Effective cleaning and disinfecting (C&D) methods can substantially decrease disease transmission by reducing pathogens in the environment below infectious levels. By reducing the number of surviving pathogens, the likelihood of disease being passed to an uninfected flock will be reduced. A thorough cleaning and removal of all organic material from the environment must always precede disinfection, so that the pathogens come in direct contact with the disinfectant.

Thorough C&D coupled with an all-in, all-out farm replacement is recommended to prevent disease transmission from old flocks to new ones. While all-in, all-out farm replacement is the most effective policy from a disease prevention standpoint, it may not always be economically feasible. Therefore, poultry producers need to customize their C&D programs to their individual situations.

Cleaning and disinfecting should also be applied to all aspects of human and mechanical traffic between farms and flocks, in addition to sanitizing poultry houses between flocks. Ideally, separate crews and equipment should be used for each flock. When this is not possible, special care should be taken to reduce the likelihood of disease transmission by effective cleaning and disinfecting of vehicles, equipment, and people (see Biosecurity on Chicken Farms, Chapter 28).

29-A. PREPARING THE HOUSE

Preparing the house begins with removing the previous flock and continues through removing all manure and providing a sufficient empty house down period to allow time for a die-off of residual pathogens that
may have survived the C&D process. Some important steps of the process include:

- Bird removal
- Litter or manure removal
- Feed system sanitation
- Water system sanitation
- Vector control
- Housing and equipment sanitation
- Idle (down) time between flocks

**Bird Removal**

Removal of all birds from the depopulated house or farm is absolutely essential to breaking a disease cycle from flock to flock. *Fugitive* birds are a perfect reservoir of pathogens and will meander from house to house in their search for feed and water. Unavoidably, a few birds will escape from loading or catching crews; these birds must be caught and disposed of before the C&D process can be complete. Fugitive birds are most easily caught after sundown when they are quietly hiding from predators.

**Litter and Manure Removal**

Manure or litter should be completely removed from the house and transported as far away as possible. Manure and litter contain disease vectoring insects and bacteria or viruses that were shed by the previous flock. Distance from the poultry house is an important consideration because manure and litter can be very attractive to free-flying wild birds that can transmit poultry pathogens.

In contradiction to principles of disease prevention, incomplete manure or litter removal is sometimes recommended for reasons of filth fly control in caged layer facilities or economic reasons in floor bird operations. Some local environmental health departments require that cage layer facilities leave a 3 to 4 inch (7.6 to 10.2 cm) dry base of manure to aid in manure drying for the new flock (see *External Parasites, Insects, and Rodents*, Chapter 12). To reduce the cost of litter materials, some broiler producers use a built-up litter system (see *Broiler Management*, Chapter 43). In either situation, all wet manure or caked litter must be removed during the C&D process. In all cases, a complete clean-out should occur when abnormal mortality or a disease break is experienced in the previous flock.

**Feed System Sanitation**

All remaining feed from the previous flock should be removed from the system. Residual feed left in the house is an attractive food source for ro-