Advancing Regional Agri-food Waste Valorisation

SCAN ME

Centre for Agricultural Engineering

Background

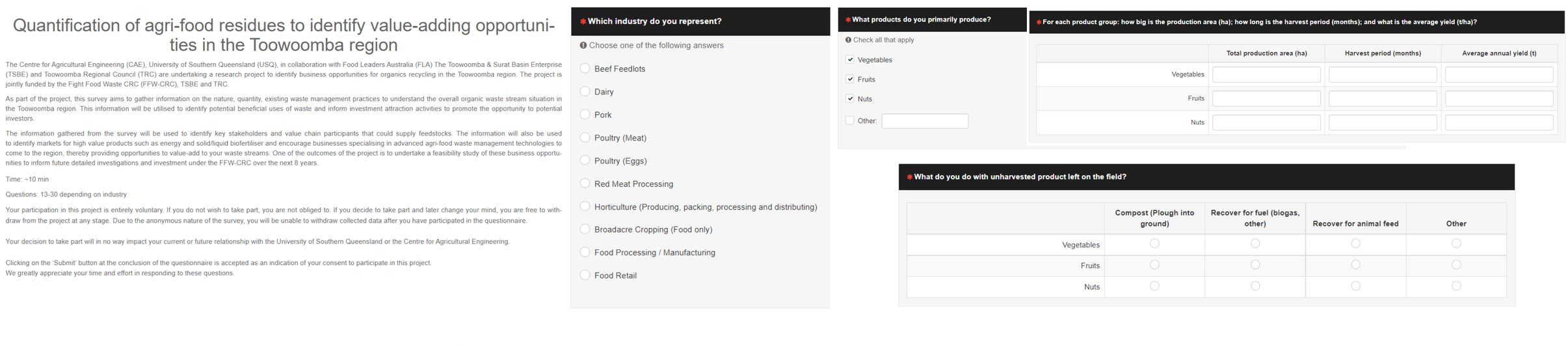
- Toowoomba regional council (TRC) currently landfills 16,600 tonnes of food waste and commercially collected organics annually. This practice is detrimental to the environment and contributes significantly to the overall cost of production for business. It also presents management challenges for waste receivers like TRC.
- The greater Toowoomba region is an established agricultural region with great potential to aggregate organic wastes and derive higher-value products. However, the quantity of residues is currently unknown. There is increasing interest in regional areas of Australia to investigate and transition to the processing of organic waste sourced from municipal and agro-industrial waste, including food waste.

Research Program

- USQ is working with TRC and the Toowoomba and Surat Basin Enterprise Food Leaders Australia and its members to identify business opportunities in the intensive agriculture, food processing and municipal waste industries in the Toowoomba region, review technologies available and gaps identified for processing the waste, and develop a strategy to increase the processing of municipal organics.

Results and Outcomes

1. Beneficial uses of wastes have been identified to inform investment attraction activities and promote the opportunity to potential investors via surveys and interviews.



Quantification of agri-food residues to identify value-adding opportunities in the Toowoomba region

The Centre for Agricultural Engineering (CAE), University of Southern Queensland (USQ), in collaboration with Food Leaders Australia (FLA) The Toowoomba & Surat Basin Enterprise (TSBE) and Toowoomba Regional Council (TRC) are undertaking a research project to identify business opportunities for organics recycling in the Toowoomba region. The project is jointly funded by the Fight Food Waste CRC (FFW-CRC), TSBE and TRC.

As part of the project, this survey aims to gather information on the nature, quantity, existing waste management practices to understand the overall organic waste stream situation in the Toowoomba region. This information will be utilised to identify potential beneficial uses of waste and inform investment attraction activities to promote the opportunity to potential investors.

The information gathered from the survey will be used to identify key stakeholders and value chain participants that could supply feedstocks. The information will also be used to identify markets for high value products such as energy and solid/liquid biofertiliser and encourage businesses specialising in advanced agri-food waste management technologies to come to the region, thereby providing opportunities to value-add to your waste streams. One of the outcomes of the project is to undertake a feasibility study of these business opportunities to inform future detailed investigations and investment under the FFW-CRC over the next 8 years.

Time: ~10 min

Questions: 13-30 depending on industry

Your participation in this project is entirely voluntary. If you do not wish to take part, you are not obliged to. If you decide to take part and later change your mind, you are free to withdraw from the project at any stage. Due to the anonymous nature of the survey, you will be unable to withdraw collected data after you have participated in the questionnaire.

