

**WasteMINZ Workshop:  
The beneficial use of organic waste in New Zealand – a new technical guideline for land application**

**Presenters:**

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Jacqui Horsewell	CIBR
George Feitje	Auckland Council, WasteMINZ Organics Materials Sector Group
Virginia Baker	CIBR

**Attendees:**

Kimberley Hope	New Plymouth District Council
Graham Jones	Envirowaste
Gavin Sole	Selwyn District Council
Ruth Clarke	Timaru District Council
Barbara Hammonds	Taranaki Regional Council
John Cocks	MWH
Peter Keller	Porirua City Council
Anne Lister	Gisborne District Council
Brian Gallagher	Transpacific Industries Group (NZ) Ltd
Nick Roozenburg	Tauranga City Council
Mike Lord	Envirofert Ltd
Brendon Mallia	Composting NZ Ltd
Michael Quintern	MyNOKE

**Workshop Feedback**

**Questions:**

- 1. What are the issues and roadblocks to safe and beneficial re-use of organic wastes applied to land?**
- 2. What organic wastes should be included; which shouldn't, and why?**
- 3. What are the key criteria for inclusion in a broader guideline? E.g. key characteristics, key contaminants, key beneficial properties?**
- 4. How would such a guideline help streamline the regulator process?**
- 5. Other ideas...**

**NB:** Participants were asked to rank the importance of each question using green dots with the highest number the most important.

**Group 1**

**Q1. Rating: 3**

**Comments:**

- GHGe's can be reduced by applying organic materials to land i.e. carbon sequestration in soils. Research reports are available demonstrating this.
- Cheaper options available e.g. landfill, but these costs are rising and now exceed costs of treatment in some cases e.g. Whakatane, Caterbury.
- This then raises the issue of cost/benefit. If diversion is financially cost effective, is it also environmentally, socially and culturally cost effective? Need holistic life cycle basis cost benefit e.g. what is the cost/benefit of recovering/applying the Phosphorus?

- Material being managed, “waste” or “resource”?
- Out of sight out of mind ie people need to see what happens at a landfill.
- Getting buy-in from MfE.
- Cultural values and aligning goals with acceptable cultural outcomes.

**Q2. Rating:** none

**Comments:** All.

**Q3. Rating:** none

**Comments:** Carbon sequestration.

**Q4. Rating:** 2

**Comments:** none

**Q5. Rating:** 2

**Comments:** Terminology – materials or resources cf ‘wastes’. Prefer the former.

## Group 2

**Q1. Rating:** 2

**Comments:**

- Regulators and people working for local authorities are not fully informed about organic waste and it’s applications to soil and processing systems.
- Clopyralid residues restricts “organic certification”. Compost can only be used in market with not tomatoes, potatoes etc.
- Market barriers for the end product, compared to chemical fertiliser, economics of transport.
- Rates and frequency of application.
- Definition of beneficial re-use – soil not declining through its use, either biologically, chemically or physically.
- Tie-in with water i.e. improving water infiltration rates and water holding capacities.

**Q2. Rating:** 1

**Comments:**

- Food – domestic/industrial processing by-products.
- Garden, sewage, timber, fish, industrial screenings – meat works.

**Q3. Rating:** none

**Comments:** none

**Q4. Rating:** 1

**Comments:**

- Various interpretations across the country.
- People do not understand.
- There are variable soil conditions and we need to take this into consideration e.g. higher application rates can be made on some paddocks as compared to others.
- Need to provide clear examples to enable easy interpretation.
- Too hard to do?
- Set maximum limits only.

**Q5. Rating:** none

**Comments:** none

### Group 3

**Q1. Rating:** none

**Comments:**

- Understanding mass loading Vs concentrations Vs demand by crop
- Independent consultant study trip
- Knowledge of beneficial use of organic fertilisers/soil conditioners by farm consultant.

