ANNUAL REPORT

SEPTEMBER 2024 – AUGUST 2025

ARRELL FOOD INSTITUTE
AT THE UNIVERSITY OF GUELPH

SHARED VISION

A sustainable, reliable and just food system.

COLLECTIVE GOAL

Informing resilient and sustainable global food systems based on a rigorous and comprehensive understanding of the latest evidence.

Land Acknowledgments

The University of Guelph is on the territory of the Mississaugas of the Credit and is part of the Land Between the Lakes Purchase (Treaty number 3). The Dish with One Spoon Covenant made between the Anishinaabe, Haudenosaunee and Mississaugas is an agreement to share territory and protect these lands, now known as parts of Ontario, Quebec and New York State. The Covenant reminds us of our common connection to the land and to each other. Recognizing the contributions and importance of First Nations, Métis and Inuit peoples is an important part of our collective commitment to make the promise of Truth and Reconciliation real in our communities.

Words of Gratitude

We are extremely fortunate to be surrounded by a huge range of wonderful and supportive colleagues at the University of Guelph, Canada's Food University. Without their support it would be impossible to drive the mission of Arrell Food Institute – to improve global food systems. Special thanks to the Arrell Family Foundation for the ongoing support of Arrell Food Institute.

Statement of Inclusion

A world where all communities have access to safe and healthful food is critical to a world where the voices of all communities are uplifted. Arrell Food Institute (AFI) is an equal opportunity employer and does not tolerate, ignore, or condone any form of discrimination. We work to support people from communities historically and structurally excluded, including BIPOC communities, people with disabilities, 2SLGBTQIA+ and those with caring responsibilities. AFI strives to be inclusive in its events and projects so that diverse perspectives are presented, and a full range of individuals have equal opportunity to participate in discussions and conversations. AFI ensures that we recognize both non-traditional and traditional excellence. We welcome further feedback and dialogue.

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Read Arrell Food Institute's Strategic Plan 2023–2028 at arrellfoodinstitute.ca/strategic-plan

LETTER FROM THE DIRECTOR

Dear Friends of the Arrell Food Institute,

As we marked five years since the start of the pandemic, the world must once again navigate extraordinary challenges, from global geopolitical disruptions to the ongoing impacts of climate change. Amid this turbulence, some fundamental truths remain – among them, people need to eat and too many of us are denied that human right. From starvation in Gaza to an unprecedented number of Canadians relying on charities such as food banks, the human cost of the current moment is unacceptable.

Arrell Food Institute remains focused on our mission to create a more nutritious, sustainable and equitable food system. One of the things we are proudest of is the successful launch of Sustainable Food Systems for Canada (SF4C). This unprecedented national network that includes universities and agri-food associations connects experts, leaders and learners from diverse fields to empower and unlock innovations that will equip and support the next generation. This new initiative will address Canada's productivity gap, bring down greenhouse gas emissions and drive Canada's food system to do more with less.

Of course, we're already supporting future leaders, including some of the Arrell Scholars you will read about in this report. We also expanded our educational offerings this year to include new courses and workshops. Our students continue to inspire us with their ingenuity, passion and commitment to making a difference.

A large part of what makes AFI unique is how we work beyond the academic world. Through workshops, collaborations, panel discussions, the Arrell Food Summit, and more, we continue to convene and collaborate with people right across the food system, in Canada and beyond. These essential connections enable us to explore pressing issues – and surface practical and policy ideas to move towards a must sustainable food future. This included hosting a high-level workshop with senior leaders from Canada, the US and Mexico on the eve of the trade war.

None of this would be possible without our partners, donors, collaborators and supporters. We are deeply grateful for your continued trust and investment in our work.

As we look ahead, we are excited about the opportunities that lie before us. We remain steadfast in our commitment to driving innovation, fostering collaboration, and creating a more sustainable and equitable food system for all. Together, we can build a brighter future.

Thank you for being a part of this journey.

SUSTAINABLE AGRI-FOOD SYSTEMS

Agriculture faces major challenges on multiple fronts, from climate change, pest management and soil degradation to trade barriers, sustainability tracking and insurance costs.

But this is also a time of opportunity. With sustainable practices and innovations, food systems can help address the environmental crises they are experiencing and contributing to, and in turn provide a foundation for flourishing communities. AFI drives innovation and experiential education to bring sustainability research into practice, and supports climate-resilient agri-food systems.

Create and Mobilize Knowledge

AFI recognizes that change requires leadership: not just the convening of conversations, but the leading of momentum within the sector. The AFI team initiated an 18-month national dialogue with over 100 experts across multiple sectors and collected their combined insights into the highly anticipated Feeding the Future with Canadian Technology report.

This report highlights four national strategies to increase the adoption of new technologies within Canada's agricultural sector: scaling ag-tech, training future leaders, reducing investment risk, and mobilizing applied research. It was accompanied by specific briefing notes for government, investors, producers, academia and innovators. The report has now been viewed over 3,500 times and a key recommendation from this report, the need to create micro-credentials in sustainable agri-food, has been integrated into Sustainable Food Systems for Canada's programs rolling out this Fall.

