www.csiro.au

Agtech

Harnessing the digital revolution for farmers

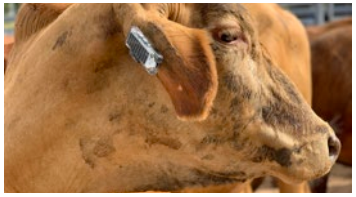
Experts in agriculture, data and analytics

Cutting-edge scientific capabilities

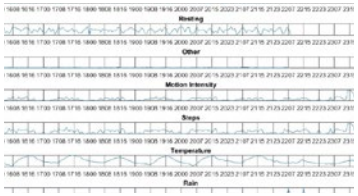
Talk to us about how you can work with the best digital and agricultural scientists at CSIRO on agtech solutions for your business.

SENSORS → INFORMATION

Improving productivity and profitability through internet-connected livestock.



Ceres Tag is a next-generation smart ear tag that helps farmers track where their herds graze and whether an animal may have escaped or been stolen, is giving birth or sick. The tags will unlock invaluable data for the red meat and dairy industries.

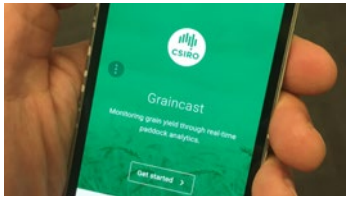


eGrazor is a solar-powered device that determines pasture intake by cattle based on behaviour. Developed with the NSW Department of Primary Industries, the collars collect real-time data that informs strategies for sustainable livestock production systems.

We're using radio frequency identification technology to track individual free-range hens. Developed with the University of New England, it gives precise data on bird ranging, and we can assess why birds differ in range use and what the health impacts may be.

Our virtual fencing technology uses GPS, wireless technologies and sensors to control the location of livestock without needing an actual fence. Our partner Agersens has made virtual fencing a reality with eShepherd™ having been launched in 2018.

Combining sensors and software for practical information on cropping and pastures.



For the first time, Australian farmers can forecast grain yield at the touch of a button, thanks to our new smart phone app, Graincast™. It means growers can make better informed crop and paddock management decisions in near real-time.

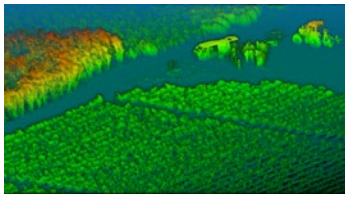
We're building a pasture forecast system combining our latest advancements in climate, soils and livestock systems modelling. It'll enable producers and processors to access real-time predictions of pasture and livestock dynamics for their location or region.

We are currently leading the way in Australia with expertise in land use mapping and analytics using earth observation and machine learning. We're now working on extending our capability to automate land use mapping of the continent.

The Phenomobile Lite™ measures crop characteristics such as canopy height and biomass. This technology efficiently and non-destructively informs crop breeding programs, and allows agronomists to monitor crop growth and performance in the field.

New and better ways to manage, understand and achieve input efficiencies.

WaterWise is a world-first, cloud-connected, plant-based sensor monitoring platform with advanced data analytics. WaterWise will enable irrigators to confidently apply irrigation water at the right time to optimise yield and quality while reducing the water footprint of high-value crops.



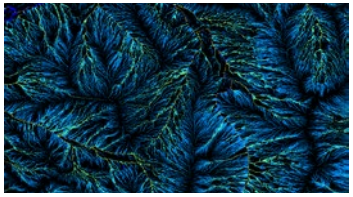
Our 1622™ app will help sugarcane farmers optimise their crop management, reduce nitrogen losses and help protect the Great Barrier Reef. For the first time, farmers will have real-time information on key factors for growing sugarcane.

We're developing tailored weather and climate information from today to next week, the rest of the year and beyond to help farmers make management decisions based on their individual farms and paddocks as well as understand national climate risks.

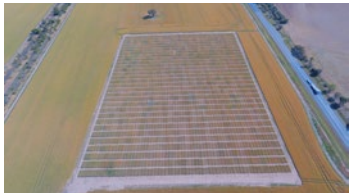
We led the development of the Soil and Landscape Grid of Australia, which maps the country's soil and landscape attributes. We're now using 'big data' to make Australia's digital soil map even more accurate across agricultural regions.

New opportunities are opening up in agriculture and land management that weren't dreamed of just a few years ago.

Augmented reality for farming: we're using computer vision, graphics from the gaming world, sensor technologies and next generation data interaction techniques to enhance productivity in complex agricultural environments, such as aquaculture.



Our high resolution 3D models of agricultural regions highlight water flows not detectable by the human eye, at a fraction of the cost of other mapping approaches. These models help farmers manage every drop on their land.



We're establishing a purpose-built, state-of-the-art agricultural research facility near Boorowa, NSW, designed to help develop Australian farms of the future by testing emerging technologies in crop science, agronomy and farming systems.

Together with rural technology start-up Digital Agriculture Services (DAS), we've created a novel tool which combines artificial intelligence, machine learning and cloud-based geospatial technology to deliver reliable, independent and robust farm data and analytics.

Collaboration for impact

Working with CSIRO provides access to next-gen data smarts, agricultural science excellence and agribusiness industry expertise from the gene to the plate.

Our diverse range of partnerships foster a shared vision to create measurable economic, environmental and social impact.

farmers | agribusiness | industry | researchers
universities | philanthropic organisations
research and development corporations
national and international governments

CONTACT US
t 1300 363 400
+61 3 9545 2176
e csiroenquiries@csiro.au
w www.csiro.au

WE DO THE EXTRAORDINARY EVERY DAY

We innovate for tomorrow and help improve today – for our customers, all Australians and the world.

WE IMAGINE
WE COLLABORATE
WE INNOVATE.

FOR FURTHER INFORMATION
CSIRO Agriculture and Food
w www.csiro.au/agtech

Dr Andrew Moore
Leader, Digiscape
t +61 2 6246 5298
e andrew.moore@csiro.au

Dr Dave Henry
Research leader, Digital Agriculture
t +61 3 9731 3231
e dave.henry@csiro.au

B&M | 19-0011