

Smart Container Farming: Innovative Urban Strawberry Farming Model from Japan to the World

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Abstract : This research investigates the transformative potential of smart container farming, building upon the successful cultivation of Japanese mushrooms at Sakai Farms in Aichi Prefecture, Japan, under the strategic collaboration with the Daikei Group. Inspired by this success, the study focuses on establishing an advanced urban strawberry farming laboratory with the aim of understanding strawberry farming technologies, fostering collaboration, and strategizing marketing approaches for both local and global markets. Positioned within the business framework of Sakai Farms and the Daikei Group, the study underscores the sustainability and forward-looking solutions offered by smart container farming in agriculture. The global significance of strawberries is emphasized, acknowledging their economic and cultural importance. The detailed examination of strawberry farming intricacies informs the technological framework developed for smart containers, implemented at Sakai Farms. Integral to this research is the incorporation of controlled bee pollination, a groundbreaking addition to the smart container farming model. The study anticipates future trends, outlining avenues for continuing exploration, stakeholder collaborations, policy considerations, and expansion strategies. Notably, the author expresses a strategic intent to approach the global market, leveraging the foreign student/faculty base at Ritsumeikan Asia Pacific University, where the author is affiliated. This unique approach aims to disseminate the research findings globally, contributing to the broader landscape of agricultural innovation. The integration of controlled bee pollination within this innovative framework not only enhances sustainability but also marks a significant stride in the evolution of urban agriculture, aligning with global agricultural trends.

Keywords : smart container farming, urban agriculture, strawberry farming technologies, controlled bee pollination, agricultural innovation

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