

# AGRICOLA

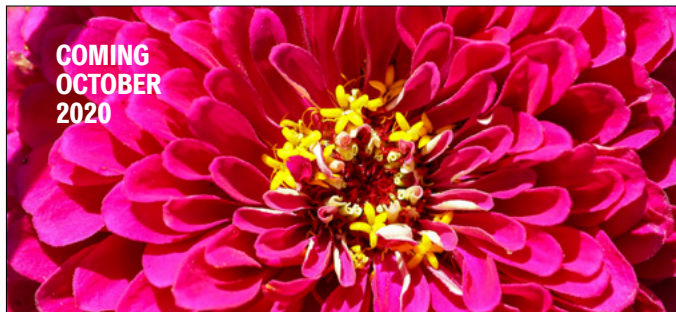


FOR ALUMNI AND FRIENDS OF DALHOUSIE'S FACULTY OF AGRICULTURE

SPECIAL ISSUE SUMMER 2020

**We may be better  
together, but  
the Coronavirus  
pandemic has  
proven the  
resilience of our  
alumni, students,  
campus and greater  
communities.**





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# AGRICOLA

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AGRICOLA

SUMMER 2020





## SUMMER 2020 CONTENTS



### SPECIAL EDITION

There's no denying the last few months have been challenging, but because Aggies are resilient, we persevered for the greater good. This special edition of the Agricola highlights examples of how our staff, alumni, students and greater community have adapted to the drastic changes brought on by COVID-19.

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## Alisha Johnson

Editor, *AGRICOLA*

Alumni Relations, Dalhousie Agricultural Campus

### Message from the editor

There was so much concern, unknown and even fear as the Coronavirus pandemic moved into Canada this past winter. Schools and daycares began to close, students finished their semester online, businesses voluntarily reduced hours or closed their doors completely. Those who were able, set up at-home-offices, jobs were lost, and essential workers prepared for the worst. Some basic necessities such as toilet paper, cleaning supplies, flour and even meat were hard to come by in a number of communities.

Months later, there is still so much uncertainty and life is everchanging. We don't know what next week will bring. It's hard to look ahead and sometimes, look up.

When we paused (from our new at-home-offices) to consider content and even the point of a new issue of the *AGRICOLA*, it became obvious—we had SO MUCH to write about! Specifically, the resilience of our alumni, staff and faculty, students and greater community.

Albeit challenging times (anyone else struggle with home schooling?), the Coronavirus pandemic has pulled our communities together and made us stronger. We may be better when we are together, but our campus, farmers, businesses and greater community have rallied to overcome mountains.

I hope you will enjoy this special edition of the *AGRICOLA*. Inside there are so many great stories about our community coming together to support each other during these difficult times.

Stay safe and stay connected!

Alisha Johnson

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## Dr. David Gray

Dean, Faculty of Agriculture  
Principal, Dalhousie Agricultural Campus

# Message from the dean

We are a community of shared passion—a passion for education, a passion for our students and a passion for feeding the world.

Never has this shared passion been put more to the test than this past March, when our campus was forced to close amid the COVID-19 pandemic and students were asked to complete their semester at home—a decision driven with the health and safety of our students, faculty, staff and community top of mind.

These past few months will likely have forever altered the way we engage with our student community and our methods of teaching, but nothing can change our passion for this industry and our people.

This special issue of the *AGRICOLA* highlights many like-minded, passionate individuals adapting to their circumstances and coming together for the greater good.

There are so many examples of “community” in these difficult circumstances. Local businesses and alumni adapting their commercial businesses to produce hand sanitizer and donating it to first responders. Our partners at the Fujian Agricultural and Forestry University in China delivered 700 masks to the Faculty of Agriculture to help keep our campus safe amidst their own crises. Closer to home, our own campus community stepped up to donate large quantities of Personal Protective Equipment to the local health authority and a COVID 19 Garden has been planted on campus with all fresh produce slated for Feed Nova Scotia.

Local farmers' markets have converted to online sales and many others are beginning to see the value in buying and supporting local. Our farmers and producers have had to adapt to a drastic change in the demand for their products while still doing what they love and providing for their families and their communities.

Will this feeling of community and solidarity continue long after this pandemic has resolved? I say a hearty yes! This is who we are and what we do. Will things look differently? Possibly. Will there be a greater interest in environmental sustainability and climate change? Likely. Will we at the Faculty of Agriculture help to lead this change while developing a new normal for our local, regional and global communities? Most definitely!

As we committed in our most recent strategic plan ‘why agriculture?’ we as a Faculty are dedicating to addressing the significant challenges to global and local sustainability, food security and health and well-being in this rapidly changing landscape within our sector. It is who we are and what we do.

Aggies Once Aggies twice!

Sincerely,

Dr. David Gray









# Feeding a nation on lockdown

by Nicole Killawee

## How the pandemic forces a closer look at Canada's food supply system

Katie Keddy (Class of '08) is no schoolteacher, but she spent the spring homeschooling her two young boys. Like other parents across the country, Katie's daily routine was upended when schools (and pretty much everything else) shut down in March to help prevent the spread of COVID-19. A produce farmer by trade, Katie tackled the responsibility of her children's education head on, filling in as their teacher while her duties on the farm piled up.





She and her husband Phil (Class of '06) manage their second-generation family farming business, Keddy Nursery, in Nova Scotia's Annapolis Valley.

"Everything I would have done on the farm while the kids were in school had to be done by someone else," said Katie. "I struggled a lot with that in the beginning, feeling like I was abandoning my industry. It's like a part of you is missing, especially in the springtime."

Katie's shift from farmer to teacher isn't the only way the pandemic has affected Keddy Nursery operations so far this year. They're in the business of supplying North American farmers with strawberry nursery stock, in addition to being Atlantic Canada's largest producer of sweet potatoes. Their small operation isn't mechanized, so nearly 80 temporary foreign workers are employed on the farm each year to help the Keddy family plant, grow, and harvest their crops. These are labour-intensive jobs that can't be filled by locals alone, explained Katie.

When news of the Canadian border closures arose in March, the prospect of losing the ability to hire temporary foreign workers added to the mounting anxiety felt among the country's produce farmers.

"Farmers are known to be optimists," said Katie. "But this certainly knocked us down for a few minutes, wondering what we were going to do if this didn't happen... As farmers, we want to see food on the shelves for Canadians. It's one of the most important jobs out there—and one we take seriously. Everyone has to eat."

Fortunately, temporary foreign workers were recognized for the essential roles they play in this country and were exempt from travel restrictions, providing some of the agriculture community with momentary relief. Although at the beginning of the spring planting season, Keddy Nursery was just getting by with about 10 fewer employees than they would normally have on board during such a critical time of year.

"Right now, there are some paperwork issues in Mexico," said Katie during an interview in May. That was holding up the already-delayed arrival of workers who would still be required to self-isolate for two weeks upon entry. While the federal government announced a \$50-million fund to help farmers and others who rely on foreign workers pay part of the wages for quarantined staff, there's no fund on this planet that can make up for lost time.



"Spring doesn't wait for paperwork," said Katie. "It's spring whether there's a pandemic or not. Summer is still coming, pandemic or not. Your crops are still going to need to be planted and harvested."

