bridging the gap, harnessing precision tools for integrated pest and disease management options in rice-based cropping systems
Outline of Presentation

1. Why the app?
2. Intended users
3. Tech stack
4. App components: UI components
5. Database design
Why a web app?
is cloud-based

- combining survey and data modelling tools for rice cropping systems monitoring and evaluation
- web portal of data sharing and access, and data product delivery
- act as a one stop shop for researchers in the evaluation of the impacts of practices, changes in managing risks
is scalable

- scalable approach for integration of agricultural data into modelling
- support valuation of the impacts of practices, changes in managing risks
- allows defining domains for high priority risks that require close monitoring
enable digital documentation of data collection, harmonization of data labelling and analysis.

 accelerates information dissemination in the region that supports R&D for rice crop farmers' adaptation to climate variability, and promotion of integrated pest and disease management.
Intended Users

- Researchers
- Farmers
- Simulated data contributors
1.1 MAIN MAP UI
Generates optimum sowing dates for displayed locations, compares actual yield data with simulated data, views simulated data details per location once generated.

1.2 DATA CONTRIBUTOR UI
Adds/edits/deletes simulated data. Needs login and authorization from site admin on certain actions such as deletion of uploaded data.

1.3 SITE ADMIN UI
Authorizes and provides access to potential data contributors.
2.1 API COMPONENT
Links the different UI components with its functionality and to the database and the R scripts that provide information.

2.2 R SCRIPTS
Provide the functionalities specific to data modeling and projection (provided by Ando and her team) such as communicating with NASA Climate API, Disease severity

2.3 DATABASE
Stores the information used in the application, such as yield data and disease index data.
AgPractices & Domains in Action
Optimum Sowing Info

View location data available on the map
Optimum Sowing For Maximum Yield
- January
- November

The site has a yield potential in the dry season ranging from 0 kg/ha to 18021 kg/ha.
Examples of Graphs
Data Comparison

Matching your actual yield vs simulated
The site has a yield potential in the dry season ranging from 0 kg/ha to 18021 kg/ha.
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Yield Evaluation Against Site Potential

The site has a yield potential in the dry season ranging from 0 kg/ha to 18021 kg/ha.
If you give a man a bowl of rice, he'll eat for a day. Teach him how to plant rice, he will eat for a lifetime.

Give him access to scientific data, he will feed the nation for generations.
Why stop at rice?
Do you have any questions?

Send it to us!

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