A significant part of the $9.6 billion poultry industry would be lost if any of several different foreign diseases were to enter and spread in the United States.

**Exotic Newcastle disease** (velogenic viscerotropic Newcastle disease) is considered the most dangerous of the foreign poultry diseases because of the ease with which it can spread among chickens, turkeys, pet birds, and other avian species, and its ability to stop egg laying or kill most affected birds.

It appears in a variety of different forms, often seen in chickens as a fatal disease with difficult breathing, swelling of the face around the eyes, and sometimes diarrhea. Pet birds also may exhibit these signs, and some may show abnormal motions or positions of a leg, wing or the head, caused by nerve damage. The first birds to die in a new outbreak may give no warning they are sick.

Chickens that have been properly vaccinated for Newcastle disease and then become infected with the exotic virus may harbor and shed exotic Newcastle disease virus without showing signs of sickness. These can become potential sources for new outbreaks in unvaccinated chickens and other susceptible birds.

It is sobering to know that an outbreak of exotic Newcastle disease in Southern California in 1972 took 2 years and $56 million to eradicate. It would cost an estimated $280 million in production losses each year if this disease were to become established in U.S. poultry flocks.

**Avian influenza** is another virus-caused disease that var-
ies widely in the kinds of changes it can produce in infected chickens and turkeys. Humans are not susceptible to avian influenza.

The most lethal form of avian influenza has not been reported in the U.S. since it was eradicated in 1929. However, in 1983 a highly lethal form suddenly appeared in Southeastern Pennsylvania and spread to small areas of Virginia, Maryland, and New Jersey. Experts believe the source of this outbreak was wild waterfowl.

Lethal avian influenza causes deaths in a high proportion of the chickens or turkeys in affected flocks, while ducks and other waterfowl can harbor and shed the virus without becoming sick. Some strains of avian influenza are mild, causing little or no sickness, even though they continue to spread and have the potential to change suddenly and become killers.

Chickens with lethal avian influenza may show swelling of the face around the eyes, dark purplish discoloration of the comb and wattles, skin hemorrhages, and sometimes swollen hock joints and purplish discoloration of the shanks. In laying hens, the first sign is often a sudden drop in egg production, with many eggs laid with no shells or soft shells.

Pet birds are considered susceptible to avian influenza virus, but few of those with the virus show any sign of sickness. Sudden death of pet birds that have been recently bought should prompt their owners to consider either avian influenza, exotic Newcastle disease, or chlamydiosis (parrot fever) as the possible cause—and obtain the services of a qualified veterinarian.

**Egg drop syndrome** is caused by an adenovirus of ducks that can sometimes affect chickens, causing a decrease in the number of eggs laid each day by the infected flock, or as a failure of layers to come into full production. Both effects can make egg production unprofitable.

The disease has been reported in Ireland, England, the Netherlands, Japan, and Australia. The virus also has been isolated from normal domestic ducks in the United States.

**Goose Hepatitis**

Wild and domestic geese and Muscovy ducklings are susceptible to the virus of goose hepatitis, which causes a watery, white diarrhea, discharge of fluids from the eyes and nasal openings, and death of many...
Prevention of foreign diseases in poultry and other avian species requires cooperation by all who import poultry, eggs and other poultry products or pet birds. Regulations requiring isolation and testing of birds entering the United States are designed to keep out diseases.

goslings. Goslings that survive may not grow, but remain as runts.

**Chlamydiosis**

Psittacosis or chlamydiosis may not be foreign to the United States. However, the U.S. Public Health Service and USDA recommend giving specially medicated feed to all imported hook-billed birds to rid them of possible psittacosis infection immediately after arrival in this country.

Affected parrots and turkeys may have diarrhea and other signs similar to those described for exotic Newcastle disease and avian influenza. Humans are susceptible to the psittacosis organism. The disease in turkeys and other non-psittacine birds is called ornithosis.

Prevention of foreign animal diseases in poultry and other avian species requires cooperation by all who import poultry, poultry eggs, and other poultry products, or pet birds, including persons who bring these items with them when entering the United States from abroad. A more detailed discussion of prevention, and an outline of the way this country is prepared to respond to introduction of a foreign animal disease, are given in a chapter titled *Barring the Door to Foreign Diseases* in the first section of this book.