**Q2. Rating:** none

**Comments:**

- Farm manure, DAF sludges, wastes from food processing industries, charcoal – in.
- Treated timber, pharmaceuticals - out

**Q3. Rating:** none

**Comments:**

**Q4. Rating:** none

**Comments:**

**Q5. Rating:** none

**Comments:** none

### Group 4

**Q1. Rating:** none

**Comments:**

- General perception and misunderstanding by general public – particularly in regard to biosolids.
- Expertise at council level – lack of knowledge locally. Should have a central organisation which has knowledge and expertise.
- Need to incorporate a soil based approach to a product/input approach.

**Q2. Rating:** none

**Comments:** none

**Q3. Rating:** none

**Comments:** none

**Q4. Rating:** none

**Comments:** none

**Q5. Rating:** none

**Comments:** none

### Group 5

**Q1. Rating:** 2

**Comments:**

- Quantify good/beneficial and limit impact.
- Perceived value of benefits of compost/organic waste – perceived negatives of biosolids.
- Keeping biosolids separate from source separated food waste?
- Flooding the market with compost products.
- Contaminants in source ie food waste collections .
- Monitoring requirements if it is just a soil limit not a product limit.
- Open market – what controls would need to be in place to allow product to be sold ie compost.

**Q2. Rating:** none  
**Comments:** none

**Q3. Rating:** 2  
**Comments:** none

**Q4. Rating:** none  
**Comments:** none

**Q5. Rating:** none  
**Comments:**

- Impacts on end-processors.
- What is acceptable level of loss/impact on soil properties?
- Defining level of benefits and limiting risks of impacts.
- How do you promote beneficial reuse in guidelines?
- Practical limits which will still allow some permitted use.

### Group 6

**Q1. Rating:** 2  
**Comments:**

- Cultural values – national consensus by iwi. Iwi representation on board/early involvement.
- Public perception.
- NIMBY
- National programmes for education targeting:
  - TAs, RCs - Councillors
  - MfE, MoE - buy in from ministers and officials
  - Iwi
  - General
  - Fonterra etc.
  - SBC (2050) sustainable business council
  - Transition town/enviroschools

**Q2. Rating:** none  
**Comments:**

- Standard will determine acceptability.

**Q3. Rating:** 2  
**Comments:**

- Have list of contaminants as a table in an annexure, so it can be updated without full consultation. Updating list based on international standards on a set time basis.
- Link to water quality – Ministry policy, ECAN.
- Beneficial effects of compost.
- Terminology – land application (not disposal), organic materials/resources (not waste).
- EC<sub>20</sub> vs EC<sub>50</sub> – need to look at long term effects. Can soils recover? Withholding periods. Different land use types – arable, dairy.
- Effects based activity – based on land characteristics - metals, soil structure, rainfall, overseer?

**Q4. Rating:** none  
**Comments:**

- Standardised procedures for consenting (tenplates).

- Align interpretations.
- Linkage to WMMP for wording/references.

**Q5. Rating:** none

**Comments:**

- Current and future practice of land application.
- Set context for various types.
- Where does the stuff go?
- Health & Safety issues – legionnaires disease etc.
- Contractual guidelines for application to land e.g. H&S.

**SUMMARY FEEDBACK COMMENTS**

- Resource materials vs waste.
- Key stake holders on board early eg Iwi.
- Linkages to water end use must link to quality - way to engage with government with possible different priorities - difficulty of engaging central government.
- Education; of end users of product, public perception, public tours of landfills, “unscientific” perception, “wicked problem”, citizen science library.
- Benefits: quantify benefits.
- Debate on limits in terms of loss of soil function eg EC50/EC20.
- Practical limits that may allow permitted activity.
- Monitoring if only soil limit rather than product limit (which is easier to do?).
- Carbon sequestration.
- Cost/benefit analysis of landfill vs options; what tools are available? Standardised tools?
- Lack expertise in consenting authorities, could become more centralised pool of experts=consistency. WRAP model? How to fund?
- Need increased understanding of processing systems – quality criteria of final product could be independent of how waste processed.
- Must either improve soil or not degrade soil quality eg chemical/biological/physical properties.
- Guideline more related to end-use.
- Support for land limits not product.