### SYSTEM ERROR

Earlier this year in Western Canada, COVID-19 was ravaging Alberta's meat processing workforce—both local and temporary foreign workers alike. Employees were falling ill in numbers so high that one of the facilities—the Cargill Canada beef processing plant in High River—became home to North America's largest single-site outbreak at one point. Putting aside questions of worker's rights and safety for now—a topic deserving of far more elaboration than this article can provide—the outbreaks led to reduced operations or complete plant shutdowns. Consider what these interruptions highlight: a case study for what happens to the entire food supply system when problems occur at the processing and manufacturing level.

Dr. Sylvain Charlebois, a professor in the Faculty of Agriculture with a cross-appointment in the Faculty of Management, heads up Dalhousie's Agri-Food Analytics Lab and has been following the ever-changing landscape of food supply, distribution and consumer behaviour since the pandemic started.

He explained that 90 per cent of beef consumed in Canada is processed in just a few different plants, Cargill being one of them. An interruption at these facilities causes problems at each end of the food supply chain. Consumers will have less access to meat because product isn't moving down the line at its usual pace and quantities—restocking empty shelves takes longer and prices climb, further compounding access issues for those who can't afford the higher price tags. But looking backwards in the supply chain after processing delays also paints a troublesome picture.

"If you don't make processing the centre point of your agri-food strategy, the first people to pay are farmers themselves," said Dr. Charlebois. Bottlenecks emerge at the processing level, leading to a backlog of livestock on farms. Meat producers are forced to keep their cattle and hogs on farms longer while they wait for the processing plants to catch up. The longer the stay, the more money farmers need to spend on feed.

In light of this and other similar issues, another federal emergency aid package was announced in early May—this time with a value of \$252-million—to help mitigate the associated pandemic-fuelled financial risks that can threaten entire farming operations. Processors are eligible for that funding too, suggesting the government recognizes that when they fall, so too do the producers. That was a welcome change of tune, according to Dr. Charlebois.

"Processing is like the forgotten child in Canada," said Charlebois. "The announcement [of the aid package] was astonishing because for the first time, I actually saw a government considering processing as a part of the agri-food sector."



Jeannie van Dyk (Class of '78), a Nova Scotian dairy farmer and vice-chair of the Agropur Dairy Cooperative's board of directors, said the pandemic has put a lot of pressure on dairy producers and processors too. When the food service industry came to a halt as a result of lockdowns, the demand for dairy products across the country plummeted. Despite an increase in orders from food retailers, it wasn't enough to cover the loss from restaurant business, said Jeannie.

The supply management system used to match supply to demand and stabilize prices of certain commodities in the Canadian marketplace applies to dairy products, but unfortunately there was still a surplus earlier this year as a result of the unprecedented fluctuation in the market.

"We committed large volumes of dairy products to food banks across the Atlantic provinces, Quebec and Ontario," said van Dyk of the dairy co-op's attempts to redistribute the surplus, adding that marketing boards have since reduced quotas to sync up supply and demand again and farmers were quick to act in reducing their production volumes.

"The decline in sales and higher costs resulted in challenges to our bottom line and up to now, government programs aren't adapted to our processing situation," said Jeannie. "Going forward, we expect to see an improvement in the market situation. Milk is a nutrient dense food and given that dairy products have a place of choice in consumers' minds, the future still looks good for our industry."



## DISRUPTING RETAIL

There's also much to be said about the changes in consumer behaviour and attitude amidst the pandemic. Through the Agri-Food Analytics Lab and in partnership with the Angus Reid Institute, Dr. Charlebois has been conducting survey after survey to track how the pandemic is affecting Canadians when it comes to food.

"Understanding what's happening out there is really key. It's changing every day," said Dr. Charlebois.

One such survey of 1,503 Canadians examined how households were approaching essential shopping during lockdown in April.

There was a wave of panic-buying early on, of course; toilet paper, hand sanitizer and flour were significantly harder to come by when people began to worry about running out of essential items. When it was clear retailers were able to restock the items, those fears subsided and made way for a more calculated approach to grocery shopping.

Results from The Grocery Experience showed 64 per cent of survey respondents were still going to grocery stores but they were buying more than usual to make trips less frequent. When they did go, 81% of respondents reported using extra hand sanitizer when shopping, 30% were wearing facemasks, and 26% were wearing gloves. When they got home, 40% of those surveyed reported wiping down their groceries with disinfectant.

When asked about their intentions post-pandemic, 47% of respondents reported a desire to do more cooking at home—perhaps an effect of lockdowns idling local restaurant industries. Those still itching for a professionally prepared meal turned to food delivery apps like Uber Eats, which have become somewhat of a lifeline for the food service industry this year. The apps have gained popularity during the pandemic and The Agri-Food Analytics Lab predicts that they'll generate over \$2.5 billion in revenue by the end of the year, doubling the total of their Canadian sales in 2019.

The survey also indicates a growing consumer interest in buying food online post-COVID. This, according to Dr. Charlebois, highlights one of the most notable changes in Canada's food

supply system since the pandemic started. Large grocery chains, farmer's markets and smaller food retailers have been turning to e-commerce opportunities to keep sales up during lockdown.

A virtual food shopping experience reduces the risk of catching or transmitting the virus, but it also has the potential to disrupt the Canadian food retail landscape post-pandemic.

"E-commerce can actually make the supply chain more democratic," said Charlebois. "As soon as consumers know they can buy food online, a lot of things can happen. Farmers can start selling food directly to consumers and it's the same for processors."

## LOVE FOR LOCAL

Bill Withrow (Class of '81) is a beef farmer and co-manages a family-owned meat shop and local food market in Elmsdale, Nova Scotia. His order books from earlier this year show a sharp increase in sales that began mid-March when the World Health Organization first declared the coronavirus outbreak a pandemic. Sales at Withrow's Farm Market have remained above-average ever since.

"We do a lot of restaurant and wholesale business too, and that died down at the same time," said Bill, who's also involved with Rocky Knoll Farm, another one of the family's operations. "It's like somebody turned one switch off and another one on. I've never seen anything like it."

Bill has been following public health recommendations to create a safe shopping experience for his customers and began offering a curbside pick-up service so people could call ahead to make their purchases. In his perspective, the pandemic has brought in new customers with a growing affection for buying local.

On Prince Edward Island, organic farmer Marc Schurman (Class of '97) of Schurman Family Farm noticed "an uptick in demand and appreciation for local food" as well. While a renewed interest in the local food movement is generally good news, Marc admitted that it's a mixed blessing during a pandemic.



Previously, the Schurman family would sell their Atlantic Grown Organics line of tomatoes, cucumbers and peppers direct-to-consumer at local farmer's markets. By moving to an online sales model, they've adapted to the pandemic's contactless reality—but not without a few challenges along the way.

"Now it's so difficult to get food to people," said Marc. "Selecting [appropriate] bagging and reconciling payment on many small individual orders is just not as easy as standing at a farmer's market booth and handing out produce in exchange for cash."

Both Katie and Bill spoke of the same additional pressures facing small producers as they've been forced to move away from the conventional in-store shopping experience. Despite the hiccups, customers have been nothing but supportive during these uncertain times, said Bill.

"They're waiting in line outside for 15-20 minutes before they can come into the shop, never complaining. People have been unbelievably patient. By shopping local and being patient with us, consumers are helping us as much as they can," said Bill.

## GLASS HALF FULL

Perhaps the pandemic has created a newfound awareness of the food supply system among Canadians—at least that's what Dr. Charlebois and Katie believe.