While experts and industry drive adoption, AFI also remains committed to evidence-driven change and the mobilization of research knowledge for public good. The Food from Thought program, an unprecedented partnership between the University of Guelph and the Canada First Research Excellence Fund, supports and enables research as one of AFI's premier programs.

In April 2025, the Food from Thought program, managed under AFI, released the Managing Agri-Food Pathogens Report. The report is part of a larger initiative to synthesize the projects of Food from Thought into actionable themes, giving a solid basis of research on which policy, technology and collaboration can be built. Following a national workshop the previous year, the report identifies five key calls to action to protect our food system against the risk of pathogens – a risk exacerbated by climate change, urbanization and habitat destruction.

The recommendations include: establishment of a 'one health' framework that recognizes the interconnectedness of animal, human and environmental health; multidisciplinary collaboration to enhance disease surveillance, prevention and detection; development of an "all-threats" data infrastructure that supports data sharing across sectors; investment in science communication and knowledge mobilization; and the prioritization of research and innovation to address emerging threats. This report has been viewed more than 1,000 times and has resulted in multiple news interviews, briefs and op-eds.

Convene Discussion and Catalyze Action

While reports are critical tools for shaping public discourse, not all research needs to emerge from a lab to find the field. Sometimes field work means standing among the farmers who tend them. The Arrell Chair in Behavioural and Experimental Economics, Dr. Tongzhe Li, and her team conducted field experiments at the Canadian Outdoor Farm Show between 2022 and 2024 to better understand how access to information and the right social influence can encourage Ontario farmers to adopt innovative, novel and sustainable best management practices.

Li's team has since led a range of collaborations with partners such as Ontario Soil Network, Soils at Guelph and Villanova University; one collaboration of specific importance to this research is a partnership with the Ecological Farmers Association of Ontario (EFAO) to explore how farmers seeking to integrate new processes and reduce their environmental impact use tools like reverse auctions to create accessible pathways to adoption. A reverse auction involves farmers proposing plans for adoption, and offering an amount they would need to implement the new practices. The most efficient projects can then be supported, and multiple projects can be selected. This research highlights the readiness of the sector to modernize into a new era of sustainability, and seeks to identify which tools can lead Canada towards that shared goal.

When presenting these findings to the Ontario Ministry for Agriculture, Food and Agribusiness (OMAFA), Li's team's preliminary results highlighted the importance of communicating the right value to the farmers up front — framing the message — and finding the right people to share it. Messenger selection can be just as impactful as raw data in influencing farmer decision-making on the adoption of novel technologies.

Li's future work will aim to further assess how farmers approach novel technologies, and to demonstrate direct ties between sustainable practices in the field and consumer purchasing choices. Evidence of a positive trend towards consumer buy-in would create further economic incentives for farmers to go green.

SUSTAINABLE AGRI-FOOD SYSTEMS

Prepare Future-Ready People

Innovative thinking attracts new ideas, and Redwood Properties was looking to capitalize on the expertise of AFI's experiential education programs. In the AFI/U of G graduate course "Innovation and Entrepreneurship in Agri-food Systems," a group of inter-disciplinary students lent their collective skills to solving a real-world agri-food challenge: Redwood Properties' development of Harvest Village—a planned community in Toronto grounded in sustainability and circular food production.

Students worked in teams to identify opportunities and address challenges within the proposed development, using a research basis to outline pathways to on-site regenerative agriculture production, vendor engagement, agritourism and addressing regulatory barriers.

They developed small-scale business concepts and presented their proposals directly to Redwood in ways that could be implemented directly into the development plans. Both the students and Redwood Properties have expressed keen anticipation to look back after development and trace the continued impact of this foundational work.

Underlying the challenge-based work was a series of workshops on cross-cultural collaboration and clear communication led by the AFI team. These class sessions helped students build practical skills for working in diverse teams and presenting their ideas in plain language to varied audiences, both critical skills in the workforce. And to offer some inspiration on the possibilities in urban agriculture, our instructors arranged a visit to GoodLeaf Farms that provided exposure to advanced vertical farming technologies, deepening students' understanding of innovation in sustainable food systems.

Students described the course as highly engaging and impactful, noting the opportunity to apply their learning beyond the classroom and collaborate across disciplines, while Redwood Properties benefited from innovative ideas and fresh perspectives to advance its project.

SUSTAINABLE AGRI-FOOD SYSTEMS

Arrell Scholar Highlight

Urban agriculture is increasingly relevant as unstable weather patterns caused by climate change threaten food security, and uncertain growing seasons make yield prediction difficult. Finding solutions for food production to co-exist with society will be a critical step for sustainably feeding a global population.

Arrell Scholar An Sakai (pictured right) has applied her research to exploring how vertical farming can help build a more localized, climate-resilient food system in Canada. With a background in urban agriculture in Japan, she is now developing sustainable vertical farming designs powered by green energy.

