

AGRICOLA

FOR ALUMNI AND FRIENDS OF DALHOUSIE'S FACULTY OF AGRICULTURE

SPRING 2021

Atlantic agriculture



In memory

The Agricultural Campus and the Alumni Association acknowledge the passing of the following alumni. We extend our deepest sympathy to family, friends and classmates.

Leonard D'Eon	1940
Arnold Blenkhorn	1941
Clara Galway	1944
Thomas MacNaughton	1946
George Leonard	1947
Gerald Friars	1948
James Borden	1950
Harry Stewart	1951
Stephen Cook	1954
Gerald Foote	1956
Albert Smith	1957
George Mauger	1960
Phillip Harrison	1960
Barbara Martin	1962
Peter Dekker	1964
Neil Murphy	1964
Weldon Smith	1973
Vicky Weldin	1977
Gerard MacDonald	1979
Walter Termeer	1985 & 1989
Robert Carreau	2009

Make a memorial gift

Honour a classmate or a friend with a memorial gift to the AC. Your thoughtful gift will be used to support student scholarships or bursaries, to improve campus, or to support an area that is of importance to you or your honouree. An acknowledgement of your gift will be sent to the family of the deceased. For additional information on memorial gifts, please contact Donor Relations at 902.893.6721. Make a gift online at dal.ca/giving.

Passing of Jim Goit

In June 2020, campus was saddened with the sudden passing of Jim Goit, former executive director, Development & External Relations. Jim had a long and lustrous 35-year career with the Province of NS, 11 of which were spent at NSAC (and the Faculty of Agriculture). Jim's impact on campus was monumental – he developed NSAC's first website, created an alumni and fundraising program and built and maintained many critical relationships. For his significant contributions, Jim was awarded an honorary Barley Ring in 2012.

Jim retired in February 2012 and was truly living his best life. On top of enjoying the extra time with his wife, Barb, their sons and four grandchildren, he became highly involved in the Truro Rotary Club and taught ski lessons in the winter. In retirement, Jim also enjoyed cooking, travelling, yard work and cycling.

In honour of Jim's contributions to campus and the Alumni Association, a bench was installed in front of Cumming Hall in late November. Wayne Bhola (Class of '74) kindly constructed the beautiful bench in Jim's memory.



Right: Former executive director, Development & External Relations, Jim Goit



Representing the Alumni Association, Colette Wyllie (Class of '10) and Brian Crouse (Class of '75) with Wayne Bhola, centre, (Class of '74).

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UNIVERSITY**

FACULTY OF AGRICULTURE

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Alisha Johnson

Editor, *AGRICOLA*

Alumni Relations, Dalhousie Agricultural Campus

Message from the editor

It's been a full year since the global pandemic was declared and while we all initially paused to regroup, we ultimately forged ahead. We have all faced changes and challenges over the last year, but it hasn't all been so bad.

While the majority of staff and faculty continue to work from home, at the Faculty of Agriculture, we miss our beautiful campus and we miss seeing students. We miss interacting with alumni and students, hosting our events and annual traditions.

However, technology has afforded us the ability to stay connected, engage with people we would not otherwise meet and to try new things. At times, we've even been fortunate to connect one-on-one, or in small intimate groups.

The past year has also forced us to slow down and pay a little more attention. If you call Atlantic Canada home, like we do, you probably realized just how lucky we are. We always knew this place was special, but maybe didn't appreciate what was under our nose. Atlantic Canada is small, but mighty.

We could write an entire *Agricola* (or two) on why ALL of Atlantic Canada is special, but for this issue, we focused solely on agriculture.

I hope you enjoy reading!

Stay safe and we can't wait to see you again!

Alisha Johnson

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Dr. David Gray

Dean, Faculty of Agriculture
Principal, Dalhousie Agricultural Campus

Message from the dean

Atlantic Canada is special.

For those of us fortunate enough to live here, this is not news.

Those from away often refer to us as the 'have-not' provinces and for the first time in 2020 this was true. Atlantic Canadians worked together to form an Atlantic Bubble, endured lockdowns, quarantines and donned masks to keep the Coronavirus in check long before other parts of Canada followed suit. Our infection rates remain some of the lowest in the country.

Upper Canadians flocked to Nova Scotia buying property in record numbers, increasing property values, and leading to an article in the New York Times on our management of the virus and the appeal of the province.

What is it that makes Atlantic Canada so unique?

This uniqueness also extends to our people and one of our largest industries – agriculture. What sets us apart is the beautiful, yet sometimes difficult geography we farm and the perseverance with which we do so.

Atlantic Canadian farmers are successful and have oft been recognized for their success through organizations such as Atlantic Canada's Outstanding Young Farmers. We speak to the very first winner of this award in this issue, Allison Woodworth, who also went on to win the national award and what it takes to do so.

Our researchers have also taken note and are investigating the success of small farms in Atlantic Canada and the secrets behind them. Of the 580 dairy farms in Atlantic Canada, one-third are considered small farms. These small farms are incredibly financially and environmentally successful, and productive. Dr. Chris Hartt and Ashley MacDonald are looking at some of the factors that contribute to this success.

We are a small campus that continues to provide an experience for our students and those who work and play here, that is unique, intimate, and special. It is who we are and what we do.

Our campus is special, our people are special and our agricultural community is special. It is no secret to us as to what makes Atlantic Canadians so unique.

Sorry!

Sincerely,

Dr. David Gray





Atlantic Canada: a small but mighty place of its own

Take a short drive outside of cities in Atlantic Canada and you'll soon see sprawling fields, barns and silos dotting the landscape. Agriculture is as visible as it is important on Canada's east coast. Four small provinces punch above their weight to strengthen the sector and find local solutions to global challenges.

According to David Gray, the Dean of Dalhousie's Faculty of Agriculture, there are a few features that distinguish the agriculture and agri-food sector in Atlantic Canada from other regions in the country.

"We're quite different here," says Dean Gray. "One of those reasons is that agriculture is still very much the cornerstone of our rural communities."

On Prince Edward Island, a province many would consider more rural than not, agriculture represents the bulk of P.E.I.'s GDP.

"We are absolutely an agriculture-based province," says Ron Maynard (Class of '74), President of the P.E.I. Federation of Agriculture. Ron is also a dairy farmer who operates Port Hill Milking Company with his cousin and adult children from both families. The farm has been in the Maynard family since 1822. Multigenerational farms aren't uncommon in the province and that highlights the industry's influence on culture and livelihoods over time. There's also a certain appeal to a place that's so connected to its food and that plays well in P.E.I. tourism campaigns (the fact that island-grown potatoes have a world-wide reputation doesn't hurt either).

"We call ourselves Canada's food island," says Ron. "One of the reasons we have a robust tourism industry, besides the beaches of course, is because of the farming community."

The weather in Atlantic Canada is another distinguishing feature in the region. The temperate maritime climate provides ample moisture for growing and keeps temperatures from getting too hot. That's why potato crops do so well in P.E.I. and New Brunswick, making both provinces international leaders in production. In Nova Scotia, cool summer evenings boost the quality of Annapolis Valley apple production. The province's northern shore is home to Oxford, known as the wild blueberry capital of Canada. The berry is native to the region and has become Nova Scotia's most important agricultural export. Potatoes, apples, and blueberries are all well-known Atlantic Canadian commodities, but the region also contributes livestock, grain, and other fruit and vegetable production.

Newfoundland and Labrador, the northernmost of the Atlantic provinces, has rockier land than its east coast peers. Matthew Carlson, the Young Farmers Coordinator with the N.L. Federation of Agriculture, says the province has less arable land for agricultural uses. Nevertheless, that hasn't stopped producers from dabbling in a little bit of everything. Fruits, vegetables, grains, livestock. Even beekeeping is on the rise, which works well for the province's cranberry production too. The island status of Newfoundland has allowed the province to protect its honeybees through strict regulation and now it's one of the last places in the world with disease-free hives.

Seafood is, of course, another well-known commodity in Atlantic Canada. Aquaculture plays a large role in seafood production and will continue to be relied on to address food security as the global population rises. Despite provincial and federal governments separating agriculture and aquaculture into different ministries, the Faculty of Agriculture includes aquaculture in its research and educational programming given its critical role in food production.

"From our perspective, aquaculture is food farming in the ocean," says Dean Gray, who has a background in marine biology. "Atlantic agriculture includes aquaculture. Therefore, we have this huge resource all around us."

The diversity seen in the region's agricultural portfolio is another feature that sets it apart from the rest of Canada. Considering that fewer than four per cent of Canadian farms are based in Atlantic Canada, it's quite impressive too.

A land of innovators

There are about 7,500 farms within the four Atlantic provinces. In Ontario the number of farms is pushing 50,000, followed by Alberta at around 40,000 with Saskatchewan trailing behind. Given the sheer size of those provinces compared to Atlantic Canada, it's no wonder. As a result, Atlantic Canadian provinces have had to work a little harder. And that resilience has sparked innovation.

