

# Vegetable ~~Matters of~~ Facts

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Horticulture Australia and the Department of Primary Industries-Victoria

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# Vegetables

## Poultry Litter

### Management Guidelines

- Only purchase litter and organic products from **HACCP accredited suppliers**.
- **Store litter** as far as possible from mature crops, packing sheds and other sensitive areas.
- **Raw litter** should be incorporated into the soil prior to planting.
- **Avoid side-dressing** crops with raw litter **within 60 days of harvest**.
- **Certified composted litter** can be applied up to **14 days before harvest**.
- Litter handling and application procedures should follow a **HACCP** program.



On-farm storage of poultry litter



A modern poultry shed

### Value of Poultry litter

- Over the past 50 years, poultry litter has replaced stable manure as the principal low cost horticultural soil amendment on sandy soils.
- Poultry litter can improve crop yields 10 to 20% by increasing the water holding capacity of sandy soils.
- Poultry litter is also a valuable source of nitrogen, phosphorus, potassium and trace elements required to grow food crops.

### Concerns about Poultry litter

- Extensive crop surveys have shown that growers using poultry litter in accordance with these management guidelines can be confident their produce will be safe for human consumption.

### About Poultry Sheds

- Modern broiler operations grow birds in controlled atmosphere sheds.
- Shed floors are concrete or rammed earth and covered with a 10-15cm layer of rice hulls or wood shavings.
- The bedding and manure mixture is commonly called litter and is replaced after each flock is raised.
- Up to 5 flocks are raised each year.
- A modern 2000m<sup>2</sup> broiler shed growing around 40,000 birds will produce as much as 200 cubic metres of litter per flock.

## Safe Vegetable Production

"A Microbial Food Safety Guide  
for the Australian Vegetable Industry"  
VG 98093 - April 2002

Food safety and quality assurance systems have become common place in the vegetable industry. In many cases they are essential to supply particular customers.

In the past there has been considerable confusion in horticultural industries with regard to some of the technical aspects of on-farm food safety, as well as inconsistencies in the way systems were implemented and audited.

DPI scientists in collaboration with an industry working group have prepared these practical guidelines to aid the industry in developing, implementing and auditing QA systems.

These guidelines maintain vegetable quality and environmental standards without sacrificing the value of poultry litter as a soil amendment. Growers are encouraged to adopt these practices to ensure the continued safe use of poultry litter in vegetable production.

**For more information please contact:**

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### For more information please contact your local VegCheque officer.

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## "Strategies for the safe use of poultry litter in food crop production"

VG 01049 - September 2003

### Food safety and poultry litter

- A 2-year survey of local farms using poultry litter incorporated into soil prior to planting, did not detect any human pathogenic (disease causing) bacteria on any harvested leafy crops.
- Detection of *E. coli* and human pathogens in raw litter is difficult because their occurrence is so rare and patchy. It is like looking for "a needle in a haystack".

### AGED litter is not COMPOST

- **Composting** involves rapid decomposition producing a product with coliform counts similar to that found in soil - less than 100/g. This is achieved through a stringently controlled and audit-certified process - Australian Standard AS 4454-2003.
- **Ageing** litter even for 12 weeks only marginally improved its hygienic condition. Turning the heap on farm was also ineffective. The process of ageing is too slow to prevent continual re-contamination and persistence of bacteria on the outside of the litter pile.
- Whilst controlled composting will undoubtedly produce the safest product from poultry litter, our results suggest that it is not necessary to use composted litter for all applications.

**For more information please contact:**

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### Useful Websites for more information:

<http://www.ext.vt.edu/pubs/poultry/424-034/424-034.html>

<http://muextension.missouri.edu/xplor/envqual/wq0212.htm>

Check us out and view our other fact sheets at:  
<http://www.dpi.vic.gov.au/agvic/ihd/projects/vchq.htm>

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□ *The State of Victoria, Department of Primary Industries, 2003.*

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