IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.301
Volume 3, Issue 2, December 2023

Secure and Efficient Crop Tracking in Agriculture using Block chain

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Abstract: *Crop tracking and traceability are crucial aspects of the modern agriculture supply chain, ensuring the safety and authenticity of products for consumers while improving efficiency and reducing waste. This paper presents a secure and efficient solution for crop tracking in agriculture by leveraging blockchain technology. The proposed system employs distributed ledger technology to record and verify the journey of crops from the field to the consumer, enhancing transparency and accountability. We explore the integration of smart contracts to automate key supply chain processes, such as quality assessment and payment settlement. Our solution not only strengthens the security of crop data but also streamlines the supply chain, reducing administrative overhead. We demonstrate the feasibility of our approach through a practical implementation, highlighting the benefits of blockchain in agriculture supply chain management.*

Keywords: Blockchain, Crop tracking,Agriculture supply chain, Traceability, Smart contracts, Security, Efficiency, Transparency, Accountability, Distributed ledger technology.

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