"It's important that the public values Canadian food and farms," said Katie. "It's a weird thing to say, but there's opportunity in this pandemic too. It's showing us the strengths of our food system, but also the weaknesses. It's time to look at those weaknesses and turn them into opportunities and conversations that set us up for a more secure future."

Katie Keddy might not be a schoolteacher. But as a farmer, the rest of us could certainly learn a thing or two from her about resilience and optimism—traits that could do us some good as we wait out an unprecedented pandemic. Year after year, farmers fine-tune these traits as they move through the cycle of seasons at the mercy of whatever mother nature decides to throw their way. This year, it happened to be a novel coronavirus. Yet there they still stand, with the weight of feeding a nation on their shoulders.









# Truro Farmers Market goes online

Margaret Ells Congdon (Class of '85)

When the Coronavirus pandemic hit Canada earlier this year and Nova Scotia declared a state of emergency in March, much of the province closed down. But not the Truro Farmers Market. Our local Farmers Market, under the direction of Margaret Ells Congdon, didn't miss a beat.

But the beat did up its tempo.

"I worked twice as many hours, per week, as I normally would," Margaret says with a chuckle, when reflecting on the rapid shift of the Market, in March, to online sales.

As Coronavirus crept into the province, the week of March 21, the Market first saw half a dozen vendors selling outside, under its canopy. This allowed vendors and customers to shop but meet social distance protocol. Early the following week, Margaret was responding to emails and taking phone calls, at a frantic pace, as the Market took its first step towards a complete online sales system.

"Although the Market is considered an essential service, I knew we had to close, but I wanted to have products available," explained Margaret. "We always had a goal of offering online sales, but we weren't quite ready." As always, she had the best interest of her loyal producers and customers at heart—so Margaret forged ahead, taking on the challenge.

With a list of available products posted in a simple form online, Margaret tirelessly accepted orders, manually tracked customers purchases, confirmed orders with totals, sent invoices, accepted e-transfers and shared the totals with vendors, over a three-day sales period. At the end of the week, she and a team of volunteers accepted products from vendors,

packed orders and delivered to customers' vehicles. Meanwhile, thanks to financial support from the Department of Agriculture, she spent what little spare time she had attending webinars and worked at setting up a formal software system.

After three weeks of tedious manual orders, the Market went live on its newly purchased online platform, which calculates orders automatically and takes payment.

"Those first three weeks were crazy," she admits. "And there was definitely room for human error. But we just did it and our customers were so awesome and understanding!" She is quick to add the support from the community and volunteers was fantastic.

"People would even include kind notes in their e-transfers, it just made me smile," Margaret adds. "There were a few missed orders and skipped products, but customers were so patient."

With the Market now operating on the slick software, Margaret can finally slow her tempo (well, slightly). Customers can view all available products online. Weekly ordering opens at 7 a.m. on Monday and closes at 7 p.m. on Thursday. Within that period, customers can add and remove items from their order until the closing period. Payment is collected online. Vendors receive an automated order sheet, so they know exactly what to bring to the Market. Margaret and her assistant manager, Sera,



greet the vendors at their scheduled drop-off period on Fridays and organize orders for next day pick-up.

Margaret is quick to admit she couldn't do it without the support of volunteers.

"On distribution day (Saturday) we have a group of 7-8 core volunteers," she says. "And not one week goes by where we don't have customers offering to help in some capacity. This community is amazing!"

Regular Market vendors were equally open, adaptable and patient to the transition.

"We didn't even have time to provide the vendors with training on the new technology," Margaret says, adding that they were so hands-on and quick to learn.

And the efforts paid off.

"Some vendors had noticeable increases in their number of sales, early on, which was interesting, considering the time of year (early spring)," Margaret adds that she has also observed average orders are larger than normal.

The online system allows vendors to know exactly how much product they need to harvest, bake or package each week, making their efforts much more efficient and decreases waste.

While sales have increased, so have the requests from new potential vendors.

"We are still working on getting all of our regular vendors online and there's also new vendors we want to support," Margaret says. "I want to be able to support as many local vendors as we possibly can. That includes temporary vendors who can't conduct their usual sales as a result of the pandemic. We have also offered free online space to not-for-profit groups who have items to sell."

Margaret's massive undertaking has ensured our community has had access to the local goodies we've been accustomed to accessing each week. But there's nothing quite like the Saturday hustle and bustle of visiting the Truro Farmers Market.

"Our traditional Saturday Market will open as soon as we are able," Margaret adds. And her efforts will not go to waste. "When we resume normal operation, we will continue the online system for a Wednesday distribution," allowing local vendors even more opportunity to sell their wonderful products.

One can only imagine the jig Margaret will be doing when the Market re-opens!





# Growing a career in agriculture

While food remains a constant in our lives, the way we produce it can and will change. At no time has this been more evident than the spring of 2020.

Not only are producers taking extra precautions to ensure the health and safety of their workers, they are having to adapt their practices - adjusting processes and machinery—all in the interest of public health.

One challenge that will be magnified, although not new to farms, is the labour shortage. According to the 2017 Labour Market Information data collected by the Canadian Agricultural Human Resources Council, Nova Scotia agriculture employed over 6,500 workers—including 1,500 Temporary Foreign Workers—and still there was a labour gap of 250 jobs. This labour gap resulted in \$33 million in lost sales.

As a result of the current pandemic, a significant labour gap is expected for 2020.

To help lessen the labour gap Nova Scotia farmers are experiencing this year, the Nova Scotia Federation of Agriculture (NSFA) and the Agriculture Sector program have launched a new job board. This job board allows farmers and employers to submit job postings. On-farm and agricultural related businesses employment opportunities are published, and potential employees can register to receive notifications of new postings in their area.

“Our hope is this job board and the promotion of job opportunities in agriculture will help inspire our fellow Nova Scotians to consider a career in agriculture. People employed in our industry play an essential role in feeding our communities,” said Carolyn Van Den Heuvel (Class of '10), Director of Outreach and Member Relations for the NSFA.

Extended Learning at the Faculty of Agriculture has also pulled together resources to make it easier for potential employees to determine what jobs are available and what employees can expect when working on a farm.



The videos provide an overview of Canadian agriculture. Part One—Industry Trends & Labour Needs explore the key labour trends, types of farms hiring and labour shortages. Part Two- Working on a Farm, dives into topics such as the skills required, benefits and challenges, links to [nsajobs.ca](https://nsajobs.ca) and safety training.

“As an Ag school we felt it was important to help students become aware of jobs available on farms as well as the realities of farm work,” explained Extended Learning Manager Tracy Kittilsen. “Many of the positions available are typically performed by well-trained, temporary foreign workers who come to our farms year after year. After we consulted with our partners in agriculture - we wanted to make sure that our students—and others looking for work—were aware of the impact of agriculture on our economy – both locally and nationally. We also wanted to make sure that people applying for jobs know what they are getting into—long days, hard work and knowing that you are contributing to something so much bigger—feeding our communities.”

By mid-May, the job bank had over 400 job opportunities on farms across the province and commodities. Some of the job positions include farm labourers, equipment operators, fruit and vegetable pickers, just to name a few!

Getting a foot in the door (or on the field!) can lead to a vast array of career opportunities in the agriculture industry. Farmer, equipment operator, mechanic, truck driver, researcher, processor, financial lender, government—the possibilities are endless.