Her research also looks at how these systems could support national goals like a school food program, and provide better access to fresh produce. Through outreach, she's helping shape solutions that are both environmentally and socially sustainable—aligning ag-tech innovation with real community needs.

LOCALLY ROOTED, GLOBALLY RELEVANT

The journey from soil to plate is shaped by complex global forces, including climate change, trade policy, conflict, technological shifts, economic uncertainty and political instability. Each element has distinctly localized impacts. AFI connects the global to the local, organizing and participating in work ranging from international trade workshops to local food collaborations.

Create and Mobilize Knowledge

Research and policy can often feel a long way from regulation, adoption and economic growth, but linking grand ideas to environmental, business and food system realities is a core part of Dr. Evan Fraser's work. His collaborative approach has led to his participation in the High-Level Panel of Experts on Food Security and Nutrition of the United Nations Committee on World Food Security and the creation of the Sustainable Food Systems for Canada (SF4C) network.

At the 2024 Canadian Science Policy Conference (CSPC), Fraser was honoured with the prestigious Trailblazer Award in the "Science for Policy" category. Fraser was recognized for his "significant contributions to advancing food policy in Canada and globally," (pictured right). The citation made particular note of Fraser's dedication to public engagement, and for his commitment to integrating scientific research into policy for a more sustainable and resilient future.

This ideas-to-action approach was on show when Fraser moderated a panel at CSPC's "Driving Innovation in Agriculture: The Role of Biotechnology in Canada's Sustainable Future." The session brought together experts from across Canada to explore how biotechnologies, such as gene editing, cellular agriculture and synthetic biology, can address pressing challenges in agriculture. Exploring ethical, regulatory and practical adoption, the conversation emphasized the breadth of work in biotechnology and its potential impact on agriculture.

The moderated discussion made particular note of the need for clear public communication about new technologies to ensure consumer awareness and support keeps up with new development. In addition to continuing to integrate scientific research into policymaking, Fraser's future research aims to investigate how technology, climate change and political turmoil affects people and planet in myriad ways: from health and education to energy, housing and food. *Pictured below: Dr. Evan Fraser having received his award at CSPC 2024.*

Convene Discussion and Catalyze Action

In a year of disruption, AFI brought together stakeholders from across the North American agri-food system to better understand and respond to global volatility.

AFI partnered with global non-profit Food Tank in September 2024 to host the Building Resilient Food Systems for All Summit at Climate Week NYC. The event emphasized that resilience in food systems depends on diversified collaboration and accurate data measurements. Speakers highlighted the importance of better measurement and metrics to track success and outlined the impacts of new programs and technologies.

This event convened globally recognized experts from international organizations, academia, grassroots movements and innovation sectors including the Food and Agriculture Organization of the United Nations (FAO), Rockefeller Foundation, and the Nutrition, Health and Food Security Impact Area Platform at CGIAR. Among the premier events of the week, this event filled the space to standing room only and has been viewed over 7,000 times online.

In February 2025, AFI partnered with U.S. Ambassador Ertharin Cousin, CEO of Food Systems for the Future, and Bram Govaerts, Director General of the International Maize and Wheat Improvement Center, to host the Stress Testing the North American Food System Workshop. The event brought together experts from across North America working in policy, industry, academia and society to better understand the risks and opportunities facing the North American food system.

Anticipated threats include water scarcity; trade, tariff and labour challenges; declining soil health and biodiversity; and the prevalence of pests and disease. However, solutions such as regenerative agriculture, productivity gains through technology, and increased investment in innovation emerged as powerful potential changes.

The Scoop: The resulting "What We Heard" report outlines the changes participants highlighted as being most promising to the North American food system between now and 2040.

LOCALLY ROOTED, GLOBALLY RELEVANT

Prepare Future-Ready People

Food-systems work, particularly within universities, can be tied heavily to the resources and perspectives of the community where the work takes place. Through policy work and inter-disciplinary teams AFI challenges students to consider other perspectives, existing sources of leadership, and applications for their ideas within but also beyond their immediate surroundings. When an opportunity arose to formalize international collaboration and bring new training perspectives to students, AFI answered the call.

In the Summer of 2024, the Climate Adaptation, Resilience and Empowerment (CARE) Program was announced. A partnership between U of G, University of Toronto (U of T), University of British Columbia and Sciences Po in France, this five-year, €7.2 million (about $10.5M CAD) program is a first-of-its-kind graduate training program that aims to create the next generation of environmental leaders.

AFI has since been instrumental in the coordination, planning and roll out of the program. AFI facilitated a learning module, Climate Communication & Storytelling, led by Jeanna Rex and Alex Sawatzky, that equipped students with tools to connect emotionally and meaningfully with diverse audiences—a critical but often overlooked aspect of leadership. Several events were also coordinated throughout the year to have students put knowledge into practice, including the CARE Case Competition and the inaugural CARE Conference.

