendar year, heating, electricity and transportation costs amounted to \$7.63 per marketed hog; this represented only five per cent of operating costs. Nevertheless, producers who volunteered their information for the cost of production study experi-

enced an average loss of \$5.30 per marketed hog.

In 2030, if everything else is held constant and carbon taxes amount to \$5.62 per marketed hog, then losses would balloon to almost \$11 per marketed hog. That may be a tough pill to swallow for some producers, especially when, over the past five years, they have experienced double-digit losses on most hogs marketed, only now beginning to recover as prices experience a summer-time boost.

Clearly, a carbon tax is not in the interest of hog farmers, nor is the impact on the hog sector proportional to other agricultural commodities, which may have fared better over the same period and into the future.

Not all commodities are treated the same

Canadian consumers value choice. Even in the dead of winter, product offerings at the retail level remain consistent, even if somewhat seasonal. This includes items like fresh produce, dry

goods and meats that are imported from parts of the world with fairer climates or other production advantages.

Some carbon-intensive agricultural sectors in Canada are eligible to recuperate carbon tax expenses, but livestock producers have not yet been afforded the same luxury. In the Government of Canada's 2021 budget, \$100 million was set aside for producers to help offset rising costs due to the carbon tax. However, the details on which types of farms and activities qualify are still to be determined and can be expected this fall, according to the government.

On many farms, the current carbon tax increased costs and decreased farmers' ability to be more productive and proactive by bringing more jobs to rural communities. On top of the current pain, this tax is set to increase five-fold over the next decade, exacerbating the problem.

When it comes to imported goods, such products are not subject to the same standard of taxation, despite the comparatively large carbon footprint as-

CONTINUED ON PAGE 10



Greenhouse operators in Canada are eligible for carbon tax exemptions, which has helped them remain competitive with international fruit and vegetable growers whose products also end up in Canadian grocery stores.

sociated with international trade. And because no carbon tax is levied against these imported products, Canadian farmers are invariably harmed in the process, while foreign exporters are not. Easily overlooked by the consumer, not so easily overcome by the domestic producer.

And, still, a much bigger question remains: how does any part of this situation promote lower carbon emissions? Essentially, for livestock producers, it does not.

While taxation appears to be a punitive measure against producers, some incen-

tives do exist on the provincial level to encourage reduced fossil fuel consumption, such as carbon credits and other funding for projects that seek to reduce carbon intensity. Federally, a recent proposal to offer a credit-based program is also taking shape, but some farm groups, such as the Ontario Federation of Agriculture (OFA), worry that criteria for such a program may not recognize much of the progress that has already been made.

“Farmers have been doing a lot of good environmental work for a number of years. This didn’t just happen overnight,”

said Drew Spoelstra, Vice President, OFA. “We’ve been doing things like following no-tilling and best management practices for a generation almost.”

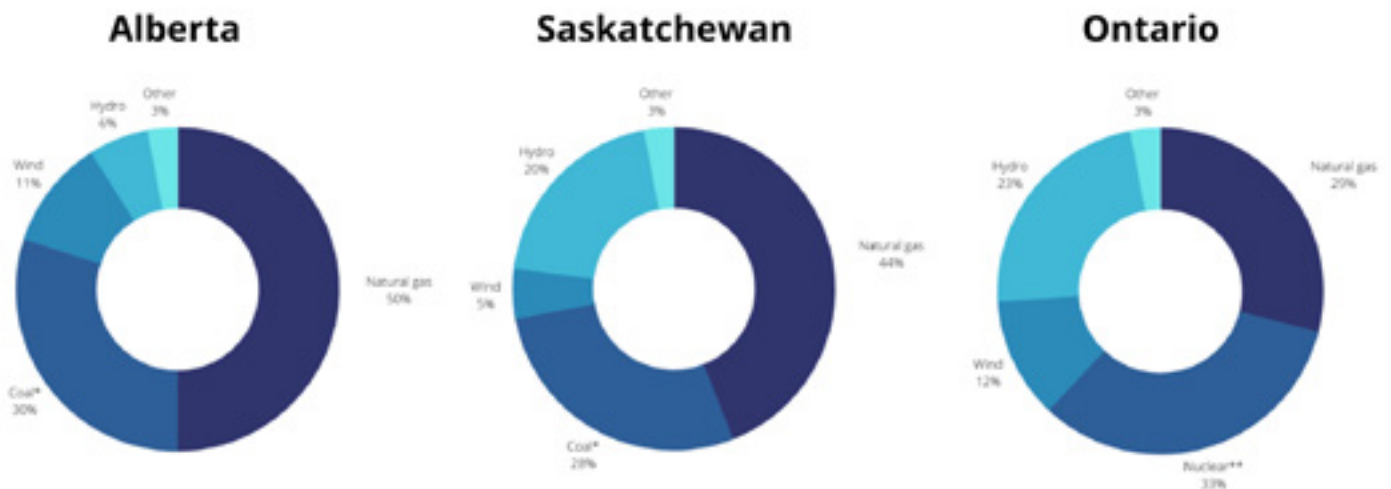
Any solutions that may be forthcoming are desperately needed – and needed promptly – for the sustainability of many farm businesses and to defend food security for Canadians.

Political support could be on the horizon

In February 2020, Phillip Lawrence, Member of Parliament for Northumberland-Peterborough South (Ontario), introduced Bill C-206 in the House of Commons, an amendment to the *Greenhouse Gas Pollution Pricing Act*, which would extend the existing carbon tax exemption on farm gasoline and diesel to include natural gas and propane. The bill passed third reading and adoption in June 2021.

“Our farmers are struggling out there. They are now facing multiple blockades in addition to pricing instability and trade disruptions. The pressures on our farmers today are innumerable,” said Lawrence. “One of the things I heard when I was travelling my riding, from farmers and non-farmers, is that the carbon tax is impacting the way they operate their businesses. In fact, the

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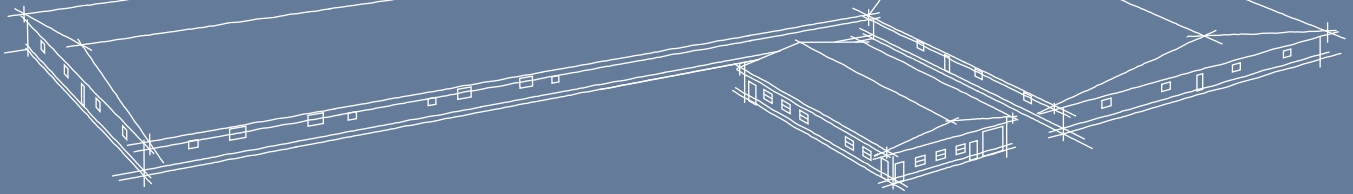


*Ontario generates no electricity from coal
 **Alberta and Saskatchewan generate no electricity from nuclear

Source: Aeso.ca, SaskPower & IESO.ca

Comparing power supply composition in Alberta, Saskatchewan and Ontario

Hog housing.



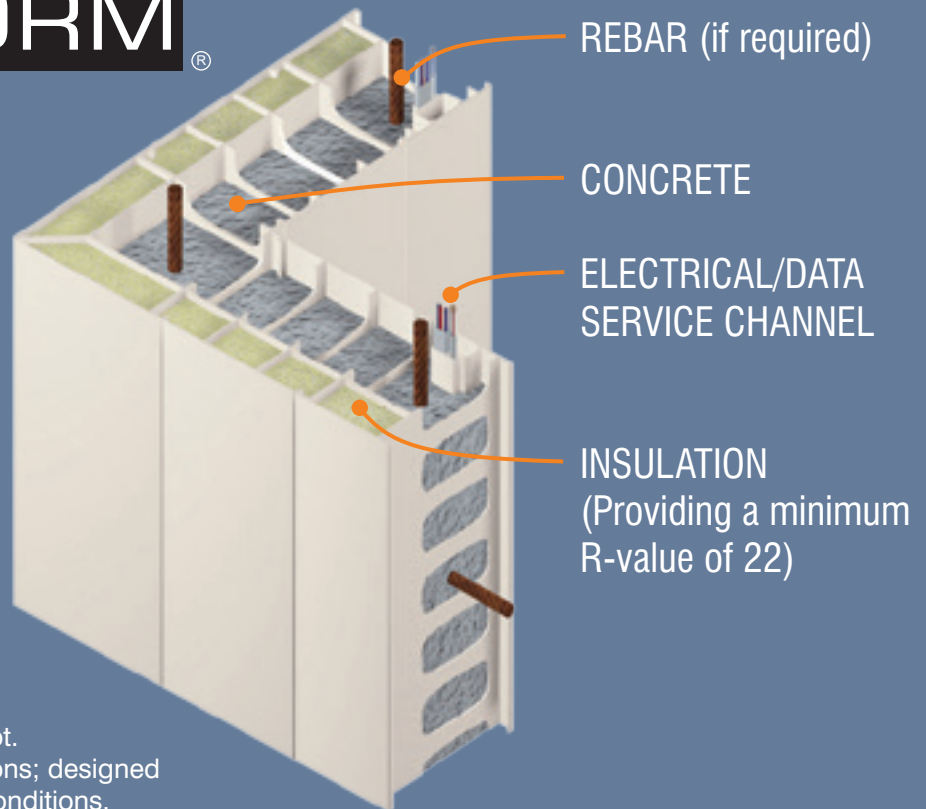
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carbon tax is taking away up to 12 per cent of their net income, so this is having a significant impact.”

Canada’s provincial and national pork producer organizations have previously called upon the Government of Canada to create a carbon tax exemption. Shortly following the introduction of Bill C-206, Rick Bergmann, Chair, Canadian Pork Council (CPC) sent a letter to Marie-Claude Bibeau, Minister, Agriculture and Agri-Food Canada (AAFC) urging her government’s support for such an exemption, citing economic impact studies generated by Manitoba Pork in 2019.

“To efficiently produce pork and manage the welfare of their animals, pork producers use natural gas or propane to heat their barns. There are no other practical alternatives,” the letter reads. “It is projected that, by 2022, fuel costs will increase by 150 per cent and cost pork producers \$10 million per year. The carbon tax costs faced by producers cannot be recouped from the marketplace, as we face daily competition from American pork imports.”

In addition to alleviating the pain caused by the carbon tax, governments at all levels must consider their role in establishing the relevant legal framework to facilitate the development and expansion of infrastructure for the adoption of low- or no-carbon technologies. Such investment should also prioritize research and development of alternative energy, providing a clear pathway for making a smooth transition. Canada is a leader in innovation, but our privileged position depends on governments to play a large supporting role by attracting private investment, paving the way for economic growth.

Canadian power supply composition is changing, albeit slowly

If Canadians are permanently saddled with a price on carbon – which appears increasingly likely as time goes on – what

kinds of solutions are available? Most directly and obviously, innovation in the area of power supply composition.

Canadian provinces have largely built their energy infrastructure around the natural resources available. This means that, with Niagara Falls in Ontario, hydroelectricity factors greatly in energy consumption, while in the prairie provinces, which are endowed with fossil fuels, carbon-emitting energy is featured disproportionately more.

There have been considerable strides to shift the carbon composition of electricity generation. In Saskatchewan, the composition of the electricity grid declined from 84 per cent coal and natural gas in 2018 to 72 per cent in 2020. In Alberta, the carbon-intensive share declined from 92 per cent in 2018 to 81 per cent in 2020.

There has been little change in the heating and transportation fuels over the same period. This may be partly due to infrastructural and regulatory policies that fail to facilitate meaningful change. Many farms have already made the transition from coal boilers for heating to natural gas and blended fuels with ethanol or biodiesel under policies that preceded carbon pricing.

One of the potentially viable alternatives that is becoming more and more popular is hydrogen. Hydrogen can be used for electricity, heating and as a transportation fuel. It can be produced using natural gas or renewable electricity. The major constraint to making considerable change is the lack of infrastructure support. In April 2021, the Edmonton region was identified as Canada’s first hydrogen hub. This new approach is expected to help to bring down the price of hydrogen by developing infrastructure to expand the use of hydrogen as fuel. While this recent shift away from fossil fuel over-reliance should be praised, it seems as if the cart was put before the horse. For any alternative to be fully useful, infrastructure



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must be widely developed and implemented prior to the use of carbon pricing as an incentive to transition to the cleaner alternative. Currently, pipeline and service station infrastructure are some of the greatest challenges to seeing hydrogen adopted in the mainstream.

Significant investment will no doubt be required to either bypass or replace existing natural gas infrastructure. In the U.K., as an example, the cost for getting all homes hydrogen-ready is estimated to be around £140 billion (or CAD \$240 billion). Clearly, if the cost is so much to cover a land mass the size of the U.K., it may be significantly more for Canada. Such an investment would require both public and private partnerships, as well as clear transition targets. For instance, the U.K. is working towards having all boilers sold for home heating to be hydrogen-ready. Many home boilers currently operate on natural gas, but with changes to a few parts, by 2025, units can run entirely on hydrogen while costing no more than £100 (or CAD \$170) to upgrade. Such a model sets a precedent for how to possibly handle a workable transition from natural gas to hydrogen.