"We've always had to compete with the big guys," explains Dean Gray. "We're always looking to find new or more effective ways to do things. There's this culture here of wanting to stay ahead of the curve."

Faith Matchett, Farm Credit Canada's Vice President of Operations for the Atlantic region, agrees.

"We're small but mighty," says Faith, who's based in New Brunswick. "We're punching above our weight because we've had to."

Faith thinks the region's "innovation bend" is thanks to a strong network of universities, colleges, funding agencies, development agencies, and start-up supports like incubators and accelerators. "What we have here, given our population, is incredible," she says.

This innovation ecosystem includes Cultiv8, an innovation sandbox hosted in the Faculty of Agriculture. Its programming is designed to get students across the province thinking about innovation in agriculture earlier than ever. Then there are the



research collaborations between faculty members and industry giants that aim to improve efficiencies and discover new ways to maintain a competitive edge on the world stage. Like Ahmad Al-Mallahi's partnership with McCain Foods in New Brunswick that explores precision agriculture in potato production, or David Percival's collaborations with Oxford Frozen Foods in Nova Scotia to better understand the fundamental biology of the wild blueberry plant.

Atlantic Canada's dairy industry has a good reputation in part because it has shown immense interest in the latest technologies that can improve production, health and nutrition among herds. But innovation isn't always about finding high-tech solutions.

Sheep farmers in Newfoundland, for example, are in the practice of bringing herds by the boatload to nearby islands for predator-free grazing each summer. The coastal diet gives them a unique flavour that's marketed as salt-water lamb.

Faith also points to Covered Bridge Potato Chips in N.B., another producer who used clever marketing to launch a new line of their product.

The company played off the popularity of the #stormchips hashtag, which sees Atlantic Canadians bonding online over stocking up on potato chips in advance of approaching storms. Named accordingly, their Storm Chips pack four top-selling flavours — a "flurry of flavours" — into one bag. Covered Bridge recognized the power of community in branding and sold out of their new product soon after launching. Storm chips are now available across Canada and the United States.

"Innovation is about figuring out new ways to do things," says Faith. "It's about coming up with those ideas that can increase the consumption of our product here and then figuring out how to market it to the rest of the world."



"We've always had to compete with the big guys," explains Dean Gray. "We're always looking to find new or more effective ways to do things. There's this culture here of wanting to stay ahead of the curve."



Growing more food at home

Remaining competitive is one reason for innovation, but an increasing desire to improve food security within Atlantic Canada prompts innovation too.

Matthew Carlson says the farming community and the government in Newfoundland and Labrador are deeply committed to making the province more self-sufficient, especially after last year. In January 2020, a massive storm dumped up to 35 inches of snow over parts of the province. A state of emergency was ordered in the city of St. John's and the province came to a standstill, including the ferries. With no land bridge connecting Newfoundland to mainland Canada, the ferries are absolutely crucial for the shipment of goods. Then the pandemic hit, further highlighting how important it is to grow, produce, and process food in-province.

"There's been more of a shift in thinking towards supporting local and growing local," says Matthew. "I think that's a world-wide trend because of the pandemic, but it's a bit more pronounced here, being an island and having those two challenges in one year."

Matthew points to Faculty of Agriculture alum Chris Oram (Class of '11) and his farm's offerings as an example of simple but effective agricultural innovation in N.L. Despite challenges with the province's land and weather, the latter of which can be more extreme than its neighbours, Matthew says Chris is a producer "who will try different crops and grow things you'd never think could be grown in N.L." Chris gained recognition within the province when he successfully grew cantaloupe, which he did by putting a black covering over the plants to get them started earlier in the season, keeping them warm enough when temperatures were still on the cooler side.



Chris Oram (Class of '11) and his family did not let the challenges of rocky soil ruin their visions for farming. Along with his wife, Kayla (Class of '11) and parents Richard (Class of '78) and Arlene, they operate a successful vegetable farm - Mark's Market, located in Wooddale, NL, growing a wide variety of veggies not typically grown in NL soil.



“Although we have our own distinct identity in each province, we are all facing the same agricultural challenges,” says Dean Gray. “What we should be doing is working together to develop a regional strategy and approach to agriculture.”



A gateway region united

“One of the great things about our region is that we are on the east coast,” says Dean Gray. “We’re the gateway to Europe when it comes to ports and airports.”

Access to prime international markets like Europe is an opportunity for the Atlantic Canadian agriculture sector, but the current trend of centralizing food processing in Canada creates a barrier to capitalizing on that opportunity. The food miles add up quickly if products have to be shipped out of Atlantic Canada for processing first. That significantly lengthens the food supply chain before the point of distribution, and it’s also a concern when considering the characteristics of the sector in Atlantic Canada.

“One of our unique selling points is the fact that most of our farms are small and medium-sized enterprises, which of course can also be a challenge if that’s not taken into account when policies are rolled out nationally,” he adds.

Dean Gray suggests that there’s a misconception that agriculture looks the same across Canada.

“Our Canadian government needs to look at that and identify the fact that there are different regions with different agricultural approaches and all of them are needed,” he says. “Policy development needs to take into account those differences.”

If the region wants to address national policy trends that put Atlantic Canada at a disadvantage, Dean Gray thinks collaboration across all four provinces to come together as one united voice and brand is a good place to start.

“Although we have our own distinct identity in each province, we are all facing the same agricultural challenges,” says Dean Gray. “What we should be doing is working together to develop a regional strategy and approach to agriculture.”

Finding solutions together

There’s another important reason to bring the Atlantic Canadian agriculture community together: to encourage more young people in the region to pursue careers in agriculture and agri-food and move the sector forward.

“We need to be working with our youth, communicating with them about the importance of agriculture. Talking to them about how wide and diverse these industries are. It’s not necessarily just farming, there are hundreds of careers that are crucially important,” says Dean Gray.

He says that agriculture is at the nexus of three major global issues: food security, climate change, and access to clean safe water. Agriculture (and aquaculture) is needed to feed over 9-billion people by 2050. At the same time, the sector is the largest user of land and fresh water on the planet. Those working in agriculture are acutely aware of its impact on the environment. Contrary to some messaging in mainstream media, Dean Gray says agricultural industries — collectively and at the individual level — are working incredibly hard to find sustainable ways to minimize environmental impacts.

The next generation of agriculture needs young bright minds to ensure the sector works even harder to address these global issues and find sustainable solutions. And Atlantic Canada is an ideal place to tackle the challenge.

“Atlantic agriculture is perfectly placed to be the testbed where we can try out new technologies and approaches,” he explains. “The people here are up for it — they’re innovative. And we’re the perfect size to try these things out.”



Atlantic Canada's Outstanding Young Farmers

The shining stars in Canadian agriculture

Whether you live here or not, there is no denying the uniqueness of Atlantic Canadian agriculture. Our farms may be smaller, it's wet, it's windy, and unpredictable, but we've figured out how to grow through rocky soil, deal with climate change, persevere and be successful all on our own.

There is no greater proof of this than the Canada's Outstanding Young Farmers program.

"This is a premiere awards program, celebrating young farmers," adds Regional Board Member, Nicole (Kilfoil) Oulton (Class of '98), "what makes it even more unique is that it is not industry specific."

Nicole and husband, Wayne (Class of '94), were named Atlantic Canada's Outstanding Young Farmers in 2008. They've been involved with the program ever since.

Originating in the United States and adapted nationally in Canada in 1979, Canada's Outstanding Young Farmers' mission is to discover, celebrate and recognize progress and excellence in Canadian agriculture.

Each year, farm operators between 18 and 39, who derive a minimum of two-thirds of their income from their farm operation, are nominated in their region. Nominees participate in an extensive judging process. One farming family is selected from each of the seven regional events. The Atlantic provinces come together to create the Atlantic region, to represent their respective region at the National Recognition Event.

Nicole played a larger role in 2019 as the National event co-chair, which was held in Fredericton, N.B. "Literally, at an



Allison and Ronald Woodworth, Atlantic Canada's first Outstanding Young Farmers (1980). They've now been retired, from farming, for 25 years.

Outstanding Young Farmers event you are surrounded by the most positive, forward thinking entrepreneurs in Canadian agriculture," Nicole says. "Farmers are supporting farmers and it is so motivating. Each year Wayne and I come home and make improvements to our operation, based on what we experienced and learned."

In the 40 years of naming Canada's best in agriculture, nearly half have been awarded to Atlantic Canada farmers. These farmers have stood out, against the rest in the country based on the following criteria:

- Progress made during their farming career
- Maximum use of soil, water and energy conservation practices
- Crop and livestock production history
- Financial and management practices
- Contributions to the well-being of the community, province and nation

The success of Atlantic Canadian farmers comes as no surprise to Allison Woodworth (Class of '63) and his wife, Ronald, now retired from farming in Berwick, N.S.

"Growing up in agriculture and even when I was running our family farm, I always heard the farms out west are bigger and better," said Allison, "compared to our diverse farms in Atlantic Canada."