Six students represented U of G at the Case Competition. They were challenged to develop a realistic policy plan that reimagines Germany's energy production system so that it prioritizes both sustainable energy and the system's socioeconomic impacts on citizens.

The inaugural CARE Conference was co-hosted by U of T's Munk School of Global Affairs and AFI. The final day, led by Jeanna Rex, AFI's Education Lead, focused on delivering experiential learning opportunities to students, bringing them to Heartwood Farm and Cidery to demonstrate regenerative agriculture in practice at a local level. Students also toured the Ontario Dairy Research Centre (*pictured left*), the Ontario Beef Research Centre, two of the Research Centres managed by U of G through the Ontario Agri-Food Innovation Alliance, and concluded with a panel from Soils at Guelph.

ACCESSIBLE, NOURISHING FOOD

It is apparent that too many people across Canada and the globe still struggle to access food that is affordable, culturally meaningful, safe and nourishing. Increasingly, systemic and structural barriers limit choice, agency and equity.

This is not just a function of producing more food, but a global challenge to make feeding the world's population practical, accessible, and sustainable. Collaboration is critical to solving this challenge and, alongside our partners, we use thought-leadership and research to enhance equitable pathways to nourishing food, and to reduce dependency on global food supply chains.

ACCESSIBLE, NOURISHING FOOD

Create and Mobilize Knowledge

The rate of food insecurity in Canada continues to rise, with Black, Indigenous, racialized and immigrant communities being disproportionally affected. The problem is even more prevalent for youth with data from the National College Health Assessment showing that 39% of post-secondary students experience food insecurity.

In 2024, AFI partnered with the Community Engaged Scholarship Institute, The Guelph Lab, Re•Vision: The Centre for Art and Social Justice and the International Institute for Critical Studies in Improvisation to raise visibility and amplify voices that are advocating for a healthier and more equitable system. Together with key partners, AFI hosted a screening workshop for U of G students, staff and faculty.

The workshop, titled Food Justice on Campus: Racialized Student Food Insecurity in Digital Stories, featured conversations about how to promote food justice on campus. Participants watched four short videos on the intricacies of race, culture, food and student living, then took part in a creative dialogue about the food crisis facing racialized and Indigenous students especially, and the student population more generally. Threaded throughout the digital stories was the importance of autonomy and dignity in accessing on-campus food pantries as well as access to culturally relevant food options.

The influence of culture in food access and well-being resonates with AFI's ongoing work among the campus community. AFI and the U of G Campus Food Market worked with the Middle Eastern Students Association in celebration of Eid. Together, this collaboration hosted a series of markets featuring culturally appropriate foods such as dried sage, za'atar, sumac, halawe, makdoos, pomegranate molasses and dates. Empowering initiatives within our community acts as both a contrast and proof point for our larger global mission. Food can do more than fill our bodies, it can connect and enrich us equally.

Get the Scoop: Read "The University of Guelph Campus Food Market: Improving access to affordable fruits and vegetables" on AFI News.

ACCESSIBLE, NOURISHING FOOD

Convene Discussion and Catalyze Action

The U of G Campus Food Market—a collaboration between AFI, the Community Engaged Scholarship Institute and the Ontario Veterinary College -- offers fresh produce at pay-what-you-can prices to support equitable access to nourishing food. In a survey of market visitors, 80% reported buying more produce since accessing the market, and 67% said they now eat enough fruits and vegetables. Since launching in 2022, the market has grown from one location to three weekly locations serving over 225 students each week.

This focus on local, community-based food access is reflected across several AFI initiatives. In February 2025, Community Food Lead Pauline Cripps led Food Forward: Building Resilient Food Distribution Networks, a workshop with over 40 stakeholders in Guelph-Wellington. Participants mapped out emergency food redistribution infrastructure, identifying gaps in sourcing, storage, transportation and preparation, which is now informing the development of a local food distribution centre and visual mapping tool to strengthen emergency response.

In June, an RBC report co-authored by Cripps, Evan Fraser, Sarah Stern from the Maple Leaf Centre for Food Security and Lisa Ashton of RBC offered three potential avenues of action to help tackle the causes of food insecurity in Canada: address the economic urban-rural divide; strengthen supports for low-income households; and improve the affordability of housing.

ACCESSIBLE, NOURISHING FOOD

Prepare Future-Ready People

AFI research and learning is not confined to the lab or campus. Youth and teachers in Mattagami First Nation got their hands on new learning tools thanks to food science STEM kits from the lab of Dr. Maria Corradini and in-person instruction from Alyssa Francavilla.

In Fall 2024, AFI and SF4C partners participated in the Anangokaa Festival, held at Mattagami First Nation. The festival, the name of which means “there are many stars” in Anishinaabemowin, combined space exploration with activities aimed to inspire Indigenous students to consider career paths in STEM fields and related aerospace trades.

Pictured: The Anangokaa Festival posted in “Timmins Today”, Fall 2024.

As part of the “Food for Space” module, the AFI team brought food science STEM kits—hands-on resources that sparked curiosity among students. Additional kits were left with teachers in the community as a gesture of support for locally led learning, reinforcing AFI’s commitment to ongoing engagement in education and food systems.