In addition to power generation, the transportation industry must also be cast into the spotlight as the largest contributor, proportionally, to total carbon emissions. Within this industry, heavy-duty freight is the second-largest carbon emitting sector in the world, yet carbon-free alternatives are not scheduled to come online until after 2024. Furthermore, the cost of such trucks is predicted to be around USD \$250,000 (or CAD \$300,000), which would certainly be outside the range of affordability for most hog farmers in Canada.

Placing a price on carbon without providing clear leadership or opportunities to make the transition to alternatives effectively places a tax on productivity and creates a competitive disadvantage for Canadian hog farmers. Foreign

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suppliers in the pork sector and elsewhere in agri-food have recognized our impediment and exploited it, as a result.

The European Union (E.U.) will, by the end of 2021, institute a carbon border adjustment mechanism to address loss of competitiveness due to carbon pricing. The mechanism will adjust the price of all E.U. imports for the carbon emitted in its production process, thereby leveling the domestic playing field. Canada has yet to propose something similar, but such a mechanism is essential to have in place before carbon pricing. Unlike the E.U., the Government of Canada's decision not to be prudent in this area will negatively impact Canadian production in our own domestic market.


However, Canada is a net exporter of many commodities, including hogs and pork. This means that, while something like a carbon border adjustment mechanism would strike a better balance between foreign and domestic products in Canada, it will do little to improve our standing in the international marketplace. That is bad news for pork producers. What is needed

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is a review of agreements like the Canada-United States-Mexico Agreement (CUSMA), Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) and the Comprehensive Economic and Trade Agreement (CETA) to ensure that any carbon border adjustment mechanism offers a fair deal for Canada in North American, European and Asian markets.

The future of fossil fuels in farming

For fossil fuel alternatives to be taken seriously, no individual industry – and certainly not agriculture – should be singled out and demonized. Even the most die-hard environmental advocate likely does not hunt and forage for his or her own food, which almost definitely arrived through means that are reliant on fossil fuels.

Canada's carbon tax is not a credible, effective or fair initiative to lead positive change, but it is one of many tools that could be used to drive the transition to greener alternatives. Emphasis ought to be placed on bringing alternatives online as soon as possible for the sake of availability and affordability.

Across the world, in virtually every industry, the push to reduce fossil fuel consumption seems to have been a driving force for not only environmental policy but also political and social change. At this point, the discussion is inescapable, and as time goes on, the calls to 'go green' will likely only continue.

For the agriculture industry, there is a great deal of opportunity to innovate and institute new best practices that not only welcome this shift in thinking but

also showcase Canada's leadership in this regard. But this transition can only take place if producers are free of the burden that additional costs – such as the carbon tax – place on investment.

Carbon pricing seems to be here to stay, and our industry needs to continue to adapt as it has always done. With appropriate and swift government support through proactive regulations and programs that attractively promote the transition to cleaner sources of energy, the industry can potentially weather the carbon pricing storm. In the meantime, farmers may have to wait a little longer, hoping for improvements that enhance their ability to operate in an ecologically responsible but also financially sustainable way. ■



This combined heat and power unit, installed at a farm near Bashaw, Alberta – about 150 kilometres southeast of Edmonton – is one example of Canadian pork sector energy innovation, but it comes with a large capital cost.

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Feed/Gain Ratio	2.44



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Getting back to the basis

Steve Dziver

Editor's note: Steve Dziver is an agricultural commodity market analyst who owns and operates Commodity Professionals Inc., based in Winnipeg. He can be contacted at steve@commodityedge.ca.



Forward contracting is a bit like fortune telling, minus the crystal ball. Basis calculation is the difference between lean hog futures and a specific cash price.

Have you ever opened an email on forward contracting or checked hog prices from a packer's publication and wondered, *where did those prices come from?* Or have you noticed a change in lean hog futures that did not match what happened in forward prices reported by a packer on the same day?

If so, you could probably benefit from an exploration of the mechanics used in creating forward contract prices for market hogs. While analyzing the market value and direction is the goal of forecasting, to understand how this is done, we must examine how Canadian forward contract prices are made in the first place.

Cash versus futures: today versus tomorrow

In simple terms, Canadian forward contract prices are calculated using a similar method as weekly cash, except that instead of using a specific regional cash price to start from, like the U.S. Department of Agriculture's (USDA) LM_HG201 report, every forward contract price, regardless of packer or contract, must begin from the former Chicago Mercantile Exchange's (now CME

Group) lean hog futures. The lean hog futures then must be adjusted to represent the specific cash price of the region or packer, with characteristics such as 'like terms' of the cash price being used by a packer and also the correct 'timing.'

Weekly Cash Calculation = USDA cash hog report [multiplied by] Packer Factor [multiplied by] Exchange Rate [equals] the price in Canadian dollars (CAD) per kilogram (kg)

Forward Contract Calculation = (Lean hog futures + basis) [multiplied by] Packer Factor [multiplied by] Exchange Rate [equals] the price in CAD/kg

The necessary adjustment shown above is known as 'basis' and can be defined as the difference between lean hog futures and a specific cash price. From that point, there are endless basis calculations that can be made on a given day, let alone per week. If, for example, there are 50 different cash prices that can be derived from all the USDA hog and pork reports, then, by default, there will be 50 basis numbers reported for that day.

Basis achieves two major adjustments: 1) altering lean hog futures to be *like a*

specific cash price and 2) changing the value of the lean hog futures relative to *when* it is being used during the allotted coverage period.

There are only eight lean hog futures to cover 52 weeks, meaning some lean hog contracts are used to cover as many as eight or nine weeks in the year. To better understand lean hog futures, producers who use forward contracting programs should understand that lean hog futures of any trading month are the market's best guess of cash on one day – the day that contract expires.

Because lean hog futures have a cash settlement, an expiring lean hog contract must match the two-day settlement CME lean hog index (LM_HG201) on the day of expiry. What that means is, as futures trade up and down throughout the course of a year, the contract value is based on a prediction of how the market will behave at that point, based on the information and historical trends at present.

For example, December 2021 lean hogs trade at a different value nearly every day and recently have been as high as U.S. dollars (USD) \$89.55 per 100 pounds (cwt) on June 10 and as low as USD \$74.12/cwt on June 24. Neither of those prices mean anything concrete, other than representing the market's best guess of what cash is going to be on the day the December 2021 contract expires – somewhere around December 14.

Every closing price and every daily change between the day a contract starts trading to the day it expires is just a bunch of guesses. Opportunities arise when the market moves a contract much higher than where it eventually expires, giving producers a chance to hedge something better than cash.

Conversely, when the market moves the lean hog futures guess lower than what it will expire at, producers may find their returns to be worse than the cash

value, meaning there is opportunity for packers to take advantage of lower carcass or cutout values, depending on how their contracts are formulated.

If you would like more information, Alberta Pork's website (*albertapork.com*) includes further explanation on weekly cash calculations, according to individual packers' contracts.

Basis trends come from historical observations

As anyone following the market would expect, there are trends in basis heading into expiry. Although the trends in futures may not be known, basis often follows patterns during certain times of the year. The easiest week to predict lean hog basis is during the week of expiry, as the market knows it must merge to near zero, which means that basis tightens. However, during all weeks before that – which could be as many as eight or nine weeks in the case of February, April, October and December (which all cover two months) – price adjustments can be significant.

Even if two cash prices use the same report but use different values from that report, the basis levels will be different. In the LM_HG217 report – which now summarizes multiple USDA cash regions, such as the LM_HG203 (National), the LM_HG206 (Iowa/Minnesota), the LM_HG212 (Western Cornbelt) and the LM_HG210 (Eastern Cornbelt) – each will potentially have a slightly different value, resulting in a slightly different basis when calculated against the CME futures.

The LM_HG217 daily report provides a value for each independent market on a given day. In the following example, prices are for June 30, 2021. Since the second half of June and the first half of July rely on the July lean hog futures to provide price estimates, basis is calculated against the July lean hog futures using these cash values. The futures used for specific weeks will be explained further on.

The close of July lean hog futures on June 30, 2021 (the same day the cash values were reported) was USD \$107.47/cwt. The daily basis for each of these three cash markets are, by default:

- \$113.02 [subtracted by] \$107.47 [equals] \$5.55 for the LM_HG203 report
- \$114.14 [subtracted by] \$107.47 [equals] \$6.54 for the LM_HG206 report
- \$114.42 [subtracted by] \$107.47 [equals] \$6.95 for the LM_HG212 report

Figure 1 is an example of weekly basis (LM_HG201 report) for the period of June 15 to July 15, measured against the July lean hog futures for the last five years. As is quite noticeable, this year, basis has been extremely positive, meaning cash was considerably higher than the July futures but is narrowing (or coming down, closer to zero, towards contract expiry).

The basis numbers reported in Figure 1 are sometimes referred to as inverted basis, because they are positive, meaning

the cash market is higher than futures during this time. An inverted basis can indicate a downward-trending cash market, as futures are anticipating lower cash values when expiry is scheduled to occur. The easiest way to explain inverted basis is by looking at production weeks in late August and early September.

Cash markets in late August are typically coming off the summer highs, and when compared to October lean hog futures, cash is typically higher. Since August lean hog futures have expired, and October is the next contract to use, inverted basis values are almost always reported. Inverted basis does not necessarily represent a better marketing opportunity for producers, but rather, that cash value is higher than the comparable futures for that week. Depending on the fixed basis that a packer has applied to a specific marketing week, forward contracting could still be a better option to maximize returns.

If the basis calculation previously explained was completed five times – once for each day of the week – you would then have a weekly basis number for that specific week in 2021 for each of

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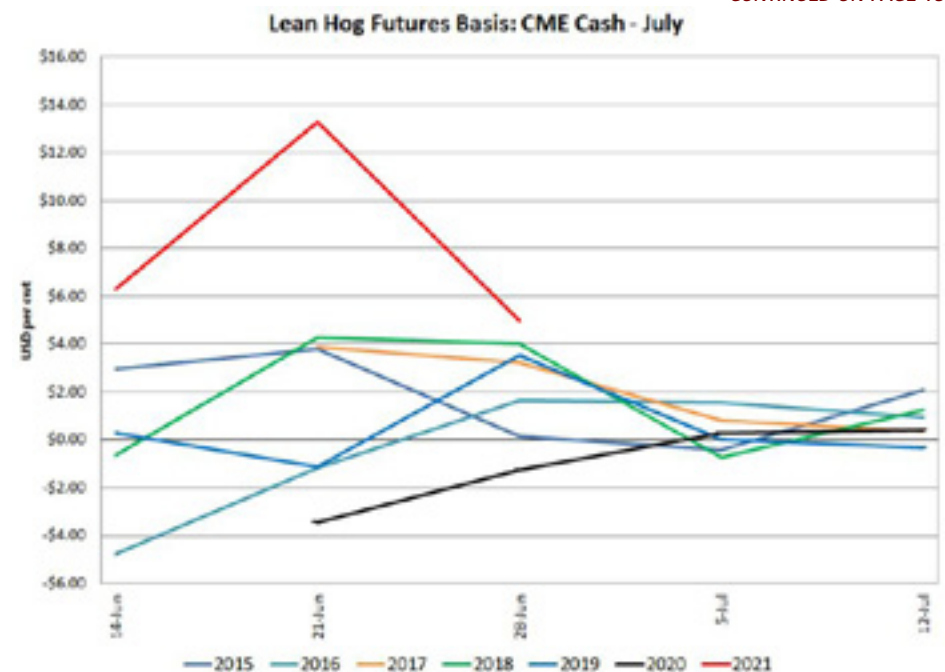


Figure 1



Email us with accessibility issues regarding this report.

Plant Delivered Purchase Data For Wednesday, June 30, 2021

(Includes information from 1:30 PM to 1:30 PM.)

Current Volume by Purchase Type
Barrows and Gilts Live and Carcass Basis

	Estimated Today	Actual Today	Actual Week Ago	Actual Year Ago
Producer Sold				
Negotiated	9,182	9,182	5,760	8,284
Other Market Formula (Futures/Options)	29,874	29,874	27,996	42,373
Swine or Pork Market Formula	121,221	121,221	127,516	119,368
Other Purchase Arrangement	54,943	54,943	180,010	54,609
Negotiated Formula	845	845	1,810	340
Packer Sold (all purchase types)	28,050	28,050	32,180	19,731

Volume and Price Range For Barrows and Gilts
Purchased Swine (Including Packer Sold)

	National (LM_HG203)	Iowa/Minnesota (LM_HG206)	Western Cornbelt (LM_HG212)	Eastern Cornbelt (LM_HG210)
Negotiated (Carcass)				
On a National basis, compared to the previous day's weighted average (LM_HG203), 2.39 higher				
Head Count	8,562			
Lowest Base Price	106.00			
Highest Base Price	117.50			
Weighted Average Price	113.02	114.14	114.42	111.82
5 Day Rolling Average	114.31	117.39	117.76	112.36

those cash-reported regions. There would then be the same calculation for 2020 using cash and futures for that year and in 2019, 2018 and so on. Weekly basis can be calculated in history for decades, as far back as futures and cash have been reported.

