INDOOR SMART GARDEN AS A FACTOR OF SUSTAINABLE DEVELOPMENT IN AGRICULTURE[1]

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Abstract

The rapid growth of the global population and increasing environmental concerns have heightened the need for sustainable agricultural practices. The emergence of indoor smart gardens, integrating advanced technologies in controlled environments, offers promising solutions for sustainable development in agriculture. This paper aims to explore the role of indoor smart gardens as a factor of sustainable agricultural development. By employing a systematic literature review approach, we analyze the benefits and challenges associated with these systems. Indoor smart gardens provide optimized growing conditions, overcoming limitations imposed by external factors. The integration of smart technologies, such as IoT devices, sensors, automation, and data analytics, enables precise control over environmental parameters, resulting in enhanced resource efficiency and reduced environmental impact. This study contributes to the ongoing discourse on sustainable agriculture by highlighting the potential of indoor smart gardens in achieving sustainable development goals and fostering resource-efficient agricultural practices.

Key words: *Indoor smart garden, sustainable development, agriculture, controlled environment, resource efficiency, smart technologies.*

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