To learn more, apply to jobs, register as an employee or to post your own job openings please visit: [nsajobs.ca](https://nsajobs.ca)! To access video resources please visit [dal.ca/exl](https://dal.ca/exl)

## Blue skies ahead

Caitlin Congdon (Class of '12)

The Coronavirus pandemic delivered its own set of challenges for local farmers. The added cool spring in the Maritimes, didn't help. There's no arguing that it's been a different growing season, but that hasn't stopped Perennia's (acting) Vegetable Specialist, Caitlin Congdon from offering sound advice, resources and even optimism to local vegetable producers.

"Normally I would be out in the fields and on farms, working directly with producers, so it's very strange to not be able to do that freely," says Caitlin. "But I am fortunate enough to be able to work from home. Meetings with growers have shifted to phone and video calls."

While that may not be ideal, it's working, and Caitlin is hopeful for a good season for those farmers.

"We are trying to look ahead to challenges that growers will face throughout the season due to the pandemic and connect them with the appropriate resources as well as providing the timely in-season information as usual."

Farmers have been dealt a lot of challenging hands over the past few years in terms of adverse weather events and now a global pandemic. Caitlin says there has certainly been some financial strain where yields haven't been as high as might be expected.

In terms of labour, the pandemic restrictions have made employment more challenging as temporary foreign workers arrived late, if at all, leading to hard decisions about how much crop could actually get into the ground. Then there were the added challenges when they did arrive—starting work later than usual and having to isolate upon arrival.

"The effort to get these workers to the province has been amazing, and along with the local seasonal workforce, they will be working hard to make the most out of the season," says Caitlin. Which will be appreciated by consumers, who, Caitlin says, seem to be paying a little more attention to what is being produced in local areas. "I've noticed the public appreciating the diversity of products being offered in season. I hope that continues long after the pandemic!"



But farmers aren't out of the woods just yet. Caitlin suggests farmers may be faced with another hurdle come harvest.

"The amount of labour available for harvest, may be a limiting factor," she suggests. Which may mean that some perfectly good produce is left in the field if it can't be harvested in time. "Nova Scotia farmers are resilient and determined. I have no doubt that they will be doing everything to maintain the high quality of food production that they usually have," she says.

And while Caitlin has been doing her part, producers are doing their part, it's our turn to do our part, as consumers.

"Now it's up to the community to buy local," says Caitlin. "Choose local and seasonal products at the grocery store and check out your local farmers market if they're still operating. If you can order directly from a farm or a farm market, do that too!"

Despite the challenging start to the season, if consumers can be open and optimistic like Caitlin and our farmers, it could still be a good year.

"Nova Scotia farms produce so many great products and this is a unique opportunity for more people to experience them," she adds. "Take advantage of what can be found and grown in our own province!"





## Raging Crow Distillery

**Dr. Kris Pruski**

A shift in focus has helped a local distiller to produce in excess of 2000 litres of hand sanitizer at a time when hygiene products are in short supply.

A retired horticulture professor from the Dalhousie University Faculty of Agriculture in Truro, Dr. Kris Pruski, used to distill in his home country of Poland.

"When I was teaching 'Small Fruit Crops' during one of the labs on the Ag Campus, we were making wine and I was often thinking why not to take it one step further and distill it," he explained. "When I retired, I got together with my friend and now business partner, Jill Linquist of North River and following a few discussions we decided to open the distillery."

Raging Crow Distillery in North River, named after the many crows around the area, produces several different spirits including vodka, rum, gin and variety of different liqueurs. With the current social distancing protocols in place because of the COVID-19 pandemic, it has provided an opportunity for the distillery to branch out and produce hand sanitizer.

"It's nice that in a time of difficulty, we've been able to shift our focus and help out society with a much-needed product," said Pruski.

As of late April, Raging Crow had produced approximately 2,000 litres of hand sanitizer, some of which has been donated to fire departments, Truro Police Service and the VON. His biggest surprise has been the flexibility of the distilling system.

"The distilling system is very flexible, our biggest challenge has been the availability of adequate bottles and containers for the hand sanitizer," said Pruski.

Raging Crow's best-selling product is now hand sanitizer followed by Dill Pickle Vodka, Potato Vodka and rum.

Officially opened in September 2018, Raging Crow Distillery has received national awards for two of its products in the fledgling company's very first attempt in a blind, tasting competition. The awards were issued by the Artisans Distillers of Canada, a national organization focused on celebrating and highlighting artisan distilleries and spirits across Canada. The distillery was awarded a silver medal for its Spruce Tip Gin and a bronze medal for its Nazdrowka Vodka (potato vodka) a name which translates into "Cheers" in Polish.





## Animals adapting

**Dr. Megan Crouse (Class of '11)**

*"Please don't make me go for another walk!"*

There's been lots of jokes and memes circulating on the internet about how our pets feel during this pandemic. Some dogs are tired of being walked, multiple times a day, by their owners who now find themselves at home, with extra time. There are the cats who strut in front of the camera during a video meeting or are annoyed because they miss their lazy days alone. And then, of course, there are the pets loving the extra attention and will struggle with separation anxiety when life resumes normal.

While our furry friends' routines have been changing, so has the way in which they receive care.

"There are many restrictions regarding the types of patients we are allowed to service at this time," says Associate Veterinarian, Dr. Megan Crouse (Class of '11), of South Shore Veterinary Services. "It's been a difficult adjustment for ourselves, as well as our clients."

Most veterinary clinics, including South Shore Veterinary Services, in Bridgewater,

NS, initially offered emergency services and life-threatening care, as well as curbside pick-up for food and products, when Coronavirus swept into Canada. They have since expanded to include essential services and telemedicine.

"It has also been difficult to deny patients services that are in need of being seen, but were not considered essential," Dr. Crouse adds. "This is where our new telemedicine option has come in very handy and we are able to service many more patients this way." Additionally, clinics, like Dr. Crouse's have been compiling lists of patients to see, once they are able.

Caring for larger animals, particularly during farm visits, has had its own set of obstacles.

"On our farm calls we are finding challenges where owners are not permitted to be around during the work up and treatment of their animals," explains Dr. Crouse, who specializes in equine health. Spring is typically the busy season in equine, as animals receive an annual check-up. "Owners would normally be quite involved in this visit," she adds, "so these appointments are also limited to essential visits."

Although Dr. Crouse is passionate about animals, she knows a call to your local vet isn't always a good thing. To help limit emergency calls, Dr. Crouse suggests

keeping all pets up to date with flea and tick preventatives, as well as essential vaccines.

"Owners can also do pasture walks for horses, to see if there has been any changes in fences or any debris that could injure them when they are moved into spring turn out," she says. For dogs, she suggests keeping them in a fenced yard or on a leash especially when out at dawn or dusk.

"We have seen a lot of dogs lately who have tangled with porcupines!"

While it has been a challenging few months for animals, owners and veterinarians, it hasn't all been negative.

"The team of staff we have left at the clinic has been absolutely wonderful. Everyone has come together to help in any way possible," says Dr. Crouse. "The phone lines have been busier than ever, but everyone steps up to help out wherever is needed. It has shown that we can do a lot when we stick together and keep positive!"

While Dr. Crouse remains positive and optimistic, she's very much looking forward to resuming "business as usual".

"It will be so nice to have clients back in the clinic and to conduct farm visits." While our pets may have mixed reviews about the current situation, Dr. Crouse knows for certain she misses the personal connection.