Basis is based on what?

Basis is the result of history. The market does not know what basis is, until it happens. Daily basis is known at the end of a trading day, and weekly basis is known at the end of a trading week. Since hogs are traditionally shipped weekly, and forward contract prices are offered weekly, most basis calculations are done weekly using a five-day aver-

age. As a result, there are 52 weekly basis values reported per cash price – one for every week of the year.

The weekly basis is then applied to a certain lean hog futures contract, making up the forward contracting price for that specific week. A different weekly basis would be applied to the next week but using the same lean hog futures to make up the forward contract price for the following week. That is why you do not commonly see forward contract prices the same for several weeks in a row; it is because packers have applied a different basis for each week. There are commonly reported weeks that have the same value, which means the packer has

decided to use the same basis value over those two weeks. On the following page, *Figure 2* illustrates the usual period covered by each lean hog futures contract and the number of weeks it can be used.

The dates in *Figure 2* are only estimates and can change from year to year. The reason a lean hog futures contract only covers to approximately the 15th day of the month is because every lean hog futures contract expires on the 10th trading day of the month. For example, July lean hogs will expire on the 10th trading day of July 2021, excluding holidays, which usually means around the 15th of the month. Once a contract expires, it no longer trades, and the

Lean hog contract	Coverage period	Number of weeks
February	Dec. 15 to Feb. 15	8 or 9
April	Feb. 15 to Apr. 15	8 or 9
May	Apr. 15 to May 15	4 or 5
June	May 15 to June 15	4 or 5
July	June 15 to July 15	4 or 5
August	July 15 to Aug. 15	4 or 5
October	Aug. 15 to Oct. 15	8 or 9
December	Oct. 15 to Dec. 15	8 or 9

Figure 2

next contract must be used to estimate the cash price for the next contract. That is why all contracts cover the second half of the previous expiry month, until the first half of their own expiry month.

Because basis is not known for the coming year, packers must now estimate what basis is going to be in the weeks ahead. Packer basis will usually use multi-year historical basis values – either three- or five-year averages – to predict where the basis could be in the year ahead, allowing them to then provide a fixed price, which producers can use to contract pig production.

Basis is usually calculated as cash minus futures, so when the futures are higher than the cash, the basis becomes a negative number. In Figure 1, June cash happened to be higher than July futures, so basis was positive.

Figure 3 illustrates the opposite of Figure 1. Historical basis for the February lean hog futures against the CME cash (LM_HG201) is commonly negative. The reason for the negative basis is that a higher market is usually anticipated in the middle of February compared to the lower cash weeks of late December and the beginning of each calendar year. Negative basis simply implies cash is usually lower during a specific period (in this case, one week) compared to the next futures month. February lean hog futures cover eight or nine weeks of production, which begins before the contract expires (in this case, December). Similar to the inverted basis shown

in the July contract in Figure 1, basis in both cases narrows toward zero at or near expiry.

Fixed forward contracting equals calculated risk

Once research is completed by a packer on historical basis, it allows them to make the appropriate adjustment to the futures, to offer a price to the producer who wants to contract. Packers will traditionally use a multi-year average with some protection to be certain that the price they have offered is in line with the adjustment that is expected for the weeks prior to expiry.

Packers do not always get basis correct, and in many cases, they have offered

a price that was too high, or in other cases, too low compared to cash during that week. Lean hog futures trade up and down, which provides coverage to both the producer and the packer. There is little risk to either participant when considering futures alone; however, when considering basis, there is risk.

The basis risk lies entirely with the packer in the case of a fixed forward contracting price, because the packer is providing a price to the producer that will not change. A similar approach to setting basis and assuming basis risk applies to marketing agencies that provide fixed pricing forward contracts. For that reason, the risk of providing forward contracting is typically covered by taking a premium over basis to cover unforeseen results.

Producers who are using fixed forward contracting for price protection should have confidence that the prices they are receiving are based on historical average basis applied to ever-changing lean hog futures with some additional protection basis, which allows the administrator of the program to run and offer such contracts. ■

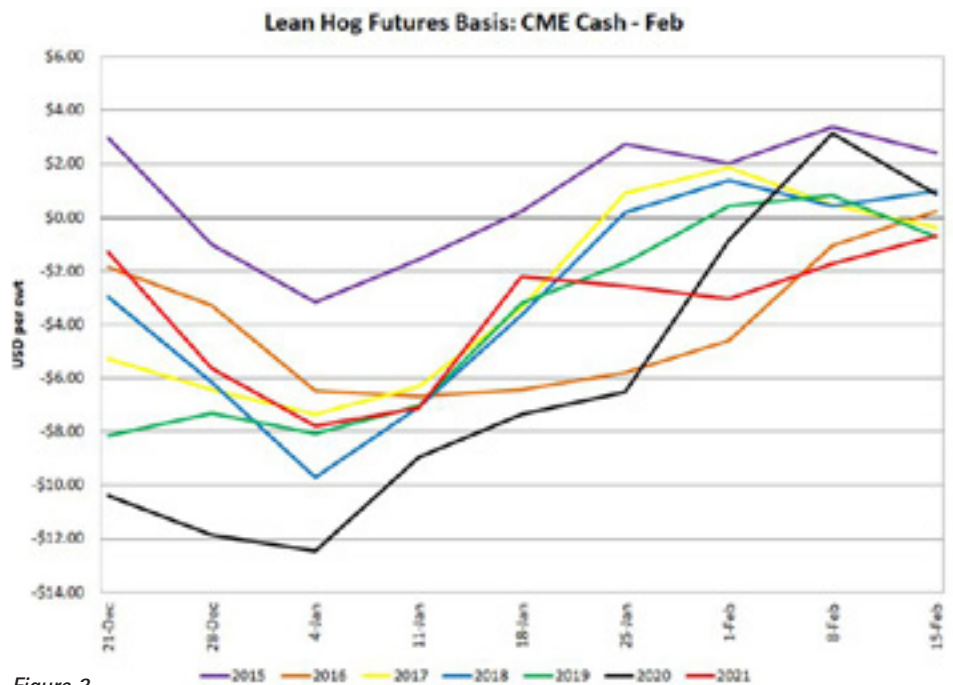


Figure 3

Exports soar when pigs fly

Andrew Heck

When pigs fly: It is an expression used to cast doubt on unlikely circumstances, but with the help of Canadian airports, exports of agricultural commodities – including pork and live swine – are taking flight.

While most pork moves through the supply chain via truck and container ship, air freight is becoming an increasingly popular option for processors and exporters who can justify the cost, especially when it comes to delivering the highest-quality products to markets that are willing to pay.

Sky-high consumer demand drives profits

Sunterra Meats of Trochu, Alberta – approximately 150 kilometres northeast of Calgary – has been sending fresh pork to select Asian destinations for several years, in addition to selling much of its product through Sunterra Markets loca-

tions in Alberta's largest cities. Savvy overseas consumers are more than willing to pay a higher price for fresh Canadian pork loin, side ribs and belly, even compared to cheaper products more widely available in their home countries. As a prime example, in 2017, Costco Japan replaced its U.S. chilled pork products with Canadian pork, resulting in a 300-tonne monthly increase in sales. Associating Canadian pork with high quality has long been an important focus for the entire sector.

In 1986, Canada became one of the first countries to implement a national hog carcass classification system, employing electronic grading probe technology, which values carcasses based on objective measurements of both fat and muscle content. Sunterra regularly ships slice-ready primals with four-out-of-five muscle colour, fat colour and marbling criteria to high-end retailers in China and Japan, where finishing

cuts are performed before the products is packaged using Sunterra-branded materials and labelled with the local retailer's price tag.

Sunterra's consumer-facing export products feature the Verified Canadian Pork (VCP) branding – a mark of distinction in Asian markets, as established in the Canadian Pork Council's (CPC) independently developed Made-in-Canada Hog Price Report, which evaluated Canadian pork's place in global markets. In Japan, pork of Canadian origin commands an observable premium over and above similar products of U.S. origin. The VCP program is backed by farmers' quality assurance commitments through the Canadian Pork Excellence (CPE) program.

"A major difference between here and Asia is that they are more brand-con-



Using air freight means fresh Canadian pork reaches Chinese supermarket shelves within a day or two of passing through the Sunterra Meats plant in Trochu, Alberta.

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scious than us,” said Tony Martinez, former Vice President, Sales and Marketing, Sunterra Meats. “The brand represents the story, and they want to know that story. That’s important for our company.”

In June 2019, following a diplomatic dispute and consequent ban on Canadian pork exports to China, Sunterra’s shipments to the country came to a temporary halt.

“Pre-ban, we were sending three to four metric tonnes of product to China every week,” said Martinez. “Post-ban, we’ve been faced with some new challenges related to regulations and seal requirements.”

The challenge is related to the location where Canadian Food Inspection Agency (CFIA) seals are applied to the product. Previously, Sunterra was able to truck unsealed pallets to Edmonton International Airport (EIA), where they were then sealed and loaded onto an airplane. Now, per the CFIA’s *Safe Food for Canadians Regulations*, introduced in January 2019, each pallet must be sealed at a federally inspected processing facility by a CFIA inspector. The problem is the distance between the CFIA inspectors at EIA and Sunterra’s plant 200 kilometres southeast of the airport.

“It has become a bit impractical for large loads,” said Martinez. “If we’re trying

to send the same volume as we did before the change in regulations, now we need to individually seal and provide documentation for each pallet, which amounts to a lot of paperwork.”

And while paperwork is an administrative hassle at best, at worst, it can be the source of controversy. When China stopped imports of Canadian pork, it was under the pretext of inaccurate inspection certificates. This climate of concern leaves Martinez wondering if something similar could happen again.

“It makes us a bit paranoid, since it’s the kind of thing that could cause trouble. We already saw it happen once,” said Martinez.

As of July 2021, all food for export being transported on passenger or cargo flights must go through an enhanced security check, per Transport Canada requirements. This means products will need to be unloaded at the originating airport, X-rayed, physically opened up for inspection by CFIA, resealed, then reloaded before departure.

In June 2020, CFIA launched a pilot project to address the problem of sealing, working with stakeholders such as the Canadian Pork Council (CPC) and Canadian Meat Council (CMC). At that time, CFIA inspectors headed to EIA to oversee and re-apply the seal to 20 tonnes of chilled pork to China, as part of the test. The shipment, originating

from Sunterra, arrived in China within days and was released to the importer in good condition. EIA provided support for the project and assisted Sunterra in obtaining and implementing the sealing equipment.

Despite regulatory concerns, Sunterra is confident that shipment volumes will eventually recover as they work with CFIA to smooth out any wrinkles in the system. For the markets served by the company, a steady stream of Canadian products not only satisfies a purchasing trend but also helps relieve a domestic industry that has been decimated by the effects of African Swine Fever (ASF) since August 2018, along with changes in consumer behaviour that have been spurred by the spread of COVID-19 since early 2020.

Breeding stock is uploaded to the cloud

From premium pork to breeding stock, companies far and wide across the value chain are making use of air travel when the margins make sense. Saskatoon-based Fast Genetics has moved animals by plane to locations like China in the past, mostly via airports in the U.S.

“For us, it’s about recognizing a need in a place like China, where the government is attempting rapid re-population,” said Sarah Heppner, Marketing Manager, Fast Genetics. “ASF has driven a

CONTINUED ON PAGE 22



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For Fast Genetics, China is a popular destination for live swine. Animals are loaded onto crates and then lifted into cargo aircraft for efficient delivery to overseas clients.

shortage, and the government is trying desperately to rebuild production models; however, tensions between China and Canada have made exporting difficult at certain times.”

For Alliance Genetics Canada, a 15-year partnership with South Korea has resulted in pig movements to that country annually for several years.

While COVID-19 delayed the company’s most recent shipment – which usually takes place early in the year – it was delivered, albeit later than desired, in November 2020. According to the company, the quality of its breeding stock is the main reason why business continues to flourish in spite of hurdles to global trade.

Meanwhile, for companies like PIC, destinations in Europe and South America are locations where pigs are desired. The company relies heavily on air transport to meet its business needs beyond North America. PIC raises its genetic improvement stock on nucleus farms in Saskatchewan and South Dakota, which are the source of live animals for export,

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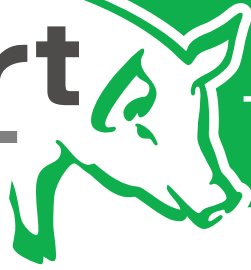

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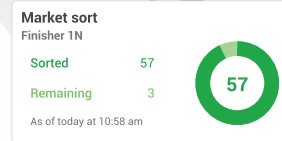


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especially boars and gilts, in addition to semen.

