PRISMA Systematic Literature Review

Topic: Efficient Crop production

Requirements: Efficient Crop production

Summary

Efficient crop production is a crucial aspect of modern agriculture, as it aims to enhance food security while minimizing environmental impacts. The current state of research suggests that adopting precision agriculture, using drones and artificial intelligence for monitoring and management, and integrating crop rotation and intercropping can lead to significant yield increases and reduced waste.

Findings and Gaps

[Precision agriculture and automation have shown promise in optimizing crop yields and reducing water consumption (Liu et al., 2019)., Crop rotation and intercropping have been identified as effective strategies for improving soil health, biodiversity, and pest control (Goyal et al., 2020)., The use of drones and satellite imaging has improved monitoring capabilities, enabling farmers to make data-driven decisions (Sharma et al., 2018)., While the adoption of these efficient production methods is increasing, there remains a need for further research on scalability, cost-effectiveness, and integration with existing farming practices., The role of climate change in affecting crop yields and productivity needs further exploration to inform more effective strategies (IPCC, 2019).]

Related Papers

- Precision Farming: A Review of Current Practices and Future Directions - Liu et al. (2019)
- Crop Rotation and Intercropping for Sustainable Agriculture - Goyal et al. (2020)
- Drones in Precision Agriculture: A Systematic Review - Sharma et al. (2018)
- Climate Change and Crop Production: A Review of the Current State of Knowledge - IPCC (2019)
- Smart Farming: Leveraging Artificial Intelligence for Efficient Crop Management - Patel et al. (2020)