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Avian Advice

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Virulent Newcastle Disease

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Virulent Newcastle Disease (vND) is a highly contagious and fatal RNA viral disease that can affect poultry, parrots and, many other species of birds. The disease was formerly called Exotic Newcastle Disease (END) and is found in many countries of the world. This disease is one of the most infectious diseases of poultry and can cause birds to die without showing any signs of disease. The disease can cause a death rate of almost 100% in poultry flocks.

vND in Backyard Poultry in California

Current Status

In May 2018, the first case of vND in the US since 2003 was diagnosed in a backyard exhibition flock in Los Angeles County in California. Due to movements of sick or exposed backyard birds from infected premises to uninfected premises, the disease has continued to spread. As of September, 2018, there has been more than 138 confirmed cases of vND in backyard poultry located in San Bernardino, Riverside, Los Angeles and Ventura County.

No commercial premises are involved in the current outbreak, and vND has not been found in commercial poultry in the US since 2003. vND is not a food safety concern. No human cases of Newcastle disease have ever occurred from eating poultry products. Properly cooked poultry products are safe to eat. In very rare instances people working directly with sick birds can become infected with mild symptoms.

Response Efforts

The introduction of Virulent Newcastle Disease (vND) is an ongoing threat to all U.S. States.

The last two large scale VND outbreaks in California were most likely related to importation of exotic birds (1971 Mexican double yellow-headed parrot from South America; 2002 ring neck parrots from Central or South America). These species are more likely to harbor the disease without showing clinical signs.

Both previous large California outbreaks included:

The possible illegal importation of psittacines, which lead to a spill-over of vND virus into backyard chickens and subsequent spread between dense backyards in southern California. In the previous outbreaks, there was a lack of on-going government commitment and funding to eradicate vND in backyard flocks, which lead to the eventual spread into and within commercial poultry. Due to the previous spread of vND

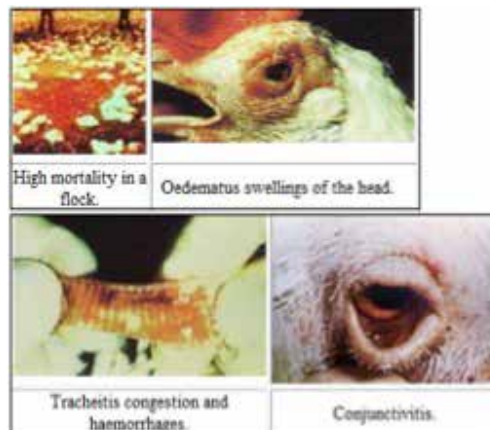
into commercial flocks, the overall response was more expensive and prolonged.

The lesson learned from the previous outbreaks includes: A strong and sustained eradication effort upon first detection of vND in backyard flocks in the US.

The 2002-2003 virulent Newcastle Disease outbreak in the USA in California, Arizona, Texas, and Nevada, resulted in the culling of over 3 million birds and cost over 180 million dollars in Federal funds to eradicate the outbreak.

The current outbreak in California in backyard poultry is being met with an intensive, coordinated response between the California Department of Food and Agriculture (CDFA) and the United States Department of Agriculture (USDA) Animal Plant Health Inspection Service (APHIS). In excess of 100 employees of these agencies have been working tirelessly in the Los Angeles area of California to identify, quarantine and depopulate infected backyard flocks in order to prevent the further spread of vND. It is important to eradicate this virulent, highly contagious Foreign Animal Disease to prevent an introduction into commercial poultry, which could lead to international trade restrictions and enormous economic losses for the US poultry industry, the USDA and any state agencies involved in response efforts.

What you can do as a poultry owner to protect your flock from vND:



Recognize the signs of vND in your flock:

- Sudden death or increased death losses in a flock.
- Neurological signs such as twisting of the head and neck, wing drooping, tremors
- Greenish, watery diarrhea
- Other non-specific signs such as coughing, sneezing, nasal discharges, egg production drop and lethargy

NOTE: Many of these signs can occur with multiple diseases in poultry that are not vND. If you have signs of disease in your poultry flock please contact:

**Arkansas Veterinary Diagnostic Laboratory
1 Natural Resources dr.
Little Rock, AR 72205
501-823-1730**

Or

**University of Arkansas Veterinary Diagnostic Laboratory
2200 W Deane St.
Fayetteville, AR 72703
479-575-4827**

Prevent the introduction of disease into your flock:

Transmission of vND

Virulent Newcastle disease is spread through secretions (eye, mouth, and nasal discharges and feces). The incubation period is approximately 2-15 days. The virus can survive in the environment on feathers, in manure, and on other materials for several weeks depending on the humidity, temperature, and exposure to sunlight. The virus can be carried from an infected flock to a non-infected flock on contaminated shoes, clothing, egg crates, tires, etc.

For poultry, chickens are most susceptible and ducks and geese are the least susceptible. Mortality rates for Psittacine birds (parrots) can range from zero up to 75%. Certain parrots, especially Amazon parrots, can shed VND virus intermittently in excess of one year. Other birds may be infected, but may not show any symptoms and may still be able to spread the disease. Once VND is introduced into domestic avian populations, subsequent spread is normally caused by domestic bird-to-bird contact or through contact with contaminated people, feed or equipment.

Biosecurity

There is no cure for vND so prevention is extremely important. The most important tool to assist in preventing this disease or any infectious disease is Biosecurity. Biosecurity includes the practices and procedures used to prevent the introduction of disease into a flock and to prevent the spread of disease between flocks. All bird owners should follow good biosecurity practices to help protect the health of their birds, including:

- **Prevent or limit visitor access** to your poultry flock. Do not allow people who own other birds to come in contact with your birds.
- **Purchase replacement poultry from NPIP certified flocks and hatcheries**
- **Isolate poultry additions at least 100 feet from your existing flock for 30 days** before adding them into your flock. This will reduce the risk of introducing disease into the original flock.

- **Wear a set of coveralls and boots dedicated for poultry work** only that never leaves your farm
- **Regularly disinfect clothing and boots** via sprays and boot washing prior to and after entering poultry houses/ hen houses
- **Prevent access of wild birds, insects and rodents** to your poultry, their feed and water.

The poultry grower is the first line of defense for your flock be it a commercial flock or a hobby flock. Commercial poultry growers should follow their integrators policies on Biosecurity and should contact their service personnel if they have questions or problems. Hobby and small flock owners with questions can contact the Arkansas Cooperative Extension service (or visit the website at www.uaex.edu), local county Extension agent, Extension poultry veterinarian, Arkansas Livestock and Poultry Commission, Arkansas state veterinarian, assistant state veterinarian, or USDA poultry health specialist.

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