“Air shipments ensure our supply remains protected against the incurrence of disease,” said Tom Riek, North America Health Assurance Veterinarian, PIC. “The airplane offers a controlled environment, and the speed of transport helps mitigate health risks.”

One of PIC’s recent endeavours is a project that ships one or two full Boeing 747s every six to eight weeks out of EIA to a commercial producer in eastern Europe. Veterinary certificates and regulatory processes vary from one jurisdiction to another, and the relationships between Canada or the U.S. and those jurisdictions can impact decisions. It is also one of the reasons why PIC operates nucleus farms on both sides of the border.

“Export requirements for some countries are simple, while others are complex,” said Riek. “Our export coordination team is based in Tennessee, and they are responsible for scheduling the shipments.”

Navigating the intricacies of protocols is part of what Riek does alongside CFIA. Through CFIA, Riek and PIC are able to make the necessary arrangements to see the uninterrupted flow of products to foreign clients.

The reliability and quality of products delivered by air builds client confi-

dence and keeps the venture profitable for PIC. The company ships ‘grandparent’ animals for clients to produce ‘parent’ stock, which will then be used to breed the first generation of animals sent to slaughter. The multiplication process amplifies the value of the grandparent animals, making them highly coveted.

Edmonton International’s reputation reaches for the stars

While it was only Canada’s fifth-busiest airport in terms of annual passenger traffic prior to COVID-19, EIA is the country’s largest by physical area – a significant advantage over other major metropolitan airports when it comes to developing facilities to service cargo shipments.

“It’s part of our development strategy,” said Alex Lowe, Manager, Global Network Development (Cargo) Air Service and Business Development, EIA. “We know that air freight is not always number-one for exporters, but we are working on building strategic relationships to help Canadian businesses reach their full potential.”

EIA’s focus on moving products more than people is contrasted by some other Canadian international airports, including Calgary, but it comes down to what each location offers in terms of transportation logistics and priorities.

“Speed is the main advantage of air freight,” said Lowe. “It allows our clients to deliver products much quicker than other methods, and that speaks to a perceived value of freshness from farm to fork.”

With market-based struggles hampering Alberta’s oil and gas industry in recent years, moving agri-food products in particular has been a target for EIA. The disruption to passenger traffic, as a result of COVID-19, has also played into this consideration. Perhaps surprisingly, the airport handles not only commodities from western Canada but also items like cherries from Washington state – one of EIA’s proudest crowning achievements.

During peak cherry harvest, which is only a few weeks long in the summer, airports in Seattle and Vancouver quickly reach capacity, and fruit growers are left looking at the next best options: Los Angeles and Edmonton. While the distances between interior Washington and Los Angeles or Edmonton are comparable, factors such as traffic congestion and weather make the difference for exporters. Navigating the busy labyrinth of southern California can be a headache, and the state’s hot temperatures – while ideal for growing a wide variety of crops – create challenges for keeping product cool. For those reasons, the route from Washington to Alberta just makes more sense.

All major airports in Canada are publicly owned through the federal government. A lesser-known mandate for airports, aside from the obvious, is supporting economic development in the communities they serve. All told, while air freight is not usually the first thing that comes to mind when the transportation of pigs and pork is concerned, it can and does play an important role in facilitating movements and stimulating growth for the industry.



Airports like Edmonton International are increasingly looking to diversify their own portfolios and stimulate economic growth in the regions they serve.

Keep your eye on the sky and feet on the ground

Success stories in the pork industry seem to be few and far between these days, but the use of air freight to move pork and live swine is a win for the modern Canadian pork value chain. More than providing a novel alternative to conventional transport, it signifies that the industry is stepping up to the plate to meet the needs of elite, emerging and evolving markets, where high quality wins over satisfied, paying customers. And that should sound good to just about anyone.

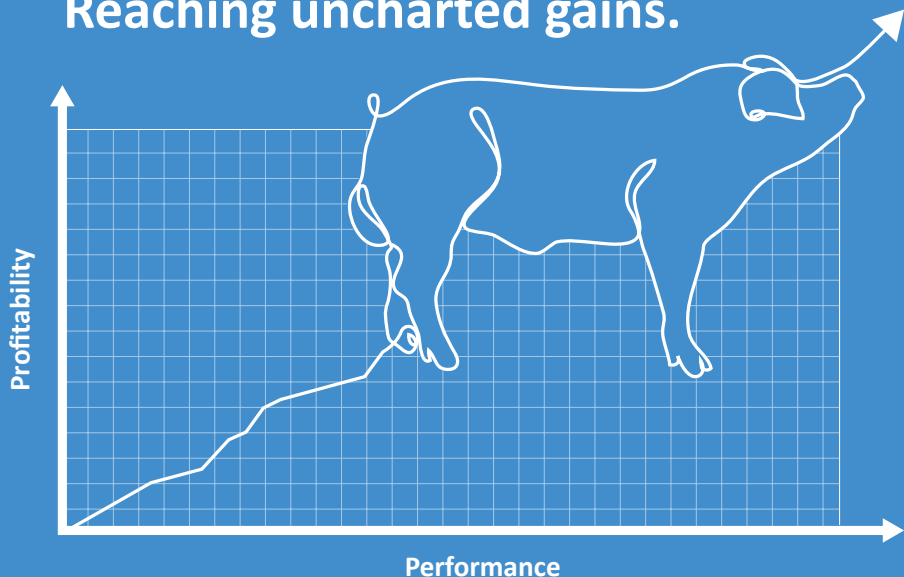
Next time you find yourself glancing up at a jetliner, consider that tens of thousands of feet overhead might be a shipment of premium meat raised on your farm or the genetics sector's best and brightest candidates for populating foreign herds. Canada's \$24-billion annual swine industry depends on global partnerships, which are enhanced when trade routes are open and abundant. ■



It is no longer the stuff of fantasy: pigs really do fly! And the entire pork value chain is better for it.

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Ontario Pork: 75 years of progress and resilience

Stacey Ash

Editor's note: Stacey Ash is Manager of Communications and Consumer Marketing at Ontario Pork. She can be contacted at stacey.ash@ontariopork.on.ca.

In 2021, Ontario Pork celebrates 75 years of serving and representing pork producers in the province. Celebrating such an important milestone has some challenges, with pandemic restrictions still limiting social gatherings, but the organization continues to mark the occasion in various ways, with plans for a more formal celebration when we can safely gather again.

A special anniversary section was incorporated into Ontario Pork's Corporate Profile, including interviews with multi-generational farm families, insights provided by international workers growing their career in the Canadian pork industry and forward-looking insights from new members of the industry. A 75th-anniversary logo brings the celebration to Ontario Pork's websites and producer-facing social media accounts.

Photos from the archives are being shared online at ontariopork.on.ca/history, as well as on social media, using the hashtag #OntarioPork75. Producers and industry partners are encouraged to join this trip down memory lane with contributions from their own photo albums or pork memorabilia collections.

There's more to come, with planned contests, giveaways and celebrations in the months ahead.

Ontario Pork – looking back

On April 21, 1946, the offices of the Ontario Hog Producers' Board opened in Toronto.

Farmers looked forward from the scarcity of the Second World War to a collaborative model where elected members would represent their best interests. Charles McInnis was a driving force behind the formation of the marketing board and served as president until 1961, alongside Norman McLeod, the board's first chair.



To mark the occasion of Ontario Pork's 75th anniversary, a special logo was created to be used as a prominent visual reminder this year.

At the time, close to 120,000 farms in Ontario reported having hogs, with an average of about 16 hogs per farm, and producers agreed to pay \$0.02 per hog for the support of a central marketing organization.

It was not always easy. The 1950s saw the beginnings of central selling, first with United Livestock Sales, and later through the Ontario Hog Producers' Co-operative, with 28 assembly yards op-



Even in the early days, Ontario Pork positioned itself to proudly showcase the work of producers (and hosted free ham draws) to reinforce consumer confidence.



A worker records hog marketing information by region on a chalkboard at the Ontario Pork head office.

erating across the province. The decade also saw escalating tensions between producers, processors and transporters, who did not all agree on the central approach to selling hogs.

The 1960s began with a swell of optimism around plans for the Farmers Allied Meat Enterprises (FAME) processing co-operative. At the Ontario Hog Marketing Board, advances were being made in hog selling. A new teletype machine at the head office listed lots of animals to be sold at assembly yards, and a new index grading system came into effect.

Efforts to promote pork to the public – and grow domestic sales – picked up steam in the 1970s, as the Ontario Hog Producers’ Marketing Board was renamed the Ontario Pork Producers’ Marketing Board. Ontario Pork opened two Toronto restaurants – ‘The Pork Place’ on King Street West, and the ‘Pork Pickins’ fast food outlet. The popular, and still quoted, ‘Put Pork on Your Fork’ campaign was in full swing by the end of the decade.

The 1980s were a time of political turmoil, as trade disputes with the U.S. saw heavy countervail duties imposed on

fresh, frozen and chilled pork from Canada. Strong political advocacy on the provincial and national fronts helped see those duties eliminated in 1991. The focus at Ontario Pork turned to organizational review, beginning with the privatization of all Ontario Pork assembly yards. Debates and studies related to organizational review lasted well into the new millennium, leading to the end of single-desk selling in 2010.

Those years also saw significant change on the processing front, with Conestoga Meat Packers beginning operations near Breslau in 1982. In 1994, 120 farms came together to create Progressive Pork Producers: a farmer-led co-operative to run Conestoga Meats.

Swine research became a cornerstone of Ontario Pork’s mandate, with one project in particular garnering a great deal of attention in the early 2000s: Enviropig. Genetically engineered to reduce phosphate excretion, the pig developed at the University of Guelph showed great promise to address environmental concerns but ultimately could not overcome public distaste for genetic modifications.

In 2014, Ontario Pork helped the industry navigate two major crises: with the collapse of Quality Meats in Toronto, and export disruptions following the arrival of porcine epidemic diarrhea (PED) in Canada. Working with government, Ontario Pork secured funding to help restore consumer confidence and boost sales through the creation of a retail branding program.

CONTINUED ON PAGE 28



A worker trims fat from a loin at the producer-owned Conestoga plant in Breslau – just outside of Kitchener.

Through massive demographic shifts, operational changes, political battles, trade issues, disease outbreaks and evolving public expectations, one thing has remained constant: Ontario Pork's steadfast commitment to serving and supporting its members.

Ontario Pork today – and tomorrow

Today, 75 years after the organization first opened its doors, a global pandemic – which brought shortages and supply chain disruptions – appears to be nearing its end. Support from our provincial government partners is strong, including the creation of new legislation to better protect farms targeted by those who would seek to end the industry.



Community outreach has long been a fixture of Ontario Pork's consumer marketing strategy.

What do the next 75 years look like? Pork producers in Ontario have earned a reputation for resilience and perseverance. This comes from the hard

work and commitment demonstrated by producers, Ontario Pork board members and staff, and industry stakeholders. Those up-and-coming in the



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industry are continuing their commitment to environmental stewardship, along with increased collaboration and partnership within industry and government to ensure the further growth of the sector for future generations, so that they can carry on the legacy of providing a high-quality product for consumers.

While the number of producers is only a fraction of what it was in the beginning, appetite for Ontario-raised pork now continues to grow at home and overseas, and Ontario Pork ensures the voice of producers is heard as loudly today as it was in 1946. Ontario Pork, and the producers it represents, can look forward with confidence to the next 75 years. ■



Times change, but Ontario Pork's commitment to the industry's evolving needs remains the same.



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Fresh leadership in Manitoba and Ontario

Treena Hein

Earlier this year, the Ontario Pork and Manitoba Pork boards of directors welcomed new chairs. In conversation with the incoming and outgoing leaders in both provinces, all four were reached to provide their take on current and future priorities for their respective organizations.

Manitoba priorities include improved pricing



Rick Préjet

Rick Préjet, Manitoba Pork's incoming board chair, grew up in Notre Dame de Lourdes – about 130 kilometres southwest of Winnipeg – where he assists his oldest son in running a 5,000-sow farrow-to-finish operation – including nurseries, finishing barns, a feed mill and trucking – which employs more than 40 people. After graduating with a diploma in agriculture from the University of Manitoba, Préjet worked for seven years in the feed industry before returning to Notre Dame with his wife Roseline and their four children to build a 150-sow hog farm, eventually partnering with local investors to build their larger operation, stimulating the local economy in the process.

Préjet is no stranger to the Manitoba Pork board, having already spent a decade serving on it. During six of those years, he led various committees, including human resources and industry performance. He also spent nine years serving on the Prairie Swine Centre board of directors, including several years as chair.

"I've always thought research was important," said Préjet. "The Centre is an arm of the University of Saskatchewan, but financially independent, and that has always been the challenge – to make sure enough grant and producer dollars, as well as income from selling pigs, were coming in. Collaboration was therefore important, reaching out to other research institutions in western Canada and eventually to Ontario and Quebec, to ensure we were not overlapping with study topics. Research funding dollars are limited, and we must all work to stretch them as far as we can."