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Pictured below: STEM kits and some of the items they included.

Emily Nanne, a citizen of the Métis Nation of Ontario with ancestral roots in Treaty 6, 8 and 9 territories, and an Indigenous consultant working with AFI to build the SF4C network, said, “Events like the Anangokaa Festival create meaningful opportunities for reciprocal learning—where institutions like the University of Guelph can listen, share, and begin to build relationships with communities. While the focus may be on STEM and trades, we also need to grow our capacity in food, agriculture and environmental systems if we want to truly support strong, healthy futures with Indigenous communities. This kind of engagement can’t be a one-off; it needs to be part of long-term relationship-building grounded in shared benefit and respect.”

ACCESSIBLE, NOURISHING FOOD

Arrell Scholar Highlight

Arrell Scholars are emerging leaders in the agri-food sector who combine academic excellence with a commitment to building more sustainable, equitable food systems. Supported by a $50,000-per-year scholarship, they engage in interdisciplinary learning, connect with global networks, and collaborate on real-world challenges through AFI’s programming.

As the need for more equitable food systems grows, Arrell Scholar Dr. Katherine Eckert (*pictured right*) is leading applied research to support healthier, more sustainable diets—starting in early childhood. Her research highlights the influential role children can play in shaping family food habits. Her work also reveals that while food cost is a key barrier, food literacy gaps also hinder access to nourishing diets at the family level.

With support from AFI, Eckert shared her findings internationally, published two studies, and launched new projects focused on sustainable menus in childcare centres. She is now co-designing tools with the Guelph Family Health Study to improve food practices in childcare settings.

Through collaborative, evidence-based approaches, Eckert is advancing practical solutions that empower families and early years institutions to build more inclusive, sustainable food systems.

EQUITABLE, EFFICIENT FOOD VALUE CHAINS

The success of AFI in convening discussions and leading programs rests with our commitment to ensuring solutions are grounded in local realities. To face complex challenges ranging from community food access to technology adoption and perception, AFI co-creates collaborative solutions with industry, communities and researchers that integrate economic viability and equity, making value chains more resilient, transparent and fair.

EQUITABLE, EFFICIENT FOOD VALUE CHAINS

Create and Mobilize Knowledge

There are many factors that shape the sustainability of food systems. On the consumer end, critical considerations include consumer demand, eating behaviours, and the broader contexts of how people make choices. Dr. Sadaf Mollaei, Arrell Chair in the Business of Food (*pictured left*), focuses on bridging the gap between academia and practice within this complex space.

Mollaei's research has focused on the long-term evaluation of food affordability for Canadian young adults. In 2025, she presented her research findings at the International Food and Agriculture Management Association World Conference (pictured left), highlighting the increase in food costs for young adult diets, with low-income young adults spending up to 32% of their income on food compared to other Canadians, for whom food eats up 5.2% to 23% of their income.

Another aspect of Mollaei's work focuses on institutional food, such as meals served in hospitals, and broader participation in the agri-food sector. In May, Mollaei partnered with Nourish Leadership, an initiative working throughout the country to make better food the cornerstone of a more sustainable, equitable and preventative health care system. Mollaei lead a webinar on how health care institutions can utilize behavioural science to design menus and food environments that benefit planetary, patient and staff health.

In July, Mollaei participated in a panel discussion hosted by ACCES Employment, a Canadian organization that helps newcomers access meaningful employment. Mollaei spoke about Canada's agri-food sector, noting that while labour shortages and generational disinterest in agriculture are real challenges, they also create opportunities for emerging talent (*pictured right*).

EQUITABLE, EFFICIENT FOOD VALUE CHAINS

Convene Discussion and Catalyze Action

As Co-Director of the new Artificial Intelligence for Food (AI4Food) Unit at the University of Guelph, Dr. Maria Corradini, Arrell Chair in Food Quality, is helping shape how artificial intelligence can be applied to create smarter, more resilient food systems. At the inaugural AI4FoodEvent, the National Dialogue on AI in Food Safety in Guelph at the U of G from October 1-2, 2025, she convened leaders across food and tech sectors to explore the transformative potential of AI in enhancing food safety, reducing waste and improving distribution.

The Summit allowed Corradini to draw on her work in food biophysics and predictive modelling to emphasize the importance of real-time data and early-warning systems, something integrated into her research. These early-warning systems can ensure food reaches consumers at peak nutritional value while minimizing loss. This work highlightedsummit's focus on the importance of developing global standards for AI in agriculture, ensuring inclusive and ethical innovation, and scaling real-world applications—from geospatial monitoring to intelligent irrigation.

By bringing together researchers, industry, policymakers and international organizations, the summit laid the foundation for a more collaborative ecosystem. Corradini's work with the AI4Food Unit continues to bridge scientific research with practical tools that catalyze action toward sustainable and resilience food systems.

