

Rules and regulations that govern manure management and composting in Victoria

Janine Price

Principal Consultant Environment and Regulation
Scolexia Pty Ltd

1



Regulations governing manure management and
composting

Janine Price-Principal Environmental Consultant,
Scolexia- animal and avian health

2

Overview-Victoria



- Background
- Regulatory authorities and decision makers
- When a waste becomes a product
- Classification of wastes
- Regulations
 - Composting Production
 - Compost Reuse
 - Manure
 - Effluent
 - Digestate
 - Mortalities
- RAM Considerations
- Barriers and Opportunities
- Guidance materials



Source: APL

Background



All states have organic waste processing requirements



Requirements often not relevant to on farm operations, not commensurate with risks, or incorrectly applied



Commercial and higher risk operational requirements can create onerous and \$\$\$ requirements for producers and limit market opportunities and/or fertiliser benefits



Triggers for requirements can relate to feedstocks (input materials), source of feedstock (on or offsite), where it reused (on or offsite) and whether part of an existing licenced facility



Some regulations allow exemptions for production and use- can be ambiguous

Background cont.



- The following information is an interpretation of the regulations provided in Victoria
- Individual interpretation and application may differ.
- For site specific requirements, please contact your local decision makers/regulators.



Source: APL

5

The Why?



- Knowing your regulations will:
 - minimise potential investigation actions,
 - minimise environmental and amenity (community) impacts and
 - maximise benefits from the fertiliser and soil conditioning properties.



Source: APL

6

Regulatory Authorities and Decision makers - Victoria

Local Government

- Land Use permit- planning

Environment Protection Authority

- Development licences (old works approval)- activity threshold triggers
- Operating licences- activity threshold triggers
- Permits and registrations
- Exemptions and permission determinations
- Guidance- Composting Guidelines (focus-Commercial facilities)
- Compliance

Local Government

- Likely captured under existing landuse rights (ie extensive or intensive) if generating own materials
- If bringing in offsite materials for composting- likely permit required.
- Section 2 Use in the Farming Zone = Permit
- Contact your local government- *get response in writing*

Land use term	Definition	Included in
Materials recycling	Land used to dismantle, treat, process, store, recycle, or sell refuse, used or surplus materials.	Industry

When a waste is deemed no longer a waste -EPA

- Waste definition includes: matter that is discarded, rejected, abandoned, unwanted or surplus, irrespective of any potential use or value or matter prescribed to be waste.
- There is no definition of when waste residues are no longer deemed a waste, but rather a product.
- The Regulations set out activities that require an EPA permission to operate lawfully. Permission determinations allow EPA to manage situations where:
 - the burden associated with a permission doesn't match the risk of certain activities
 - the permission holder could reduce risk through other means.
- Permission determinations can offer flexibility to meet the requirements to hold a permission. (compliance may be difficult or ambiguous for rural activities)
 - The [livestock manure and effluent determination](#) is for primary producers whose businesses generate livestock manure or effluent (manures). It's also for anyone who receives manures for use on their property as a soil amendment or for irrigation.

9

Classification of Waste Products

- Compost- processed organics (if pasturised and does not contain liquid organic waste, digestate, raw mulch or vermicast) Definition: *An organic product that has undergone controlled aerobic and thermophilic biological transformation through the composting process to achieve pasteurisation and reduce phytotoxic compounds, and achieved a specified level of maturity required for compost*

Column 1 Item	Column 2 Section	Column 3 Description of waste	Column 4 Waste code	Column 5 Pre-classified (Pre) or Mirror code (M)	Column 6 Priority waste	Column 7 Reportable priority waste (transactions)	Column 8 Reportable priority waste (transport)
56	Putrescible/ organic wastes	Manures including any mixture of manure and biodegradable animal bedding such as straw	K220	Pre	No	No	No
50	Putrescible/ organic wastes	Animal effluent and residues, including abattoir wastes and other wastes from animal processing	K100	Pre	Yes	Yes	Yes