In terms of Manitoba Pork's goals, a top priority for Préjet is to do everything he can to move the western Canadian industry to more equitable pricing formulas with greater weight given to cut-out values. Last year, Manitoba Pork and the producer organizations in B.C., Alberta and Saskatchewan approached major packers about the issue, and at this point, some have stepped up. Others, however, have not.

"There's no quick answer," said Préjet. "Discussions are ongoing to try and figure out the best plan. We are seeing independent producers continuing to close, because they can't make enough money to keep going."

Préjet also wants to focus on further development of collaboration across the value chain: "We're already doing well with this, and we have a lot of people involved in this collaboration, so it's a matter of continuing on. It's about understanding each other's needs and how we can make the system work for everyone."

Business risk management is also a priority for Préjet: "We really appreciate the work that the federal agriculture minister and the provinces have done on this, ensuring there are long-term programs going forward that work for our industry."

In the shorter term, Manitoba Pork staff are now reaching out to municipalities individually, following a discussion with the Association of Manitoba Municipalities, to consider the value of having hog

operations in their areas. The Manitoba Pork board wants to inform elected officials and community members about what to expect with new building projects and address inaccurate perceptions.

"We're also working again with Assiniboine Community College in Brandon on some changes we'd like to see to their pork production training courses," said Préjet. "And it's time again for us to do strategic planning as a board. We do this every five years."

Former Manitoba chair reflects on disease prevention

Préjet takes the reigns from George Matheson, who spent 15 years as a director and six years as the chair of the Manitoba Pork board. During his tenure, a concerted effort to stamp out porcine epidemic diarrhea (PED) in Manitoba has proven very effective. That is, during 2019, the province's pork producers lost about three per cent of the provincial herd – approximately eight million pigs – to PED, but in 2020, there were only three cases in the province, with none so far in 2021. However, vigilance remains critical, as there are lots of cases this year south of the border.

"It helps that there's only one major route from the south into the province," said Matheson. "And there is also lots of distance both west and east to other pork producers."

Over the years, Matheson also saw relationships with the U.S. pork industry develop significantly: "Things are very good now.



George Matheson

Years ago, there were trade challenges, but we're very integrated now as part of one big system, and I hope that that continues. We've kept ASF out, and we've got plans in place that should allow for continued exports from some areas of North America in case it's found in a specific location."

Matheson thanks the provincial pork industry for its long-standing confidence in him: "A great board and great staff made my job much less stressful."

Collaboration and growth are key in Ontario

At Ontario Pork, new chair John de Bruyn is settling in. De Bruyn previously served as vice-chair and worked hard to secure support for a new swine research facility in Elora, near the University of Guelph.

"We got the capital investment together and will now have a facility similar to the beef and dairy research barns nearby," said De Bruyn. "I believe this sends a message to young people and to our trade partners as well that pork is valued in Canada – that it's an important industry."

With his wife, Deb, De Bruyn has a 750-sow farrow-to-finish operation near Woodstock, about 50 kilometres northwest of London. Their five children have always contributed to the farm, and the oldest, Drew, has now taken on most of the operational duties. In his youth, De Bruyn graduated with a diploma from the Oxford School of Agriculture at Fanshawe College, and he has been active in Swine 4H and Ontario Pork over the years.

Above all this year, De Bruyn would like to see a return to stronger connections among Ontario's pork producers: "I think personal interactions are important, and I'm looking forward to that as COVID-19 is taken care of. Online meetings have been good, but it's very valuable for producers to share information in-person about running their farms. It's also a way for producers to talk to us about their concerns and what we need as an industry going forward. And we need to build interest in serving on the board."



John de Bruyn

De Bruyn also wants to ensure the political structure changes proposed for Ontario Pork prior to the pandemic move ahead. In addition, he wants to nurture sustainable industry growth: "Ontario has everything the industry needs. Lots of water, the best grain in the world, transportation infrastructure, the know-how. Having most of our feed grown here mitigates feed price fluctuations. The challenge is building the export market and ensuring we continue to prevent ASF entry and mitigate the risks of possible entry."

De Bruyn is confident that Ontario's pork producers can continue to exceed consumer expectations related to food safety, animal welfare and environmental footprint: "Most of our operations are on 100- or 200-acre parcels, so there's ample room to handle more manure. We are also well-positioned with the provincial government and agencies like the Thames River Collaboration to continue working on environmental issues, such as phosphorus levels in Lake Erie. It's a strength of Ontario Pork that we work collaboratively to seek out solutions, and we will continue to use that strength."

De Bruyn would also like to see more investment in provincial processing capacity: "Right now, we rely on about 20,000 hogs a week being processed in other provinces, and some weaners are

finished in the U.S. It would be great to have more processing here."

Former Ontario chair prides himself on social responsibility

Past Ontario Pork chair Eric Schwindt grew up on a farm near Elmira – just outside of Kitchener – where he and his wife Steph have raised their three daughters. Reflecting on his time as chair: "COVID-19 was certainly challenging. It took a lot of effort from producers, processors, marketers, transporters, Ontario Pork staff and government to keep market hogs moving, demonstrating the resiliency of the industry. Over the longer term, we also worked to build a collaborative approach with government for the continued development of business risk management programs."

Swindt thinks the other major accomplishment during his term was advancing the Ontario Pork social responsibility report. It demonstrates to all stakeholders that continued progress is being made to ensure pork is safe, sustainable and healthy, and it has been updated every year since 2015.

"I really appreciate the opportunity to have served as chair of Ontario Pork," said Schwindt. "All the things I learned, all the people I've met, and the friendships – it's been really fun and interesting." ■



Eric Schwindt

Plant strike prompts alternative pig movements

Starting in late April, workers at Olymel's Vallée-Jonction plant, southeast of Quebec City, went on strike following the breakdown of contract negotiations between the company and its independent labour union. More than two months following the start of the strike, more than 100,000 hogs on-farm were backlogged in Quebec and the Maritimes, with Olymel electing to divert hogs to plants in Ontario and the U.S., prompting the further diversion of hogs from Ontario producers to plants in the U.S. and western Canada, namely the company's facility in Red Deer, Alberta – halfway between Edmonton and Calgary.

"Eventually, we will hit a point of no return," said David Duval, President, *Éleveurs de porcs du Québec* (Quebec Pork). "Producers are calling me now. They see it coming. They say, in three or four weeks, they're going to hit a wall. They see the number of pigs they have in their barn and say, 'I don't know where I'm going to put the pigs.'"

In a statement published in early June, Olymel reiterated its position: "While we

are sensitive to the concerns of the Quebec Pork producers who are affected by the ongoing situation, Olymel management wants to point out that the unlimited general strike was called by the workers' union. The union filed wage requests that would have put this plant out-of-step with its competitors and jeopardized its viability, especially since it already leads its competitors by 21.7 per cent in total compensation."

The union has denied that worker compensation at the plant is outstanding relative to workers in similar manufacturing settings and has called upon Olymel to buff up safety standards.

"In addition to the setbacks affecting our working conditions, Olymel has also submitted demands for setbacks in terms of occupational health and safety," said Martin Maurice, President, Olymel Vallée-Jonction Workers' Union. "At our factory, we keep up with a fast pace and experience around 400 workplace accidents every year. Over time, we have managed to negotiate advances included in our collective agreement aimed at protecting workers in the event of an accident."

For its part, Quebec Pork has worked hard to defend producer profitability and animal welfare despite the protracted situation, urging Olymel and the union to come to an agreement. Talks between both sides continued with little headway made into mid-July.

Maple Leaf Foods profits continue to rise

Maple Leaf Foods released its first quarter 2021 financials in early May, showing an increase in total revenue from \$1.02 billion in the first quarter of 2020 compared to \$1.05 billion during the same period in 2021. The increase was largely driven by meat sales, representing \$1.01 billion, up from \$981.4 million a year ago. Plant protein sales represented \$42.6 million, down from \$46.3 million at the same time last year.

Despite the decline in sales, Maple Leaf is still aggressively pursuing its plant protein strategy, most notably with the purchase of a \$100-million tempeh (fermented soybean cake) processing plant in early January, through its wholly owned U.S.-based subsidiary, Greenleaf Foods.

"To date, we have found ways to leverage the capacity of our existing plant protein manufacturing assets, while successfully utilizing footprint in the rest of our network," said Michael McCain, President & CEO, Maple Leaf Foods. "This project offers us the ability to deliver incremental capacity in a cost-effective, timely manner, in a location that has synergies with our long-term vision."

In early July, Maple Leaf released its 2020 Sustainability Report, which details the company's efforts to become the "most sustainable protein company on earth." Through the purchase of carbon offsets and other enhancements, Maple Leaf is continuing to meet its own environmental targets.

Maple Leaf Foods acquires barns in Saskatchewan

Maple Leaf Foods announced in late June the purchase of four farms in central Saskatchewan from the Polar Pork group of companies. The acquisition will enhance Maple Leaf's overall hog supply and substantially increase its production.

"This purchase offers us ready access to some of the healthiest hogs in Saskatchewan that will allow us to enhance our deliveries of high-quality pork to customers in Canada and Asia," said Michael Detlefsen, President, Maple Leaf Foods



Olymel meatpacking workers near Quebec City continued to protest well into July, following a labour dispute that has resulted in hog backlogs for producers.



Maple Leaf's U.S. subsidiary, Greenleaf Foods, manufactures plant-based products under the 'Field Roast' and 'Lightlife' brands. Despite increased proliferation at the retail and foodservice levels, the brands have performed poorly relative to the company's meat products.

Pork Complex. "Bringing these barns into Maple Leaf Foods aligns with our strategy to pursue growth both domestically and abroad."

The purchase includes two sow barns and two nursery barns, with the potential to supply approximately 140,000 pigs annually to the company's facility in Brandon, Manitoba, which routinely operates at around 75 per cent capacity, presently. In total, Maple Leaf Foods expects to invest up to \$27 million in the barns, inclusive of acquisition costs and capital investments.

Despite calls from the western Canadian pork boards – B.C. Pork, Alberta Pork, Sask Pork and Manitoba Pork – to create more equitable hog pricing options for producers, the company has not in the past year adjusted its existing pricing formulas, unlike two of its major competitors, HyLife and Olymel.

Keystone Ag announces new manager

Keystone Agricultural Producers (KAP) has announced that Brenna Mahoney has taken the position as the organization's new general manager, effective mid-June.

"I am very pleased to welcome Brenna to our organization," said Bill Campbell, President, KAP. "She brings with her a wealth of agricultural and communications experience that will build on the strong foundation we have at KAP."

Before joining KAP, Mahoney was the director of communications and stakeholder relations for Cereals Canada. She was also a steering committee member for the Canadian Roundtable for Sustainable Crops (CRSC) and supported the development of the CRSC's code of practice. She has contributed to national coalitions and partnerships focused on advancing grain

nutrition and health, farm practices, market access, public trust and sustainability.

"I am excited to work for Manitoba's agricultural producers," said Mahoney. "Agriculture is a key economic driver, and there are many opportunities for sustained growth through collaboration across the sector."



Brenna Mahoney

KAP is Manitoba's general farm policy organization, providing a unified voice for farmers on issues that affect agriculture.

Simulated meat survey renders interesting results

For a one-month period between November and December 2020, the Canadian Food Inspection Agency (CFIA) launched a publicly available web-based survey to assess perceptions related to terminology used for describing simulated meat and poultry products at the retail level.

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Meat strengthened its “top dog” position in 2020

Produce grew, but wasn't able to keep up. Seafood was the other big winner.

Fresh departments' share to total fresh perimeter



COVID-19 spurred shoppers' desire to buy more meat for home consumption.

Of the approximately 2,500 people surveyed, 52 per cent self-identified as purchasers of meat or poultry products, while 74 per cent indicated they are purchasers of simulated meat or poultry products. Those responses were not mutually exclusive, suggesting at least some overlap between those who buy both real meat and simulated meat, but also suggesting the response base captures a fairly specific – rather than broad and encompassing – segment of the Canadian population, which today totals close to 38 million.

Polling results in recent years from Dalhousie University suggest that more than 90 per cent of Canadians regularly eat meat, while only about two per cent consider themselves ‘vegans.’ The gap between the number of meat-eating and non-meat-eating Canadians has narrowed over time, but not at a rate significant enough to dramatically impact public policy.

In addition, 66 per cent of those surveyed indicated that terms like ‘burger,’ ‘sausage’ and ‘jerky’ should no longer apply only to real meat, which could mean Canadians are becoming more open-minded in this regard, or it could be a direct reflection of the survey response composition.

CFIA will consider all input to further clarify proposed guidelines for simulated meat and poultry, with results expected to be released this fall.

Research webinars point to pig and pork success

In late May and early June, a series of webinars hosted by Alberta Pork, Canada Pork and Agriculture and Agri-Food Canada (AAFC) provided an overview of current pig and pork research topics for producers and industry partners.

The first of those webinars, hosted by Alberta Pork, featured presentations by University of Alberta researchers Ruurd Zijlstra and Eduardo Beltranena, who spoke to their work investigating swine feedstuffs. Much of that work is regularly published in the Canadian Hog Journal.