Allison and his wife, Ronald were named Atlantic Canada's first Outstanding Young Farmers in 1980. They were then sent to Calgary, Alberta for the inaugural Canada's Outstanding Young Farmers National event. Competing against farmers from every other province, their certified strawberry plant, apple and vegetable operation stood out.

Allison and Ronald returned home as the first couple to be named Canada's Outstanding Young Farmers.



There's quite possibly nothing like the memories gained growing up on a family farm, in Atlantic Canada.

"Participating in Outstanding Young Farmers certainly afforded us opportunities we wouldn't have otherwise had, especially at that time," adds Allison, "on many levels."

"It was unheard of for us to leave the farm during harvest," said Allison. "But my sister came to look after the farm and off we went to Calgary for the National event." At that time, the farm included millions of certified strawberry plants, close to 100,000 quarts of fresh strawberries, 150 acres of apple orchards and other vegetables.

While in Calgary for the national event, they attended the Calgary Stampede but also toured many other farms in the province. Allison and Ronalda learned a lot.

"What I really noticed," said Allison, "is the farms really are bigger, as I was told. But they aren't necessarily better. We really can hold up our end in the Atlantic."

Allison and Ronalda's involvement with Outstanding Young Farmers was eye opening and they were proud that farming in Atlantic Canada was being recognized on a National level. "We never felt judged or as if it was a competition," says Allison. "Everyone had a different story and it was wonderful to learn from the others."

The experience was one-of-a-kind. "Outstanding Young Farmers treated us like royalty," adds Ronalda. "They really took great care of us."

The friendships they made were those that last a lifetime. "We still keep in touch with the couples we met at Nationals, 40 years ago," adds Ronalda, "and one year, all of the couples involved in Outstanding Young Farmers, who lived in Nova Scotia, came to our house for Christmas!"

Allison believes not much has changed with Outstanding Young Farmers in its 40-year history. "Every one of the farmers participating in Atlantic Canada's Outstanding Young Farmers

Canada's Outstanding Young Farmers' program is an annual competition to recognize farmers that exemplify excellence in their profession and promote the tremendous contribution of agriculture. Every year this event brings recognition to outstanding farm couples in Canada between 18 and 39 years of age who have exemplified excellence in their profession while fostering better urban-rural relations.

has been outstanding. We've done an excellent job of sending farmers on to Nationals and they've done a great job at bringing awards home."

But farming has evolved resulting in new improvements and different challenges. "With all of the technological advancements, I wouldn't know how to run a farm nowadays," laughs Allison, who sold his farm nearly 25 years ago.

Despite these ever-changing challenges presented to Atlantic Canadian farmers they triumph and inspire young people to follow the lead. Take the Atlantic Canada's Outstanding Young Farmers program as proof.

Farming – A beautiful double-edged sword in Atlantic Canada

Harris Bakker (Class of '15)

According to AC alum Harris Bakker, farming is an ever-expanding science that bridges all disciplines, cultures, and countries with a place for every young and eager mind. But the industry, especially in Atlantic Canada, is not without its challenges.

Harris was born in the Netherlands and in 2000, immigrated to Canada with his family. They left their potato farm in the Netherlands to move to a potato farm in Killoween, New Brunswick, a rural community near Florenceville. Harris began his studies with the Nova Scotia Agricultural College in 2011, one year before the institution merged with Dalhousie University. He began his studies in plant science with the intentions of returning home to work on the family potato farm.

"I knew very young that I would be a farmer," explained Harris. "My family has always held high value to farm-life and the freedoms and responsibilities that accompany it," he added. "I love the reward and the constant building up of the farm, whether its painting trucks, building upgrades, or cleaning up land. I never pictured myself doing anything else."

Harris is part of a modest family potato farm in Western New Brunswick in the St. John River Valley, contracting 500 acres of Russet Burbank potatoes to McCain Foods for french fry production. The remainder of the farm grows rotation crop mixes to build soil health for the following year's potato crop.

The cover crop usually consists of grasses, legumes, and brassicas with one or more species of each all mixed together.

Harris and his father farm full-time with his mother looking after the farm's books. One employee is hired during spring, summer and fall with six to eight employees hired for two weeks during harvest.

"We are always looking to innovate or try new practices and technologies on the farm," explained Harris. "We feel its very important to stay modern and efficient in agriculture. It's a very primal industry whose importance is linear with the need to eat food. With the world's growing population and changing climate, I believe the importance of efficient and environmentally conscientious food production is climbing significantly. I'm very proud to play a small role in it."



Harris believes the challenges faced in Atlantic Canada share the same sword as most benefits.

"The 'sword' is our geography and our climate," he explained. "On one hand, we have excellent growing seasons and fertile soils without the necessity of irrigation. On the other hand, we have hilly fields bordered by impassable landscapes, which makes efficient field management impossible in some cases."

"We also have extremely variable soil and long cold winters that shorten growing seasons in more Northern places," he continued. "I know there are many more challenges we all face as farmers, whether consumer, or culture-related, although I think we can assume all farmers everywhere share these challenges. What sets us apart is the beautiful, yet sometimes difficult geography we farm."

Harris believes farming should be important to everyone as everything depends on it. If you are considering a career in agriculture Harris suggests "hats off to ya! The AC is a good place to start!"



The beauty of agriculture

There are similarities no matter where you go — Pam Bailey (Class of '06)



The beauty of agriculture and farming is that it crosses borders, crosses languages and crosses cultures says 2006 alum Pam Bailey who has been living and farming in Manitoba for the past six years.

"There are a lot of similarities no matter where you go," said Pam. "One of my favourite differences is the soil. I grew up picking rocks in Heatherton, Nova Scotia, which is a foreign idea in southern Manitoba, so that's certainly a perk."

Familiar with Manitoba through her time in 4-H, Pam made the move out West a few years after graduating with her degree in horticulture. She now farms alongside her husband growing 1000 acres of crops including canola, wheat, malt barley and soybeans. They are looking to diversify further with unique specialty crops in the future.

From a young age, Pam knew she wanted to be involved in agriculture. Her family's childhood farm stopped operating around the same time she started in 4-H which shaped the direction she saw her life going in.

"I knew I'd have to do something very different than beef, dairy or hay if I still wanted to be in agriculture, but wasn't sure what that was," Pam said about choosing her path. "I did know I liked growing flowers, so I thought I'd go the horticulture route."

As a young woman in agriculture, Pam is not only passionate about farming but volunteering as well.

"Volunteering is important to me for a number of reasons. Back home in Heatherton, we all do a lot of volunteering, it's just a way of life," she explained. "Even with most of my visits home, I often still end up volunteering for something. It's a great way to learn skills, meet your community, and help other people or groups."

Pam was the first female on two different boards including an organization that existed for 145 years without a female member and started two non-profit organizations – the Heatherton Wellness Cultural and Development Association and Ag Women Manitoba.

Currently, Pam is part of the Manitoba Canola Growers Association. She scaled back on volunteering earlier this year to focus on moving to their new farmyard.

"With this pandemic being top of mind, it's caused us to really take a holistic look at our farm and what's important for us moving forward."

If there's one thing Pam wants the farming industry to know, it's that there are young people who want to be farming.

"We are not only passionate, we are more skilled and more educated than ever before," she explained. "Young farmers are doing everything they can to make their dreams work, while providing food and fibre to the world."

Pam believes young farmers need the support of society to thrive.

"We can't do it alone, we need society's support," she said. "We need to be involved in policy making at every level of government and industry-led initiatives. We need regulations that work with us, not against us. We also need resources in our rural communities to support our rural economy, not just for young farmers, but for young families."

And while Pam has been crossing borders since she left the AC one thing is for certain. The beauty of agriculture is everywhere.

"Even though I've been a resident of Manitoba for eight years, like many others who leave the Maritimes, there is always one true home and Heatherton, Nova Scotia is mine."



Eight generations and still growing

Dwayne Barteaux (Class of '89)

He likes to plant things and he likes to grow them. Each year, his habit gets worse as he grows more and more — tree fruit and a few vegetables, that is.

"My family and I take great pride in knowing that as farmers, we are blessed to be able to produce world-class and high-quality fruit that contributes to a healthy lifestyle for the modern consumer," says Dwayne.

And that's why every year he expands Barteaux Farms, located in Moschelle, N.S., a little more.

"We've been farming this land in Annapolis County for eight generations," Dwayne adds, "a generational legacy that I take great pride in." Dwayne manages the operation, working alongside his father, Robert (Class of '62), their 13 employees and setting the groundwork for his son Jordan and nephew, Jonah.

Barteaux Farms grows tree fruit using the trellis system. Using this method, they are able to produce a lot more fruit per acre of land. The trees and rows can be much closer together, resulting in a higher production per area. Their product is harvested to be sold at the Annapolis Farmers Market and to Scotian Gold.

The Barteaux's are proud of their success and rightfully so.

"We've been able to take a small farm, in the Western end of the valley and grow top quality products that are accepted to the Scotian Gold chain," says Dwayne. "Scotian Gold only takes the best products and the fact that they have accepted us into their organization — we couldn't be any prouder."

