

Mortality Disposal Alternatives

D. R. Kuney
Area Poultry Farm Advisor
U. C. Cooperative Extension

Considerations Regarding Disposal Methods

- **Biosecurity**
- **Environmental Impact**
- **Cost**

Biosecurity

- **Human Traffic**
- **Vehicles and Equipment**
- **Animals**
- **Insects**

Environmental Impact

- **Water Quality**
- **Air Quality**
- **Wildlife**
- **Nuisance Generation**

General Methods of Disposal

- **Burial**
- **Rendering**
- **Composting**
- **Cremation**
- **Sanitary Landfill**
- **Alligator Pond**

Burial

Check With Local Environmental Agencies

- ☐ **Regional Water Quality Control Board**
- ☐ **Health Department**

- **Disposal Pit**
 - Usually for Daily Mortality
- **Trench**
 - Catastrophic Losses

Disposal Pit Burial

- Anaerobic System
- Certain Distance Above Ground Water
- Certain Distance From Surface Water
- Air Tight Cover (anaerobic digestion)
- Pit Size for Layers Approx. 55 cu. Ft./1000 in Flock
- Should Have Alternative in Case of Higher than Normal Mortality

Rendering

- Environmentally Friendly
- Recycled Product
- Birds Must Be Held in Fly and Animal Tight Containers
- Cost
- Biosecurity is Major Concern
- Availability?

Composting

- Environmentally Friendly
- Produces a Valuable Product
- Requires Good Management
- Labor Intensive

Composting

- Aerobic System
- Requires Primary and Secondary Bins for Aeration
- Three Heat Cycles (140-160 F)
 - 1st approx. 20 days
 - 2nd approx. 13 days
 - 3rd approx. 13 days

Bird Composting

- 1st Heat-Primary Bin
- 2nd Heat-Secondary Bin
- 3rd Heat- Storage Pile

Composting

- C:N Ratio 15:1-35:1
- Moisture 45-55%
- Materials
 - Birds
 - Manure
 - Carbon Source (straw, wood shavings etc.)
 - Water

Composting

- **Daily Layering of Materials Until Bin is Full**
 - Carbon Source
 - Dead Birds
 - Manure

Composting

- **Bin Capacity Matched to Expected Daily Mortality**
 - 2.5 cu. ft./1,000 Hens
 - 2 Bins/65,000 Hens (5'X5'X8')

Cremation

- **Biosecure**
- **End Product (ash) Environmentally Safe**
- **Minimal Labor**
- **Multiple Sources and Capacities Available**
- **Initial Capital Outlay (>\$2,000)**
- **Energy Cost?**
- **Air Quality?**

Cremation

- **Best to Have One per Farm Site**
- **1-200 lb Capacity Cremator/100,000 Bird Farm**
- **Labor Estimated at 20 min./day**
- **Total Time aprox. 3-4 hours**

Sanitary Landfill

- **Will They Accept Mortality?**
- **If So, at What Cost?**
- **May Be Only Option for Large Numbers**

Alligator Ponds

- **My Personal Favorite**
- **Alligators are Indiscriminant Carnivores**
 - They Do Like Chicken
 - But They Also Like Fly Inspectors and Terrorists!

Choosing a System

- **Availability of Services (Rendering)**
- **Local Regulations**
- **Concern for Biosecurity**
- **Urban Encroachment**
- **Costs**

Summary

- **Various Alternatives Available**
- **Each with Advantages/Disadvantages**
- **Choice will Depend on Several Factors & their Relative Importance**
 - **Biosecurity**
 - **Environmental Impact**
 - **Cost**