

Mushroom Official Publication of the Canadian Mushroom Growers' Association

Volume 34, Issue 1

March 2023

features

| 0 |) 6 | Invitation to the Mushrooms | Canada | AGM |
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- **07** Windmill Farms Expands to the United States
- The Mushroom Blog: Mould Origins

 Mark den Ouden, Mushroom Office
- **9** Emerging Ag Workforce Issues Update Janet Krayden
- Highline Welcomes Sumitomo President & CEO, Mr. Masayuki Hyodo
- On a Mission to Transform the Harvesting of Agaricus Bisporus Rob Snowden, Techbrew Robotics Inc.
- **17** 2024 NAMC Sponsorship Details
- Vineland Research and Innovation Centre Announces Mushroom Harvesting Technology Transfer to Canadian-Based Mycionics Inc. Vineland Research & Innovation Centre
- **20** Promotions At-A-Glance Social Media Update *Brittany Stager*
- 21 Activities Snapshot Mushrooms Canada Website Redesign Marianne Muth

departments

- O4 President's Message Mike Medeiros
- 05 Executive Vice-President's Message Ryan Koeslag
- 27 Advertisers and Coming Events



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Mushroom World is published quarterly by the Canadian Mushroom Growers' Association, 60 Elora Street South, Harriston, ON, NOG 1Z0. (Tel: 519-510-8888)

Annual Subscription Rate C\$125 (+\$16.25 HST) per year for non-members, included in dues for members. Advertising rates available on request.

^{*}Cover image features the September 2022 Creamy Mushroom and Gouda Crepes Blog Post from mushrooms.ca by Sweetsugarbean





Thank you, Mushrooms
Canada, for approving
our application to join!
You're likely curious why
a robotics' integrator
from Salmon Arm, BC
would seek membership? Whether it is helping growers increase
production or helping
harvesters realize more

satisfaction in their jobs or helping owners improve the bottom line, Techbrew Robotics and our mushroom harvesting robots are here to help.

The word "robot" first appeared in 1921 and originates from the Czech word "robota", meaning arduous work, drudgery, servitude or forced labour. Over the last 100 years, robots have increasingly been designed to automate repetitive tasks and at their most basic can be described as "cool technology doing uncool things". As far as we're concerned, if a task does not depend on human creativity or interpersonal skills, then it is a candidate for robotic automation. For over 20 years, we've been designing and building vision-guided, robotic systems to automate repetitive tasks in our client's industrial, food-safe environments.

We were curious, why was mushroom harvesting still a human endeavour in the 21st century? After speaking with some of the largest mushroom producers in Canada and Europe, the feedback was that machines struggle to find the right mushroom

to pick and then struggle further to pick it without damaging it. Challenge accepted. Within 8 months of embracing our most challenging opportunity to-date, we were able to prove on-farm that our robots could use machine vision to find just the right mushroom to pick and pick it without damage. Little did we know or appreciate, our journey into the mushroom world was just beginning...

Fast forward 3.5 years and millions of dollars in research and funding later and our robots are now capable of picking, trimming, and packaging upwards of 70 pounds of mushrooms per hour, 24 hours/day. We've shown growers, time and again, that by graze harvesting through both flushes with our robots they can potentially expect a 15-20% yield improvement from their growing beds.

To be clear, we did not design our mushroom harvesting robots to replace all human harvesters. Rather, we believe that by using our robots to automate the somewhat monotonous and dirty elements of the job, it will dramatically improve the quality of workers' lives. In short, we're advocates for co-robotics where humans leverage the power of robotics to make their jobs safer and more rewarding.

As a proud Canadian company, we're committed to proving our robots on Canadian mushroom farms, prior to expanding internationally. If your mushroom farm is looking to compliment the Temporary Foreign Worker program and/or is looking to modernize operations, we look forward to working with you to maximize your return on investment.

Visit techbrew.com for more information.