He adds that seeing your product in a chain grocery store, or having a customer come directly to the market looking for your product is equally as satisfying. "You could be having a really bad day, but then someone compliments you on your product, or you see it in the store — that really picks you up. It makes it all worthwhile."

Each year, an additional 5,000 trees are planted, expanding their operation and yield. "We try to re-new about five–10 per cent of the farm, every year and do a small expansion."

In 2020, that expansion was a little bigger than normal. Barteaux Farms, in partnership with another grower, purchased a plot of land 40 minutes away, near Berwick, NS, adding 15,000 new trees. This year, Dwayne plans to add another 25–30,000 trees.

For Dwayne, farming in Atlantic Canada has its advantages, "Here, we can operate on a smaller scale and still be profitable," he says. Not to mention, the Atlantic climate is less harsh than other regions, adding another benefit.

But it also has its challenges.

"The sheer distance from our Atlantic farm locations to major commercial markets can be a transportation challenge and for farmers like me, it is difficult to successfully manage a u-pick operation or an independent farm market in rural counties where consumer foot-traffic is low due to low-density population growth," says Dwayne.

Dwayne is a strong believer that to be successful in farming, you can't sit still. "We can't accept the status-quo," he says, "we need to constantly grow our businesses and expand on what we are doing. We need to seek out and exploit new technologies, new markets and of course, new and even more exciting varieties of fruit to grow."

For young people considering a career in agriculture, such as his son, Jordan, who is in his first year at the Faculty of Agriculture, Dwayne stresses the level of commitment required to farm.

"This is hard work. It's physically challenging, technically challenging and emotionally challenging. A formal education is key, and you need to be passionate about what you are doing."

And Dwayne has the passion and drive — as long as he can get labour to help harvest his crops, he has no intention of slowing down. Or certainly, quitting this habit of his.

"We're going to keep going. There is no limit."

It's in her blood

Discovering passion for agriculture through 4-H — Brook McNeil
(Class of '19)

An early introduction to 4-H helped Hantsport native Brook McNeil discover what was always in her blood — a passion for agriculture.

While she didn't grow up on a farm, Brooke still found an early love of dairy farming through her hometown of Annapolis Valley's 4-H program.

"When I was young, I remember wanting to be a teacher or a vet, because I loved learning and animals," she said. "But it wasn't until I got involved in the dairy project in 4-H that I got introduced to livestock."



Through that project, Brooke was able to visit different dairy farms, work with the animals and learn about the industry. She was hooked and it was a natural choice to begin her post-secondary degree at the Faculty of Agriculture.

"I think it was always in my blood due to farming roots on my dad's side of the family in Hants County," added Brooke. "I credit 4-H for helping me to discover my passion for agriculture."

During her undergraduate studies, Brooke spent two summers working full-time at the AC campus farm, the Ruminant Animal Centre and did her honours research project on colostrum and calf health. She credits the staff at the campus farm and the opportunities she had to work directly with animals as the motivating factor in her decision to continue working with dairy and earning a career in the industry.



Her biggest piece of advice for young people interested in pursuing agriculture is to get involved, try everything, even if it's not exactly where you see yourself working.

"The staff are amazing, and I still keep in touch every chance I get," said Brooke. "They are friendly, fun, hard-working, and happy to teach students like me. I learned so much and I'm so thankful to have gotten to work there."

Brooke finished her Bachelor of Agricultural Science with a major in Animal Science in 2019. These days, she's living in Ontario, studying Animal Bioscience for her master's degree at the University of Guelph, with plans to work as a dairy specialist.

Brooke is researching two projects on calf health and behavior.

"I love learning about the constant stream of new research, recommendations, technologies and innovations for dairy farming," explained Brooke. "The pace of these releases can be difficult to keep up with for farmers who are extremely busy with their day-to-day farm management. I see myself working as a dairy specialist after graduation, to help farmers as a friendly contact, making recommendations based on science, informing them of new innovations, and more."

As a young woman in farming, Brooke is optimistic about technological advances being made in agriculture that continue to level the playing field between men and women in the industry.

"I have to work strategically, I can't physically do all of the jobs that some men can, sustainably, but this doesn't make me any less of an agriculture worker," said Brooke. "Thoughtful design and tools make those tasks doable, long-term, for everyone. Innovations are on the rise in agriculture that will play a big role in utilizing each individual's unique strengths maximizing the benefit to farms."

Her biggest piece of advice for young people interested in pursuing agriculture is to get involved, try everything, even if it's not exactly where you see yourself working.

"Through my work and 4-H experience, I've worked with livestock beyond dairy cows, including beef cows, horses, sheep, goats and rabbits, as well as various greenhouse and field crops," she said. "These opportunities allow you to make connections between species and understand different commodities' perspectives, as well as increasing your general knowledge and growing your network!"

If you want it, you have to work for it

Adam Scanlan (Class of '06)

What's a kid to do when his parents won't let him get a Holstein cow as a pet? Start farming goats of course. At least that's what Adam Scanlan did as a 13-year-old in Whiteside, Cape Breton.



He's had a love of farming and agriculture ever since he can remember, and since graduating from the AC in 2006 he's been working in the agriculture industry. He's currently in Alberta farming part-time and working full-time at the Canadian Food Inspection Agency (CFIA).

One of Adam's childhood memories is spending summer vacations on Prince Edward Island. When his parents asked him and his siblings what they wanted to do, his siblings would choose days at the amusement park or the beach. Adam, however, would ask to spend the day watching a dairy farmer do the milking. His father would drive onto random farms and ask if his son could watch them the next time they milked, and there was never a farmer who said no.

"That was my idea of a great vacation!" said Adam.

Of course, he desperately wanted his very own cow, but his parents weren't on the same page.

"I got thinking about the dairy industry, which bumped goats right to the top of the list," said Adam. "I did a lot of research, and figured because of their smaller size and living requirements, they may be a better fit."

After a year of convincing, his parents gave in. His father built him a barn and soon afterward came his first two goats: A Purebred Registered Toggenburg doe and a Recorded Grade Toggenburg-type doe. He was 12 years old and was completely in love with his goats. His herd continued to grow as he did – balancing school, his herd and work to cover expenses through high school.

"I've always been stubborn and independent," he admitted.

His passion for goats followed him from Cape Breton to his undergrad at the AC, to grad school, and finally in his move to Alberta, where he continues to farm goats as well as chickens, pigs, and lambs.

"As a livestock producer in the West, one of the biggest things that affects management practices and is significantly different here from the east coast, is the lack of humidity. I find with the drier climate I see significantly fewer issues with parasite loads and respiratory issues," he explained.

After graduation, Adam attended graduate school at UPEI for a short time, but before finishing, he decided to head West to Calgary. There, he began a career with the CFIA, where he still works full-time today, currently as a Meat Import Specialist, providing guidance and support for technical issues surrounding meat imports and dealing with various issues that arise around meat imports into Western Canada.

"I feel very connected to my career with CFIA. It's allowed me to fulfill my love of science and agriculture," said Adam.

Through his work with the organization, Adam feels connected and part of a community in a role that allows him to fulfill his love of science and agriculture. "My job allows me to read and apply

"But instead of rushing to dismiss the entry-level phase of farming, embrace it. There's so much to learn if you pay attention. Accept that you will make mistakes, it's the best way to learn."

scientific concepts every day, which is one of my favourite parts of the job. I truly enjoy the challenge of each file and the dynamic nature of each day."

As a young person in farming and the agriculture industry, Adam isn't going to pretend it isn't tough.

"No one can truly prepare you for the work required to forge your own path, and you quickly become aware of how much you don't know and what you don't have as a new graduate," he said. "But instead of rushing to dismiss the entry-level phase of farming, embrace it. There's so much to learn if you pay attention. Accept that you will make mistakes, it's the best way to learn."

Adam also urges young people new to farming and agriculture not to compare themselves to others in their field. "Everyone's paths are different, and despite how we may set goals, life sometimes has other plans, and that's ok. You'll get there, and if you want it, you have to work for it!"

Adam's passion for and genuine love of farming and agriculture has led him to a fulfilling career and successful farm, with a day-to-day that's ever-changing and keeps him challenged and excited about his work.

"I always knew I had a passion for agriculture and somehow, somehow I would turn that into something successful."



From small-town Truro to big dreams in Britain

Robert Oulton (Class of '98) always wanted to be a veterinarian

"I had all kinds of animals growing up and wanted to be able to look after them and know what to do if one was sick," he explained. "I really wanted to be a farmer AND a vet when I was little! I realized just one of those jobs was enough as I got older."

Robert is one of a long line of alumni from the Dalhousie Agricultural Campus including his great grandfather, grandfather, father and one uncle, his three older siblings and four cousins.

"It seemed like the right place — especially as I was hoping to practice as a large animal vet if I could get into vet school," he added.

Robert was not only accepted into the Atlantic Veterinary College in Prince Edward Island; he is now a senior veterinary surgeon in the United Kingdom.

