### RESEARCHERS NEED A BETTER WAY TO FIND DATA ON CENTURY FARMS

- Our team created a mobile application to help farmers and agricultural researchers reduce the time and effort it takes to locate pertinent climate data and background information regarding Century Farms (farms that has been continuously owned by a single family for over a century).
- The current approach has problems organizing the data under a single application or domain, making the data hard to access. Researchers are having to utilize multiple applications to obtain and interpret data for each farm. The lack of an organized, all-in-one platform makes data analysis more unnecessary difficult once the data is obtained.
- One of the most prevalent tools utilized for obtaining data on century farms is Oregon's Century Farm & Ranch Program (OCFRP), a database containing information provided by Century Farm owners when they apply to obtain the title of Century Farm. This application's antiquated database design makes it difficult for users to find the data they are looking for. Once the data is found, the application also visually displays this data in a poor manner. Farmers and agricultural researchers are looking for an application with a better database and UI design.
- To obtain climate data, researchers have multiple platforms available to them. However, none of these available platforms display climate data alongside century farm data.

## Oregon State University

# SUCCESS STORIES OF RESILIENCE IN THE WILLAMETTE VALLEY

A researcher's all-in-one platform for Century Farm information

#### EASY DATA LOCATING

The mobile application's search functionality allows users to find specific farms based on farm name, county, crop/livestock, or owner.

#### CLIMATE DATA INCLUDED

Our application goes beyond current tools by providing geographic coordinates for each Century Farm and displaying historic weather data directly within the app. No more additional software, numerous web browser tabs, or extra steps.