# How a global pandemic is influencing agricultural learning

Technology provides the delivery mechanism, it is not the engine

With only two weeks notice, in mid-March, the Faculty of Agriculture was one of 13 faculties of Dalhousie University that closed its doors, sent students home for the remainder of the semester and prepared for remote delivery of programs.

"Since working and studying remotely happened so quickly, we didn't have the luxury of time to ensure that students would be in for the kind of experience we strive for in high quality online courses," explained Sondra Mantle, Instructional Media Designer in Educational Technology & Design (ETD). "Our efforts were best spent initially on assisting instructors in their communication strategy to students, remote lecture delivery and assessment modification."

The Educational Technology & Design office provides instructional and visual design expertise to instructors and helps to determine the best solution for integrating technology into teaching.

"One of our most important roles for the Faculty of Agriculture is creating a positive online learning experience for students," explained Sondra. "This involves both a careful design of the course content, how it is presented visually and instructionally, as well as the deliberate selection of the types of technology used."

The two-person unit directed the more independent instructors to a collection of resources and commenced multiple, brief consultations with instructors to provide solutions for more unique teaching circumstances and needs.

"It was quickly apparent that our campus was in better shape than we initially imagined. CLT in Halifax made available to all Dalhousie faculty and staff some excellent new resources. Also, many of our instructors with online teaching experience graciously assisted their fellow colleagues in their sudden pivot to remote delivery."



In the context of a global pandemic, remote delivery is an immediate response to alleviate the massive disruption of an otherwise normal face-to-face semester on campus. Remote delivery left little choice but to proceed with minimal preparation. Although ETD is not a large unit, their work over the years has helped bring the campus at large to an elevated level of literacy in terms of both online course design and delivery.

Both the Manager of ETD, Brian Lesser and Sondra have extensive experience in online course design and development and their approach this year is to streamline their efforts and consult with instructors in stages.

"Our campus will be offering a series of workshops that instructors can access remotely (as we continue to work from home) that will cover many of the common teaching approaches and tools. Additionally, the Halifax campus will be offering supplemental training sessions on specific Brightspace and other integrated tools. ETD will also welcome two summer students, both with experience developing online courses and working in Brightspace."

The larger task of design and development of the online course experience, in a condensed format, will



be the primary focus of the ETD office in the first part of the summer. As courses begin to take shape, their focus will shift to helping prepare individual instructors to deliver their course online.

Courses that are already online will serve as resources, in particular the sections of the course that provide resources and support to students, can be easily shared or adapted for use in other courses.

"My work in ETD focuses on new course development in the summer months, the key difference this year will be volume. Any shortcomings exposed at the end of the winter semester will influence our recommendations for technology options when developing and designing for online delivery for the fall."

Technology provides the delivery mechanism; it is not the engine.

"I love my job, as I get to use some of my visually-based artistic skills to help create quality learning sites for courses. Every day brings a different instructor or challenge to my attention. And, being an animal lover and an alum, I love being in a job that continues to support agriculture and agricultural learning."

## Convocation 2020

The Class of 2020 will long be remembered for their resilience. This class recovered quickly and adapted after the devastating fire in Cox Institute in 2018 and then completed their final semester via remote learning at home, with days notice.

“Resilience is a quality that will serve you well not only in your future careers but in your own individual lives,” said Dean Gray in an email addressed to the Class of 2020 on their Convocation day.

The Class of '20's Convocation celebration was unique this year, but it was no less special. In lieu of the traditional Convocation ceremony, students celebrated in their homes. They received video message from Dalhousie President, Deep Saini, Dean Gray, the Alumni Association, among others. Graduates were encouraged to interact virtually – posting pictures of their home celebrations and reading online messages of congratulations from faculty and alumni. Members of the Class of '20 will be invited to participate in a traditional Convocation ceremony, in the future.



## Food for thought: pantry cupboard

In response to the pandemic, a pantry of food was made available to all AC students, in early April. This emergency service was for students who do not have the resources to regularly access proper nutrition. Located in the Dairy Building, students are asked to only take what they need, and they do not require any proof to access the service. The pantry is replenished, when necessary.





# Always the first choice

## Julia Vosman—Life President

Julia Vosman knows her own mind.

"I only applied to the Faculty of Agriculture - it was the only school I wanted to go to," she explained.

Four years later, the Bachelor of Science—Animal Science major, was one of 202 students set to graduate, May 20th.

"The days were sometimes long, but the years passed so quickly," she said. "I can't believe it."

Agriculture is in Julia's blood. Growing up on a dairy farm with three older brothers and a life-long involvement in 4-H, Julia knew she was bound for the Agricultural Campus.

"I couldn't wait to take the Agriculture Class in Grade 11 at Dr. John Gillis High School," she added. That and a field trip to campus sealed the deal.

Julia has spent the past 13 years in the 4-H program in Antigonish and has shown extensively, earning many top accolades, travelling the country and giving back to the younger generation.

"I tell people 4-H is my sport," she explained. "It's definitely taught me time management, independence, a good work ethic, patience and determination."

"It seems like only yesterday that Julia was an enthusiastic 9-year-old starting her first year in 4-H," said Sally Van de Wiel, (Class of '93) and president of the Antigonish County 4-H Leaders Council. "You have developed into a wonderful young woman with an incredible future with your many competencies, strong sense of community and love of agriculture."

Julia brought these competencies to campus becoming involved on the Judging Team and College Royal all the while still showing livestock through 4-H. Her involvement led to executive positions which she held from her second to fourth year including organization of the Maritime Intercollegiate Judging Competition and College Royal.

"Julia has demonstrated excellent leadership and interpersonal skills in her executive roles on the Judging Team," said Sarah Gatti-Yorke, Faculty support for the Dal AC Judging Team. "She demonstrated kind and conscientious leadership skills and it has been a pleasure to teach and work with Julia."

Julia's ultimate dream is to become a high school Science and Math teacher.

"4-H will always be part of my life," explained Julia. "My two brothers are teachers and one took over the farm. I hope to do a bit of both."

Julia plans to continue her education at St. FX in the fall and earn her B.Ed.

"I want to be a high school science and math teacher and would also love to teach agriculture in schools that already hold this course and encourage others that do not, to offer it to their students," she said. "I really hope to bring more awareness of the agriculture industry into the classroom whenever I can."

Julia also has some advice for incoming students.

"Take advantage of your time here! Believe what everyone tells you when they say that it will go by so fast," she said. "If you have your eye on a club, join it. If you want to explore travel opportunities, do it. You will never be disappointed. The people you meet here will be connected to you for life when you become part of the Dal AC family."



It seems only fitting that Julia was elected Life President of the Class of 2020 by her classmates. The Life President works with the Life Secretary to ensure the interests of the Class are being observed in matters of publicity, reunions and fundraising.

Julia was also named one of three distinguished graduates by the Faculty of Agriculture. Distinguished Graduate Awards express the Faculty's appreciation to graduating students, who have, through their time, energy, talent and leadership enriched the campus community during their studies without neglecting academic pursuits.

For Julia, her options are now limitless.



## No stranger to change

Kim Munsie

Kim Munsie is no stranger to change and learning to adapt to her circumstances has been the key to her success.

Kim attended the Institute for Human Services Education and earned a diploma and a position with the Colchester Residential Service Society—a small options home for developmentally delayed young adult girls.

"I had done my work practicum for six weeks with Colchester Residential Service Society and ended up remaining there for five years as a casual employee and loved every minute of it," explained Kim.