"When I was in vet school, I took every opportunity to get out and see large specialized practices throughout the summers," said Robert. "I worked in Illinois, Alberta and Wisconsin during my summers, and visited practices in Kentucky, Florida, Ohio and Texas," he added.

After graduation Robert accepted a position in Kentucky in a 40-vet equine practice. Part of his role was to accompany horses to other countries on flights, mainly to France, Ireland, and the U.K..

"I would spend a day or two in the U.K. each time and then fly back with other horses to the US. This led to me taking a job in the U.K. and I have now been here 14 years."

While in the U.K., Robert acquired a dressage horse and while he didn't compete himself, he became involved with British Dressage, providing lectures to local riders. Eventually a position within the National Youth Dressage Team became available in 2014 and Robert hasn't looked back.

Initially, Robert advised on the management of competition horses throughout the year, eventually leading a British Team

to the Federation Equestrian International European Dressage Championships each summer across many countries in Europe.

"From this experience I was asked if I would be interested in working with the British Equestrian Federation, advising riders along with a diverse team of experts on an individual's path to championship teams representing Great Britain with the end goal being the Olympic Games," explained Robert.

Robert began working with Eventing and Para-Dressage Teams in 2017 and is now the Senior Team Vet for the British Paralympic Dressage Team and will accompany the horses on their journey to Tokyo next year.

Alongside these commitments Robert still works day-to-day in equine practice with a team of five vets he mentors.

There is no typical day for Robert. If he is working with one of the teams at training sessions, he helps to evaluate a horse's progress alongside farriers, physiotherapists, saddlers, trainers and other specialists making suggestions on how to optimize a horse's athletic ability and performance in a particular sport.

"If I am traveling with horses, it involves daily assessments of each horse in the morning, watching them train or compete and dealing with any hiccups along the way," he explained.

He also evaluates horses in his practice for lameness or other treatments and is mainly involved when horses are having issues with performance or may be traveling to examine horses prior to purchase.

"Horses are horses no matter their function or value and all need to be treated equally," stressed Robert. The biggest challenges are getting to the root of very subtle issues with horses, particularly when the cause could be behavioural rather than just physical. The best part is working with horses of such a high calibre and working within a sport at a level I would never have achieved as a rider."


And speaking of high calibre horses, Robert also had the chance to assist with some Royal horses as he briefly worked for the Queen's personal vet.

"I have assisted with the Queen's horses both at Buckingham Palace and when they were at Windsor Castle," he said. "This was for her personal riding horses and carriage horses. It was certainly quite exciting seeing behind-the-scenes at both amazing stables! "

His advice for those considering a career in veterinary medicine?

"Go for it! Visit as many places and people as you can to see what you like and what you don't. I started applying to vet school expecting to be a dairy vet but ended up only doing horses my entire career.

In the meantime, Robert has his eyes on the prize this summer at the Paralympic games in Tokyo.



"The ultimate goal of my research is to help the Atlantic Canadian dairy industry remain successful and sustainable in the market through informed data-driven decisions."

Ashley MacDonald
(Class of '14 & '19)

Empowering Atlantic dairy farmers



Ashley MacDonald is a PhD student in the newly named research centre Agricultural Sustainability Studies for Economic and Social Success under the supervision of Dr. Christopher Hartt.

For her doctoral research, Ashley is continuing her focus in agricultural business but more specifically is looking to understand how dairy producers in Atlantic Canada make their on-farm management decisions.

“Small family farms are so important to the many rural communities that are at the foundation of our Canadian identity and it is essential that farmers are engaged in the conversations that are happening regarding their industry,” explained Ashley.

There are 580 dairy farms in Atlantic Canada, of which one-third are considered small farms. These small farms have been incredibly financially successful, environmentally sustainable, and productive. Ashley, along with her supervisor, is looking at some of the factors that contribute to this success, to pass that knowledge along to other small farmers.

The combined size of the Atlantic provinces is well below any of the prairie provinces, yet there is a larger proportion of the population living in rural areas — more than any other province! This low population density also means limited infrastructure, road quality, access to public services and more.

These rural communities are not just home to most farmers but are the support systems for their families and sources of information, resources, and labour. The communities rely on the agricultural businesses, but the farmers also rely on the communities.

“It is a symbiotic relationship that can work harmoniously but doesn’t always,” added Ashley. “While we know there are people living in these rural areas of Atlantic Canada, we also know the region has seen a lot of youth leaving the region. These are all unique challenges that farmers in the Atlantic region face, on top of all the other business and personal pressures associated with being a farmer and entrepreneur.”

Ashley hopes to build connections with dairy farmers in the region and identify what influences their decisions.

“By knowing how and why producers and consumers make decisions, we can figure out how to share knowledge with them to help them make informed, sustainable and practical decisions for the future, with the goal of building a more efficient, sustainable and ethical agriculture and food industry,” said Ashley.

Ashley’s research will help industry support groups like Marketing boards, Milk 2020 and Lactanet improve how they connect and share new knowledge and information with farmers with the ultimate goal of helping the Atlantic dairy industry remain successful and sustainable in the market through informed data-driven decisions.

Better Together cookbook

A collection of recipes from the Faculty of Agriculture community



No one knows food more than the faculty, staff, students and alumni of the Faculty of Agriculture and the Dalhousie Agricultural campus. So, it only seemed natural, in the middle of a global pandemic, to produce a 'pandemic' cookbook.

A small but mighty internal team of four spanning Truro, Halifax and Cape Breton worked together on the concept, design, and photography, while cooking nearly every recipe in two local kitchens.

"Shortages of flour and yeast and other basic staples in the grocery stores proved that people were spending more time in the kitchen and preparing their own food from scratch," said Alisha Johnson, Alumni Relations.

A greater appreciation for local produce and #ThankAFarmer campaigns were also in abundance.

The Truro Farmers' Market quickly switched to online sales and many vendors experienced increased sales according to manager and alumnus Margaret Congdon.

"Some vendors had noticeable increases in their number of sales, early on, which was interesting, considering the time of year (early spring)," she said.

Better Together

Last spring, as events quickly turned virtual, including the annual Barley Party, Jason Grant, Cultiv8 manager, performed a rendition of Better Together which quickly became a theme for things to come including Better Together trivia and our *Better Together* cookbook to name a few.

"As we transitioned to working from home, we wanted to utilize this unique opportunity to connect people with their food and where it comes from while also producing a one-of-a-kind keepsake of this brief time in our history," said Stephanie Rogers, communications manager. "Thus, the *Better Together* cookbook was born!"

Dispersed throughout the cookbook are short research facts and information on the work being undertaken by the Faculty of Agriculture in the areas of local and global sustainability, food security, and health & well-being as targeted by the United Nations Sustainable Development Goals.

Alumni, staff and faculty were asked to submit family favourite recipes using ingredients that were easily accessible across a broad range of categories including appetizers, entrees and desserts.



The team “behind the scenes” of *Better Together*. All recipes were made by the team so the cookbook could feature original photography.

BETTER TOGETHER COOKBOOK

WHOOPIE PIES

Submitted by Tricia Lake (Class of '99 & '05)

“This is our family’s famous recipe. It originated with my mother-in-law, who shared it with my mother when I was growing up, until I started making it myself. I’ve tried many other Whoopie Pie recipes and cookies, but none can compete with this!”

INGREDIENTS

COOKIES

½ cup shortening
1 cup white sugar
2 egg yolks
1 tsp baking soda
Salt to taste
2 cups flour
1 cup milk
6 tbsp cocoa mixed
with 1 tbsp butter

FILLING

½ cup shortening
2 cups icing sugar
Salt to taste
1 tsp vanilla
2 egg whites

DIRECTIONS

1. Beat cookie ingredients.
2. Drop by spoonful on greased cookie sheet.
3. Bake at 350 F for eight–10 minutes.
4. Beat ingredients for filling.
5. Put filling between two cookies.



Dalhousie University Faculty of Agriculture

“The *Better Together* cookbook is a great way to teach your children about the fun science of cooking and baking,” explained Community Education Officer Lauren Peters who is also featured in the cookbook. “Community Education is about learning where your food comes from and how important each person is along the supply chain — from the farmer who planted the seed to the grocery store clerk who placed it on the shelf. Thanks to the amazing community at the Faculty of Agriculture, we get to connect with them through this recipe book.”

“Food connects us all,” added Dean David Gray. “The Faculty of Agriculture is proud to dedicate its efforts to feeding the world. There isn’t another sector that impacts our lives, both individually and collectively, more than agriculture. It’s our future. It’s that simple.”

To purchase your copy of the *Better Together* cookbook contact agalumni@dal.ca or 902.893.6022.

Robots anyone?

A new state-of-the-art robotic feed system went online July 15th, 2020, on the Dalhousie Agricultural campus, nearly five years to the day after a fire destroyed the original structure as part of the Ruminant Animal Centre (RAC).

"The Agricultural Campus has dealt with two very devastating fires over the past five years and to see our new Feed Centre brought online has been a real boost for faculty and staff," said Dean and Campus Principal Dr. David Gray. "The state-of-the-art technology will be integrated into our teaching and research and will be a powerful tool for our students."