- Manures/bedding
- Effluent
- Mortalities

10

Classification of Waste Products



Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
Item	Section	Description of waste	Waste code	Pre-classified (Pre) or Mirror code (M)	Priority waste	Reportable priority waste (transactions)	Reportable priority waste (transport)
91	Solid and sludge wastes requiring special handling	Residues from industrial waste treatment/disposal operations, including digestate, bottom ash and char	N205	Pre	Yes	Yes	Yes

- Digestate

Compost Production



ON Site	OFF Site
<p>Operations processing organic waste generated on-site and retain the processed organic waste on-site do not need a licence for organic waste processing – General Environmental Duty</p> <p>If selling If selling/giving away compost products offsite/externally composting may be incorporated as an ancillary operation as part of the development and operating licence for a intensive livestock facility.</p> <p>Or will need to meet the requirement of offsite composting facilities- licence, registration, exemption or permit</p>	<p>Processing organic waste generated off-site requires an <i>A07b registration (small) or A07a (large)</i> Organic waste processing if they trigger the thresholds.</p> <p>A07a- >100T or 200m3 organic waste accepted in any month or >70T or 140m3 accepted in any month or >50T of pasteurised material, compost or digestate is produced in any month, but not including operations processing organic waste generated on-site and that retain the processed organic waste on-site</p> <p>A07a8- < or equal to 100T or 200m3 organic waste accepted in any month or < or equal to 70T or 140m3 accepted in any month or <50T of pasteurised material, compost or digestate is produced in any month, but not including operations processing organic waste generated on-site and that retain the processed organic waste on-site or if less than 5 m3 of organic waste is stored on site at any time</p> <p>Guidance 1588.1: Designing, constructing and operating composting facilities which includes process and pasteurisation requirements</p> <p>Or operate in accordance with <i>Processed organics determination</i> if the site does not trigger A07 thresholds</p> <p>If a operation does not meet the <i>processed organic determination</i> requirements and/or contain effluent or carcasses it will need a <i>A16- supply or use of reportable priority waste permit</i>. OR if it doesn't contain effluent or carcasses a <i>A13a/b Waste and resource recovery permit</i> (not contain reportable priority waste)</p> <p>If the compost contains liquid waste a PIW management (<i>A01</i>) – <i>Storage, treatment, reprocessing, containment or disposal facilities handling any prescribed industrial waste not generated at the premises</i> (regardless of the size of the operation) licence may be required.</p>

Organics Processing Determination



- It specifies when a person or a place or premises is authorised to receive and use industrial waste that is processed organics for the purposes of the Regulations.
- The effect of the determination is that if industrial waste that is processed organics is received at a place or premises in accordance with the specifications and conditions set out in this determination, then that place or premises is authorised to receive and use that industrial waste.
- Different requirements for low and high-risk feedstocks.

processed organics means the pasteurised material produced at a processing site that –

- (a) does not include liquid organic waste, digestate from anaerobic digestion, raw mulches or vermicast;
- (b) does not contain any of the following –
 - (i) chemical contaminant concentration exceeding the upper limits for that chemical contaminant parameter as specified in Table 1 of Appendix 1;
 - (ii) non-organic physical contaminants exceeding the upper limits for that non-organic physical contaminant parameter as specified in Table 2 of Appendix 1;
 - (iii) pathogen indicators exceeding the upper limits for that pathogen indicator as specified in Table 3 of Appendix 1; and
- (c) has undergone pasteurisation within the meaning of this determination.

processing site means a person or a place or premises –

- (a) authorised by a permission issued or granted by the Authority to process organic waste;
- (b) granted an exemption by the Authority under section 80(4) of the Act from a requirement to obtain a permission to process organic waste; or
- (c) specified by operation of section 48 of the Act as not required to obtain a permission to process organic waste.

