

On Farm Experimentation

NGIS, the technology partner in the project, helped to develop the analytics capability, refine the platform and make it more widely available.

The challenge

Many farmers make management decisions based on strip trials and yield monitor data. Growers have always trialled altering input rates or frequencies for specific plots, but have lacked the means to precisely analyse the data that comes from these trials, which does not account for the spatial variability of crop production.

The solution

The success of the OFE project was driven by scientific algorithms optimizing farm productivity. Google Cloud tools, Big Query and Earth Engine, played a pivotal role in automating data science. This was seamlessly integrated into a self-service platform, allowing for analysis of extensive satellite imagery by Earth Engine. Trials could be analysed against rainfall, frost and other factors.

The result

This project has generated value through better decisions based on data, taking into account factors that growers consider important. More than 35 farmers and six grower groups participated in the Food Agility CRC project, running 50 experiments testing the application of farm inputs and the resulting yield output. "The project allowed us to look at the optimum fertiliser rate over three seasons"

“ Farmers are constantly testing and trialing the application of fertiliser and other inputs at scale but rarely assess the results. The algorithms developed allow farmers to analyse their trials and assess their return on investment of different management practices—furthermore, the ability to consider how the results may apply to other parts of the farm. ”

Dr Julia Easton, a research fellow at the Centre for Crop and Disease Management at Curtin University



About Food Agility Cooperative Research Centre

Food Agility CRC invests in world-leading research that is changing the way we produce, supply and consume food.

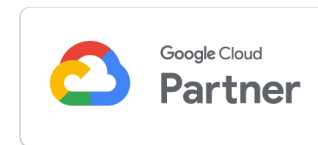
Vertical/horizontal solution: Agriculture

Primary project location: Australia



About NGIS Australia Pty Limited

NGIS is a dedicated Geospatial company providing a centre of excellence for Google Geo products including Earth Engine, Google Maps, and Big Query.



Products

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