Looking ahead, Corradini is also advancing new technologies that reimagine what food can be. Her work with 3D food printing explores how the food system can reduce waste, improve nutrition, and introduce underutilized ingredients like vegetable stems, microalgae and insect flours into everyday diets. This approach allows for precise customization of food textures, structures and nutrients, with potential to support populations with specific dietary needs, such as older adults or individuals with chronic illness.

EQUITABLE, EFFICIENT FOOD VALUE CHAINS

Prepare Future-Ready People

This year we were happy to run the second annual Loblaw Net-Zero Food Systems Challenge (NZFSC), an initiative launched in partnership with Loblaw Companies Limited and the Ontario Agricultural College. The program connects graduate students with researchers, retailers and producers to design realistic, data-informed strategies to decarbonize Canada's food system.

In its first phase, held in the Fall of 2023, the challenge explored how to promote climate-smart practices and incentivize sustainable choices throughout the food value chain. The latest phase, occurring over the Winter of 2025, built on those insights with a sharper focus on impact. Interdisciplinary student teams used life-cycle assessment tools to evaluate the carbon emissions of specific food products—from production to distribution—and recommended targeted interventions to reduce those emissions.

These solutions are grounded in conversations with producer groups and retailers, ensuring they will work in real-world contexts. The program also supports emerging sustainability leaders by giving them hands-on experience in applying scientific tools to complex food system challenges.

The NZFSC reflects a growing demand for aligned efforts across sectors, and demonstrates how academic-industry partnerships can accelerate climate action, generate viable business strategies and build capacity for a more sustainable food future.

FOSTERING INNOVATION

AFI is tracking an increased need across the food value chain, and a new theme is emerging: how to foster innovations that will help create more sustainable, equitable and nutritious food systems. This broad work area has become acutely focused this past year as we lay the groundwork for a resilient food future.

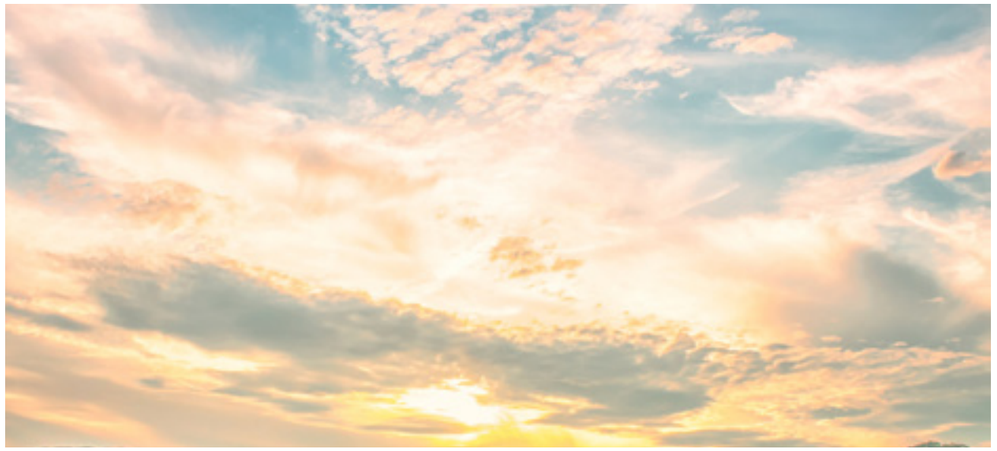
FOSTERING INNOVATION

Sustainable Food Systems for Canada

This year, Arrell Food Institute was excited to announce an investment of nearly $16.3M under the Lab to Market initiative to support Sustainable Food Systems for Canada (SF4C), a national network and training platform that has united Canada's leading agricultural innovation institutions around a central goal: to close Canada's productivity gap and reduce greenhouse gas emissions.

SF4C catalyzes the principles of entrepreneurial and experiential education that AFI has championed. Through initiatives like microcredentials, hands-on training and national events, SF4C will equip learners with practical skills and innovation-focused mindsets essential for today's food systems challenges. With over 20 partners including academic institutions, industry leaders and community organizations in a growing national network, SF4C is positioned to accelerate impact at scale and foster a new generation of future-ready talent.

The goal is to see research outcomes reach market not just in the form of new businesses, but in the development and adoption of new ideas and policies to support innovation. The University of the Fraser Valley, the Territorial Agrifood Association and Université Laval join the University of Guelph in leading programs and building pathways for learners, business owners and farmers to build a strong and sustainable food sector across Canada.



FOSTERING INNOVATION

Chair Highlight: Sara Edge

As Arrell Chair in Food, Policy and Society, Dr. Sara Edge (pictured right) explores how concepts like resilience, which is often cited in food policy, ignore the more systemic causes of food insecurity when not contextualized with lived experience. In a recent study of Toronto's food strategies, led by Post-Doctoral Researcher Jenelle Regnier-Davies, Edge found that discussions about "resilience" often shift responsibility away from institutions, placing it instead on individuals already facing systemic barriers.