Risk	Feedstock
Low risk	Garden and Landscaping Organics
	Untreated Timber
	Natural organic fibrous waste Forestry residuals
High Risk	Dewatered sewage sludge
	Animal manure and mixtures of animal manure and animal bedding organics
	Animal mortalities, parts of carcasses, bone or fish
	FOGO
	Vegetables fruits and seeds and other food wastes
	Winery, brewery and distillery wastes
	Liquid food waste and liquid food processing wastes (including sludges)
Liquid animal wastes (blood) and punch (sludges), Grease trap waste Any other feedstock not specified low risk in this Table	

Compost Reuse



ON Site	OFF Site
Compost can be used in accordance with <i>GED</i> if generated and reused on site	<p>If a compost product is brought onto a site from offsite, it must be use in accordance with <i>Processed organics determination</i> (must be pasteurised and meet other requirements).</p> <p>If the composting feedstock includes reportable priority waste i.e. liquid effluent or carcasses, a <i>A16 supply or use of reportable priority waste permit</i> is required to use such compost products.</p> <p>Alternatively, if the compost does not contain a reportable priority waste <i>A13a/b Waste and resource recovery permit</i> required.</p> <p>Declaration of Use (DoU) by a waste producer and receiver for lawful receipt of a specific industrial waste. A waste producer must complete this form -producer and receiver must sign it. www.epa.vic.gov.au/about-epa/publications/f1022</p>



The livestock manure and effluent determination



- The [livestock manure and effluent determination](#) is applicable for primary producers who generate livestock manure or effluent (manures) and for anyone who receives manures for use on their property as a soil amendment or for irrigation. The determination defines livestock manures and effluent as:
 - **faecal matter that livestock generates any mixture of livestock faecal matter and biodegradable animal bedding such as:**
 - straw, or
 - sawdust
 - **effluent:**
 - livestock faecal matter in liquid form, and
 - wastewater from collection or treatment systems that are ancillary to livestock management.
- You don't need Environment Protection Authority Victoria (EPA) approval to supply, receive or use manures if you meet the specifications and conditions in the determination
 - you must inspect each consignment to ensure it only contains manures
 - the manures must be received for the purpose of depositing to land as a soil amendment or for irrigation.

Manures/bedding



ON Site	OFF Site
<p>Manure generated and reused on site must be used accordance with the livestock manure and effluent determination if over 20m³ per month received and deposited to land. If under 20m³ you are deemed to comply (GED)</p>	<p>As per ON Site requirements</p>



Effluent



ON Site	OFF Site
Effluent generated on site can be used as per the livestock manure and effluent determination	As per ON Site requirements



Digestate



- Digestate determination currently in development

ON Site	OFF Site
Digestate determination requirements will need to be met (in development) OR if the determination requirement can not be met an A16- supply or use of reportable priority waste permit will be required	As per ON Site requirements



Source: Wrap

Mortalities



- Not included in the manure and effluent determination

ON Site	OFF Site
<p>Disposal in accordance with operating licence.</p> <p>On-farm burial requires EPA approval</p> <p>If an intensive animal unit does not have an operating license, an A16 permit may be required</p>	<p>Situation is uncertain. An A16-supply or use of reportable priority waste permit maybe required?</p>



Source: Agriculture Victoria

Restricted Animal Material (RAM)



RAM (Restricted Animal Material) is defined as

- meat,
- eggs,
- meat and bone meal,
- blood meal,
- poultry offal meal,
- feather meal,
- fishmeal or
- any other animal meals or manure.
- It does not include tallow, gelatine, milk and milk products.

- Australia has an inclusive ban on the feeding to all ruminants of all meals, including meat and bone meal (MBM), derived from all vertebrates, including fish and birds.
- Appendix 5 of the – Australian Ruminant Feed Ban National Uniform Guidelines 2019-20 outlines the requirements for managing the risk of RAM ingestion (organic fertilisers, composts and food wastes).
- It includes guidelines for use of organic fertilisers/composts/soil amendments on ruminant pastures and information about recycling of food waste that contains RAM on agricultural land.

RAM Cont.



- A product is considered to contain RAM if it contains or may contain any of the following (AHA, 2019):
 - Animal protein – including whole or partial carcasses, feathers, or sloughing e.g. all poultry litter/manure and feeds or fertilisers containing poultry litter/manure are considered to contain RAM.
 - Spilt stock feed containing RAM e.g. all manures and effluent arising from animals (usually poultry, pigs and farmed fish).
 - Manure/faeces containing RAM that has passed undigested through the gut e.g. all manure or effluent from animals that are fed RAM are considered to contain RAM.
 - Blood and bone fertiliser, or other products including blood, meat, animal waste or bone.
 - Mushroom compost or any other compost containing products containing RAM (e.g. containing poultry manure and/or mortalities, blood and bone, abattoir waste, or food waste that contains animal material including but not limited to grease trap waste, food organic, green organic (FOGO) kerbside bin waste, and pet food
 - Food waste that contains RAM
 - Any other product that might reasonably contain a RAM ingredient.

