Unlocking the Potential of Insects for Food, Feed and Fertilizer

Insect Farming: Addressing Global Challenges

The interest in insect agriculture is growing rapidly, capturing attention in both research and industry. Given the remarkable potential that insects offer in tackling some of today's most pressing challenges related to food security, climate change, environmental sustainability and agrifood system circularity, this attention is well-deserved. In fact, the FAO recognized this potential as far back as 2013.

Canada's Pioneering Efforts

In Canada, we are at the forefront of this transformative movement. In 2022, Natural Products Canada identified over 30 companies actively involved in insect farming and has played a pivotal role in identifying emerging trends and addressing evolving industry needs. Notably, in regions like Quebec, organizations such as La Table Filière des Insectes Comestibles (TFIC) are fostering industry growth and development, creating a dynamic ecosystem and enabling environment for insect cultivation and bioconversion of organic waste.

The Power of Collaboration

The production of insects on an industrial scale for food, feed, and fertilizer is still in its infancy, both in Canada and globally. That is why it is crucial to encourage and support extensive research through a harmonious partnership between industry leaders, academia, government, and pioneering researchers. Together, we can drive innovation, create sustainable practices, and explore the full potential of sustainably produced insects.



-Edible Insects Market Analysis 2020–2026|Industry Forecasts. Available online: https://www.gminsights.com/industry-analysis/edible-insects-market (accessed on 16 November 2021). -Natural Products Canada. (2022). Game Changers: Canadian movers and shakers in the burgeoning industry of insects as food and feed. https://www.naturalproductscanada.com/en/npc-releases-first-of-its-kind-report-on-canadas-insect-agriculture-industry/ -Larouche, J., Campbell, B., Hénault-Éthier, L., Banks, I. J., Tomberlin, J. K., Preyer, C., ... & Vandenberg, G. W. (2023). The edible insect sector in Canada and the United States. Animal Frontiers, 13(4), 16-25.



Canadian Research Network of Insects for Food, Feed and Fertilizer CARNIF³.

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A Billion-Dollar Opportunity

By 2026, the global market for insects as food, feed, and fertilizer is projected to surpass an astounding \$1.5 billion. This figure reflects the enormous potential for growth and innovation within the insect agriculture sector. These developments can lead to the creation of new jobs, economic opportunities, waste reduction, and the generation of value from organic waste, all while contributing to a decrease in greenhouse gas emissions.

Shaping Tomorrow's Regulations Today

Industrial insect production spans three heavily regulated sectors: human food, animal feed, and agricultural biofertilizers. While some baseline regulations exist for insects within these sectors, the regulatory frameworks continue to evolve both in Canada and internationally. As you read this, new rules and standards are taking shape. To ensure the industry's prosperity and the well-being of all involved (ex. job creation and environmental benefits), it is imperative that we gather and generate data to substantiate the development of effective, flexible, and equitable regulations.

Mission: Transforming the Insect Farming Landscape for Circular Economy

Our mission is to unlock the extraordinary potential of insects in addressing Canadian and global challenges. Whether you're a researcher, an industry expert or a government stakeholder, your role is vital. Together, we can revolutionize the edible insect landscape, shaping a more sustainable and resilient future for all.



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