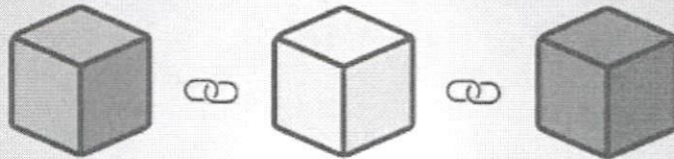


HBI 9-1247: STUDY AGRICULTURAL APPLICATIONS FOR BLOCKCHAIN

Concerning a study by the commissioner of agriculture on the potential applications for blockchain technology in agricultural operations.

Sponsored by: Rep. D. Valdez and Rep. Catlin

WHAT IS BLOCKCHAIN AND HOW DOES IT WORK?



Blockchain

— *Simply explained* —

HOW CAN BLOCKCHAIN BE USED IN AGRICULTURE?

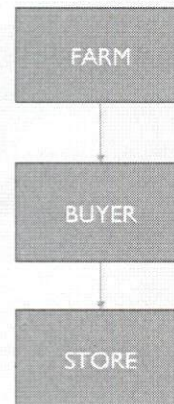
I. A SINGLE SOURCE OF DATA

- Blockchain provides a single source of truth about the state of a farm, it's inventory, and it's contracts
- Many farmers employ various different types of record keeping
- Blockchain minimizes the strain of record-keeping ultimately saving time and energy
- Blockchain is an ultra-secure ledger and the transactions within cannot be easily tampered with or hacked

HOW CAN BLOCKCHAIN BE USED IN AGRICULTURE?

2. TRACEABILITY AND TRANSPARENCY

- Blockchain allows for the traceability and transparency
- A blockchain ledger could record and update the status of crops from planting to harvest to storage to delivery
- Allows growers to meet regulatory compliance and consumer expectations
- As organic products become more popular blockchain can be used to prove actual organic status
- Allows growers to access and track detailed records



HOW CAN BLOCKCHAIN BE USED IN AGRICULTURE? 3. FOOD SAFETY

- There have been many recent outbreaks of foodborne illnesses
- With blockchain a source can be quickly identified in the event of an outbreak
- This could save time, money, and lives
- After the E. Coli outbreak in romaine lettuce Walmart is now requiring all romaine lettuce providers to upload their data to the blockchain by September 2019
- By placing a supply chain onto the blockchain, it makes the process more traceable, transparent, and fully digital
- Each block on the blockchain represents an entity that has handled the food before it came to the store, this makes it easier and faster to identify which farm sold the infected food to a particular location
- Rather than days, pinpointing an outbreak could take mere minutes

SO WHAT DOES HB19-1247 DO?

- This bill looks to direct the Commissioner of Agriculture to convene an advisory group to conduct a study on the potential applications for blockchain technology in agricultural operations
- This bill is just the first step in exploring how blockchain can be used to benefit agriculture and other industries like it
- According to NCSL, five states- Arizona, Delaware, Illinois, Nevada, and Vermont have enacted blockchain legislation
- The World Economic Forum estimates that 10% of the global GDP will be stored on blockchain technology by 2027
- It is time for Colorado to come to the forefront in researching how this technology can work to impact one of its most important industries, agriculture