The RAC is home to a 40 cow milking herd and is an integral part of the fully operational campus farm where students and researchers alike have a wide range of hands-on opportunities for learning and study in various disciplines including animal care and husbandry, growth and production, nutrition, genetics, reproduction, animal behaviour and animal welfare.

"When looking at replacing our feed system we wanted something that represented new feeding technology," explained farm manager, Jean Lynds. "Something that was both flexible and accurate to facilitate teaching and research and efficient and user-friendly from a production perspective."

A TMR or total mixed ration provides a balanced diet that ensures every bite meets the nutritional requirements of the cow based on stage of growth and production. Rations (diets) are formulated specifically for each group of animals — lactating cows, dry cows and heifers based on their nutritional needs. A total mixed ration is a mixture of forages, corn silage and a concentrate consisting of grains, proteins, vitamins and minerals.

The new robotic feed system features grain tanks, Valmetal comboxes™ conveyors, a Valmetal VRotor 6100™ TMR rotary mixer and mobile feed carts all driven by Autoration Pro™ technology. As part of the start-up, the team is currently in manual mode but will soon switch to automatic mode.

"The new feed system when fully automated will be much more efficient as it should be 'load and go' allowing staff to do other tasks while the Autoration™ makes the TMR," explained



Lynds. "Staff will be required to program the diets and ensure there is an inventory of ingredients available, otherwise the Autoration™ will draw the ingredients, mix and distribute a quality TMR to cows at scheduled times."

Other renovations to the facility include the addition of teaching and meeting space, an enhanced biosecure entrance to animal areas as well as interpretive area. The interpretive area will feature interactive and interchangeable displays designed to connect and engage the broader community on all aspects of agriculture in Atlantic Canada highlighting our role in addressing global challenges such as food security and climate change.

The next phase of the feed system will be the introduction of the Robocart™ which is an autonomous feed-cart guided by laser triangulation technology.

The Robocart™ will interact with the Autoration™ to deliver the exact TMR quantity to each group of animals on each programmed route. The Robocart™ also comes equipped with a feed pusher that pushes feed into the cows with each pass. The Autoration™ and Robocart™ will enable staff to offer fresh feed more frequently which promotes greater feed intake by the cows.

The robotic feed system provides flexibility to not only deliver feed throughout the existing facility but will be compatible for any future expansion of the dairy unit.

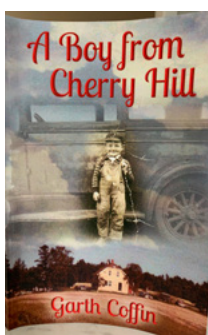
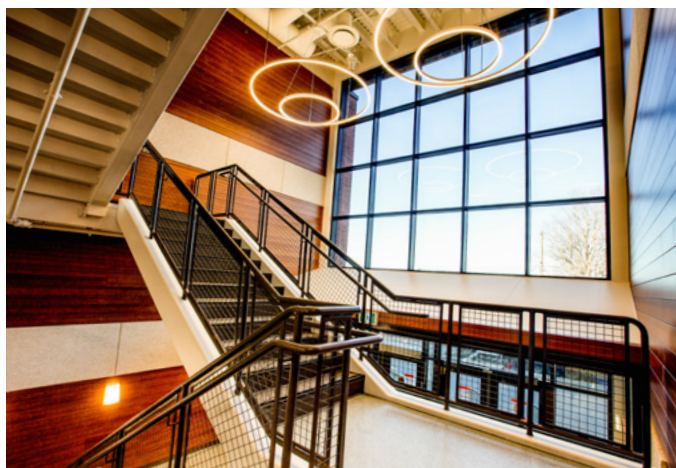
Cox Institute

A peek inside as Cox Institute prepares for re-opening

After the June 2018 fire significantly damaged Cox Institute, the Faculty of Agriculture is excited to see the reconstruction complete and to have the building a vital space on campus, once again. But it looks nothing like you may remember.

Highlights of the newly redesigned and renovated Cox Institute include increased natural light and bright spaces, upgraded furniture and student collaboration space, including lockers, innovative laboratory space and more.

Once fully operational, Cox Institute will provide the best learning environment possible for our students.



A Boy from Cherry Hill

Former campus Principal, Dr. Garth Coffin (Class of '60) has recently written and published a story about his rich life and career

A Boy from Cherry Hill is a story of a lad who grew up in a warm and loving family on a small farm in Prince Edward Island. Throughout this book, Garth recounts his experiences and highlights his good fortune through his education and career path. Spanning eight decades, his memoir includes international work and personal interests as he reflects on his life to-date.

"Good fortune has been a constant companion throughout my life," says Garth when asked about the motivation behind his book. Piecing together the nine chapters also provided him an opportunity to reflect on his life and career to-date. "I've had doors opened at just the right time, permitting me the opportunity to do many different things. My wife and family have been solid supporters through every step along the path of my career."

To purchase your copy of *A Boy from Cherry Hill* contact Garth Coffin: gcoffin@eastlink.ca or 902.895.2700.



Community Education Manager, Lauren Peters

Getting the granola bar to the cupboard

The importance of Community Education programming at the Faculty of Agriculture

Lauren Peters (Class of '19) loves watching the eyes of a grade nine student widen as the information she has just helped them realize sinks in — it takes a lot of people and hard work to produce something as simple as a glass of milk or a packaged granola bar!

But that's the fun and purpose of her role.

As the manager of Dalhousie Agricultural Campus's Community Education program, her goal is to promote a broad understanding of agriculture and research to educators, students, community groups and the general public.

"My job is extremely unique and always changing, much like food and the agriculture industry," says Lauren. "Each day is different and that is what makes it so exciting!"

Before the global pandemic was declared last spring, Lauren didn't have a normal day.

"One day I could be in a classroom with a group of junior high school students playing a game of trivia and the next I could be touring 4-H members around campus, doing hands-on activities in labs and on the farm," she says. "Other days I could be in the office planning and scheduling or around campus collaborating with staff on new programs for the community."

A relatively new program for campus, Community Education launched in 2015 but has evolved and expanded in its few short years. Although the way in which Lauren delivers the Community Education program has shifted due to the pandemic, her outcome remains the same.

"The top three challenges facing us globally right now are feeding a global population of nearly 10 billion people by 2050, climate change and thirdly, access to safe, fresh, clean water," says Dean, Faculty of Agriculture, Dr. David Gray. "The answers to these critical issues will all be grounded in agriculture. To meet these challenges, we need to be encouraging bright, young minds into our discipline as they are our future leaders."

The Community Education programming, mostly geared towards youth, addresses just that — through unique agricultural learning experiences, laboratory activities (for classrooms and community groups), resources and lesson plans, guest lectures, educational field trips on our campus and development and coordination of programs.

"Early on (in the pandemic), I spent a lot of time adjusting to virtual platforms," says Lauren. "I miss the hands-on aspect, but the virtual shift has created new opportunities. I'm already



looking forward to expanding our online offerings for Community Education including virtual class visits and community events." She also looks forward to the day when hands-on activities and campus tours resume.

But virtual or in-person, the value of Lauren's work remains the same.

"There are four jobs for every single graduate in the field of agriculture," says Lauren. "I want youth to see the importance of the industry and not be turned away by the word 'agriculture!'"

Through her day-to-day programming, Lauren helps youth and community realize the process of getting food from a farm to their own tables. "There is something special about being a part of this ever-growing industry," she says. "It is one of the most rewarding industries, because at the end of the day, when you are home enjoying a nice meal, you can say that it has been produced by someone who truly wants to ensure every Canadian has access to safe and healthy food."

And while the youth absorb the information Lauren has delivered about their food, she hopes it gets their gears considering a future in agriculture.

"I help the students see the vast opportunities in the food industry," she says. "Specifically, in Atlantic Canada — it's so valuable and diverse. I help them realize the opportunities as primary producer on a farm, to turning a raw product into a value-added product, to ensuring food has met all of the safety and quality measures, to marketing the product that will be sold on a retailer's shelf."

And hopefully one day in the future, that grade nine student will sit back and say, "Because of the career path I chose, I helped get that granola bar to my own cupboard."

"This program has been incredibly successful, and we are very proud of all that has been achieved in such a short space of time," adds Dean Gray.

**For more information on the Community Education programs offered by the Faculty of Agriculture, contact:
Lauren Peters | Lauren.Peters@dal.ca | 902-968-1276 | dal.ca/communityed**

Blue & Gold Awards

2020 marked a milestone year for honouring our deserving alumni through the annual Blue & Gold Awards. We've been celebrating the accomplishments of our remarkable alumni with our most prestigious award, the Distinguished Alumnus for 20 years! The Volunteer of the Year and Young Alumnus award have been awarded for 15 years!

For 2020, we paused from honouring new recipients (as we would not be able to give our honourees the proper attention they deserved) and instead, we reflected on the past 15 and 20 years of incredible contributions to the agricultural industry through a social media campaign.

