

# Poultry Production and Environmental Stewardship

Management of manure, litter, and poultry by-products is a complex environmental issue. Manure and livestock by-products can have both positive and negative environmental consequences. Manure can produce substantial benefits and/or result in severe environmental degradation. The actual environmental result depends upon choices that the producer makes.

The poultry industry (layer, broiler, breeder, turkey) faces growing scrutiny of its environmental stewardship. The potential impact of an individual operation on the environment varies with animal concentration, weather, terrain, soils, and numerous other conditions.

- What are your highest risk situations or practices for your poultry operation?
- Are you developing plans and investing resources to address the highest risk situations?
- Are you an environmental steward?

It is hoped that this pictorial review of management practices found in poultry production will benefit you in identifying and implementing best management practices and being an environmental steward.



# Managing Storage

- Poultry manure (litter) and wastewater can be managed and stored to protect water quality.



Well designed and maintained layer wastewater lagoon.



Properly managed litter in a storage shed.



This litter pile is a good example of proper short-term field storage. It is secured with a tarp and weights.

- Improperly stored and managed wastewater could pollute surface or ground water.



Improperly released wastewater from layer manure storage could pollute ground and surface water.



Runoff from uncovered litter stockpile.



Litter stockpiles subject to runoff and leaching.

# Land Application and Nutrient Management

- Properly applied manure is a valuable source of plant nutrients that improves the quality and productivity of soils.
- A Nutrient Management Plan allows efficient use of nutrients and protects water quality.



Even litter application from a calibrated spreader truck.



Creating and following nutrient management plans could improve the quality and productive capacity of soils.



Litter application on fields with good vegetative cover.

- Some application practices could cause problems.



Land application on fields with sub-surface drainage tiles could result in a discharge.



Applying litter and wastewater to frozen soils can result in runoff.



Improper application of manure on erodible soils can pollute surface water.

# Public Perception

- Well maintained poultry facilities can be managed to benefit the environment and improve public perception of the industry.



Proper litter/compost storage.



Grass filter strips protect surface water from litter and wastewater application.



Well maintained and managed poultry facility.

- Some practices could harm the environment and affect public opinion.



Litter stockpiles subject to runoff.



Egg wash waste contaminates a stream and causes a fish kill.



Poorly managed facilities could affect public opinion.

# Poultry Confinement Areas

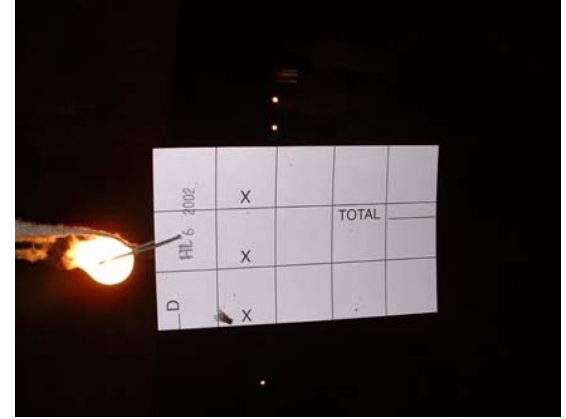
- Best Management Practices can be applied to poultry confinement areas.



Well designed and maintained poultry units.



Bell waterers help maintain dry litter.



Index cards or fly paper may be used to determine insect population and density and could reduce the use of pesticides.

- Some practices should be avoided.



Poorly maintained facility affects storm water management.



Leaking waterers complicates litter management.



Poorly controlled fly population covers the wall of this poultry facility.

# Other Practices

- Management Practices showing a concern for environmental health and safety.



Records should be kept to facilitate nutrient planning and develop written plans for unforeseen emergencies.



Composting mortalities conserves nutrients and may be later used as fertilizer.



Freezer units for rendering mortalities protects water quality.



Field composting of litter permits the reuse of nutrients.



Precision feed management and the addition of phytase promotes animal health and nutrient management.



Testing soils helps determine nutrient levels and plan for land application of manure.

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