

An aerial photograph of a farm or agricultural research station. The image shows several long, parallel rows of crops, likely corn or similar grains, planted in neat rows. To the right, there are two large, long greenhouses covered in clear plastic. In the foreground and middle ground, there are several white tables and chairs arranged on a grassy area, suggesting an outdoor dining or meeting space. The overall scene is well-organized and productive.

WHY  
AGRICULTURE  
**COMMUNITY  
REPORT**  
2020 – 2021

# MESSAGE FROM THE DEAN



**OUR SECOND STRATEGIC PLAN** for the Faculty of Agriculture was launched in September of 2020 and was constructed around addressing the 17 United Nations Sustainable Development Goals.

*Why Agriculture* details our commitment to dedicating our human and physical resources to addressing the significant

challenges to local and global sustainability, food security and health and well-being in this rapidly changing landscape within our sector. These goals are central to our work over the next five years.

Little did we know at the time the impact a global pandemic would have on our industry a mere six months later. Our university closed and pivoted to

remote teaching and learning. Labs were unoccupied and research halted.

Our researchers had already been significantly impacted after a fire which nearly destroyed Cox Institute – our main academic and research facility on campus.

Despite these challenges, our faculty, staff and students rose to the occasion and work continued. Teaching continued and research continued to the best of our ability.

This community report is a testament to the resilience of our campus and all those who reside and work within it and what can be accomplished when we work together.

David Gray  
Dean, Faculty of Agriculture

# LOCAL AND GLOBAL SUSTAINABILITY

- A Canada Research Chair in Clean Agricultural Technologies and Energies was established.
- COIL - Collaborative, Online International Learning was implemented in at least one course in each Faculty of Ag program. COIL challenges students to appreciate diversity in culture, language, and perspective through online and virtual exchanges with peers in another region or country.
- Curriculum work began in Digital Agriculture. A concept paper for a Bachelor of Technology in Digital Agriculture, meeting all Professional Agriculturist requirements was submitted for approval.
- The 12th International Vaccinium Symposium was hosted by the University led by Dr. David Percival. The objective of the symposium is to share interdisciplinary, fundamental, and applied knowledge of the diverse aspects associated with Vaccinium.
- Kubota Canada provided the Faculty of Agriculture with the use of six pieces of landscape and grounds maintenance equipment for a three-year period. This leading-edge equipment and technology will support managed landscape programs and campus operations. This contribution is valued at \$65,238.
- Cultiv8 consolidated resources of the Chef's Garden and Demonstration Garden Plot and began to build the process of following best business practices in pursuit of a sustainable vegetable production market garden.



*"Horticulture is an authentic way for people to connect," said Cultiv8 Manager Jason Grant. "Combining traditional knowledge and experience with practical experimentation in a truly collaborative setting is where, and when the magic happens."*

