What is the problem?

- Traceability requires third party validation
- A poor farmer will have to rely on an intermediary
- This creates an inequitable scenarios
- Most corporates end up making the major share of the profit because their brand drives the messaging that they do

What is Blockchain ?

An Immutable ledger which is decentralized

Not owned by a corporation

All data is recorded as transactions

These transactions ensure the integrity of the data by cryptographic methods

How is technology setup currently?

- Technology is mostly owned by organizations
- Organizations maintain and control their databases
- This database can easily be manipulated
- This database is opaque to the end user

Tracing and Traceability of Food Supply Chain

Future Work

Do an agent-based simulation and
- Inform the ways decentralization will work in this scenario
- Build new knowledge that can be verified by empirical

What is the research statement

Develop a Blockchain based solution for food traceability

How do we achieve this?

- **Tokenize** • Tokenize the crop
- **Ensure** • Ensure soil data by IOT (Internet of things) device
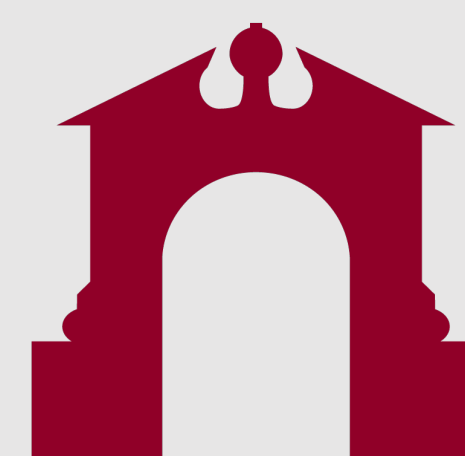- **Store** • Store the IOT device data in regular intervals
- **Add** • At the end of harvesting add a consolidated data of the soil to the crop's token
- **Attach** • Attach data on other soil nourishments (Bio products on the produce and water

Research framework

1 Use a simulation agent-based model in Netlogo

2 The objective is to simplify the field study by doing a simulation

3 Change soil parameters and use interventions by farmers for traceability solution

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