21

Ram Considerations



- The use of products that contain RAM in areas accessed by ruminants (e.g. applications of some fertilisers or effluent to paddocks) poses a low but not nil risk of TSE transmission that must be mitigated. This includes the possibility of illegally imported meat being placed in food organic, green organic (FOGO) kerbside bins, which may be used as a feedstock for compost (AHA, 2019).
- Options for mitigating the biosecurity risks associated with use of organic fertiliser products containing RAM include:
 - Ensure ruminants do not have access to heaped piles of products containing RAM (e.g. exclude ruminants from organic fertilisers piled for storage or composting or piles of poultry litter).
 - Incorporate (turn) organic fertilisers containing RAM into the soil OR spread the product (e.g. organic fertilisers containing RAM) evenly AND prevent ruminants from having access to treated areas until a combination of rain or irrigation and pasture growth has minimised the risk of RAM ingestion when grazed by ruminants.
- As a guide – excluding ruminants from treated pasture for 3 weeks may allow for sufficient pasture growth to adequately minimise the risk of RAM ingestion; however longer periods of ruminant exclusion are required when pasture growth or rainfall are low (AHA, 2019).

22

Barriers and Opportunities

- Use of word waste and disposal – negative connotations
- No clear guidance on when a waste is no longer a waste
- Applying commercial composting regulations on farms does not take into account how risks differ to commercial use ie rural isolation, minimal human interaction, known organic feedstocks, withholding periods, UV and wind desiccation.
- Application of commercial requirements creates gaps ie not mention animal carcasses or classify as high risk
- Lack of decision maker understanding of the risks regarding rural operations/reuse

23

Barriers and Opportunities

- Omissions and terminology creates confusion and interpretation on whether something is captured under a regulation or guideline
- Resources are targeted at commercial industries and businesses
- Gap between licenced and unlicenced premises as to whether composting guidelines apply
- Little information regarding mortality management and compost guidelines often omit carcasses from list
- Differing interpretations of what is a high-risk waste or required standard- doesn't take into account site specific uses/activities- need a balance.

24



Opportunities

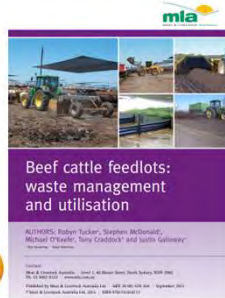


- Organic products from livestock industries have multiple benefits-
 - ↑ increased soil fertility/nutrients, soil condition, organic matter, water infiltration, soil structure, water holding capacity, plant yields and maintain natural microbial communities
 - ↓ reduced erosion, GHG emissions (may) and conventional fertiliser costs.
- Maximise benefits and minimise environmental impacts- CLOSE THE LOOP
- Opportunity to work with Industry bodies, agriculture departments and other stakeholders to promote the benefits, identify true risks, develop targeted guidance and reduce regulatory burden (improve application and understanding).
- Great opportunity for further research to demonstrate benefits more widely- Get Involved!!!

Resources



- National Industry Guidelines and fact sheets
- Agriculture Departments- Agriculture Victoria Advisory Service
Agvic.planning@agriculture.vic.gov.au
- Consultants- specialising in composting, animal industries, rural activities/operations
- Agronomists- nutrient requirements, soil and product testing



Thank You - Questions



Janine Price

Principal Consultant- Environment, Planning
and Regulation

Scolexia Animal & Avian Health Consultancy

Office: 8/19 Norwood Cres
Moonee Ponds, Vic, 3039

Based in Canberra
Mob.+61 (0) 429 899 845

Ph: +61 (0) 3 9326 0106
e-mail. jprice@scolexia.com.au
website: www.scolexia.com.au