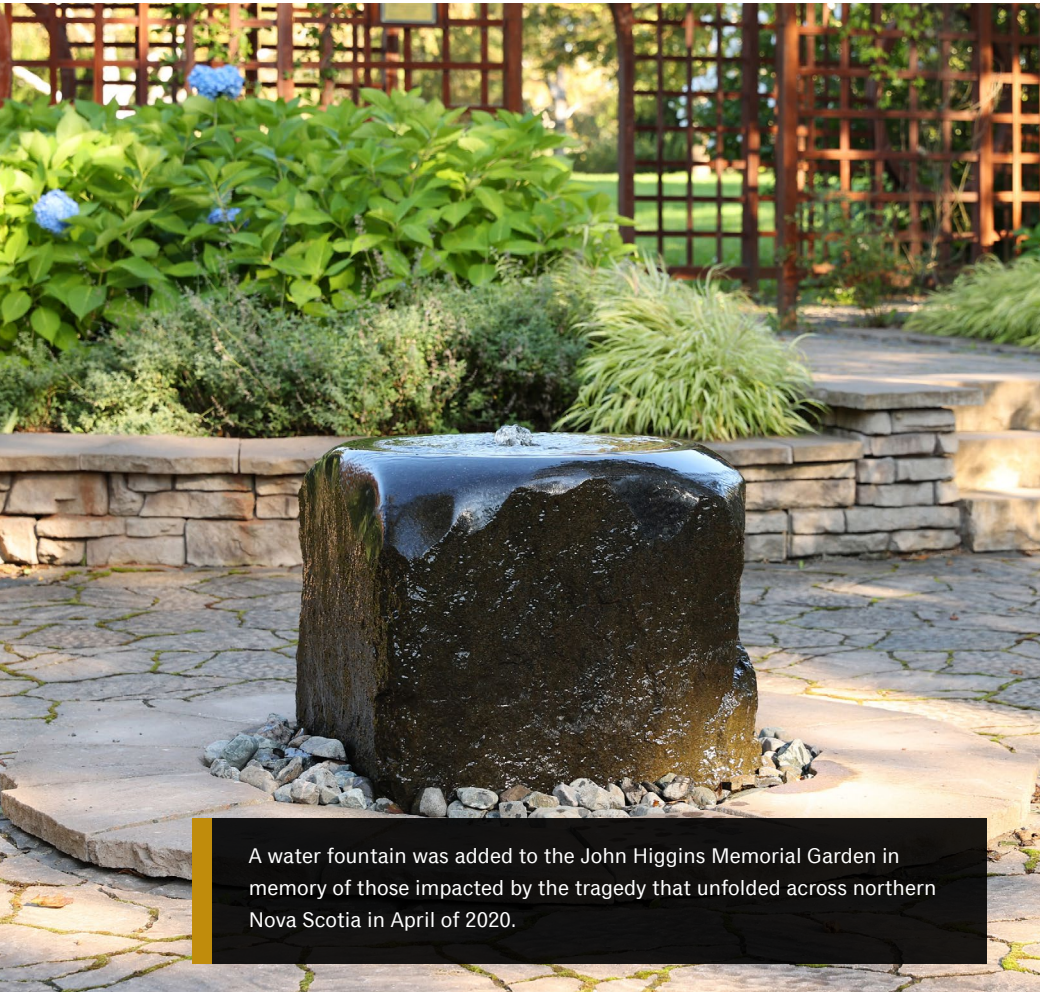
- The newly constructed Cox East Wing, was returned to the University in June of 2021, providing state-of-the-art classrooms and lab facilities for teaching.
- Exploring new programs/projects with industry partners such as Employment and Social Development Canada, Department of Fisheries and Oceans Canada, Farm Safety Nova Scotia, Sheep Producers Association of Nova Scotia, NS Federation of Agriculture, Office of African Nova Scotia Affairs, and others.
- YouTube Video series "Dal-AC" at home, featured nine how-to videos from Faculty and Staff.
- Two YouTube videos to promote working on farms including "Industry Trends and Training Needs" and "Working on a Farm" in partnership with Farm Safety NS, NS Federation of Agriculture, and PEI Agriculture Sector Council

- Hired a Strategy Specialist, R&D to collaborate with partners and stakeholders for game-changing projects for the region.
- The Centre for Sustainable Soil Management was completed and is the first Dalhousie Centre in the Faculty of Agriculture. The Centre will coordinate academic and scholarly activities relating to the study of soil status and function in managed landscapes; examine linkages to socio-economic policy drivers; and engage researchers, and multiple academic and industry partners.
- For the first time in its history, all credit and non-credit courses were made available online to learners regardless of location.
- Skills to Access the Green Economy (SAGE) is a six-country program with Dalhousie University leading the SAGE-06 project in Saint Lucia that focusses on strengthening competency-based education and training in climate-smart agriculture.
- Dr. Stefanie Colombo was selected as a 2021 Science Meets Parliament delegate. The objective of the initiative is to strengthen the connections between Canada's scientific and political communities, enable a two-way dialogue and promote mutual understanding.
- New Manager Agriculture/Aquaculture Office of Commercialization and Industry Engagement. Brennan Gillis aids researchers, industry, governments, and other sectors to identify research opportunities and negotiate research contracts and industrial grants.
- A total of eight faculty members from equity seeking groups were hired over the past year.

The Caribbean islands are among the most vulnerable areas in the world to climate change, which puts their economy, environment, and population at risk. The SAGE program will help Belize, Dominica, Grenada, Guyana, Jamaica, and Saint Lucia become more resilient by supporting technical and vocational education training in key economic sectors associated with climate change in the Caribbean.