In one study, she explored how Chinese immigrants in Toronto navigate food access—balancing convenience, language, cultural familiarity and affordability by blending mainstream and ethnic retailers, digital tools and social networks. These findings highlight the cultural dimensions of food access that are often overlooked in planning and policy.

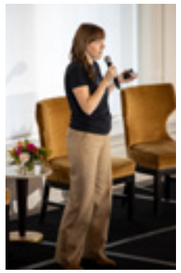
Edge brings this insight into real-world impact through collaborative initiatives. In partnership with the Rexdale Community Hub, she co-led a feasibility study that informed the launch of a community grocery market. The market provides affordable, culturally relevant fresh food while fostering local employment, volunteer opportunities and social connection. The pilot not only improves access to nutritious food but serves as a replicable model for community-led enterprise grounded in local needs.

To further scale impact, Edge has hosted knowledge-sharing events, such as Social Supermarkets & Community Food Enterprises: Paths Forward in Community Food Security, focused on the community grocery market and community food enterprise sector. Leaders from across Canada gathered to discuss operational challenges, financial sustainability and shared infrastructure models. This work is now informing a SSHRC Partnership Development Grant proposal to grow collaborative networks that support inclusive food innovation and shared infrastructure models.

FOSTERING INNOVATION

Summit Pitch Competition

Part of AFI's value in working so closely with research and community is the ability to identify, connect and uplift real-work applications of innovation. Not only does AFI offer a platform to showcase and celebrate emerging opportunities, but also a network with mentors and expertise to grow businesses to their next phase, either through dynamic challenges or AFI's first Agri-Food Pitch Competition.



As a part of the 2024 Arrell Food Summit, AFI demonstrated support for Canada's emerging agri-food leaders on a national stage. Selected from a wide pool of exciting applicants, five small businesses were given the opportunity to network, build up their business plans and presentation skills, and present a live pitch to a panel of judges assessing their innovation, their business acumen, and the potential for growth and economic impact for their products. Participants included CATTLElytics (*pictured left*), Alterra Innovation, Advanced Agriscience, Beck's Broth and Cropinno.co.

Cropinno.co was awarded the $20,000 grand prize for its use of satellite imaging and AI to help farmers detect crop stress, reduce risk and make informed decisions. Beck's Broth (*pictured right*) won the People's Choice Award of $3,500 for its protein-boosted hot beverages, such as hot chocolate and coffees, that incorporate bone broth.

The prize came at a perfect time for Cropinno (*pictured left*), which used the funds as a matching contribution for a grant program called the i.d.e.a. Fund. This strategic alignment significantly boosted the young company's momentum and allowed it to achieve some essential milestones. Cropinno was able to enhance regulatory compliance, streamline technology upgrades and improve system performance and scalability. Winning the competition and attending the summit also offered increased visibility and validation, which in turn fostered new connections and opened doors to growth opportunities.

AWARDS

Awarded annually since 2018, the Arrell Global Food Innovation Awards consist of two prizes of $100,000 which are given to global recipients to recognize their impact and leadership in two categories: research impact and community engagement.

AWARDS

2024 Winner Update: UpTrade

When UpTrade won the Arrell Global Food Innovation Award for Community Engagement in 2024, the founders knew the $100,000 would go a long way. What they didn't expect was how the recognition itself would fuel them to go even further.

UpTrade enables smallholder farmers to trade their livestock for farm inputs like fertilizer and seeds, solar water pumps and microgrids.

Over the last year, UpTrade has scaled in Kenya, where they are partnering with local organization Nuru Kenya to pilot a community solar water pump in Barringo County. With the first Kenyan community project well underway, the team is securing capital to expand to 10 other pilot villages and beyond – a move that has the potential to bring clean water, lighting and electricity, and sustainable farm inputs to over 4,500 households.

In their home country of Pakistan, the UpTrade team was able to hire additional staff, explore the feasibility of expanding their business model to include crops as well as livestock, and expand to additional regions – working with over 100,000 farmers so far.

"As a company that has bootstrapped its way to where we are now, every dollar has had to be carefully allocated. The Arrell Award gave us the bravery to experiment and do the things we couldn't do before ... and helped us to build our reputation along the food value chain."

—Fariel Salahuddin, UpTrade CEO and founder

AWARDS

2025 Winner: MAMLO FOODS

The 2025 Arrell Global Food Innovation Award for Community Engagement recognizes MAMLO FOODS, a women-led social enterprise creating a blueprint for localized food systems in Africa. Founded by Irene Etyang, MAMLO is addressing the social, nutritional and economic challenges that shape food insecurity while placing women farmers at the centre of the solution.

At the heart of MAMLO's approach is its micro-factory model, which decentralizes food processing and builds hubs of innovation in rural areas. More than 550 smallholder farmers, 70% of them women, have already been supported through improved farming practices, better post-harvest handling, and expanded access to markets. In just two years, this work has resulted in more stable incomes, greater food security, and a shift in agency for women who are now recognized as skilled producers and decision-makers in their households and communities.

