A MATTER OF TRUST

• Blockchain technology allows for a quick implementation of a system which is high reliability, redundant, and provides a traceable record of information. Hemp seed growers would add their hemp seed crops to the blockchain by uploading characteristic data and adding appropriate markers for tests performed throughout the production. This produces a reliable record of the product. Through transport, the seed continues to be tracked through the blockchain, possibly including additional testing or regulatory oversight. When the seed finally arrives to the hemp grower, it is trivial to prove a detailed manifests of the seed's history.

ULTIMATE ACCOUNTABILITY

 Blockchain provides a number of benefits. First, every seed crop is validated by a high number of peers which allow for a high degree of accountability at each stage of the production process. Second, no one individual has control over the data so there is a highly reduced chance for contamination of the data through mistaken or malicious modification. Third, the data is stored in a standardized format for eternity and can be easily retrieved in that same format for use by growers and government agencies. These advantages provide a convincing argument for moving hemp seed tracking to a distributed blockchain solution.



Electrical Engineering and Computer Science

HEMPCHECK: GROW TRACK TRUST

Innovating in the hemp space through novel application of blockchain technology.



Figure 1: A picture of a modern hemp farm.

NEED TO KNOW

- HempCheck was born out of the mind of Jim Cupples, who realized the potential for blockchain solutions in the ag space. Jim envisioned a unified platform to address existing issues within the hemp industry. This idea is what has grown to become HempCheck.
- Finding quality seed stock as a hemp farmer can be difficult. Misrepresentation of hemp seed quality and lineage can lead to the failure of entire crops--a costly consequence. Enter HempCheck: a trustworthy, blockchain platform for purchasing quality hemp seed.

PROTECT THE CONSUMER

• With an indelible transaction history for each crop, the customer can have confidence that they are purchasing exactly what was advertised to them.

• Hyperledger[™] Sawtooth ensures the veracity of all transactions on the network through a combination of input validation and the proof of elapsed time (PoET) consensus algorithm.

• Detailed history for each crop is provisioned to the blockchain including testing results, transportation logs, and OLCC records. High granularity data logging gives peace of mind in knowing the crop's holistic record.







ACKNOWLEDGEMENTS

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