

EUTHANASIA FOR COMMERCIAL TURKEY FLOCKS

By

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Euthanasia for commercial flocks of poultry can be a difficult task. The goal of this presentation is to share some of our experiences of what worked and what didn't work so well. Our mission was to try to humanely euthanize the birds following State and Federal guidelines and keep our people as safe as possible. The information that will be presented is the experience and opinions of our group during the Avian Influenza outbreak in Virginia in 2002.

BACKGROUND:

➤ Epidemic overview: Cases

Commercial turkeys	125
Breeder turkeys	28
Commercial broilers	13
Breeder broilers	29
Commercial eggs	2
Total farms	197
Total birds	4,743,560

➤ First case diagnosed March 8, 2002

➤ Last case diagnosed July 2, 2002

➤ 79% of total cases were turkeys

➤ Bulk of cases March 30-May 26

➤ AI disposal costs: (in millions)

Turkey	7.255
Broiler	.828

➤ AI related losses: (in millions)

Turkey	100.3
Broiler	28.7

TYPICAL FARM: (example)

➤ 45,600 total birds on farm

➤ 22,800 14 week old hens- average weight of 16 lbs.

➤ 22,800 4 week old hens- average weight of 3 lbs.

- 352,000 lbs. + 66,000 lbs=418,000
- average rendering trailer holds (legally) 24,000-30,000 lbs. of birds
- depopulation of this size needs approximately 14 rendering trucks

SUPPLIES NEEDED AND COSTS: (all costs are approximate and based on local costs)

- CO2-\$400
- Black plastic sheeting 6 mil (100 X 60 rolls)-\$100 X 32 rolls=\$3200
- Rendering trucks-\$500/load X 14 loads=\$7000
- Payloader and operator \$1200
- Landfill fees @ \$75/ton =\$15,675
- Skidloaders- 2 @ \$200/day rental=\$400
- Labor-20 people @ \$10/hour X 10 hours=\$2000
- Miscellaneous supplies=\$300
- **TOTAL COSTS=\$30,175**
- **COST/LB=\$.072/lb**
- ***Not included in these costs are related costs of running “clean” and “dirty” equipment and people. All equipment and labor had to be kept separate; i.e. don’t let people or equipment involved in an AI depopulation go to an AI negative farm.

EUTHANASIA:

- All birds to be euthanized in barn they are in. Do not try to move turkeys into another building. This increases the risk of spreading the disease. Also sick birds do not move very well.
- Remove litter from area where birds are to be euthanized. We pushed litter to sides and back of barn. This works best so that when the dead birds are loaded onto the rendering trailers you don’t have a lot of extra litter going with the dead birds. If you can’t move the litter out of way it will take more trailers and increase land fill costs due to increased tonnage.
- Build a large pen using loadout boards and pins. You will need to brace corners if barn is clear span, if not, use posts to anchor boards. Do not make pen too large or you will have problems with CO2 not reaching all corners.
- Remember to build the pen near the loadout door. The dead birds need to be closest to loading door for ease of loading.
- Roll out one roll of black plastic. Secure along side of one of the longest end of pen using plastic clamps.

- Use light-weight cording (we used plasson and nipple drinker cord) to zigzag a pattern across the pen. This will hold up the black plastic to give the fastest results with CO2.
- Begin to drive birds into the pen being careful not to let them pile up at the end, fill pen up with birds; they need to be fairly tight within the pen. Multiple smaller drives of birds works best, if you try to drive too many the birds don't work quite as well.
- Pull black plastic over entire pen using plastic clamps to secure. We used more black plastic and red-bags to fill into the gaps in the pen.
- CO2 is ready to go into the pen-use a pressurized CO2 truck not the canisters. CO2 can begin to fill pen. One person to hold hose and nozzle and spray across top of birds. DO NOT direct down onto birds. All birds in pen should be down in approximately 5-7 minutes, little turkeys will go much faster and big toms will take longer.
- One pen of older turkeys will usually not get all birds in house down. There are two options for the next drives:
 - If birds are small enough they will walk up over what is already dead and you can make another drive on top of them.
 - If birds are too large then bring in skidloader and push dead birds down in the direction of the loadout doors. You will need to tear down and re-assemble pen in a clean area.
- Continue until all birds are euthanized.

LOADING:

- Separate crew to come in and load. DO NOT attempt to let one crew do all the work. This takes a long time. Each operation will take 8-10 hours (euthanizing and loading) each, depending on farm size and number of birds to be handled. You will want a fresh crew for this. You also need experienced skid loader operators. This will go much faster with experienced operators.
- Make sure all loadout boards are down and just dead turkeys remain.
- Two skid loaders are needed to fill payloader bucket. Because of the height of the trailers no one has a skid loader to go high enough to reach to dump into trailer. Using 2 skid loaders will keep payloader bucket full and keep things moving.
- Rendering trucks had to be double lined with black plastic as per State and Federal guidelines. This operation takes a minimum of 8 people to get plastic into truck.

- Payloader dumps onto truck make sure he evenly distributes birds; you will not want to climb onto truck to re-arrange.
- When rendering truck is full, black plastic is folded up over top of dead birds and sealed, tarp goes over that.
- We used a 1000-1500 gallon stock tank and pressure washer mounted on a trailer to wash and disinfect all equipment and vehicles before leaving farm. This is an important step to prevent the further spread of disease.

DISPOSAL OPTIONS: (731 truckloads to be disposed)

- Landfill- we used a total of 5 landfills, they accepted 3.2 millions birds or 14,355 tons.
- Controlled slaughter-943,000 birds were allowed to be controlled slaughtered.
- Incineration-4 mobile incinerators processed 640,000 birds or 2,268 tons.
- Composting-Ag bag and conventional methods used to process 30,000 birds.
- On-site burial-2 farms

WHAT DOES NOT WORK?

- Do not plan to load birds live onto a rendering trailer and gas. Only top layer gets CO2 and rest is either still alive or smothered. Not a humane method.
- Do not use CO2 in 50-LB canisters, these are not pressurized and will freeze up long before you can get birds down.
- If you cannot get the CO2 on a pressurized truck using the larger 350-LB canisters will work but be prepared for problems. Hoses and fitting will freeze up long before canister is empty. Have extra CO2 on hand for this. Always have extra canisters available if you are using this method.
- Do not use turkey loaders to load dead birds onto rendering truck, this will take much longer than expected and is messy.
- Do not try to euthanize and load with one crew, too many hours involved and people will wear out.
- Do not attempt to in-house compost on any turkeys over about 6 weeks. There is not enough litter in the house to do a proper job of this on big birds.

CONCLUSIONS:

- Be prepared. It always takes more time, people and equipment than you expect.
- Have a plan. Line up trucks, labor, and equipment. Have one person be the point person and make sure they have communicated the plan to everyone.
- Take care of your people and growers. This is a hard and unpleasant job. It is mentally tough on everyone. Make sure your crews have enough rest and you have enough drinks and meals on farm before you get started.(you don't want any extra traffic on and off farms while doing this)
- Have a person in charge of each operation. You will need good supervisors for a job like this.