

# FAI NEWSLETTER

Seasonal Newsletter of the Food and Agriculture Institute

Tang, J [photographer], 2019



## FAI to explore salad diversity as part of industry-funded vertical agriculture work

Tired of the same old leafy greens? Dr. Newman will be researching the history and diversity of the world's lettuce cultivars as part of a project for a vertical agriculture industry partner. She will be seeking out the most interesting lettuces from around the world drawing upon hundreds of year's worth of plant breeding. Some cultivars (CULTivated VARIeties) have enhanced nutritional profile, and unique colours and flavours. Lenore's lettuce hunt will begin in September and continue through the fall and early winter.

Pictured above is an indoor lettuce production, growing well under a mix of blue and red light.



## Minister of Agriculture and Food and MLA visit the FAI office

The Honorable Pam Alexis, Minister of Agriculture and Food and MLA for Abbotsford-Mission, and Kevin Falcon, Official Opposition Leader for the BC United Party and MLA for Vancouver-Quilchena both visited the FAI's office space this spring. Meetings with these politicians show their awareness of the need to develop a resilient and reliable food system and food security across the Fraser Valley and across BC. These politicians were highly engaged, asked thoughtful questions, and showed proactive initiative. We look forward to future opportunities and collaborations.



Above: Alex Glaros, Stefania Pizzirani, James Mandigo, Lenore Newman, Charmaine White with Minister Pam Alexis in the FAI office May 2023

Collectively, the FAI team is grateful to both live and work on the unceded, ancestral, and traditional territory of the Stó:lō.

## Two-year Future Skills Centre Grant Research Project Wraps Up

This summer the FAI's team of researchers officially wrapped up a two-year project funded by the [Future Skills Centre](#). This research investigated the potential role of cellular agriculture in local and regional food systems. In June 2023, the final report was published entitled *The Role of Cellular Agriculture in Sustainable, Resilient and Just Food Systems: An Action Agenda* and captures key learnings from collaborators and participants involved in the research and industry. To find out more about this project and read its related articles and publications go to the FAI's Local Cellular Agriculture page [here](#).

## Masters Student Thesis Looks at *Controlled Environment Agriculture vs. Conventional Agriculture: The Break-Even Point*

Fergus Crawford is a Masters of Science In Environment and Management student, supervised by Lenore Newman (Director of the FAI), and Robert Newell (previous Associate Director of the FAI). Crawford submitted his [thesis paper](#) comparing travel emissions from agriculture against the production emissions of locally grown produce in a vertical farm, using the data from production and overlaying it against the energy grid composition and Global Warming Potential of six major cities/ provinces. The study assessed the feasibility of vertical agriculture in Canada as a whole versus the conventional approach of shipping produce from major agricultural hubs. The paper found that vertical farming was more environmentally beneficial in four out of the six studied cities than the conventional approach. An economic analysis also found that many of the places where vertical farming made sense environmentally, it also made sense economically.



## Recent Publications

Glaros, A., Newell, R., & Pizzirani, S. (2023 July). [Scenarios for vertical agriculture development in the Lower Mainland, British Columbia.](#)

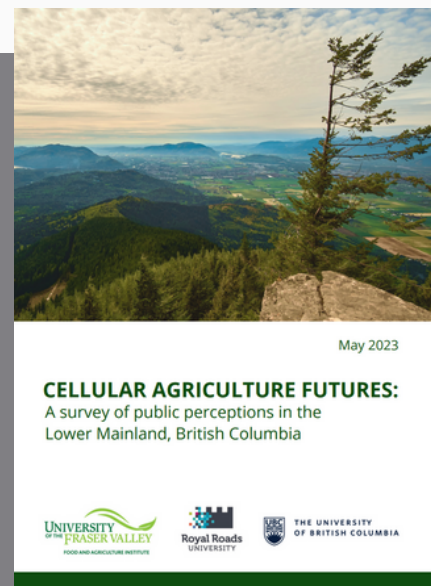
Newell, R., Glaros, A., Pizzirani, S., & Newman, L. (2023 June). [The Role of Cellular Agriculture in Sustainable, Resilient and Just Food Systems: An Action Agenda.](#)

Glaros, A., Newell, R., Ruder, S-L., Mukiri, J., & Pizzirani, S. (2023 May). [Cellular Agriculture Futures: A survey of public perceptions in the Lower Mainland, British Columbia.](#)

Pizzirani, S., Newell, R., Glaros, A., Rahman, S., & Newman, L. (2023 April). Vertical Farming Innovation: [Improving Food Security & Conserving Biodiversity. Amplify Magazine.](#)

Powell, L., Mendly-Zambo, Z., & Newman, L. (2023 April). Perceptions and acceptance of yeast-derived dairy in British Columbia, Canada. *Frontiers Sustainable Food Systems*. 7. <https://doi.org/10.3389/fsufs.2023.1127652>

Newman, L., Newell, R., Dring, C., Glaros, A., Fraser, E., Mendly-Zambo, Z., Green, A. G., & KC, K. B. (2023 March). Agriculture for the Anthropocene: novel applications of technology and the future of food. *Food Security*. <https://doi.org/10.1007/s12571-023-01356-6>



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**CELLULAR AGRICULTURE FUTURES:**  
A survey of public perceptions in the  
Lower Mainland, British Columbia

