

# Farmer Supply Chain Using Blockchain

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**Abstract:** *Agriculture is one of the most vital sectors of the global economy, yet the agricultural supply chain suffers from inefficiencies, lack of transparency, and fraud, which reduce profits for farmers and affect consumers. Traditional systems involve multiple intermediaries, making product origin difficult to verify and data prone to manipulation. This paper proposes a **blockchain-based agricultural supply chain system** using a **C# desktop application**. By recording every transaction in an immutable ledger, the system ensures **transparency, security, and traceability** from farm to consumer. This approach minimizes middlemen, prevents data tampering, and builds trust among all stakeholders. The proposed system also enables **product verification** for consumers and fair compensation for farmers.*

**Keywords:** Blockchain, Ledger, Supply chain, Farming, Logistics