“At the University of Alberta for the last ten years or so, we’ve focused on many feedstuffs, and I’m pleased to say the Canadian Hog Journal published an overview in the Spring 2021 edition,” said Zijlstra. “Where, together with some research from Martin Nyachoti at the University of Manitoba, we focus on lowering feed costs in the nursery, grow-finish unit and also for sows.”

The concern over high feed costs continues to be a priority topic for producers and researchers alike.

The second webinar, ‘The Power of Meat,’ was organized by Canada Pork to explore trends in meat retail, featuring Texas-based Anne-Marie Roerink, President, 210 Analytics LLC. According to Roerink, U.S. consumers shopped less often in 2020, due to COVID-19, but meat, including pork, made up a greater proportion of their purchases. The trend may be due to increased food preparation and consumption at home, with a renewed focus on food preservation, such as freezing. Work-from-home arrangements likely played the largest role the increase, with consumers investing more time and effort into their noon meal, specifically.

The third webinar included two full days – one spent on dairy, one spent on swine – with presentations by researchers from Agriculture and Agri-Food Canada’s (AAFC) Sherbrooke Research and Development Centre (SRDC). Of note was a session with Danyel Bueno Dalto on his work related to the metabolism of zinc and copper. Bueno Dalto’s research has been

featured previously in the Canadian Hog Journal.

Manitoba Pork thanks teachers

Throughout COVID-19, teachers have proven their dedication to educating and inspiring the next generation of outstanding Manitobans. To recognize the efforts of the province’s teachers, Manitoba Pork launched ‘Manitoba’s Best Teacher’ – a contest to acknowledge and celebrate four teachers who have gone above and beyond to keep schools safe and classrooms functioning in the past year.

“Teachers have been challenged throughout COVID-19, but their commitment to educating students across our province has been unwavering,” said Laurel Lyons, Community Engagement Coordinator, Manitoba Pork. “Manitoba Pork is proud to recognize deserving teachers with a special gift and prizes for their school staff, as a token of appreciation from Manitoba’s hog farmers.”

Students, parents and educators were encouraged to submit nominations over a one-month period, with more than 400 received. The winning teachers received a \$500 Visa gift card and a pork-based lunch for their entire school staff.

Biosecurity legislation, activist protests continue

In November 2020, A private member’s bill to amend the federal *Health of Animals Act* was tabled in the House of Commons, with the intention of further recognizing



Animal activists organized gatherings across Canada and abroad in memory of a fellow activist who died last year protesting Ontario's Security from Trespass and Protecting Food Safety Act.

the need for better protection for farm animals against biosecurity risks associated with farm trespassing and transport interference. The bill passed second reading in early March and was referred to the House of Commons Standing Committee on Agriculture and Agri-Food in early June.

Also in early June, Manitoba Pork commended the Government of Manitoba on the passage of Bill 62, *The Animal Diseases Amendment Act*, and Bill 63, *The Petty Trespasses Amendment and Occupiers' Liability Amendment Act*. These two pieces of legislation are critical for agricultural producers across the province when it comes to maintaining biosecurity and the integrity of our food system.

"Trespassers and unwanted visitors on our farms and in our barns threaten the delicate work of maintaining biosecurity," said Rick Préjet, Chair, Manitoba Pork. "This new legislation will better protect our animals from diseases and will better protect farmers by discouraging confrontation, placing action in the hands of law enforcement."

In mid-June, a protest was held outside of the Sofina Foods plant in Burlington, Ontario – north of Hamilton – to mark the one-year anniversary of the passing of an animal activist who entered the path of a transport truck there a year earlier. At the time, activists were protesting the introduction of Bill 156, *Ontario's Security from Trespass and Protecting Food*

Safety Act, which entered into full force in December 2020. In solidarity with the Sofina protestors, on social media, gatherings were also planned for Donald's Fine Foods' Thunder Creek Pork plant in Moose Jaw, Saskatchewan, at Maple Leaf Foods' corporate office in Mississauga, Ontario and in other locations across Canada and abroad.

Increased attention to the need for improved biosecurity legislation began in late 2019, following the invasion of a turkey barn in Alberta. In that province, the *Protecting Law-abiding Property Owners Act* came into force in December 2019. As animal activism continues, animal interference remains a continuous threat to livestock wellness and the safety and mental health of farmers, truckers and meatpacking workers.

Feds introduce new swine research funding

While speaking at the annual general meeting (AGM) of *Les Éleveurs de porcs du Québec* (Quebec Pork) in early June, Marie-Claude Bibeau, Minister, Agriculture and Agri-Food Canada (AAFC) announced more than \$900,000 in funding for Swine Innovation Porc (SIP) and the *Centre de développement du porc du Québec* (CDPQ) to develop a new vaccine against *Streptococcus suis*, working toward reducing the use of antimicrobials and expanding strain coverage.

"Pork producers work hard every day to take care of their animals and ensure we can continue to access their high-quality products," said Bibeau. "The investments announced will help drive innovation for pork producers through cutting-edge re-

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through Ag More Than Ever,” said John Jamieson, President & CEO, CCFI. “This shift complements the work we’ve been doing since 2016, when CCFI was formed

agriculture and food. It was set up to create a forum where the industry could come together to share pride for agriculture, as well as inform consumers about food production.



Swine Innovation Porc (SIP) and the Centre de développement du porc du Québec (CDPO) will receive more than \$900,000 to conduct research activities related to antimicrobials.

search and science. Now more than ever, it’s important to invest in the future.”

Canadian pork producers continue to adopt novel approaches and technologies to enhance their competitiveness and position themselves for a strong and vibrant future, while responding to the challenges brought by COVID-19.

“Disease related to *Streptococcus suis* is one of the most common infectious problems reported on Canadian swine farms,” said Stewart Cressman, Chair, SIP. “Outbreaks can have detrimental economic impacts for producers, as it can result in decreased performance and increased pig mortality.”

Ag More Than Ever transfers ownership

The Canadian Centre for Food Integrity (CCFI) announced in mid-May an agreement with Farm Credit Canada (FCC) to assume the leadership of one of the agriculture industry’s top public advocacy forums: Agriculture More Than Ever.

“It is important to acknowledge the excellent work FCC has done to promote public trust in the Canadian food system

to help earn public trust in Canada’s food system.”

FCC has driven the platform since it was launched in 2012, in response to a rising need to improve public perceptions about

Ag More Than Ever has grown to become the number-one social media promoter of public trust in Canadian agriculture, with nearly 100,000 followers across all channels. The program has also been the driving force behind Canada’s Agriculture Day, launched in 2016 to celebrate Canadian agriculture, food and everyone who works in the industry.

Grocery code of practice gains momentum

Following testimony from stakeholders across the Canadian agri-food value chain, in early May, the House of Commons Standing Committee on Agriculture and Agri-Food released its report, ‘Room to Grow: Strengthening Food Processing Capacity in Canada for Food Security and Exports.’

The report recommends that the Government of Canada support the development of a grocery code of conduct to promote fair retail practices when it comes to working with Canadian manufacturers. Food, Health and Consumer Products of Canada (FHCP) expressed overwhelming support for the findings.



Food policy experts and food manufacturers have been advocating for a grocery code of conduct to level the financial playing field between processors and retailers.

“We commend all political parties for recognizing the challenging retail landscape in Canada and for their commitment to advancing solutions to address these challenges facing food manufacturers and farmers,” said Michael Graydon, President, FHCP.

In October 2020, Loblaw introduced an increase on fees charged to suppliers, citing the need to invest more heavily in e-commerce. Walmart and United Grocers – representing stores such as Longo’s, Metro, Save-On-Foods and Federated Co-op – have imposed similar fees, in a decision that was roundly criticized by the Canadian Federation of Agriculture (CFA), FHCP and other organizations.

Empire – parent company of Sobeys, Safeway, Thrifty Foods and other regional retailers – announced its support for a grocery code of practice in March 2021, the only retailer to date to side with FHCP, which continues to see further support from organizations speaking out on the matter, including Canadian Manufacturers & Exporters – Canada’s largest trade and industry association – and the Ontario Convenience Stores Association (OCSA).

Singapore agrees to ASF zoning framework

Following an evaluation of the Canadian Food Inspection Agency’s (CFIA) zoning proposal for African Swine Fever (ASF), in late June, the Singaporean government agreed to an ASF regionalization framework with Canada. This means that restrictions on the import of Canadian pork into Singapore – valued at \$10 million per year – would only be limited to primary

control zones if a case of ASF were to be found in Canada.

Zoning is an internationally recognized tool used to help manage diseases and facilitate international trade. If a case of ASF is identified, geographic boundaries are defined to contain the outbreak. The area within these geographic boundaries forms a primary control zone, defined in accordance with World Organisation for Animal Health (OIE) guidelines.

“Preparedness is of utmost importance in order to react quickly and to prevent the spread of an animal disease,” said Jaspinder Komal, former Chief Veterinary Officer, CFIA. “That’s why Canada is taking unprecedented steps in preventing and mitigating the potential impact of ASF.”

Zoning arrangements have been previously established with the U.S. and the E.U., and they are a top priority to establish with major partners like Japan, where pork of Canadian origin commands an observable premium at the retail level. PigTRACE, the traceability pillar of the Canadian Pork Excellence (CPE) program, is the foundation upon which zoning is possible in Canada.

Philippines declares ASF emergency, triples imports

The Philippine government announced in late January its intention to triple the country’s minimum allocation for pork imports in 2021, following a multi-year shortage owed to African Swine Fever (ASF). In 2020, the country’s import allowance was just over 50,000 metric tonnes. Imports within the quota are

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levied a 30 per cent tariff, while the out-quota tariff is 40 per cent. In 2020, the Philippines imported more than 250,000 tonnes of pork fat, bellies, variety cuts, offal and skin.

In mid-May, President Rodrigo Duterte declared a ‘state of calamity’ in the country, until the end of the year. Duterte’s proclamation indicated that ASF is responsible for a significant reduction in the country’s swine population by around three million hogs, resulting in more than \$2 billion in losses to the local hog sector

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and allied industries, leading to increased retail prices of pork products.

Despite the situation, in late June, the Philippine government managed to declare Batangas province the first in the country to return to being ASF-free, after the region experienced its first case of the virus in February 2020.

Between 2013 and 2019, the Philippines was a distant fourth-most-popular destination for Canadian pork exports, behind the U.S., Japan and China. While Japan and China represented moderate growth for Canadian packers during that span of time, the Philippines has not yet seen much change. ■



In September 2019, Philippine news media reported the discovery of ASF-infected pig carcasses in the Marikina River, which flows through Quezon City, part of metro Manila, home to nearly 13 million people.



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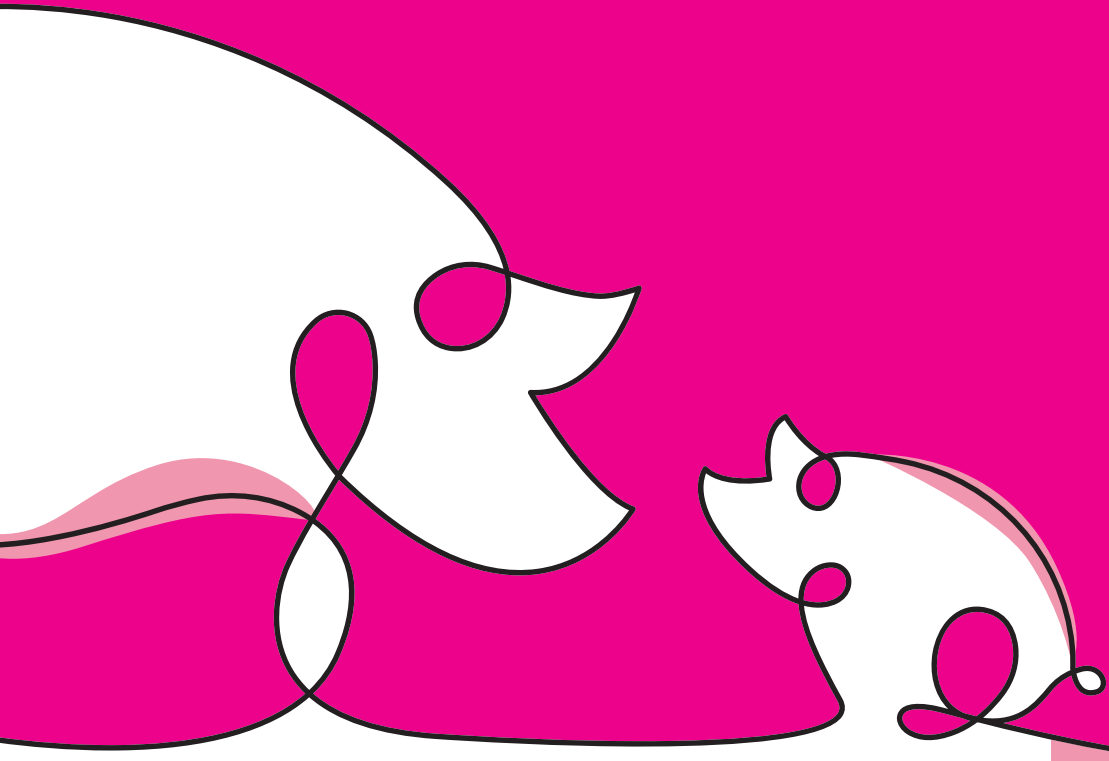


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Agri-food events adapt during COVID-19

Carrie Selin

Editor's note: Carrie Selin is Manager of Taste Alberta, representing organizations within Alberta that have come together to encourage loyalty to local foods. She can be contacted at carrie.selin@tastealberta.ca.

