

## NP3003

# CARBON REDUCTIONS FROM COMPOSTING FOOD WASTE FOR FOOD PRODUCTION – FITTING RECYCLING MODELS TO URBAN FORMS

### Research Question

**Research need:** Approximately half the municipal waste that currently goes to landfill is food waste. Recycling this food waste into compost for food production should help our transition to low carbon living by:

1. Reducing the emission of harmful greenhouse gases
2. Improving carbon storage
3. Encouraging a closed-loop approach to resource recovery and reuse.

**Research question:** How does compost made from food waste get used in food production systems?

### Methodology

I will create case studies of Victorian and South Australian growers who use food waste-derived compost to produce food by investigating the socio-technical practices around compost use through interviews, observation and document analysis.

By applying the insights of actor-network theory to the practice of compost use, I will identify the actors and entities that co-create this social and technological system.

### Results

See diagram for a preliminary illustration of the network of compost use in food production.

### Anticipated Conclusions

Investigating the practices around how compost is used in Australian food production will provide information about:

1. Barriers to and opportunities for developing the market for food waste-derived compost
2. Whether those barriers and opportunities are ecological, technological, economic, social, cultural, and/or political.

### Impacts

All three levels of *Government* could use this research as they look for practical ways to reduce GHG emissions and divert food waste from landfill and into resource recovery.

It can also inform state-level agricultural production policies and programs.

*Industries* that could use this research include *waste management, agriculture and horticulture.*

*Community* users of this research could be *individuals and groups* interested in waste and recycling, closed-loop systems, and food production.



Acto-network of food waste-derived compost use in food production

### Key message

There is no point in making compost from food waste if no one uses it. Hence this research will investigate the end-users of food waste-derived compost as well as supply chain issues.

### Further information

[www.foodcompostfood.org](http://www.foodcompostfood.org)

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[www.lowcarbonliving.com.au](http://www.lowcarbonliving.com.au)

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