Australian Government
Department of Agriculture, Fisheries and Forestry

Future Drought Fund

Vic Hub DROUGHT & INNOVATION

VICTORIA DROUGHT RESILIENCE ADOPTION AND INNOVATION HUB

Cross Hub Project:

Modern Drought Management for the Health and Longevity of Perennial Horticulture Plants

Almonds, Citrus and Winegrapes – demonstration sites in four different states

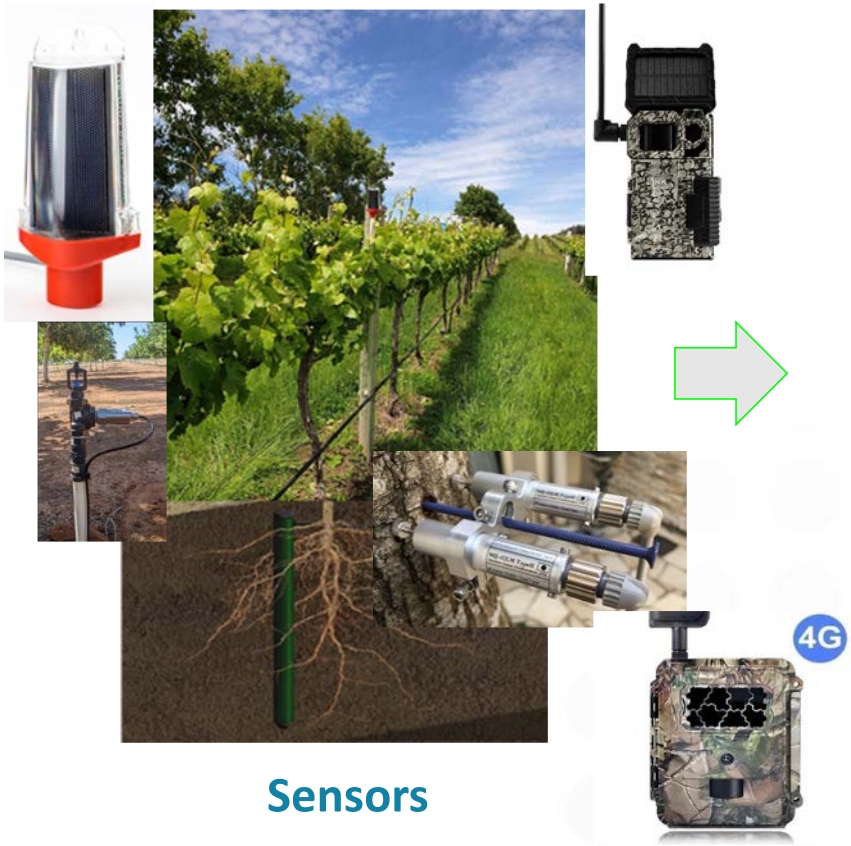
Almonds
Vic, SA

Winegrapes
Tas, SA, NSW, Vic

Citrus
NSW, SA, Vic

- Different varieties
- Sites with irrigation treatments/differences
- Other factors that could be incorporated: soil type, management

Demonstration site



Sensors

Remote capture
Connectivity
Data integration

GREEN BRAIN

Data visualisation for decision making

Examples of demonstration sites

- **Loxton Research Centre**
  - Grapevine – Cabernet Sauvignon
  - Grapevine – Shiraz
  - Citrus – Orange – Washington Navel
  - Almond (12 cameras)
- **SuniTAFE SMART Farm (6 cameras)**
  - Grapevine – Chardonnay
  - Grapevine – Shiraz
  - Citrus – Orange Ruby Gold