MAMLO's signature product, a nutrient-rich peanut butter, is produced and sold locally, ensuring healthy foods remain within communities while also strengthening rural economies. By shortening the food value chain, MAMLO demonstrates how small-scale innovations can have large-scale impact when rooted in equity and sustainability.

Beyond its products, MAMLO is influencing agricultural and policy reform in Kenya and across Africa. By combining community engagement with bold, women-led leadership, the enterprise is reimagining food systems not only as a means of nourishment, but as engines of equity, resilience and long-term sustainability.

EDUCATION

Highlighting Our Scholars

Our commitment to innovative agri-food education continues to flourish. This past year, we've expanded our reach through new partnerships, deepened our understanding of student experiences, and celebrated the achievements of our AFI Scholars. We are proud to highlight the ways in which we're shaping the future of agri-food.

Incoming Scholars

Manahil Zaid, Family Relations & Applied Nutrition

Manahil's research aims to encourage greater consumption of plant-based foods to reduce the environmental impact of our food system while simultaneously improving population health.

Luca Galler, Environmental Sciences

Luca's research aims to ensure all communities, especially those of historically marginalized groups, have access to nourishing food that aligns with their needs, values and sovereignty.

Ekow Ashun-Stone, Geography, Environment & Geomatics

Ekow's research aims to increase the production and accessibility of ethno-cultural vegetables in ways that promote equity, sustainability and regional food system resilience.

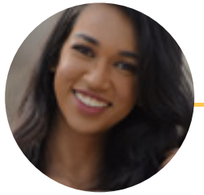
Graduating Scholars

Dakota Cherry, MSc, Family Relations & Human Development

Katherine Eckert, Ph.D., Department of Family Relations & Applied Nutrition

Margarita Fontecha, Ph.D. Environmental Design & Rural Development

Jessica Castellanos-Labarcena, Ph.D., Integrated Biology



Maleeka Singh, Ph.D. Food Science

Scholars Starting Graduate Programs

Giselle Schmitz, Geography, Environment & Geomatics

An Sakai, Geography, Environment & Geomatics

Alicia Bohren, Animal Biosciences

SUMMIT

Fuelling Innovation Through Food

The 2024 Arrell Food Summit, Fuelling Innovation Through Food, took place on October 16th and was FAO's Official North American World Food Day 2024 event in partnership with Food Tank. We were privileged to host food system experts from diverse sectors, all coming together to tackle the pressing challenges facing our global food systems. The day was filled with insightful discussions, meaningful connections, and valuable takeaways that guide future efforts to create more sustainable, equitable and resilient food systems.

Some key takeaways from the event include the rise of food insecurity, the importance of using local solutions to solve global problems, the need to invest in the next generation, the necessity of an equitable food system that includes marginalized voices, and the power of collective action for lasting change. The summit's goal was to fuel innovation through food, and to guide future efforts toward creating more sustainable, equitable and resilient food systems.

BY THE NUMBERS

Our Impact in Focus

Top Viewed Pages

1. AFI Global Food Innovation Awards
2. Scholars
3. Home
4. Summit
5. Feeding the Future

104,799
website views

26K+
engagements

35+
partners engaged

45
Chair publications

161.5%
increase in social engagement

23
Scholar publications

236K+
unique impressions

1366
increase in net social followers

747k+
Website views since 2017

AFI PEOPLE

Director

Evan Fraser

Chairs

Maria Corradini, Arrell Chair in Food Quality
Sara Edge, Arrell Chair in Food, Policy and Society
Tongzhe Li, Arrell Chair in Behavioural and Experimental Economics
Sadaf Mollaei, Arrell Chair in the Business of Food

Staff

Nina Berry, Finance Manager
Tenille Bonoguore, Strategic Initiatives Lead starting May 2025
Rosemary Brockett, Knowledge Mobilization Coordinator
Jac Carson, Project Outreach & Communications Coordinator
Pauline Cripps, Community Food Lead
Brooke Dietrich, Communications Coordinator
Erin Doherty, Strategic Initiatives Lead until December 2024
Ann Kraus, Project Coordinator
Janice LeBoeuf, Strategic Initiatives Coordinator
Aaron Misener, Communications Manager
Shelley Morrison, Project Manager
Muriel O'Doherty, Events Manager
Jeanna Rex, Education Lead
Sweni Sabaratnam, Administrative Officer
Alex Sawatsky, Creative Advisor
Elizabeth Shantz, Knowledge Mobilization Manager
Alice Tamblyn (Raine), Director of Operations
Melissa Watkins, Project Director
Manahil Zaid, Communications Coordinator until August 2025

Scholars

Chinaza Arinzechukwu
Alicia Bohren
Jessica Castellanos Labarcena
Dakota Cherry
Katherine Eckert
Maria Margarita Fontecha
M Manjurul Islam
Ngwenyi Anna Mafor
Khamshajini Raveenthiran
An Sakai
Zahra Saghafi
Giselle Schmitz
Maleeka Singh
Olivia Willoughby

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