

Protecting Cage (Exotic) and Aviary Birds Against Exotic Newcastle Disease

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On October 1, 2002 **Exotic Newcastle disease (END)** was confirmed in backyard poultry and gamefowl in southern California. Since that time, numerous backyard premises have been quarantined for END. The disease has also spread into flocks of commercial layer chickens in the same area of California. The California Department of Agriculture and USDA/APHIS are presently working to eradicate the disease. Several counties or portions thereof are under a state and federal quarantine to restrict bird movement. The disease has also been confirmed in the Las Vegas, Nevada area in backyard chickens. To date there has not been a problem diagnosed in exotic cage and aviary birds in these areas. However, these types of birds are susceptible to the disease and as such are at risk. An outbreak in exotic cage and aviary birds can be extremely costly. An outbreak in 1980 in Florida cost USDA/APHIS over 1 million dollars to eradicate and resulted in the death of approximately 8,000 birds and additional depopulation of over 30,000 birds in 23 states.

The **causative agent** of END is a **virus** in the family Paramyxoviridae. Infected birds can shed the virus in the feces and other body secretions and some birds may not be showing clinical signs. The virus can persist in feces and moist soil for long periods of time. Birds can also contract the disease by direct contact with infected birds, feces or other body secretions, exposure over short distances to aerosols from coughing and sneezing, or contaminated equipment, clothing, etc. This virus has a variable **incubation period** (17 days or less) depending on the specie of bird infected, strain of virus, other infections in the bird, various management factors, stressors, etc. Some exotic cage birds are highly susceptible (Amazon and Eclectus parrots, Cockatoos, Macaws) whereas others act as carriers and may not develop clinical signs (finches, Lories, Mynah birds, Budgerigars). The **clinical signs** of the disease are also variable and may resemble other diseases. Some birds contract the disease and die without showing signs whereas others develop disease and recover. Nervous system signs such as tremors, shaking of the head, twisting of the head, and paralysis may be present. Other signs that can be observed are depression, lack of appetite, weight loss, diarrhea, difficulty breathing, eye and nasal discharges, coughing, etc. Birds may or may not develop lesions associated with the disease. Lesions observed can be small hemorrhages on fatty tissues or in the digestive tract and respiratory tract. The spleen and liver may also be enlarged in some birds. However, since the symptoms and lesions are not exclusive for END the disease must be differentiated from similar diseases. The disease can be diagnosed in live birds by virus isolations from fecal, choanal, cloacal, and tracheal swabs. In birds that have died the virus can be isolated from various tissues such as lung, brain, intestines, etc. Serological testing can also be used as a screening test. There is no effective cure for the disease and the disease is eradicated by strict quarantine, surveillance, and depopulation. The best way to reduce the risk of introducing the disease into your birds is by following **Biosecurity** practices (Additional information on Biosecurity is available at

<http://www.uark.edu/depts/posc/avianindex.html>) . Some examples of such practices are :

1. Do not purchase birds that appear sick or that may have been illegally brought into the country.
2. Avoid sick birds if at all possible.
3. Practice good hygiene principles.
4. Clean and disinfect thoroughly.
5. Do not visit aviaries that have sick birds.
6. Prevent rodents and wild birds from entering the facilities where birds are kept.
7. If you visit a facility with birds that may be suspected of being infected it is important to change clothes, shower, wash your hands and thoroughly disinfect all items taken on the premise before contact with your birds.
8. Report signs of disease immediately and get a veterinary diagnosis immediately.

For additional information or to report disease contact any of the following:

County Agent, Local veterinarian

State Veterinarian State Veterinary Diagnostic laboratory

Extension Veterinarian