Camera installation at SuniTAFE SMART Farm

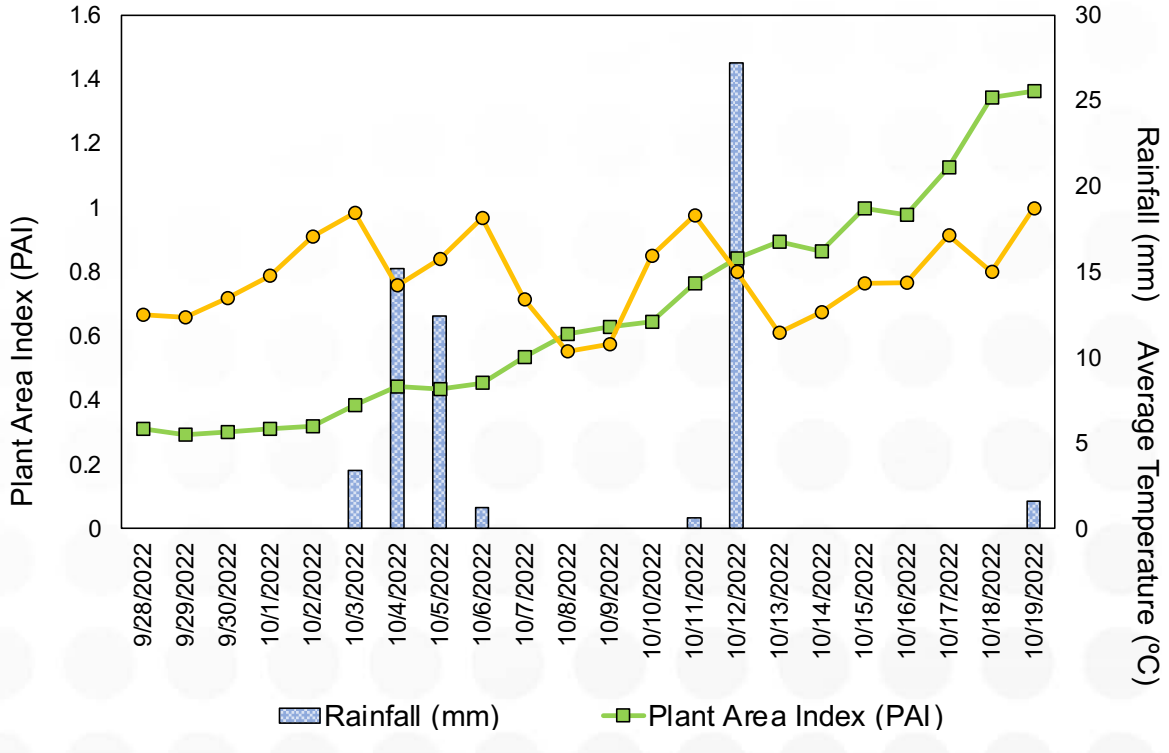
Grapevine

6:30 am

4:00 pm

A video of canopy growth

Canopy growth and weather data a SA site



Social science: growers interviews about irrigation decision making

Outcomes

Implement validation and demonstration sites for AgTech focused on integrating remotely monitored soil moisture and canopy development data.

Facilitate participating growers to shape solutions and inform effective extension activities through the co-design process.

Develop a project monitoring and evaluation plan and framework (including a project logic) to identify outcomes, strategies and key performance indicators from the project.

Strengthen Hub and industry alliances and relationships, increasing the likelihood successful future collaboration to select appropriate initiatives and long-term adoption of drought resilient practices.

Outputs

- Initial project consultation and co-design
- Demonstration site establishment – different crops in different states
- Deliver and demonstrate technologies in commercial production settings to provide real-time information on canopy development and soil moisture, enabling optimised irrigation for plant health and longevity in water constrained settings, enhancing drought resilience.
- Baseline data and insights will be collected including current practices, grower and industry-stakeholder attitudes and aspirations for adoption and commercialisation of desired project outcomes.
- Including industry and grower surveys, interviews and regional industry resource scanning, contributing to the long-term extension resources available through the project.

Canopy growth measured by VitiCanopy

The map was generated by VitiCanopy app

Shows the variation of the canopy growth and architecture in a block of Shiraz in Riverland

Canopy architecture of the grapevines was measured as Plant Area Index by VitiCanopy.