When circumstances left her a single parent, weekend and evening shifts no longer fit the schedule for Kim and her three young daughters.

Through mutual friends, Kim learned of a full-time custodial position with the former NSAC with regular, weekday hours. That was 13 years ago.

Today Kim remains employed full-time and was one of 202 graduates from the Faculty of Agriculture who earned their degree in May.

"I often said when my girls were grown, I would go back to school, explained Kim. "If I wanted to return to the human services profession I couldn't possibly go back at my age and begin at the bottom as a casual to work up to a fulltime or management position," she added.

When her youngest daughter was in high school, Kim began to consider how to return to school without leaving the security of her custodial position at the now Faculty of Agriculture.

"I was constantly looking for opportunities," she said.

In July 2016, Kim walked into the Business and Social Sciences department in Cox Institute on campus and noticed a large banner promoting a new Bachelor of Technology in Small Business Management.



"I wasn't sure how, but I knew I needed to get into that course.

With the support of her supervisor Jason Penney, and at 52-years young, Kim enrolled in the program as a part-time student while working full-time hours in the fall of 2016 with a goal to complete the program in four years.

"Although it has been very challenging working fulltime and attending courses, I have found it very rewarding," said Kim. "There were many days I went to work at 6am attended a class at 10am skipped my lunch hour and worked until 4pm then attended another class at 4pm- 5:30. A couple of winter semesters I came to work at 6am and never got back home until after my evening class was over at 8:30pm. Looking back not sure how I managed except that I was very determined."

Starla Hutt, Custodial Manager at the Faculty of Agriculture agrees.

"Kim is a very determined and focused person and once she has a goal in mind, she does everything in her power to reach that goal," said Starla. "She is a born leader and is someone that many of her coworkers reach out to for advice. She is not only a colleague but a friend. We are proud of her! Congratulations Kim!"

At times, Kim was in school at the same time as her oldest and middle daughter and has taken some of the exact same courses at the same time as her stepson

"We are all so proud of her," said eldest daughter Brandi. "She's an amazing woman and has accomplished so much in her life. Going back to school at her age is not an easy thing to do, even more so while working full time. I strive everyday to be the woman she is. We can't wait to see what she has up her sleeve next! I'm sure it will be great. Congratulations mom! We all love you so much and couldn't be more proud."

Wanting to prove to herself and her daughters gave Kim much motivation over the past four years.

"My biggest disappointment when Convocation was canceled was not for myself but for the missed opportunity for my daughters to see me cross the stage. I hope they will eventually get to see this. That image in my head of them and all my loved ones watching me get my degree has been a driving force for sure," she added.

Many people have asked Kim "what now?" and her reply is always the same.

"Four years ago, I knew I wanted to further my education but I had no idea how I was going to go about it, said Kim" "Then it seems all of sudden the opportunity presented itself and I jumped at it. I am going to approach my future in the same way. I'm not going to sit around waiting for a career opportunity but when the right one presents itself, I will be prepared to pursue it."



## A garden for all

While many gardens sit idle this summer on the Agricultural Campus, one in particular promises to be busier than ever.

Jason Grant (Class of '11 & '13), manager of the Cultiv8 Agricultural Sandbox and Mike Main, Community Garden manager have planted a vegetable garden with all proceeds to be given to Feed Nova Scotia.

"We need some good news right now and those at risk may be suffering as people are giving less due to looming job insecurity," explained Jason. "I believe our local food bank is a chapter of the greater initiative."

A few thousand seeds have begun to sprout and each of those will yield a range of output from a head of lettuce to many tomatoes or cucumbers or squash.

"We are doing successive planting so we will be able to deploy a market garden methodology - resulting in multiple harvests of certain crops over the summer and into the fall," he added.

The garden includes four cultivars of onions, five cultivars of lettuce, spinach, broccoli, two of cauliflower, four of kale, eight of peppers, two of celery, eight of tomato, two of eggplant, four of melons, cantaloupe, honeydew, three of cabbage, two of basil, two of zucchini, three of cucumber, seven of winter squash, four of pumpkin and a few will be kept for demonstration and coursework.

"We have to keep this small, to be responsible and to manage it with other responsibilities," said Jason.

They hope to employ several students to manage the garden in the near future.





# Succession planting

by Niki Jabbour (Class of '96)

Most vegetable gardeners plant their seeds and seedlings in late spring and wait for the harvest to roll in. However, not all vegetables take the same amount of time to go from seed to harvest and as early crops are finished, you're left with empty spaces in garden beds. Maximize the production of your food garden by succession planting in early to mid-summer.



Niki Jabbour is the award-winning author of three gardening books and writes regularly for several magazines. She is an in-demand speaker, offering seminars and keynotes at events, shows, societies, and greenhouses across North America. For the past 12 years Niki has hosted and executive produced her popular radio show, *The Weekend Gardener* which airs on News 95.7 FM in Halifax as well as online. Niki is very active on social media and you can find her gardening videos on YouTube. When she's not writing, speaking, or broadcasting about food gardening she's in her 20 raised bed vegetable gardens in Halifax, NS.







Succession planting is just following one crop with another. When my spring spinach has finished producing, I pull up the plants, amend the soil with a thin layer of compost, and replant.

The best way to stay organized is to make a garden map in late winter when you order your seeds. I like to sketch out all my garden beds and jot down what I wish to grow in each one over the course of the year. For example, one of my raised beds may be used to grow spring lettuce followed by summer cherry tomatoes followed by fall spinach.

I also use my grow lights to produce 'plug in' plants throughout summer. As one crop is finished, I can tuck in fresh broccoli, squash, or cucumbers seedlings.

No space for a garden bed? You can still practice succession planting in pots and planters. In spring, seed a fresh pot of arugula, spinach, or lettuce every two to three weeks for months of homegrown salads. In summer, plant cucumber seedlings in big pots in early June and again in mid-July.

Now that summer has arrived and the early vegetables have finished, here are six of my favourite crops to succession plant for late summer and autumn harvests:

### SIX VEGETABLES AND HERBS TO PLANT IN MID-SUMMER:

**Bush beans** are one of the easiest vegetables to grow and new seed can be sown every few weeks from late spring through mid-summer. Most varieties take about 50 to 55 days to go from seed to harvest so you can enjoy a bumper crop of beans in less than two months. Those growing in pots should try a variety like Mascotte which is compact and high-yielding.

**Cucumbers seeds and seedlings** are normally planted in late spring once the risk of frost has passed. The harvest begins two months later, with the vines continuing to pump out fruits for about a month. That means by August, the cucumber harvest has slowed or stopped. A second planting in July means you can enjoy fresh picked cucumbers until frost.

**Summer squash** has a well-deserved reputation for abundance with each planting yielding a heavy crop of tender squash. As with cucumbers, you can extend the summer squash harvest when you succession plant. I tuck a few seeds or seedlings in empty garden spaces in July to provide a September harvest. Also, don't be shy about growing some of the unique shaped types of summer squash like Sunburst, a pattypan variety, or Eight Ball which has round fruits. I also love growing Lebanese-type varieties like Magda and Lolita.

