

# Composts, organic fertilisers and biosecurity

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# Farm Biosecurity

*“ a set of measures designed to **protect** a property from the **entry** and **spread** of pests, weeds and diseases”*

# Compost and organic fertilisers

- Risk of both **entry** and **spread** of pests, weeds and diseases

# Effective composting

- Need sufficient temperature (60+ degrees for at least 3 days) to pasteurise pathogens and weed seeds
- For this to occur need correct C/N ratio, moisture, aeration and management

# Compost risks

Effective composting kills **most** pathogens

Exceptions:

- Bacterial spores (e.g. Anthrax, Blackleg, Tetanus, Botulism)
- Prions – TSEs (eg Mad Cow Disease)



**Anthrax disposal in Northern VIC**

# Compost risks

## Exceptions (cont)

- Other contaminants such as heavy metals (e.g. cadmium, mercury, lead) and other chemicals (eg OCs) which could constitute animal health and food safety risk and jeopardise international markets

# Compost risks – on site composting

Vermin, birds, wind and vehicles can transport waste, weeds, pathogens off site

e.g. Salmonella can be transmitted by birds and rodents



# Compost risks

- Is entire windrow composting effectively – e.g. ground/compost interface – if not pathogens may survive composting
- Has the entire volume reached sufficient temperature?

# Compost and Organic Fertiliser Risk

- Cattle and sheep must never have access to “stored, stockpiled or spilt” poultry manure as it may contain restricted animal material (RAM)

# Mortality composting

- Composting can be used to dispose of dead cattle carcasses
- Why did animal die? Best to investigate if unsure!
- Unexplained disease outbreak? Private vets can access subsidised testing to undertake a Significant Disease Investigation



## **Unusual disease syndromes**

Ask your vet

District vet or animal health officer

Emergency Animal Disease Hotline 1800 675 888

# Manure - risks

Biosecurity risk will be greater with direct application e.g.

- Salmonella (any manure)
- Johne's disease (feedlot manure)
- Leptospirosis (pig slurry)
- Drench resistant parasites (feedlot manure)
- Weeds (green manures)
- Chemicals (eg Cu, Zn in poultry and pig manure)
- Antibiotics (pig, poultry manures)

# Summary

- Need to identify and manage potential risks associated with composts and organic fertiliser
- Risks may be associated both with introduction of material onto farms, and spread of material around farm

