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(54) Title of the invention : MUSHROOM GROWTH MANAGEMENT SYSTEM

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(57) Abstract :

A mushroom growth management system, comprising a user interface within a computing unit, enabling users to specify mushroom types to be cultivated, a microcontroller wirelessly linked to the computing unit processes these commands and retrieves raw materials from storage chambers 202 for substrate preparation, electronic valve 203 dispense these materials into a container 204, followed by heating to eliminate pathogens, electronic sprayers 207 deliver nutrient solutions to plantation bags, reflective mirrors 102 and LED lights 210 provide optimal lighting, phase change material plates 211 create temperature zones based on mushroom types detected by an AI-based imaging unit 212, reflective sheets 213 enhance light concentration through motorized hinge 214, temperature and humidity sensors maintain ideal growing conditions by activating ventilation unit 215 and humidifier 217 as needed and a CO2 sensor monitors levels and opens a vent 104 to dissipate excess CO2.

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