By now, almost everyone in the Canadian agri-food industry has experienced some form of minor or major disruption to a meeting, conference or event that had been previously scheduled to take place in-person, prior to COVID-19.

With the easing of public health restrictions across the country, many people are breathing a little easier these days and looking forward to the continued interpersonal interactions that were missed in the past year or longer. Getting back to regularly planned activities, as before the pandemic, has become a priority for enhancing industry effectiveness and improving workplace pride and satisfaction.

Producer get-togethers stifled

The Canadian agri-food value chain begins with producers, and COVID-19 has had a range of unexpected impacts on how business has been conducted. Sometimes, the impact was relatively minor, such as a few more phone calls or an exchange of emails instead of meeting for coffee. For others, the impact was a little more painful, forcing a change in habit from normal gathering settings to a completely virtual arrangement – something that even the most tech-savvy among us can struggle with.

“When COVID-19 restrictions were originally put into place in Alberta last year, it was the very day after our last face-to-face meeting with producers,” said Brent Moen, Chair, Alberta Pork. “Little did we know then it would take this long, but we are excited to get back to in-person meetings, hopefully within the coming months.”

The meeting referenced by Moen – one of four hosted by Alberta Pork across the province – touched on many hot-button

issues that were burning then and are still smouldering today. Often, when it comes to addressing important business, something is lost when that process moves out of the hotel conference room and into the Zoom meeting room.

However, feedback from producers on subsequent virtual meetings – such as Alberta Pork’s annual general meeting (AGM) in November 2020 and following the round of semi-annual meetings in March 2021 – suggests that, while



Nearly 100 producers packed the main hall at the Coast Lethbridge Hotel & Conference Centre in southern Alberta during Alberta Pork’s semi-annual meeting, in March 2020. The next day, the province implemented COVID-19 gathering restrictions.



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The annual Banff Pork Seminar attracted nearly 800 guests in-person in 2020 and a similar number virtually in 2021.

producers almost unanimously prefer in-person get-togethers, the virtual platform can be useful when needed. In lieu of an ability to gather in-person, remote meetings have been an adequate replacement and have even offered some benefit when it comes to limiting unnecessary travel and making those meetings more easily accessible to producers who struggle to balance their farm workload with taking time to attend a meeting in town.

More broadly, larger, internationally recognized events like the half-century-old Banff Pork Seminar were hit by restrictions in more ways than one. The Banff Pork Seminar is known as a premier event within the North American and global swine industry, attracting hundreds of attendees every year. However, in addition to the excellent programming offered, there is simply no way to digitally replicate the splendor of the Canadian Rockies. In 2020, the Banff Pork Seminar attracted upwards of 800 guests, which was matched in 2021, albeit with much less fanfare.

“We look forward to hopefully seeing everyone in-person in beautiful Banff for our delayed 50th anniversary celebration,” said Ashley Steeple, Conference Coordinator, Banff Pork Seminar. “The 2021 edition of the Seminar presented many challenges, and while we were able to climb over that hurdle in the end, we would much prefer a return to what everyone knows and loves!”

Originally, the Banff Pork Seminar organizing committee had considered extended opportunities as part of a 50th anniversary celebration, including a banquet, with a meal served by the legendary kitchen at the Fairmont Banff Springs Hotel. This celebration was wisely though grudgingly postponed, as attempting a virtual equivalent would have been a major injustice to fully appreciating the quality

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of the food at the Banff Springs, in addition to the life-long memories that are forged in that kind of intimate setting.

While the virtual world has presented us with many unique solutions to COVID-related problems, some things, such as celebrations, are too substantial to re-create.

Public engagement efforts transitioned

COVID-19's impacts on food processing have been well-documented, but further down the value chain, the successful execution of food-related marketing activities has continued to bolster farming communities by encouraging support for Canadian-grown and -raised food.

In the past, consumer engagement opportunities have focused on extolling the virtues of high-quality Canadian food, with opportunities to meet a farmer or taste a local dish prepared by a talented chef. Events and festivals are an effective way to showcase where food comes from beyond the grocery store, but gathering limits have smothered some of the momentum like a wet blanket.

With that in mind, COVID-19 restrictions have meant that we need to find new ways for consumers to take in memorable experiences without being in direct contact with those

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Edmonton's 'Bacon Day' features the best food and beverage creations of Workshop Eatery's Paul Shufelt, who loves to highlight local ingredients. In 2018, the event included a pig roast.

offering the experiences, and this has taken shape in different ways.

"Like many other businesses in the province, we have been experimenting with solutions to continue serving our customers safely, creating the best possible experience in spite of conditions," said Paul Shufelt, Chef & Proprietor, Workshop Eatery. "Some of those con-

cepts have done better than others, and going forward, we are looking to leverage our lessons learned in a world that is embracing new ways of appreciating great food, during a pandemic or otherwise."

Shufelt is a proud partner of Alberta Pork, having been involved in multiple events over the years celebrating all things piggy. In addition to his flagship restaurant, he operates two Woodshed Burgers locations in Edmonton, acts as an ambassador for the local culinary scene and has appeared on Food Network Canada's "Fire Masters" as a contestant. Being on the cutting edge is in his nature, and like many other innovative food industry players, COVID-19 has allowed him to flex his creative muscles.

Rather than offering dining room service or hosting private functions, restaurants across the country have made the move to high-end takeout options, including full gourmet meals, along with newer concepts, such as cocktail packages. Cooking classes and demonstrations, usually reserved for public spots, have moved online, giving viewers a glimpse into professional kitchens without the hassles of finding physical

space or needing to consider aspects of food safety in the service environment.

The Porkapalooza BBQ Festival is a world-class cooking competition, sanctioned by the Kansas City Barbeque Society (KCBS) – the world's largest organization of barbeque and grilling enthusiasts. Historically, Porkapalooza has afforded groups like Taste Alberta and Alberta Pork the opportunity to collaborate and bring agri-food education to the masses. Since 2014, Porkapalooza has taken place annually in Edmonton, with the exception of 2020, when the event was stayed until May 2021, and then further moved to August 2021. In the early days of COVID-19, when it was uncertain whether restrictions would last two weeks, two months or two years, Porkapalooza's path forward was unclear but ever-optimistic.

"We are incredibly eager to get back to hosting our competition for all the BBQ teams that invest their own time and money to take part," said Mark Bosworth, Chair, Porkapalooza BBQ Festival Society. "Our event showcases some of the best food around, from some of the best cooks and pit masters you'll find, which is a testament to the great work of everyone in the value chain – all the way back to the farmers who raise the products we are privileged to use."

In 2021, Porkapalooza will look a little different, as this year's competition is closed to the public – a difficult decision made earlier in the year, prior to the first postponement, out of an abundance of caution. In previous years, Porkapalooza came with a well-attended public festival component, including interactive tours of the cooking area, food stage demonstrations from local pros, plus plenty of family-friendly entertainment to ensure an enjoyable experience for everyone. While the festival's valued guests will not be able to attend in-person this year, there are still plenty of opportunities to participate online, including prize contests and other event-related content shared through social media.



Porkapalooza welcomes BBQ competition teams from across western Canada and is the country's largest certified BBQ event.



During 'National Takeout Day' in mid-April, organized by Restaurants Canada, social media users posted pictures of their food from local establishments, including these pork and beef taco boxes from La Patrona in Sherwood Park – a suburb of Edmonton.

In years past, team attendance has pushed upwards of 50 cooking crews, mostly from Alberta and Saskatchewan, but also from as far away as British Columbia, Manitoba and Ontario. Given restrictions that were in place when the festival was first being organized, and on account of event logistics, Porkapalooza this year will host close to 30 BBQ teams to build excitement heading toward the 2022 event, which will hopefully inspire even more teams to participate, with public guests welcomed back.

Arriving at the 'new normal'

When it comes to telling the story of the Canadian agri-food value chain, the most authentic and resonating way to accomplish that goal is to place consumers directly into conversations

with producers. And for producers, being aware and informed of industry issues around them is a necessary condition of being able to tell that story in a compelling and accurate way.

Natural opportunities to facilitate conversations between producers and consumers are presented with in-person events, generating widespread return-on-investment for the entire industry. Now more than ever, digital platforms have become critical to transmitting information, by using blogs and social media to promote content like photos and videos that try to capture a larger total experience and story.

With lockdowns and other restrictions in place to keep us safe, creating meaningful engagement has proven dif-

ficult. People have gradually become 'Zoomed out' with 'COVID fatigue' – the cultural symptom of a public health emergency, whether one falls ill or not. Most people today spend at least some of their working day behind a computer, and spending leisure time staring at a screen has become less appealing as time goes on.

If you were wary of the 'new normal' just as COVID-19 was starting to ramp up, the good news is that the bitter pill of change is getting somewhat easier to swallow, with the end of restrictions coming into view. As we all anticipate bigger and better things coming in the Canadian agri-food industry, COVID-19 has shown us new ways of flourishing under less-than-ideal circumstances. ■

Research in a frenzy over feeding

Geoff Geddes

Editor's note: The following piece was written for Swine Innovation Porc (SIP). For more information, contact Leslie Walsh at lwalsh@swineinnovationporc.ca.

If you think that feed costs are over-rated, you're not the one paying the bill.

As piglet feeding and its impact weigh heavily on producers' minds, science is seeking ways to make your feed dollar go further. Part of that effort involves highly relevant projects such as, 'Towards a new feeding approach of neonatal and weanling piglets for optimizing nutritional status, immunity and microbiota, and minimizing the use of antibiotics.'

"A major focus of the project is exploring a range of approaches for maximizing the growth and health of piglets during lactation and in the pre-weaning and post-weaning periods," said Martin Lessard, former Research Scientist, Sherbrooke Research and Development Centre (SRDC), Agriculture and Agri-Food Canada (AAFC). Lessard was a co-leader of the project with Dr. Frédéric Guay, Professor, Department of Animal Science, Laval University. After Lessard's retirement, the project was handed over to Dominic Poulin-Laprade, a newly hired Research Scientist at SRDC-AAFC who works on pig gut microbiomes and immune systems, along with developing solutions to antimicrobial resistance in the agricultural sector.

As part of this particular project, researchers will also evaluate the potential of various feeding strategies. Specifically, they will examine bovine colostrum, naked oat, medium-chain fatty acids and yeast extracts capable of optimizing gut health through their complementary influences on microbiota and immunity.

Ideas to chew on

Lessard, and now Poulin-Laprade, and Guay hope to develop feeding strategies that will improve piglets' robustness and resistance to infections while limiting antibiotic use – something that

is now a top industry priority. If all goes as planned, they will eventually transfer ready-to-adopt practices to commercial swine producers based on scientific foundations and scaled-up demonstrations.

"The first thing we are doing for the project is testing the different feeding approaches side-by-side," said Lessard. "We will look at colostrum alone, medium-chain fatty acids alone, a control

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Research supported by Canadian pork producer organizations, directed by Swine Innovation Porc (SIP), continues to investigate ways to lower feed costs. Photo submitted by Christopher Gross.

group with neither product, one group using both products and a final group employing antibiotics.”

That final group is especially critical for industry, as the limiting of antibiotics in weaning feed means producers must find ways to compensate for the loss of that option and devise other ways of achieving those beneficial effects.

“We have just finished an experiment for testing the potential of medium-chain fatty acids, yeast extract and bovine colostrum to improve gut health by modulating host-microbiome interactions and gut immune response,” said Lessard. “Dr. Guay is now doing some other work to determine whether naked oats can improve feed intake before and after weaning, and thus intestinal physiology, including the integrity of the intestinal mucosa. He is also studying the possible role of a colostrum supplement in early lactation on post-weaning feed intake and intestinal health.”

Once they arrive at the ideal feeding conditions, researchers will repeat the experiment with medium-chain fatty acids and bovine colostrum to determine which is more effective in preventing infections. As well, they will compare results when piglets are exposed to creep feeding versus when such feeding is absent. They also plan to further scrutinize the microbiome of the animals in their study and its impact on digestibility and performance.



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As is often the case with research, this project is guided in part by findings in previous studies and partly by the gaps in past research that need to be filled.

“Based on work in prior projects, it is clear that different ingredients can act on intestinal immunity, physiology and microbiota,” said Lessard. “However, few studies have investigated the combined effect of different ingredients that can act in a complementary fashion on the intestinal health of weaned piglets.”