# HEALTH AND WELL-BEING

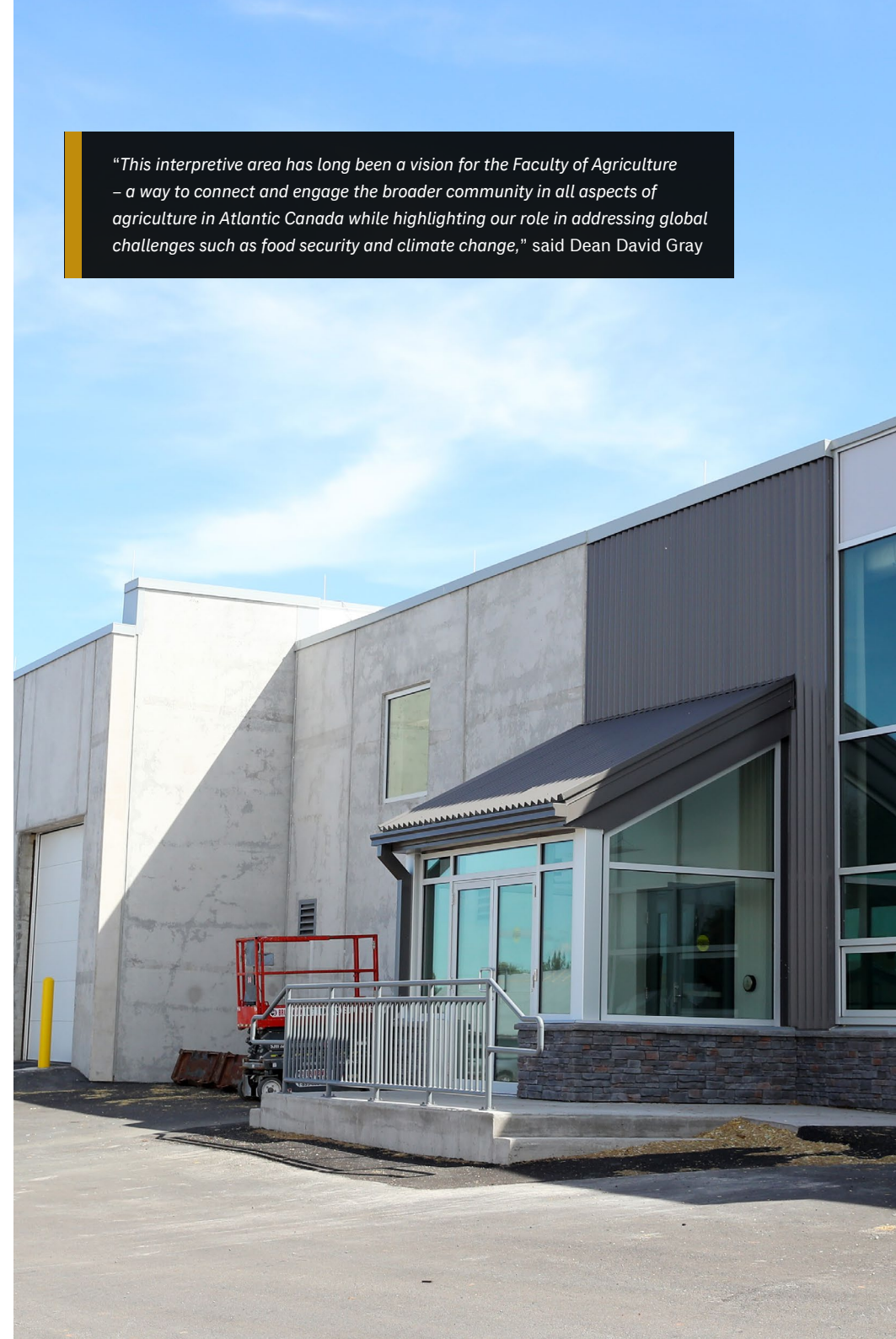


A water fountain was added to the John Higgins Memorial Garden in memory of those impacted by the tragedy that unfolded across northern Nova Scotia in April of 2020.

- Chijioke Emenike hired to conduct research in residue chemistry.
- Darcy Smereka, new Manager, Academic Administration
- A state-of-the-art custom sprayer, designed to perform research with pesticide, fungicide and herbicides in a safe and effective manner was purchased and installed.
- A new water installation in the Alumni Gardens acknowledged the tragic events that unfolded across northern Nova Scotia in April of 2020. The fountain provides a peaceful spot for community members to take a moment of quiet reflection.
- A new landscape art installation on campus represents the Mi'kmaq lunar cycle and is organised to showcase educational knowledge of the 12 months and moons within the four seasons.
- Keah Gloade joined the Faculty of Agriculture as the new Manager, Indigenous Students.
- Work continues Indigenizing the curriculum of several first-year courses as well as select second year courses.
- For the duration of Mi'kmaq History Month, the Faculty raised the orange-coloured Every Child Matters flag. The flag was initially raised in honour of the first National Day for Truth and Reconciliation.
- Dedicated Indigenous Student Space was open to students in September 2021, giving them a place for their studies and discussions. Smudging is now available in two locations on campus for students with this additional space.
- Community Education has collaborated with multiple groups on and off campus to work on specialized projects and events for marginalized groups such as Indigenous and Black African Nova Scotians as well as projects related to promoting women in agriculture.