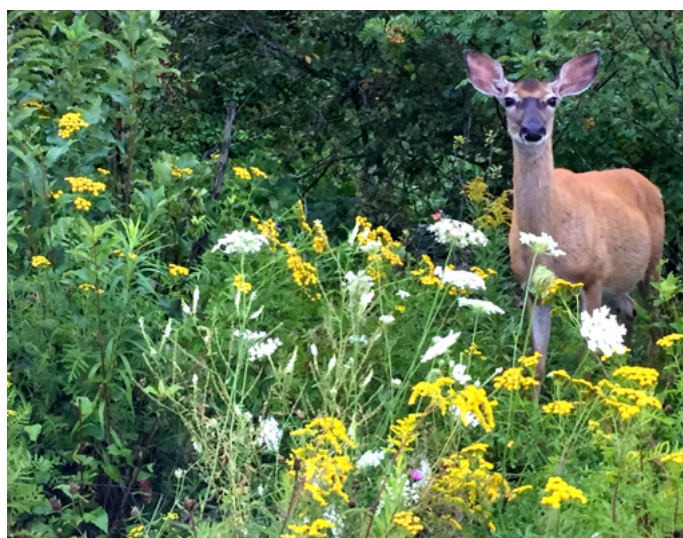
**Basil** is the most important culinary herb in my garden and I grow many types with a range of flavours. Genovese basil is the classic basil used for pesto, but I also enjoy lemon basil in tea and Thai Basil in stir-fries and curries. Basil plants start to produce flowerheads by mid-summer which reduces the flavourful essential oils in the leaves. To ensure we always have plenty of basil, I succession plant a second crop in mid-July. I use my grow lights to start the seeds inside in early June and within six weeks they're ready to be moved to my garden beds or containers.

**Broccoli, cabbage, cauliflower** - these related vegetables are cool season crops and grow best when planted in early spring for an early summer harvest or mid-summer for a fall crop. For that late crop, I sow the seeds indoors in early June, moving the young plants to the garden in mid-July. By September we're harvesting a bounty of broccoli, cabbage and cauliflower for autumn meals.

**Carrots** take about 70 to 85 days to go from seed to harvest. My first crop of the year is sown in late April and we begin to dig those roots in mid-summer. Yet once carrots reach peak quality, try to harvest them within a few weeks. If left in the garden too long, they become woody and bitter. That's why I sow a second planting in mid to late July. This is my late crop which is ready in October, but if mulched with straw, can be dug all winter long.

# Growing your own food during the Cononavirus Pandemic

Many people are trying to grow their own food during the ongoing coronavirus pandemic. Hands are sketching plans onto paper. Window boxes are appearing on balconies. Seeds are sprouting in repurposed plastic containers.



For some of us, this is a familiar ritual. For others, the practice of growing food is brand new territory.

Regardless of experience, most home gardeners will contend with the challenge of pests. The word pest describes any organism that causes harm to humans or human interests. Pests can cause sudden and significant damage to homegrown food.

However, with a little planning, monitoring and intervention, there are steps you can take to reduce the likelihood and severity of these losses. Here are some thoughts to consider:

## HEDGE YOUR BETS

Pest impact varies considerably over short distances (e.g. sunny front yard to shady backyard). Some pests are picky eaters and only feed on a handful of plant types. For example, the Colorado potato beetle feeds on nightshades, including tomatoes, eggplants, peppers and potatoes.

Other pests pose risk only at certain times of the year. For instance, slug damage to plant seedlings is most severe in early summer.

By planting a diversity of plant species, in different places, with staggered planting dates, you can increase your chances of an abundant harvest. Check the back of your seed package for an estimate of how many days it will take the plant to reach maturity to ensure late-starters will have time to reach their full potential

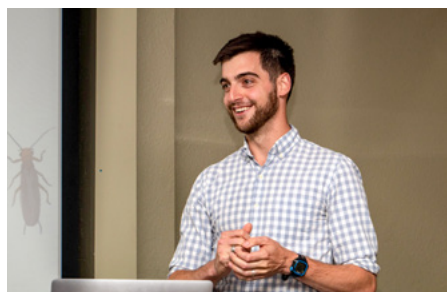
## NOTICE THE ANIMALS AROUND YOU AND PLAN AHEAD

Think about what animals you regularly see in your neighbourhood—and plan your lines of defence.

Deer have a particular fondness for crops like beans, peas, spinach and sweetcorn. If deer can access your plants, you should consider investing in fencing or netting. Deer tend to turn up their noses at strongly scented plants like mint, onions or oregano, and these can be planted in the places accessible to deer.

If your neighbourhood has a healthy raccoon population, container gardens might be a good option for you. By planting in containers, you can move your garden indoors at night and protect your harvest.

Are you losing your tomatoes? Try harvesting them before the fruits reach peak ripeness. Placing unripe tomatoes in a paper bag for a few days will allow them to ripen in safety.



Written by Postdoctoral Research Fellow, Faculty of Agriculture, Paul Manning (Class of '13). This article is republished from The Conversation under a Creative Commons license.



**The food you purchase at farmer's markets and from grocery stores is grown by experts with knowledge, technology and dedicated time. Due to market demand, more often than not, the food on display is the best of the best.**



### **NOT ALL INSECTS ARE BAD**

Many major agricultural pests are insects and cause major losses of food across the world. However, an insect on your plant does not mean that it is causing harm.

Try watching the insect for a moment. How does it behave? Does it seem to be eating or laying eggs? If so, you might have a pest. Otherwise it could be a predator searching for a smaller insect to eat, a pollinator warming itself in the sun or simply a passerby on its way elsewhere.

If you have access to a digital camera, try taking a clear photo of the mystery insect. You can upload this photo onto the iNaturalist platform along with the time and location of the observation. Interested members of the public, scientists and even a nifty algorithm can help you identify the creatures you encounter.

### **BE CAREFUL IF YOU USE PESTICIDES**

When pest impact is severe, some opt to use pesticides. Active pesticide ingredients (even if labelled as natural or organic) can be harmful if used improperly—always follow the label directions.

Pesticide labels are legal documents that must be followed. They are written to protect the health of you, your family, your pets and the wider environment. Some regions prohibit the use of certain types of pesticides, so please familiarize yourself with local regulations before use.

Preventing hospital visits is even more important given the pressure our health-care system faces under COVID-19. Before using pesticides, try lower-risk options like integrated pest management practices, such as growing pest-resistant plant varieties, using row covers or including plant species that are highly attractive to natural enemies (like parasitic wasps) within the garden.

### **ASK FOR HELP**

Whether you are a new or seasoned home gardener, pest problems can be real head-scratchers. Social media is an excellent way to connect with other gardeners to ask questions. Try #growyourown on Instagram, vegetable gardening forums on reddit or gardening groups on Facebook.

While we are still physically distanced from one another, try picking up the phone and calling a friend who likes to garden. Take this time to connect with others over the challenges and joys of growing food.

### **BE KIND TO YOURSELF**

The food you purchase at farmer's market and from grocery stores is grown by experts with knowledge, technology and dedicated time. Due to market demand, more often than not, the food on display is the best of the best.

So-called ugly produce is processed, used to feed livestock or wasted. Some of the food you grow will be ugly, often because of pest activity.

You may find caterpillars inside ears of corn or holes in your kale. Instead of fretting, use your discretion. Try removing the damaged portion using a sharp clean knife.

Enjoy the rest. It will be delicious, or at the very least—homegrown.



## Cooking corner

While some of us have been doing more baking and cooking during the pandemic, simply to pass the time, others are running out of ideas as what to feed the kids. Did they really just ask for another snack? Is it mealtime again?

We turned to a few of our favourite leaders and asked for their trusted family favourite recipes that we could share. As a bonus—many of these involve simple ingredients you may already have at home.