In addition, few studies have been aimed at evaluating the effect of the composition of creep feed on pig health during the pre- and post-weaning periods.

“In the particular context of hyperprolificity, the study of pre-weaning feeding to optimize immune response, intestinal microbiota colonization and the growth of the piglets – mainly low weight – is relevant. Specifically, we want to examine this feeding under the current conditions of reduced antibiotic use and high zinc concentrations in post-weaning diets.”

According to Lessard, it is also clear that new feeding approaches with the potential to modulate gut health and piglet robustness from birth to post-weaning need to be

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Improving robustness and disease resistance equals healthier pigs and fewer expenses

developed and warrant closer inspection.

Clearly, the multi-pronged nature of this project promises a range of benefits for producers, with the implications for antibiotic use being one of the most notable.

Reducing antimicrobial use has wide-reaching benefits

“Through this study, we will continue to reduce the amount of antibiotics in feed, which will have a direct impact on the development of antibiotic-resistant bacteria,” said Lessard. “Using the products we are looking at here is more expensive than antibiotics, but the earlier you start with them, the better your chances of promoting long-term effects that will boost your bottom line. If pigs do well during those first six weeks of life, the benefits may be much greater than we realize right now.”

Cost is clearly a consideration for producers, and while the researchers do not yet have all the answers, they are exploring options for minimizing expenses. With bovine colostrum currently the costliest option for piglets, can the amount used be reduced from five per cent of the diet to two per cent or even one per cent by using other products that spark similar effects? Are pre-

biotics, nutraceuticals (pharmaceutical alternatives which claim physiological benefits) and other functional feeds a viable alternative? On their own, prebiotics and nutraceuticals may not be the most effective additive during the weaning period, but perhaps they could be added to bovine colostrum to increase the beneficial effects.

If the road to results is paved by asking the right questions, these researchers are well on their way. ■



Aside from keeping costs under control, reducing antimicrobial use is an important part of maintaining public trust in the Canadian hog industry.

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A new dawn for rye as pig feed

Jeff Melchior

Tell some pork producers they should include rye in their pigs' diet, and you may get some strange looks. They might point out that pigs do not like it and – perhaps more importantly – that it contains high amounts of ergot, a fungal disease that reduces milk production in lactating sows.

Those are legitimate concerns if you are talking about traditional, open-pollinated rye. But over the past several years, developers have been working to tackle the weaknesses of rye as a feed source. The result has been fall hybrid rye, a crop that breeders and researchers have identified as a competitive – but ultimately complementary – feedstuff for swine.

When used as directed, marketers claim pigs get a low-ergot feed they find palatable, filling and even calming. Proponents also tout its high amount of fibre – a trait inherited from its conventional counterpart.

On the cost front, research is showing that hybrid fall rye can offer producers a cheaper (or at least comparative-priced) feedstuff that is virtually

equivalent to wheat and barley in terms of key performance metrics such as dry matter intake, average daily gain, feed efficiency, body weight and carcass quality.

Since 2014, Saskatchewan-based FP Genetics – a certified seed company owned by seed growers across the Prairies – has been heavily involved in the marketing and distribution of hybrid fall rye, thanks to the company's relationship with Germany-based seed breeding company KWS, which has made the improvement of the crop a wide-ranging goal. The company's specific breeding goals include higher yields and ergot defence, followed by better disease resistance and minimized lodging.

"There is little doubt that reduced ergot content has played a role in the success of our lineup of hybrid fall rye varieties to date," said Herman Wehrle, Director of Commercialization, FP Genetics. "The new products that are coming online have significantly improved ergot defence. Even in the few years we've been in commercial production here in Canada, over that time,

we've improved ergot defence by well over 50 per cent."

Pollen aids in ergot resistance

In the case of the KWS/FP Genetics system, ergot resistance has been achieved by increasing pollen shedding in the growing process. Essentially, it involves high amounts of pollen-blocking ergot from entering the plant.

"The pollen goes into the ears, so then the ear will be closed, and no fungi can go inside," said Claus-Hinrich Heuer, Product Manager, KWS. "When we started these breeding programs more than 15 years ago, we had some problems with ergot. We found out that we had to cross a special gene called 'Rfpl' in our plants. Due to this crossing, we could increase the pollen shedding significantly."

Further enabling pollen shedding is one of KWS's key goals in the fight against ergot: "It's important to use much more pollen from the breeding side. We want to identify minora – or smaller – genes, which are responsible for the pollen shedding of our hybrids. And there are other breeding aspects where we are seeing improvement on pollen shedding so we reduce the risk of ergot in the plants," Heuer added.

Feed mixing rates: an ongoing discussion

A big concern is whether or not pigs will eat hybrid rye. Even if this was an issue with conventional rye, it does not appear to be one that has carried over to the hybrid varieties.

"In the past, people thought that, when you feed too much rye, they don't eat it, and it reduces the feed intake, but this is not the case," said Heuer. "We have done a lot of trials with pigs at different ages, and there's no difference in palatability between hybrid fall rye and wheat. The feed uptake is normal."

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Hybrid fall rye has a 20 to 30 per cent yield advantage over conventional rye, which ultimately passes savings on to pork producers, according to Saskatchewan-based FP Genetics.

HOG TYPE	HOG SIZE	RECOMMENDED DIETARY INCLUSION
Piglets	< 15 kg	10 %
Piglets	15 - 30 kg	20 %
Feeders	30 - 40 kg	30 %
Feeders	40 - 60 kg	40 %
Feeders	> 60 kg	50 %
Sows - Gestating	-	50 %
Sows - Lactating	-	25 %

When mixing hybrid rye into feed for hogs, FP Genetics recommends a graduated system based on size, growth stage and circumstances.

So if hybrid fall rye is safe for hogs, keeps them productive, and they like it, how much should you feed them? The amount of hybrid fall rye to mix into feed rations has been an ongoing discussion among producers and researchers for years.

This year, Molly Lee McGhee – in her doctoral dissertation at the University of Illinois – measured the extent to which hybrid rye could replace corn in pig feed rations without compromising average daily gain.

She concluded that hybrid rye is a suitable feed ingredient for pigs at all physiological stages, with the bottom line being that it may replace a majority of corn in diets for growing and reproducing pigs without negatively affecting gain. Of note was her discovery that up to 75 per cent of corn may be replaced with hybrid rye in gestating and lactating sow diets without hindering sow or litter performance, with diets replacing 25 to 50 per cent of corn, actually improving lactation performance.

FP Genetics errs on the side of caution in its feeding guidelines, with recommended dietary inclusions ranging from 10 per cent for piglets weighing less than 15 kilograms to 50 per cent for gestating sows and feeders weighing 60 kilograms or more. This graduated rate of inclusion accounts for extra energy needed along the pig’s life cycle and stages of stomach development.

“As the pigs get bigger and the stomach gets more developed, we suggest more and more rye input,” said Wehrle. “Once the stomach is fully developed, we’re saying you can replace 50 per cent of feed with hybrid rye, and you will not ever see any issue with respect to average daily gain, feed intake or any of those key metrics a swine producer has to look for.”

An exception is lactating sows, which carry a 25 per cent inclusion recommendation: “The reason for that is because they need a ton of energy at that time, and even though they have a well-developed stomach, we realize energy at that point is very, very important, so we drop the inclusion versus gestating sows, which are at 50 per cent inclusion,” Wehrle added.

Better bang for your buck but less availability

Due to limited availability in Canada, including hybrid rye at an appropriate rate can pose a challenge. Although rye acreage – largely consisting of hybrid varieties – has been increasing on the Prairies (Statistics Canada pegs 2019 seedings at 352,000 acres, compared to 225,000 in 2016), it is a drop in the bucket compared to wheat and barley.

“Quite frankly, if we got 10 per cent of the hog market in Canada, we would have to be growing many millions of acres of hybrid rye. We’re not even

close to it,” said Heuer. “Producers would use more rye in the diet if they could get enough material. So, they’re more likely putting 10 to 20 per cent in the diet.”

Crop farmers who get their hands on the seed, however, are, for the most part, in for a bargain. Fall hybrid rye varieties generally produce 20 to 30 per cent more than conventional rye, producing a lower cost per tonne. These savings are typically passed on to pork producers.

“We’ve been able to lower the cost per acre of feed, because we get more tonnes per acre, and to a feed buyer, that’s going to mean he’s going to have access to a product that is a lower cost to produce on a metric tonne basis,” said Wehrle. “In the feed business, 70 per cent of the cost of hog production is feed, so if we can reduce the cost of feed, that’s a pretty positive thing.”

Hybrid rye helps pigs relax

From a health perspective, hybrid rye’s high amount of dietary fibre features a range of benefits. The fibres present in the rye lengthen digestion and reduce insulin spikes, stimulating additional fatty acids like butyrate that benefit gut health and even have an effect on farrowing, such as fewer crushed piglets, more piglets weaned, reduced piglet mortality and heavier litters.

A soon-to-be-published study conducted by KWS with the University of Hannover in Germany has found that this dietary fibre has a positive effect on the overall calmness of the herd. The preliminary data shows a reduction in running, biting and overall undesirable behaviour.

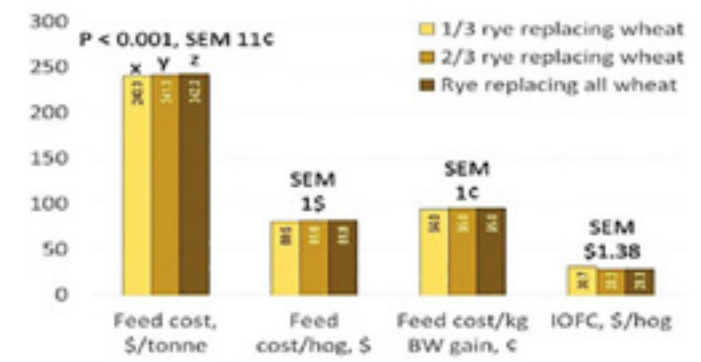
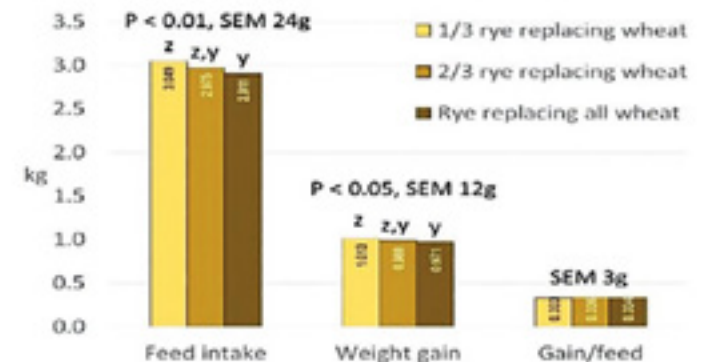
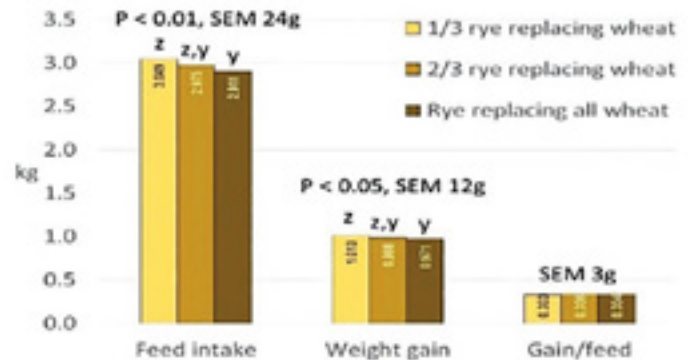
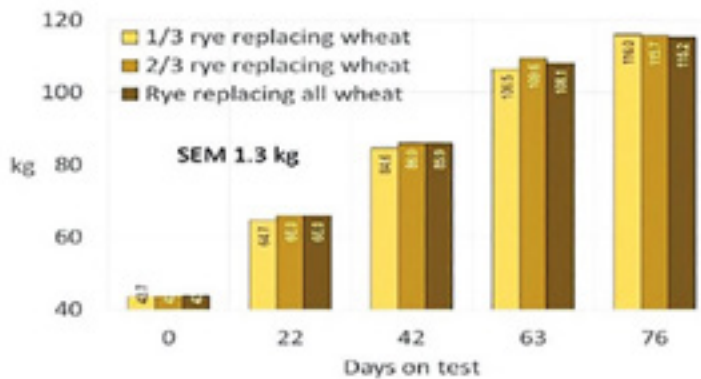
“We see a significant difference,” said Heuer. “This is especially important in group housing, where pigs are always coming and going with fights taking place.”

Considering adding hybrid rye to your rations? You might be pleasantly surprised at what is possible! ■

Story Ideas? Press release? Comments?

Email the editor!

andrew.heck@albertapork.com



A study by Alberta Agriculture and Forestry revealed similar outcomes of body weight, daily growth performance, carcass traits and overall cost versus benefit when replacing wheat with hybrid rye at one-third, two-thirds and 100 per cent inclusions.

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