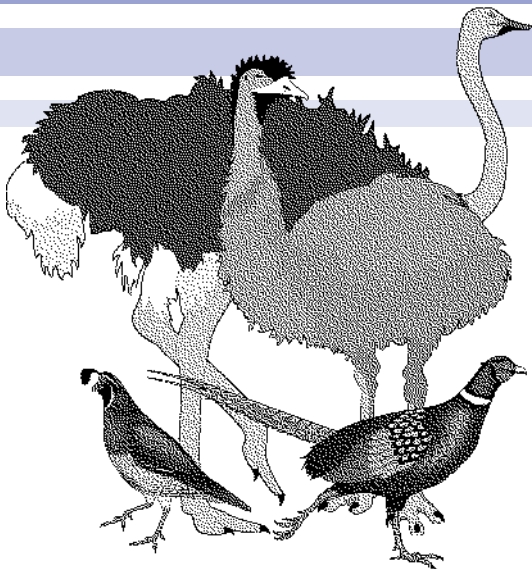


# Avian Influenza Prevention in Gamebird and Ratite Facilities

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*Avian influenza is a potentially deadly disease that has often plagued the United States poultry industry. This disease can cause decreased production or result in high mortality. In 1983-84, influenza resulted in the depopulation of 17 million birds at a cost of \$65 million. Egg producers and poultry growers can reduce the spread of avian influenza by using strict confinement procedures. However, certain management practices necessary for gamebird and ratite production (ostriches, emus, etc.) may render these facilities more vulnerable to infection.*

## Background

Avian influenza poses no threat to human health, but it may be deadly to many avian species. Mild forms of the virus can persist and spread without much notice until it mutates into a more virulent form, causing death.

Several poultry farms in Mexico have become infected with the virus. Because the virus can be easily transferred by birds, migratory water fowl are expected to carry the virus to the United States during seasonal migrations. Thus, gamebird flight pens and ratite ranges are open to exposure to the virus since it is more difficult to prevent bird to bird contacts in these open facilities.

Symptoms of avian influenza infection can include reduced egg production, reduced feed and water consumption and diarrhea. Respiratory distress may be the most common indication of infection. The mild form may result in low mortality, while acute infections may lead to near 100 percent loss of the birds. Eggs that have lost some degree of normal pigmentation also may indicate the presence of the disease.

No specific medications are available for avian influenza. Many strains of avian influenza exist, making vaccina-

tion plans difficult to implement in the poultry industry. Furthermore, most vaccines have not proven to be effective for gamebird and ratite growers.

## Practice Biosecurity to Prevent Disease

Biosecurity refers to all the practices necessary to prevent the spread of disease to your farm. Adhering to a strict biosecurity program will ensure that your farm has done the best it can to prevent diseases from spreading to your flock. Basically, you must isolate your stock as much as possible from potential carriers of the virus; reduce visitations as much as possible; and clean and disinfect your facilities often.

### *Gamebird and Ratite Producers are Uniquely Exposed to Potential Carriers of Avian Influenza*

Many gamebird producers condition their birds for release by placing them in flight pens. Although the flight pens are usually enclosed by screening, small birds and rodents can sometimes easily move through the screen and come into contact with the stock.

Ratite producers also are exposed to potential influenza carriers. Most ratites are allowed access to open range. In this type of operation it would be almost impossible to totally isolate stock from other avian species.

Avian influenza has already infected some gamebirds and ratites. Although it may be impractical to strictly confine all stock, there are some steps that can be followed to prevent or reduce the spread of this deadly virus.

- Move or locate new facilities away from ponds and waterways used by migratory fowl, such as ducks and geese. Do not allow these fowl to feed in or near your facilities.
- Reduce the number of visitors to your farm as much as possible. If tours are necessary, consider allowing access to only a few of your stock and keep these birds isolated from the remainder of the farm. Also, provide a separate visitor's parking area that is isolated from the remainder of the farm.
- Repair holes or tears in flight pen screening to prevent birds, such as sparrows and starlings, from entering.
- Gamebird farms that sell hatching eggs or one-day-old chicks should maintain

all breeders in confinement rather than allowing access to an outside range.

- Food provided to ratites in open pens is very attractive to birds. Feed spillage should be reduced as much as possible. Dispose of old feed properly so that other birds are not drawn to your facility.
- Open "birdhouses" used by ratite producers are a popular nesting place for small birds, such as sparrows and starlings. Never allow these birds to establish nesting areas in the huts or around nearby farm buildings.
- Separate birds by ages if possible. Breeding stock should be separated from offspring. On a daily basis, farm workers should visit the most valuable birds first, then move to the less valuable ones. Never reverse the process during the day unless you bathe and change to clean clothing.
- Be a good neighbor. Stay away from other poultry, gamebird and ratite farms.
- Post warning signs at all entrances to the farm property that indicates your concern of diseases. Keep all facilities locked when possible.
- Know the source of any new stock that you intro-

duce to the farm. Quarantine new stock for at least four weeks. Do not accept birds from farms known to be infected by avian influenza. At this time, it would be unwise to accept gamebirds or ratites that you suspect have been through Mexico.

- Any equipment leaving the farm should be cleaned and disinfected prior to returning to the farm.
- Practice good waste management. Avian influenza is spread through the feces of infected birds so manure must be stored where people or vehicles do not come in contact with it. Carcasses should be disposed of properly by burial or incineration.
- Place foot baths containing disinfectant at the entrance to all rooms or pens.
- Discourage rodents and other animals from entering the premises by keeping debris away and maintaining baited poison stations.
- Gamebird producers should never release infected stock for hunting preserves. Diseases could be transferred to local wildlife and reduce their populations.
- Isolate sick birds from the remainder of the stock.
- Maintain records of all transactions for tracking purposes in case of disease outbreaks.
- Sick or dying birds should be submitted to a laboratory for diagnosis. Contact the Diagnostic Laboratory at the Kansas State University College of Veterinary Medicine—913-532-5650.



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