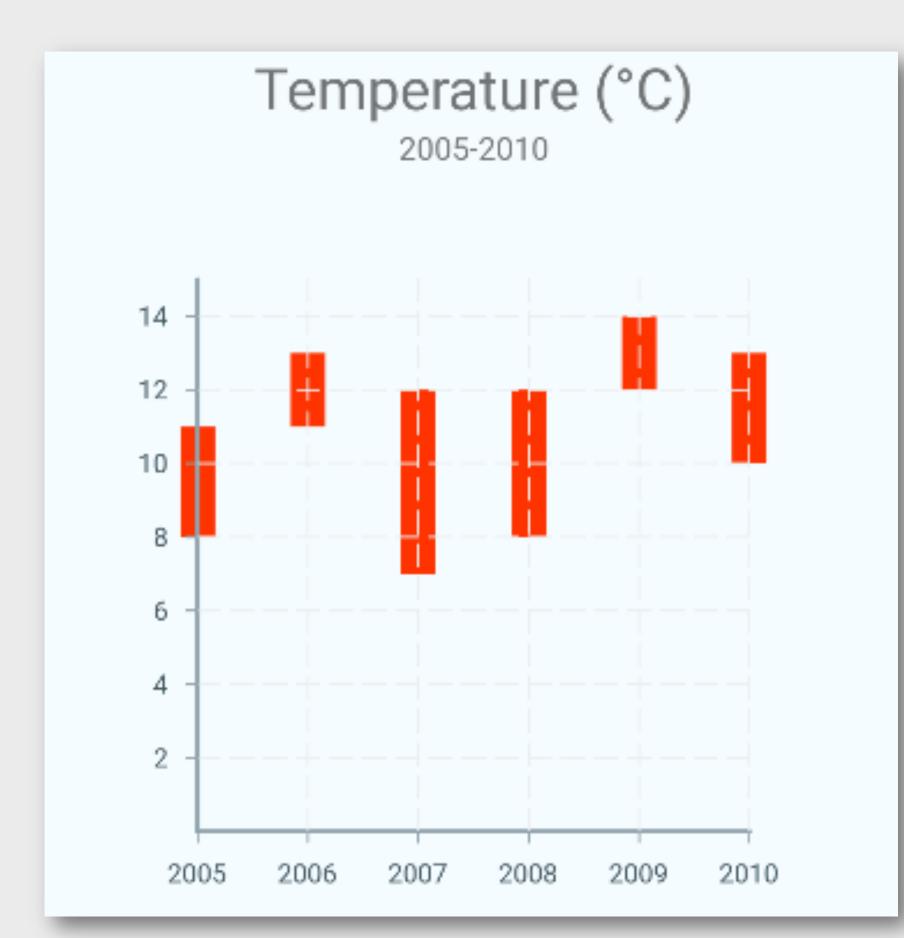


Figure 1: Example of data visualization available in app

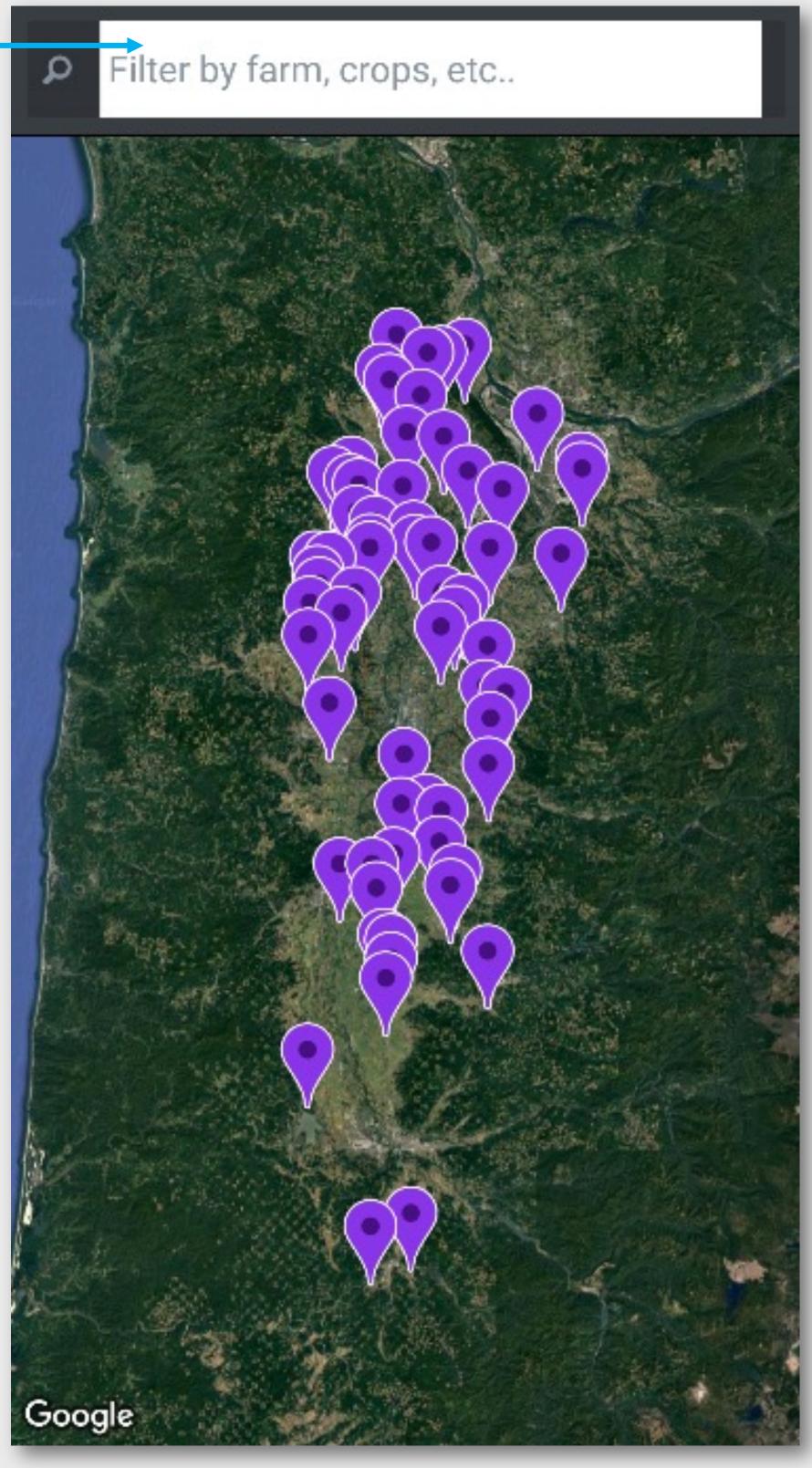


Figure 2: Main App Page

#### UP-TO-DATE LANDSAT DATA

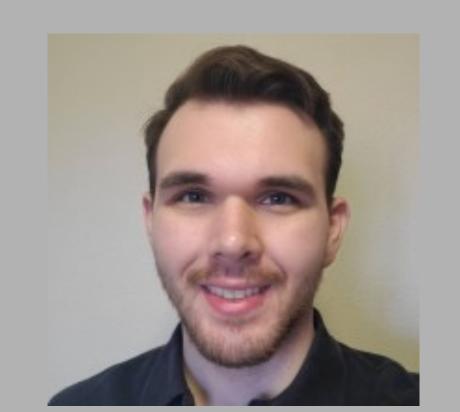
Our mobile application has Google Maps integrated, providing up-to-date satellite imagery. This enables users to geographically locate Century Farms and observe land use.

#### ACKNOWLEDGEMENTS

#### Team members

- Harjasleen Gulati (<u>harjasleen.gulati@gmail.com</u>)
- Kyle Kanwischer
   (<u>kanwischerkyle@gmail.com</u>)





#### Project Partners

- Dr. Dominique Bachelet
   <a href="mailto:dominique.bachelet@oregonstate.edu">(dominique.bachelet@oregonstate.edu</a>)
- Mariah Goldbach (goldbacm@oregonstate.edu)





Our team would like to acknowledge Oregon Century Farm & Ranch Program, Oak Ridge National Laboratory, and Century Farm owners for their provided data.