## CONDENSED MILK BISCUITS

PREP TIME: 30 MINS | COOK TIME: 20 MINS

DAVID & JANINE GRAY

*"Our family loves condensed milk cookies (we call them biscuits but you call them cookies) they are quite crunchy (to bite) and delicious dunked in tea or coffee!"*

2¼ cups margarine/butter

2 cups sugar

1 tin condensed milk

6 cups flour

4 tsp baking powder

Pinch of salt

Vanilla essence

1. Cream margarine/butter and sugar.
2. Add condensed milk and beat well.
3. Add flour, baking powder, salt, and vanilla essence and mix well.
4. Roll into balls, put on baking sheet and press flat with a fork.
5. Bake at 280F for 20 minutes or lightly browned.

## JANINE'S CRUNCHIES

PREP TIME: 15 MINS | COOK TIME: 30-40 MINS

DAVID & JANINE GRAY

*"I make these at the end of the term for the students—they love it!"*

1 cup margarine/butter

1 tbsp syrup (Golden Syrup)

1 tsp baking soda

2 cups oats

2 cups brown sugar

1 cup coconut (I use fine)

1 cup flour

1. Preheat the oven to 350F
2. Boil margarine/butter with syrup. Add all the other dry ingredients, mix well.
3. Press mixture firmly into a 14" greased pan.
4. Put in the oven for five minutes (I leave for 10 to make crunchier), then turn off the oven and leave the pan in for 20-30 minutes more.
5. Cut into squares when hot, let them cool on a rack. When cold keep in airtight container.

## LES' BARN DOOR COOKIES

PREP TIME: 15 MINS | COOK TIME: 12 MINS

LES & LORRAINE HALEY

*"I have Barn Doors in the freezer all the time!"*

3½ cups brown sugar

¾ cups shortening

3 eggs

2 ¾ tsp salt

¾ tsp cinnamon

1¾ tbsp milk powder

2¾ tsp cream of tartar

3¾ tsp baking soda

¾ cup molasses

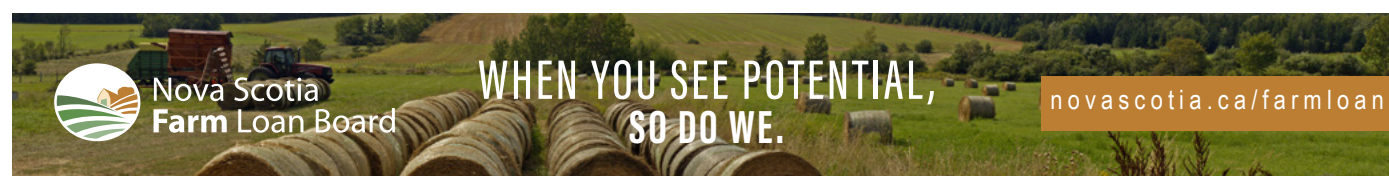
1 tbsp water

4½ cups rolled oats

3 cups flour

2½ cups raisins

1. Beat brown sugar and shortening.
2. Add eggs, one at a time.
3. Stir in salt, cinnamon, milk powder, cream of tartar and baking soda. Add molasses and water. Mix together and add oats, flour and raisins.
4. Bake at 350F for 11-12 minutes. Let cool for two minutes.



## LORRAINE'S WACKY CAKE

PREP TIME: 10 MINS | COOK TIME: 30 MINS

LES & LORRAINE HALEY

*"Our kids and grandkids make this cake all the time. It is the chocolatiest, moistest, best chocolate cake ever!"*

1½ cups flour  
1 cup sugar  
3 tbsp cocoa  
¾ tsp baking soda  
½ tsp salt  
1/3 cup cooking oil  
1 tbsp vinegar  
1 tsp vanilla  
1 cup cold water

1. Sift dry ingredients into ungreased 8x8 inch pan. Stir very well.
2. Make three depressions in dry ingredients. Pour cooking oil into one, vinegar into second and vanilla into the third. Pour cold water over all ingredients. Mix well.
3. Bake 30 minutes at 350F.

## FAVOURITE CHOPS EN CASSEROLE

PREP TIME: 20 MINS | COOK TIME: 60 MINS

GARTH & TRINKIE COFFIN

*"I like this recipe because it is simple, and the result is delicious. I don't spend a lot of time in the kitchen but I prepared this dish to give my wife, Trinkie, a break on her birthday."*

6 thick pork chops  
½ cup of brown sugar  
oil  
2 tbsp cinnamon  
tarragon  
2 tbsp butter  
salt and pepper  
4 apples unpeeled  
Juice of one lemon  
4 medium onions  
1/4 cup of water

1. Rub pork chops with oil, sprinkle with tarragon (or sage). Add salt and pepper. Brown over a high heat.
2. Arrange a bed of chopped (not too fine) cored apples and sliced onions in a deep casserole. Sprinkle with half the brown sugar and cinnamon, mix.
3. Place chops on the bed and sprinkle with remainder of sugar and cinnamon. Dot with butter. Cover and bake at 325F for an hour or more; uncover during the last 10 minutes (and enjoy the aroma, m-m-m)!

## BAKED BEAN CASSEROLE

PREP TIME: 30 MINS | COOK TIME: 45 MINS

GARTH & TRINKIE COFFIN

*"This recipe has to be the best example of comfort food that I can imagine. I'm sure that it is a favourite of many, especially down home on the farm with fresh home-made bread. Besides that, it is quick and easy."*

½ lb bacon  
1 lb hamburger  
2 large cans pork and beans  
3 – 4 chopped onions  
½ cup Ketchup  
2 tbsp brown sugar  
2 tbsp molasses  
Garlic salt

1. Fry bacon and drain.
2. Cook hamburger and onion. Add all other ingredients.
3. Bake 45 minutes at 350F and serve.
4. Goes well with old cheddar cheese.



## Faculty of Agriculture researcher partners in the fight against COVID-19

The Atlantic Poultry Research Centre on the Dalhousie Agricultural Campus has partnered with AffinityImmuno Inc, in Prince Edward Island, one of the first laboratories to manufacture antibodies against COVID-19.

Following successful production of antibodies in chickens to COVID-19 spike proteins, a partner was needed who had the capacity to increase the number of chickens involved in the process in order to scale-up production. This is where the Faculty of Agriculture stepped in.

"The initial goal was to involve 100 hens for this research," explained Associate Professor Poultry, Dr. Bruce Rathgeber. "A high demand for COVID-19 spike protein has left us short. We currently have 51 birds injected and are still planning to have a group of 49 to bring it up to 100 once more protein becomes available."

Fifty-one birds were injected with the virus protein carried by an adjuvant designed to stimulate a strong immune response in the birds.

The Faculty of Agriculture will send eggs from the injected chickens to AffinityImmuno Inc., who will be harvesting the antibodies from the yolks. The antibodies will be evaluated for a manufacturing effort toward the development of a simple-to-use diagnostic device to test for the virus as well as whether someone has been exposed and developed their own immunity.

"Antibodies against COVID-19 can be useful for a number of applications in the fight to control this disease," explained Dr. Rathgeber. "So far we have given our birds two doses of the material and we are closely monitoring their health."

There is no risk the chickens will become sick from the COVID-19 spike protein as it is only a virus protein and not the complete virus, additionally there is no evidence that this virus is active in birds.



HERE'S WHERE YOU FIND OUT

# WHAT'S POSSIBLE



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