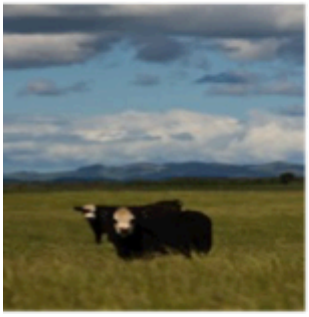
P2D Project

Accelerating Precision Agriculture to Decision Agriculture



Media Release

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Securing the future through digital agriculture

Producers across the agriculture sector will benefit from a whole-of-industry approach to make digital technology data more applicable and usable for decisions that drive profit.

As part of the Precision Agriculture to Decision Agriculture (P2D) project, the CSIRO Data 61 team has been conducting a review of platforms, tools and data types to identify the opportunities that are likely to deliver the biggest returns across the industry.

After speaking to researchers, producers and technology service providers, they're focusing on five data areas to unleash the full benefits of digital agriculture – climate, weather, soil quality, imagery and property boundaries.

"We've learnt from America that better use of soil data has the potential to significantly increase profits," said Research Director Simon Barry.

"Here in Australia, we've seen a growth in remote sensor techniques and improved knowledge at the regional level, but the key challenge is to understand the soil variations at a local level and include that information into the mix, to provide a more accurate picture for making important decisions.

"To make that happen we need outcomes like better sensors, cheaper processing and smarter ways of operating at the farm level and I don't think we can achieve that without a whole-of-industry approach," said Dr Barry.

The Data 61 team will make recommendations for introducing measures to improve the use of soil data, as well as ways to:

- Combine data from on-farm weather stations to provide greater analysis.
- Break down impressionistic seasonal forecast information so it's more applicable on individual farms.
- Develop ways to manage and produce property boundary data to meet specific market requirements.
- Find ways to pre-process new imagery data so that producers have access to information that's relevant to them.

"There are a lot of new opportunities emerging with radar and satellite imagery which will allow crop scouting and crop performance analytics.

"But to fast-track access, we'll need to reduce the cost for the producer of pre-processing that imagery data into something more meaningful," said Dr Barry.

The team will also develop recommendations to improve the value of all aggregated data, so that the information available to producers is relevant to their farm and business operation.

"We can't afford for our data holdings to become dumping grounds for useless information, otherwise we dilute the benefit of using aggregated data to make decisions about inputs and farm practices," said Dr Barry.

"This is about making sure Australia stays ahead of the game when it comes to digital technology and maintains its competitive edge in a global marketplace," he said.

The P2D project is due to deliver its findings, as well as practical tools and outputs for farmers, at the end of the year. The industry partnership is led by the Cotton Research and Development Corporation and is funded by the Australian Government Department of Agriculture and Water Resources as part of its Rural R&D For Profit Program and all 15 Rural Research and Development Corporations. It also involves research support from three universities, CSIRO Data 61, the Australian Farm Institute and the Data to Decisions CRC.

Growers can learn more about the project by visiting the website - www.farminstitute.org.au/P2Dproject.

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About CSIRO's Data61
CSIRO's Data61 is addressing the challenge of how to create Australia and the region's data- driven future with science and technology by partnering with industry, government and universities globally to deliver economic, societal and environmental outcomes. As Australia's largest digital innovation group, Data61's capabilities range from: cybersecurity, confidential computing, IoT, robotics, machine learning and analytics, software and programming to behavioural sciences and more. For further information, visit www.data61.csiro.au and @data61news