waste 2019
The industry's leading waste management conference

Waste 2019 Conference
Opal Cove Resort
Coffs Harbour NSW
14-16 May 2019

Waste 2019 Abstract Submission

Australia, we need to talk about organics

My presentation is relevant to the following topic area(s).

- ☐ Aboriginal community waste management
- ☐ Circular economy (inc implemented case studies & clinical requisite legislation)
- ☐ Collection (inc MUD's successes/innovation, transient population areas)
- ☐ CDS (innovation, learning & successes)
- ☐ Economics (inc business cases, data gathering, statistics, monitoring performance)
- ☐ Education (inc behaviour change, community engagement, social media)
- ☐ Grants (major waste grants, outcomes and processes)
- ☐ Infrastructure & planning (inc C&D guidelines, EfW, AWT & outputs)
- ☐ Innovative projects (inc artificial intelligence, case studies)
- ☐ Landfill
- ☐ Litter & illegal dumping (inc new innovative & smart initiatives, surveillance)
- ☐ National waste policies & programs
- ☑ Organics (inc food waste, national food waste strategy collection, processing, pilot results)
- ☐ Overseas experiences
- ☐ Problem & hazardous waste (inc asbestos, & medical, e-waste, ocean plastics, paint, tyres etc)
- ☐ Procurement
- ☐ Product stewardship & extended producer responsibility
- ☐ Recycling & resource recovery (inc Impact of National Sword, and reduced commodity prices, glass, reuse case studies, CRC's)
- ☐ Regional issues (inc collaboration, amalgamations)
- ☐ Regulations & levies (inc monitoring & enforcement, legal decisions, packaging waste)
- ☐ Social enterprise (inc case studies)
- ☐ State based issues (inc media coverage, transportation between states, waste crime)
- ☐ Strategic waste planning & policy
- ☐ Technology
- ☐ Tenders & contracts
- ☐ Other

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Presenter information

Presenter name: Virginia Brunton
Presenter position: Principal Consultant - Organics
Presenter organisation: Mike Ritchie and Associates Pty Ltd t/a MRA Consulting Group
Presenter email address: virginia@mraconsulting.com.au
Presenter phone number: 02 8541 6169
Presenter mobile number: 0438 496 834

Biography

Virginia has over 25 years' experience in environmental education, research and development for the agricultural and the wider community of NSW. Her expertise is across a wide range of natural resource management areas primarily soil, water and land health. Virginia has strong understanding of the development of organics recovery services, having developed programs for the expansion of FOGO services in NSW, increasing compost use as a regular farming practice in a range of agricultural sectors and developing resources that support the diversion of organics from landfill. Current work involves assisting councils and private companies plan and develop expanded organics recycling facilities. Recent work has focused on developing new markets for recycled organics.

Virginia manages the Halve Waste initiative for Albury city. This program is an extensive community engagement and education program designed to promote waste reduction behaviour change across six council areas.

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Abstract Summary

This paper includes a review of Australia's household organics waste management practices and asks the questions: are Australia's current organics collections, processing and reuse operations best practice? How are organics collections carried out overseas? How can we optimise resource recovery of organics in Australia with our unique challenges and existing infrastructure? How to tackle the difficult task of effective resource recovery from multi-unit developments and dealing with the fear of contaminated bins and the impact on the end products? Experience from overseas and research in Australia suggests there may be alternative methods which are cheaper and more effective than current practice.

Abstract

Organics is the single largest component of the residual household bin in Australia. Residual household bins mostly go to landfill where organics degrade and produce methane, which is a greenhouse gas 25 times more potent than carbon dioxide. Pulling organics out of landfill could significantly reduce emissions from the waste sector, support soil health, and create a circular economy for organics by recycling into high quality inputs for use on Australian farms and urban amenity.

Collections, processing and reuse practices for household organic waste in Australia is complex and differs from state to state depending on regulations, government policy and subsidy opportunities. The state-wide estimated proportion of households that have a kerbside organics collection service ranges from only 5% in the ACT to 92% in SA.

About 50% of the residual household bin in Australia is organics – about 35% food organics and 15% garden organics. Councils offering a garden organics (GO) bin allows for removal of 15% of waste to landfill, a food organics (FO) bin allows for 35% removal, and a food organics and garden organics (FOGO) bin allows for 50% removal of waste to landfill. Achieving maximum diversion from landfill is just simple maths, or is it?

22% of Councils in Australia offer a GO service, 16% offer a FOGO service and no Councils have a fully implemented FO service. How does resident engagement compare between GO and FOGO services in Australia? And how does engagement with FO services perform in overseas experience?

Multi-unit developments come with additional factors to consider, but experience has shown these have be managed through communication, a well organised bin area and providing additional infrastructure to aggregate food waste in the home (such as caddies and bin liners).

Contamination in organics bins is another fear among Councils. The reality is that with the right communication and education schemes, Councils in Australia have achieved very low levels of contamination, producing high quality certified compost.

Australia, we need to talk about diverting organics from landfill, and which service is the most effective for removing organics from landfill, achieving low levels of contamination, providing best practice life cycle performance, and cost efficiency. Experience from overseas and research in Australia suggests there may be alternative methods than current practice which are cheaper and more effective.