- The Interpretive Centre has completed its pre-concept plan in partnership with the Discovery Centre and will move into the funding and partnership phase.
- Farm Safety Nova Scotia introduced a new awareness campaign, "We Talk. We Grow.," amplifying the need for a culture within the Nova Scotia farm community where mental health and well-being is valued, prioritized and protected. Faculty of Agriculture is a charter member.
- Our campus community was engaged in the production of a Better Together cookbook during the height of the pandemic to engage through our connection with food.
- The Faculty of Agriculture is once again partnered with the Correctional Service of Canada to offer a horticulture skills training program to women at Nova Institution to teach them many horticulture skills that will be useful outside the garden.
- Two classrooms were equipped with in-person class capture technology to allow flexible program delivery.

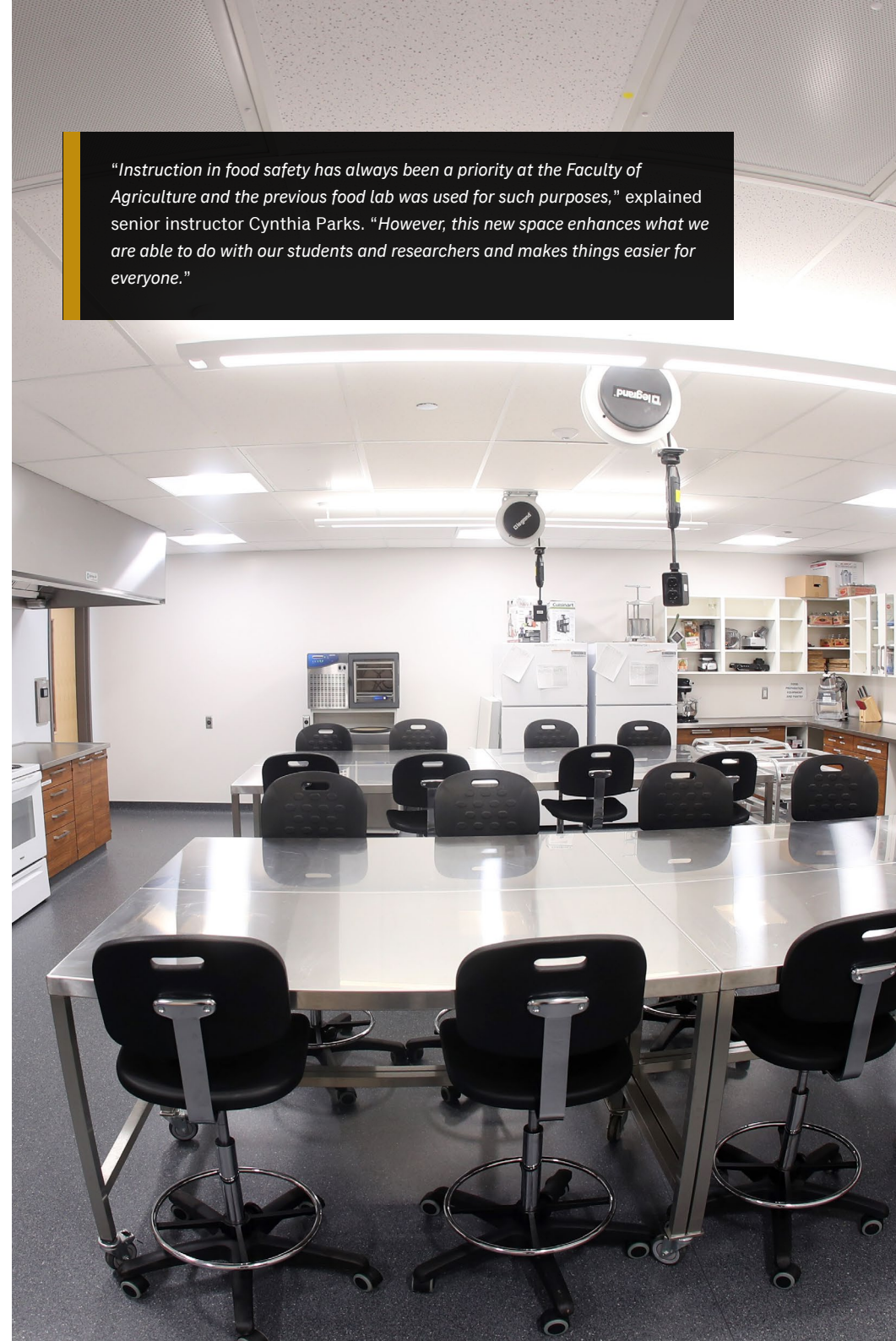
*"This interpretive area has long been a vision for the Faculty of Agriculture – a way to connect and engage the broader community in all aspects of agriculture in Atlantic Canada while highlighting our role in addressing global challenges such as food security and climate change," said Dean David Gray*