Your decision to take part will in no way impact your current or future relationship with the University of Southern Queensland or the Centre for Agricultural Engineering.

Clicking on the 'Submit' button at the conclusion of the questionnaire is accepted as an indication of your consent to participate in this project.
We greatly appreciate your time and effort in responding to these questions.

*** Which industry do you represent?**

Choose one of the following answers

- ○ Beef Feedlots
- ○ Dairy
- ○ Pork
- ○ Poultry (Meat)
- ○ Poultry (Eggs)
- ○ Red Meat Processing
- ○ Horticulture (Producing, packing, processing and distributing)
- ○ Broadacre Cropping (Food only)
- ○ Food Processing / Manufacturing
- ○ Food Retail

*** What products do you primarily produce?**

Check all that apply

- ☑ Vegetables
- ☑ Fruits
- ☑ Nuts
- ☐ Other:

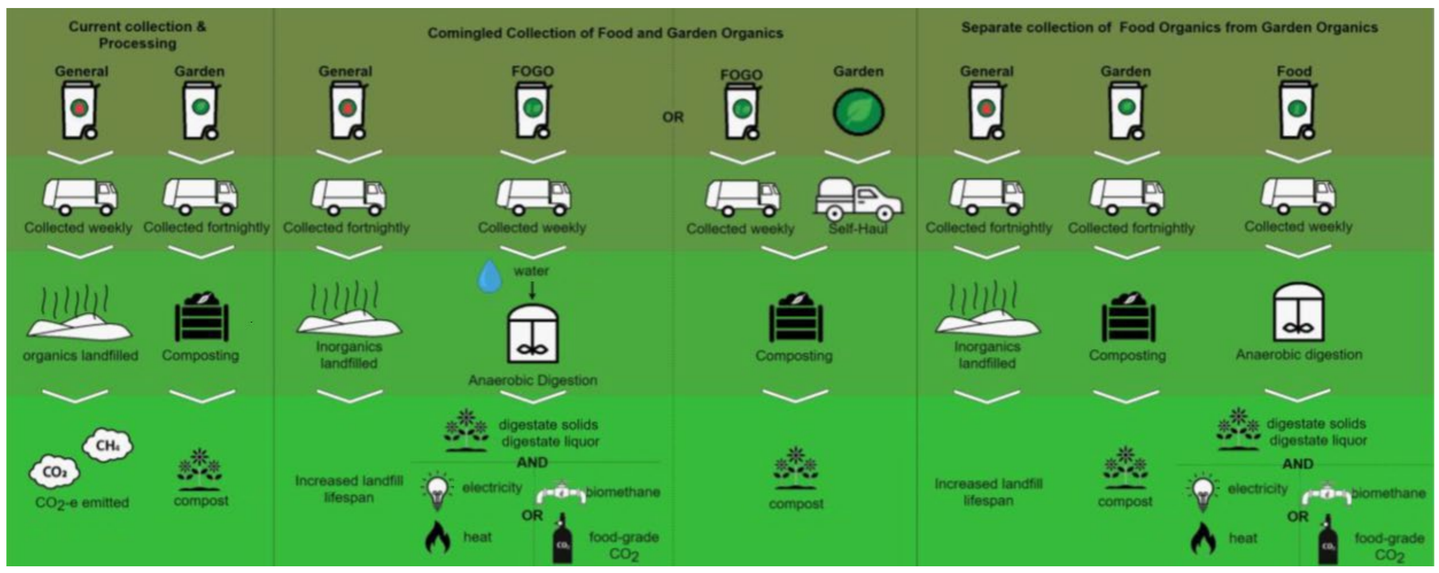
*** For each product group: how big is the production area (ha); how long is the harvest period (months); and what is the average yield (t/ha)?**

	Total production area (ha)	Harvest period (months)	Average annual yield (t)
Vegetables			
Fruits			
Nuts			

*** What do you do with unharvested product left on the field?**

	Compost (Plough into ground)	Recover for fuel (biogas, other)	Recover for animal feed	Other
Vegetables	○	○	○	○
Fruits	○	○	○	○
Nuts	○	○	○	○

2. An organics business case for TRC which includes kerbside and commercial food waste has been produced. The report identifies significant food waste generators across the Toowoomba region and gathers information on the nature, quantity, existing waste management practices, and waste management contracts to understand the overall organic waste stream situation in the region.



3. Further feasibility studies of business opportunities will be undertaken to inform detailed investigations and investment.

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