

INTRODUCTION AND BACKGROUND

- Auditing a farm's sustainability practices is a long and difficult process that has where the important data's integrity is at risk at every step.
- Our goal is to ensure the validity of the data from the point where it is gathered, to the point where it's needed for reference.
- We also aim to make the gathering process easier by taking images, and making them available remotely to the certifier.

BLOCKCHAIN

- The blockchain portion of the project is crucial to providing assurance that the imagery is verified.
- Once verified, an image is immediately sent to the blockchain platform VeChain immutably.
- Once on the blockchain, any image can be pulled back up at any time to ensure that that all of the pictures on the website have been verified.

AGCHECK

Using aerial imaging efficiently ensure a farm's sustainability, and blockchain to ensure the image's integrity.



Figure 1: This is an example of drone imagery that was taken to test the workflow of the website and functionality of the blockchain.

ACKNOWLEDGEMENTS

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AERIAL IMAGERY

- Drone image platforms allow data to be collected about farms quickly, and without the need for experienced certifiers to visit the farm in person.

WEBSITE

- A place for drone operators, farm owners and certifiers to utilise the system.
- Drone operators upload images from the flight, and the system uploads them directly to the blockchain and makes them viewable to farm owners.
- Farms review the images and create a submission.
- Certifiers can view submissions, and decide to accept or deny them based on the information and images provided.

IMPORTANCE

Sustainable agriculture methods help keep land healthy, with better soil quality, reduction in soil degradation and erosion, and saves water. These methods also increase biodiversity and reduce energy costs for the production of crops.

With verified sustainable agriculture methods, farms can receive stipends, which makes it especially important verification is top notch.

This project seeks to give verified recognition to farms that utilize these sustainable practices. With it, anyone can view verified imagery from various farms.