

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

**Presenters:**

|                  |   |
|------------------|---|
| Nick Walmsley    | Water New Zealand   |
| 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 (templates).

- 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.