# FOOD SECURITY

- Welcomed a new faculty member in Biodiversity-Food Security - Paul Manning
- The production of food through controlled environment agriculture uses innovative structures, technology, and mediums to avert the biggest challenges to food production. A capital campaign project to raise funds for a vertical farm was approved.
- The Department of Plant, Food and Environmental Sciences has provided marketing funds to engage potential students in Food studies with an end-goal to increase the labour pool in food safety. They also purchased encapsulation technology toward enhanced teaching in this area.
- Established a state-of-the-art food lab in Cox East Wing for teaching and research. The Food lab is certified by the provincial food inspector and is used for microbiology, food preservation, food chemistry experiments and various research programs.
- Partnership with Ulnooweg Education Centre to license and Indigenize curriculum for a food security project.
- New Organic Vegetable Gardener Course – online self-directed program for home gardeners.
- Exploration of African Nova Scotian food security/ag careers project.
- The partnership agreement between Dalhousie and Mariano Marcos State University (MMSU) was signed in June 2021. Dalhousie Faculty of Agriculture and MMSU have been collaborating closely to identify opportunities for mobility, research and development and anticipates initiating engagements in 2022-2023.

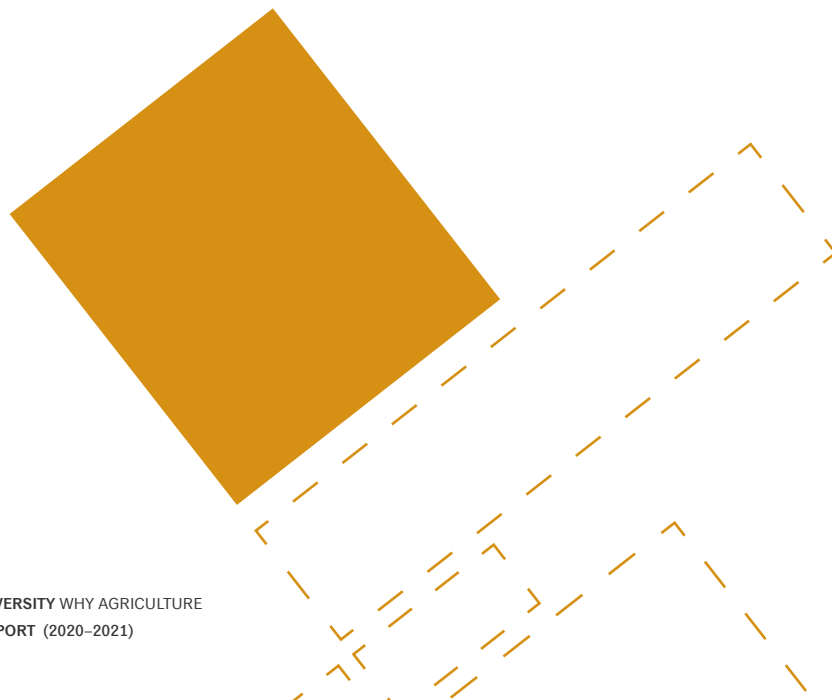
*"Instruction in food safety has always been a priority at the Faculty of Agriculture and the previous food lab was used for such purposes," explained senior instructor Cynthia Parks. "However, this new space enhances what we are able to do with our students and researchers and makes things easier for everyone."*



- Developed Smart Farm plan for campus development to enhance opportunities for teaching and research in agricultural technology and data collection.
- Approval received to develop the Digital Agriculture Centre and Precision Animal Agriculture proposals.
- The Faculty of Agriculture participated in the Food Security project and raised close to \$70,000 to support student-led food security programs on both the Truro and Halifax campuses.
- Agri-Food Analytics Lab announced a new partnership with Caddle. This three-year partnership will ensure that the very latest of consumer food trends will inform the analytics lab and enable them to interpret trends in real time.
- Completion of a series of Why Ag videos aimed at educating communities on where their food comes from, and the vast area of research covered by agriculture.



Research shows about 40 per cent of post-secondary students experience some form of food insecurity – more than triple the national average. Reliable access to affordable, nutritious food, fortifies students mentally, physically, and ensures they are at peak performance academically.







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