

CropSMARTS – Web and Mobile Application to Support Commercial Mushroom Agriculture

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Application designed to support commercial mushroom agriculture operations.

Technology Summary

CropSMARTS presents a modernized approach to commercial mushroom agriculture. At its core, it features a user-friendly web application for farm managers and a seamlessly integrated mobile counterpart for on-ground workers. These platforms facilitate efficient data capture and management throughout the crop cycle, replacing traditional manual methods. By leveraging commercial-off-the-shelf sensor technologies, CropSMARTS automates the collection of vital metrics like air temperature, humidity, and CO2 levels within growing rooms, enhancing accuracy and efficiency. In addition to data aggregation, CropSMARTS provides users with advanced analytical capabilities, insightful reporting functionalities, and visually engaging crop performance visualizations. The incorporation of data analytics, machine learning, and artificial intelligence further enhances decision-making in farm management.

Application & Market Utility

Mushroom farming relies heavily on understanding environmental factors like temperature, humidity, and compost conditions for successful crop yields. However, the industry still largely uses manual data collection methods such as pen and paper for keeping track of this crucial data, which doesn't give the detailed insights needed for informed decision-making. Through working closely with mushroom growers, it's clear there's a real need for new technology to help fill this gap.

Next Steps

The inventors believe that CropSMARTS represents a significant advancement in mushroom agriculture. This could potentially be adapted to support other types of controlled-environment agriculture.

TECHNOLOGY READINESS LEVEL

6-7

Seeking

Licensing |

Keywords

- Mushroom Agriculture
- Operations Dashboard
- Advanced Analytics
- Sensor Integration
- Data-driven Decision Making

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