PREVIOUS AWARD RECIPIENTS: Young Alumni Achievement

Carolyn Wilson	2019
Chris Oram	2018
Sam Bourgeois	2017
David & Sara Simmons	2016
Cedric MacLeod	2015
Philip Keddy	2014
Audrie-Jo McConkey	2013
Mary McPhee	2012
Mark & Sally Bernard	2011
Patricia Bishop	2010
Oliver Browning	2009
Sarah Turner	2008
Trevor Dillman	2007
Steve Reeves	2005

Alumni of the Year

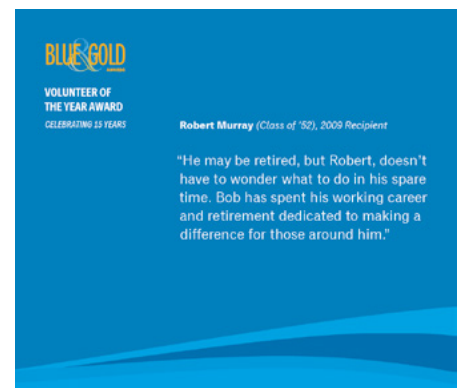
Andrew Lake	2019
Rayanne Frizzell	2018
Ken and Teresa Mellish	2017
Greg Coldwell	2016
*Dr. Helene Van Doninck	2015
Peter Corey	2014
Anna Fitzgerald	2013
Arnold Hagen	2012
Kara Irving	2011
Jean Lynds	2010
Robert Murray	2009
Phil Stead	2008
Dwane & Debbie Mellish	2007
Sherry Porter	2006
Dale Ells	2005

Distinguished Alumni

Donald Cameron	2019
John Tait	2018
Dr. Les Haley	2017
David Thompson	2016
Eric Jennings	2015
Garth Coffin	2014
Gabriel Comeau	2013
Peter Clarke	2012
Arch Cook	2011
*William Swetnam	2010
Charlie Embree	2009
Dr. Robert Gordon	2008
Dr. Harold Cook	2007
Alton McEwen	2006
Arnold Rovers	2005
John Harvie	2003
Jack Johnson	2002
Byron Beeler	2001
Richard James Huggard	1999
*James R. Wright	1998
Dr. Murray F. McLaughlin	1997
*Dr. J. Clifford McIsaac	1996
Dr. Roger B. Buckland	1995
*Harold L. Chute	1994
*Brigadier General - Courtney S. Gilliatt	1993
*Dr. Kenneth Cox	1991
*Dr. Herbert F. MacRae	1990

*Indicates previous Blue & Gold Award recipient is now deceased (updated December 2020). Our condolences to their friends, families and former classmates.

If you know a deserving alum, who should be considered for one of these awards contact agalumni@dal.ca / 902.893.6022 for nomination details.



Recreation for the whole family!

All AC alumni receive special pricing for individual and family rates at the Langille Athletic Centre, on the Agricultural Campus. Check out dal.ca/rams or call **902-893-6660** for more information.

Aggies once, Aggies twice!

Enhancing agriculture

Two researchers and a PhD student from the Faculty of Agriculture discussed what digital technology means for the agriculture industry during an episode of Dalhousie's Open Dialogue Live in early December.

From autonomous driving to AI-discovered antibiotics, there's no shortage of new technological developments that affect how we do things as a society. Most industries are embracing the ever-accelerating advancement of digital technology, and agriculture is no exception. Advanced devices, precision systems and robotics present farmers with new opportunities and challenges — and they also hold the potential to solve long-standing issues.

Specialists Dr. Ahmad Al-Mallahi, Industry Research Chair and assistant professor, Dr. Travis Esau, assistant professor and Reem Abu Kmeil, PhD student, all from the Department of Engineering, Faculty of Agriculture, discussed all of this and more during Open Dialogue Live: The Future of Farming. With Dean Gray leading the discussion, panelists explored how digital agriculture is addressing the entire food chain production, how automation is allowing for more efficient harvesting, the value of nutrient deficiency sensors and more.



OPPORTUNITIES FOR GROWTH

Q: What are the biggest challenges you're addressing in your work?

Dr. Al-Mallahi: "Automation and precision application require implementation of technology in agricultural equipment. In my work, achieving reliability and feasibility of new technology for the potato industry in New Brunswick is the main challenge towards automation. Obstacles that cause these challenges include uncontrolled, remote and dynamic conditions where this technology must operate."

Dr. Esau: "Advancements in harvesting research technologies have led to the establishment of Nova Scotia's Wild Blueberry Harvester Efficiency Program, which is delivered under the Canadian Agricultural Partnership with the federal government. Farmers upgrading to the latest equipment benefit from increased picking efficiency, improved field productivity and enhanced fruit quality during the critical harvest season."

Reem Abu Kmeil: "Real-time detection of nutrients is not possible currently because of the absence of sensors able to detect them. Basic research is challenged in obtaining high-quality data, complexity of big data analysis and cost of equipment."

Q: What are your biggest challenges related to digital agriculture as a whole?

Dr. Al-Mallahi: "Despite the recent developments in digital technology (sensing, communication, computation), most of the implementation is still on the research level, and there is a gap between what is available and what the industry requires."

Dr. Esau: "Advanced equipment and technologies are required to combat rising input costs for future farm sustainability."

Reem Abu Kmeil: "Mechanization in agriculture is still challenged with the absence of sensors and this urges the need to put much effort in developing sensors in practical ways."



In your kitchen

While we can't be together for our popular Aggies in the Community dinners right now, last fall we brought our campus chef, Reiner, to the home kitchens of our guests. Alumni, donors, staff and community members were invited to sign-up for "In your kitchen". Once registered, attendees received the shopping list, recipes, and web link to cook with their families, while being instructed by Chef Reiner online. Attendees also heard from campus researchers and their work related to food.

Event participants were encouraged to send photos of their plated dishes and work along the way. The event was a culinary challenge for some, but a lot of fun for all!

Join us for our next "In your kitchen" event April 9.
dal.ca/agalumni | 902.893.6022



Alumni cooked virtually, alongside our campus chef. A few photos of the finished product, made by alums and then enjoyed, at home.

Honouring our retirees

Undeniably it's the faculty members, instructors and staff that have made the greatest impact on our student experience on the Agricultural Campus. They've helped shape us as individuals — advising, pushing, and challenging us, guiding us to further education, or on our career paths. In many cases, they've also become our friends.

We would like to acknowledge the recent retirements from our campus. Going forward, the Alumni Association is committed to sharing this information annually.

- **Deborah Stiles** – Department of Business & Social Sciences (January 2020)
- **Margie Tate** – Department of Plant, Food & Environmental Sciences (January 2020)
- **Elizabeth Johnson** – Enrolment Services (January 2020)
- **Sandra Murphy** – Enrolment Services & Student Services (April 2020)
- **Sherry Chaisson** – Department of Plant, Food & Environmental Sciences (June 2020)
- **Jeff Hoyle** – Department of Plant, Food & Environmental Sciences (June 2020)
- **Vilis Nams** – Department of Plant, Food & Environmental Sciences (June 2020)
- **Raj Lada** – Department of Plant, Food & Environmental Sciences (June 2020)
- **Lugene Young** – Student Services (August 2020)
- **Rosaria Campbell** – Extended Learning (August 2020)
- **Donna Jamieson** – Department of Animal Science & Aquaculture (December 2020)
- **Fred Fergus** – Department of Plant, Food & Environmental Sciences (December 2020)

Better Together trivia

Last April when we were all settling into the pandemic, adjusting to life with limited contact and cancelling in-person events, Dr. Gray began hosting weekly themed trivia, via Facebook Live. Each week, the Alumni office worked with Dean Gray to host these sessions from his office with Rocky the Ram. Themes focused on campus history, programs and more. Alumni, staff, current and future students, as well as community members enjoyed interacting (and laughing) throughout trivia while testing their knowledge, learning a thing or two and completing for great prizes.

Trivia paused for the summer months but resumed with monthly trivia, in September — kicking off the semester and welcoming new students with an Orientation focus. Throughout the fall, Dean Gray, Rocky and the Alumni office moved around campus, when possible — hosting trivia from Jenkins, the Langille Athletic Centre, RAC and more.



The David & Faye Sobey Undergraduate Research Awards

Already in its second year, the David & Faye Sobey Undergraduate Research Awards are providing a world of opportunity to our students — benefiting the student recipients themselves, as well as the future of agricultural research. The recipients learn to design a project, lead research, undertake professional writing and work within a team of scientists on a project that aligns with their program and passions.

“Even during this challenging year, with so many restrictions on academics and research, these students adapted their projects and successfully completed their research terms,” said Dean Gray.



Jillian Shaw, fourth-year Bachelor of Science (Agriculture).
Hometown: Fredericton, N.B.

Summer research project: The impact of pollination on nosema spore loads and species profile in honey bee colonies in Maritime Canada.

Pandemic-related restrictions could not keep Jillian Shaw from following her research dreams. Now in her fourth and final year of the Bachelor of Science (Agriculture) in Plant Science, Jillian had the opportunity to spend the summer researching a critical honeybee disease, thanks to funding provided by the David and Faye Sobey Agricultural Undergraduate Research Award.

