

# FACT SHEET

L-1653

## PROPER SANITIZATION OF BROILER AND PULLET HOUSES

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Broiler houses should be cleaned thoroughly and properly treated with an approved disinfectant once a year and after every acute disease outbreak. Pullet houses should be cleaned and treated after every flock. The main purpose of cleaning and disinfecting, or sanitizing, is to reduce disease-causing organisms to non-infectious levels. The cleaning and disinfecting of a house after removal of birds does not sterilize the house or completely eliminate all pathogenic organisms. However, this procedure will reduce pathogen populations drastically.

The most important aspect of sanitization is a good cleanup of the house. No disinfectant will do a satisfactory job if organic matter and filth are present. Cleaning will remove 90 to 95 percent of the adhering contaminating material and make possible the killing of pathogenic organisms with an approved disinfectant.

### Procedure

The following procedure should be followed in effectively sanitizing against infectious diseases:

- A. Remove all litter by cleaning completely along the walls, in the corners and around posts. Washing the building down lightly to settle the dust and to transfer germ-laden dust to the litter may be done before removing litter. No litter should be allowed to remain around the outside of the house and an area 8 to 10 feet around the house should be cleaned. For stretched wire or caged pullet houses, clean wire, manure pits and dropping areas.

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Fig. 1. Remove manure, feathers and litter first.

- B. Thoroughly clean bulk feed bins of all caked feed and remove all caked material in feed bins and auger-ways.
- C. Non-attached equipment should be removed, cleaned and disinfected. Brooders and feeders can be cleaned and disinfected in the building.
- D. Wash down the inside of the building (ceiling, walls, wire and curtains) and equipment. Scrape or brush where necessary to loosen and remove filth. Use water at a pressure of 200 to 400 pounds if possible. Turn off electricity when spraying and washing near electrical outlets. Wash the wire and curtains outside the building.



Fig. 2. Washing and disinfecting equipment must be capable of delivering 200 to 400 lbs. of pressure.

- E. When the house has completely dried, spray the entire house and equipment remaining in the house with an approved disinfectant. Spray an area no less than 10 feet wide around the outside of the house. An approved insecticide may also be used.
- F. Add new litter and return cleaned and disinfected equipment to the house.
- G. An approved rodent control program should be implemented before cleanup and continued afterward to reduce any carryover of pathogens. Anticoagulants or zinc phosphide provide good results when treatment procedures are followed properly.

Partial house brooding may create special problems and necessitate more frequent sanitization of housing and equipment.

### Choosing A Disinfectant

**Coal Tar Distillates.** Cresylic acid, cresols and xylenol products are the most popular disinfectants for sanitary foot baths and terminal house and equipment disinfection. These compounds are highly resistant to the inhibitory effects of organic debris (blood, feathers, manure, etc.) and make satisfactory disinfectants for floors (dirt or cement), walls and ceilings. Cresols have a strong residual action, a characteristic odor and a fairly wide range of action on bacteria, fungi and viruses. Many commercial disinfectants have detergents included in the solution. Do not add soap or extra detergent unless recommended on the label since this could alter the disinfectant's chemical composition and reduce effectiveness. Also, hard water may affect disinfectants, so check with manufacturers for this information. Following disinfection, a water rinse may be used on feeding or watering equipment to avoid objectional odors.

**Synthetic Phenols.** Phenols have a good residual action and are second only to the coal tar types for

disinfecting poultry houses and equipment. They have less resistance to organic matter, but are more active than quaternary ammonium compounds, chlorine and iodophors.

**Quaternary Ammonium Compounds.** Quaternary ammonium compounds, or "quats," are incompatible with some cleaning agents. They are sensitive to hard water and are quickly inactivated by organic matter. However, if the area to be disinfected can be cleaned thoroughly, "quats" work well since they are readily soluble in water, act rapidly and have residual properties. They are useful in hatcheries and in disinfecting feeding and watering equipment; they also have some deodorizing properties.

**Iodophors.** These are iodine compounds available as water-soluble surfactant (detergent-like) solutions. They can be used as disinfectants or sanitizers; work well on precleaned surfaces; have a wide range of activity on bacteria, fungi and viruses; can be used in hard water; and have an activity indicator — the solution is no longer good when it loses its yellow color. However, they are inactivated by high organic levels and have no residual action.

**Other Disinfectants.** Other disinfectants include strong alkalis, chlorine, methyl bromide and formaldehyde. These agents are not suitable for disinfecting poultry houses.

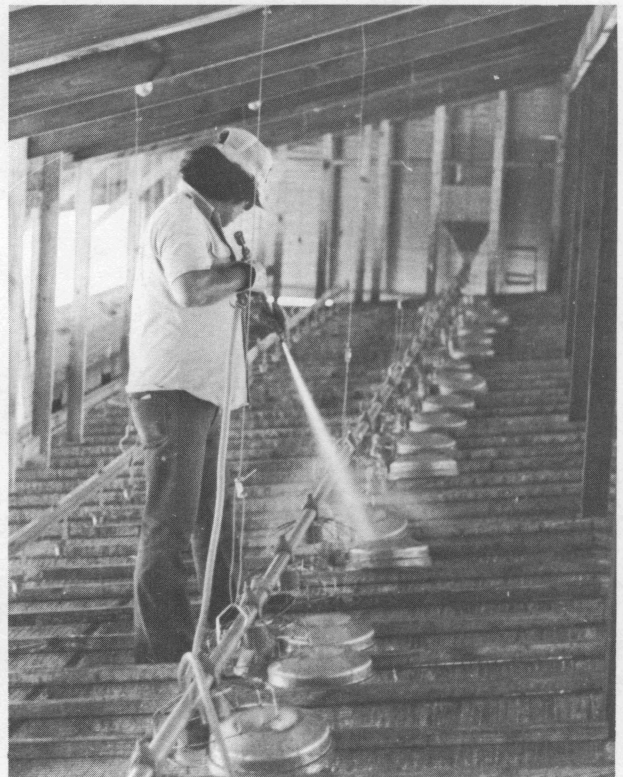


Fig. 3. Any type of poultry housing needs to be cleaned and washed thoroughly before the disinfectant is applied.

