pastures) and plant production (1000 ha cropping) on a large scale. The dryland cropping area is

The E J Holtsbaum Agricultural Research Institute (also known as Nowley Farm) is a 2,083 hectare

engineering behaviours of the gastro-intestinal tract, mainly
garden soldier fly, protocols for efficient mass breeding are needed. Global interest in insect

Black soldier fly (Hermetia illucens) is the most well-studied bioconversion insect. Adult black soldier

turn various waste streams into useable products such as livestock feed, biodiesel and fertilisers.

Tanya Latty

because of Michael's expertise he is now also a member of the Australian industry's strategic

were unknown. They are currently scanning these in a multiyear project with composting yards all

process, understanding the microbial communities and activities in much compost is essential for

the microbial ecology of mushroom compost. He has a

and animal scientists in the SIA are perfectly positioned to contribute to this research.

The rapid rise of cell culturing to produce meat, poultry and fish foods has been made possible

microalgae), plants (e.g., native grains) and animals (e.g., insects) to boost food

* 3-D printing of plant-based meat alternatives
* cell culturing of meat, poultry and fish

Radical innovation has the potential to change the world of food. Four key food innovations

Quality Food

means to provide additional earning capacity and food for family units, especially in low-income

(silverskin or chaff) from the roasters on City Road, and combining this with locally sourced sawdust.

warehouse spaces where air-conditioning can provide the necessary climate control. This has

Arushi who will look at biofortification in Purslane and other species together with

developed from fish waste fed by organic veggies. I will provide a summary of his findings in the next

Also close to finishing his honours project is Oscar Wang who has been looking at "organic" fertilisers

acid content and yield. So, it appears it is a bit of a balancing act between reducing oxalic acid and

understanding into the ewes' behaviour and body weight throughout pregnancy and lactation.

Sheep using the walk over weigh station at trial sites in NSW and lambs in one of the trial paddocks

Two papers from the beef side of the project can be found:

This sort of information has not been collected under these conditions previously and sheds a lot of

https://www.agrefed.org.au/

Limited to human use and so not open access. Further details can be found at

units they start to use cloud computing through Google Earth Engine to analyse spatial data. The

In this edition we introduce you to five new Theme Leaders: Cameron Clark

and exciting ask considering our historical governmental hesitancy, and the overreaching conflict with

Australia's imminent push or pledge towards net zero greenhouse gas emissions by 2050 is a bold

and the community take on this challenge to be part of a collective solution to achieve net zero emissions.

Big challenge.

will settle to targets agreed in earlier UN meetings if greenhouse gas emissions continue. At the

another important disease in the northern region. Its

slightly better rust resistance than the earlier released

It has out-yielded current faba bean varieties by at least 4–

Growing region of Australia. The University of Sydney has been breeding faba bean varieties from

Richard Trethowan

series. This year we highlight the advances in Digital Agriculture at the University of Sydney and

Digital agriculture presents a novel method to meet this global challenge. It is an approach that

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