“Honeybees play a critical role in agriculture,” says Jillian, originally from Fredericton, N.B. “My research focused on the impact of pollination on Nosema spore loads and species profile in honeybee colonies across the Maritimes. Very little research has been conducted on this disease, which is why this project is so important.”

With supervision from Dr. Robyn McCallum, Dr. Chris Cutler, and Dr. Paul Manning, Jillian was able to design and lead the project. “This opportunity strengthened my love for research and entomology. It was a great eye opener to what continuing in research studies might look like.” But it wasn’t always easy.

“Things never go as planned. You have to adapt your game plan as you go,” Jillian says of the pandemic’s impact on her project. Her plan was to travel across the Maritimes to work with beekeepers and collect data samples. Travel restrictions prevented this, but fortunately, she was able to work with producers to take the samples themselves and mail them to her in Nova Scotia.

This year will look much different for Jillian, as she studies remotely, acknowledging that organization is the key to success. She will miss the many on-campus activities she’s grown to love — College Royal, the agrology, aquaculture, and pre-vet clubs, working at the campus pub, and the cross-country team. She has stepped up to help new students at DAL AC as an Upper Year Student Mentor.

Jillian recognizes that donors are integral in the research process. “No research would be possible without funding. Donors like you are helping researchers make a positive impact in the world, no matter how big or small the project might be.” Jillian gained incredible knowledge and skills during her summer research, and she looks forward to the doors that could be opened thanks to this experience. “The agriculture sector is a vast and fast-growing industry with immense opportunity. Research like this helps improve the industry and trains scientists who will continue to have a positive impact on the sector.”

CASE IH providing students with the latest in equipment technology

A casual conversation in 2009 with Robert Meier, territory sales manager for CASE IH, a global leader in agricultural equipment, put the wheels in motion for a tremendous opportunity and successful partnership between CASE IH and Dalhousie's Faculty of Agriculture. On that day, Robert shared his vision on what could be mutually beneficial to the Faculty of Agriculture and CASE IH — two parties committed to providing the best educational and experiential learning for students, supporting agricultural research and providing an advanced fleet of tractors and equipment for farm operations.

Less than one-year later, May 2010, the Faculty of Agriculture farm received its first two units. A truck rolled in delivering a Scout utility vehicle and a Maxxum 140 tractor.

This was just the beginning. On May 6, 2015, CASE IH and Dalhousie's Faculty of Agriculture entered a formal ten-year agreement, valued at almost \$2 million. "We are so proud and honoured to have formed an ongoing relationship with our friends at CASE IH through this partnership agreement," said Dean, Faculty of Agriculture, Dr. David Gray. "Our partners at CASE IH are innovative and forward thinking and are an essential component in the future development of our students as they enter the modern age of agriculture."

Since then, CASE IH has provided over 100 units including tractors and equipment equipped with the latest technology and features.

Every spring and fall, another truck rolls in, representing every series including Farmall, Puma, Maxxum and Magnum. This CASE IH lineup provides an excellent cross section of utility tractors to the larger, higher horse-power tractors required to do the heavy lifting. You will see CASE IH tractors in action across campus from student instruction and training, farm operations, field research, campus gardens to snow removal. In addition to tractors, CASE IH has also provided skid steers, mowers and round balers at different points throughout the program.

The success of the partnership would not be possible without the support of Tidal Tractor (formerly VanOostrum Farm Equipment Ltd), with locations in Port Williams, and Truro, N.S. Specifically, President, Patrick Vanoostrum and Sales Manager, Gary Maddison (Class of '83), have valued the arrangement from the beginning and witnessed, firsthand, its benefits.

As an alum, Gary can't help but feel connected to campus and appreciates how a program like this can enrich students' experience.



"It's a great display of industry cooperating with university to further the quality of education for students now and into the future," explained Gary. "Being a graduate of NSAC, it personally gives me great pride in giving back to an institution that offered me an education in the field I continue to work in today."

As Jean Lynds (Class of '90), operations manager for the campus farm reflects on the past ten years, she is beyond grateful for the opportunity this partnership has meant for the Faculty of Agriculture.

"This partnership has exceeded our expectations. Our students, researchers and staff have the unique opportunity to work with a broad range of tractors offering the latest features and technology available. Donors like CASE IH and Tidal Tractor and the people that make it happen are making a difference at Dalhousie University's Faculty of Agriculture."

Loretta Robichaud

(Class of '89)

Deputy Minister of the Nova Scotia
Department of Agriculture and the
Nova Scotia Department of Fisheries and
Aquaculture (appointed December 12, 2019)



Loretta grew up on a fur farm (foxes) on the French Shore of Nova Scotia. Her father was a visionary when it came to farming — first having foxes, then alpacas and later raspberries. Loretta's parents were the inspiration and driving force for her to pursue a career in agriculture at a time when women leaders were represented in the minority. In 1999, she shared with her master's class that she would someday be the first women deputy minister in agriculture. She was not, but perhaps the vision was set.

Loretta completed her undergraduate degree from Humber College and her B.Sc. in Agriculture from NSAC with a major in plant protection and a minor in economics. She also holds a Master's in Public Administration (Management) from Dalhousie University.

Loretta has extensive experience on strategic partnerships with a focus on collaborative initiatives and creating environments for sector growth. She has worked with the Nova Scotia Government for over 31 years in many positions including Executive Director, Agriculture and Food Operations and as permanent alternate at the deputies table for several years before her appointment.

Loretta loves to garden, hike and fish. She calls Bible Hill home along with her husband Ben and her teenagers, son (Noah) and daughter (Eden).

The Agricultural Campus is a special and unique place, as we hear over and over. What is your favourite characteristic of the Agricultural Campus?

There are many aspects of the Dal AC campus that contribute to it being a unique and special place. When I came to NSAC it was 1986. I transferred from Humber College in Toronto where I had been studying Retail Floriculture and wanted to pursue a new degree-granting program in Plant Protection.

The characteristics that drew me to the campus at that time are still evident today. I can best describe it as having a tremendous sense of place and purpose.

The Agricultural Campus is a specialized campus where everyone has a common connection intertwined with agriculture. The campus setting is rural, and the calibre of instruction is global. I like the staff and student dynamic. It was very welcoming after being at a very large college, where at AC everyone knows your name.

What needs improving?

The campus has made many significant improvements over the years. In my current role, I still have the opportunity to work from campus several days per month.

What I would suggest could benefit the campus and student experience would be modernizing of the residences and living spaces. They are the original dorms. With the changing demographic of students and shift to online learning, the future of accommodations could benefit from changing learning patterns and modern family needs in the university setting.

What do you think has been the most significant change since you were a student?

I think a couple of things stand out from when I was a student. First, the renovations to buildings like the library with its new modern common spaces for students (SLC). There have also been some unwelcome changes like the feed mill and Cox Institute fires. But from these unwanted events came the opportunity to build anew. Cox is looking up!

The pandemic has resulted in extensive moves to online learning. I think this is a significant change and stands out for me because it demonstrates that there are various learning models and demographics, which are shifting to more online learning. It is truly amazing to see the enrollment possibility with global reach. This was not imaginable back in 1986–1989 when I was a student.

The other encouraging aspect is international students and students of diversity. The campus is a buzz with many nationalities and providing a sense of belonging for many diverse students. This noted shift is a welcome change to diversity and inclusion, which are very much part of the campus landscape.

Atlantic Canada is a place on its own. What do you think are some competitive advantages farmers have here, compared to central or western Canada?

There are various challenges to farming in Atlantic Canada. The one I deal with annually, that is relatively new (last decade), is climate change. The climate is unforgiving at times with frost and hurricanes. These weather events are difficult to navigate but as they become more prevalent, we ensure the support networks continue to advance for our producers. This takes on many forms whether its extension support, risk management programs, insurance-based programs to help manage the risk and research and development to manage in these challenging times.

However, the opportunities are endless. We have amazing innovators in our provinces. Automation in our sectors is lending itself to tremendous improvements as we struggle with labour shortages and the need for new ways of doing business. Climate change has also presented opportunities to grow and process new crops that were previously not sustainable in our regions. For example, we have emerged world leaders in cold climate wine production.

As the newest member of the Faculty of Agriculture Alumni Association, what do you think alumni should know about the Alumni Association? What do you hope to gain from being involved?

There's a vital role for alumni to support the AC's recruitment initiatives to encourage high school students in their area to consider the AC. The AC provides a wonderful experience for students who may be interested in its wide range of two- and four-year programs.

However, the Agricultural Campus may not be top of mind for high school students. Alumni can be key influencers by maintaining regular contact with local high school guidance counsellors and can encourage AC students to maintain contact with their home high schools.

The Alumni Association is the bridge between alumni and the AC. I am looking forward to helping the Alumni Association continue to facilitate opportunities for alumni to keep connected with the AC. The Alumni Association is also a link that provides the common bond for alumni to re-connect.



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