## Safety Precautions

Most cleaning and disinfecting agents are poisonous and carry special warnings or residue precautions. A certain amount of hazard is inherent in their use and safety precautions should be taken. Keep all cleaning and disinfecting agents safely stored away from pets, children, livestock, feeds, food and unau-

thorized persons. Always keep labels on containers, read and follow label instructions and recommendations carefully, carry concentrated materials in closed containers, and dispose of empty containers in a proper manner. Avoid breathing vapors or mist from disinfectants, prevent skin contact with concentrated solutions, and wear a face mask and goggles when spraying these compounds.



*Fig. 4. After proper sanitization, the poultry house should look and smell clean.*

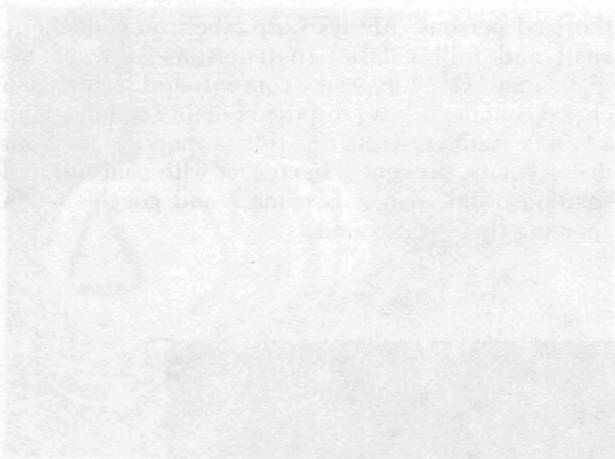


Fig. 2. Worker in protective suit and mask disinfecting floor.

- E. When disinfecting the entire house, the house should be closed and no one should be inside. If possible, the outside doors should be closed.
- F. Add disinfectant to the water in the bucket.
- G. An appropriate amount of disinfectant should be used. The amount of disinfectant to be used should be provided on the label of the disinfectant.

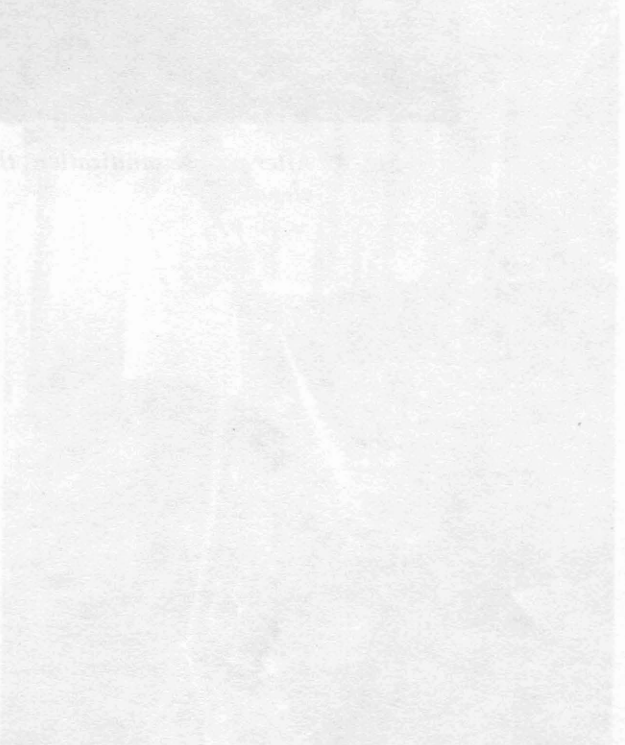
Partial house disinfection may include special disinfection and application of disinfectant to floors, walls, ceilings, and equipment.

**Choosing A Disinfectant**

**Coal Tar Disinfectants.** Cresylic acid, cresols and related products are the most popular disinfectants for sanitary foot baths and terminal baths and equipment disinfection. These compounds are highly resistant to the injurious effects of organic debris (blood, feathers, manure, etc.) and make satisfactory disinfectants for floors (dust or cement), walls and ceilings. Cresols have a strong residual action, a characteristic odor and a fairly wide range of action on bacteria, fungi and viruses. Many commercial disinfectants have detergents included in the solution. Do not add soap or extra detergent unless recommended on the label since this could alter the disinfectant's chemical composition and reduce effectiveness. Also, hard water may affect disinfectants, so check with manufacturers for this information. Following disinfection, a

thorough rinsing is essential to remove any residual disinfectant. If the disinfectant is highly caustic, the person disinfecting should wear a protective suit and mask. If the disinfectant is not highly caustic, the person disinfecting should wear a protective suit and mask. However, if the disinfectant is not highly caustic, the person disinfecting should wear a protective suit and mask.

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