



 plant
futures™

California Farms

Plant Futures Challenge Lab

Case Study

plantfuturesinitiative.org



Challenge Description

This challenge involved determining how to effectively create mass consumer adoption of an emerging mushroom and fungi ingredient platform in order to help address major global issues and drive more systemic change towards a plant-based food and fiber supply. Students were involved in coming up with strategies for commercial positioning and communication memes that could leap forward rapid interest and adoption of the nutrient rich products from this emerging major food and fundamental class of lifeforms. This process included navigating regulatory challenges regarding claims associated with these ingredients that are both a culinary food as well as a source of demonstrable medicinal qualities.

A primary challenge faced by the cohort was to overcome past stereotypes around mushrooms including taste, texture, and countercultural associations.

The challenge also involved examining existing farming models and solving for gaps or pricing obstacles in the way of assuring supply chain quality and reliability. The goal of this part of the challenge was to create a more sustainable organically-sourced industrial ecology model for mushroom and fungi farming and processing. Califia asked that students explore the possibility of novel products that would help lay out the opportunities for attracting investors for building the infrastructure of a new domestic supply chain model that might also include suggested research approaches and starting points, innovative processing (e.g. fermentation), and raw material or extract uses such as proteins, adaptogenic nutraceuticals, concentrated medicinal ingredients, sustainable 'mycotectural' building and plastic replacement products, 'mushroom leather' fabrics, as well as environmental remediation and de-toxification.

Deliverables & Evaluation

- Students were expected to produce a report and short business plan to include: a condensed set of recommendations for immediate implementation into the marketing programs for Califia Farms or other plant based brands; main messaging themes and approaches; consumer perception reports; segmentation analysis and approach to influencing and co-creating interest within relevant segments; suggested communication partners; platforms and staged channel engagement.
- As a second output, a ‘systems map’ of the emerging fungal foods platform was produced to map current and potential raw and processed material flows and balances as well as second order effects. This mapping identified both traditional and emergent players, competitors with an eye to facilitating and opening new opportunities for partnerships, alliances, and investment as outlined in the following: “The amazing potential of fungi: 50 ways we can exploit fungi industrially”.
- The greater vision for the project was for its outputs and process to be a real ‘unlock’ on the road for mushrooms and fungi to play a larger-scale and much more impactful role in the transition to a more regenerative ‘plant-based’ food system and economy contributing to the supremacy of healthy planetary ecosystems.
- Students had the opportunity to not just learn more about the plant-based foods sector and food systems entrepreneurship, but have a chance to make a material impact on a potential new commercial product launch as well as stimulate new business development and investment decisions.
- In addition to publishing publicly available report outputs to contribute to the bioeconomy sector and global mycological network, students developed a relationship with the company/organization via interactions with key senior executives and other marketing or supply chain experts that gave them a ‘full immersion’ experience vs abstract learning and lead to further commercial projects, employment, or new enterprise formation.

About the Plant Futures Challenge Lab



Our program welcomes undergraduate to PhD students from diverse disciplines who work collaboratively with selected partners from various for-profit and nonprofit companies. Students are paired with organizations based on their skills, passions, and experiences and work to address the real-time needs of these organizations while gaining invaluable real-world experience.

Through a careful application process, working closely with recommendation from faculty advisors and student ambassadors, Plant Futures invites the most talented and motivated cohort of students with a variety of skill sets, experiences, expertise, and the passion to work with our partners. Both students and Challenge Lab mentors consistently reported the interdisciplinary design of the course to be one of the most valuable components of their Challenge Lab experience.

The Plant Futures Challenge Lab is a unique university course that equips students with applied learning experiences in the plant-based food and agriculture sectors.

plantfuturesinitiative.org