

Aspergillosis



Fig 1. Lung of turkey poult with Aspergillosis



Fig 2. Lung covered in "granules"

Aspergillosis is a respiratory disease caused by a fungal species known as *Aspergillus*, in which the typical sign is gasping for breath, especially in young birds. Aspergillosis affects chickens, ducks, turkeys, waterfowl, game birds, and many other bird species.

Young birds are the most susceptible to infection, though older birds under stress or with compromised immune systems can develop chronic Aspergillosis.

Infection with Aspergillosis occurs through the inhalation of spores, typically from contaminated litter. Infections can also occur when infected eggs hatch during incubation and release large numbers of spores which are inhaled by other poults.

Incidence and severity of the disease increases under warm, wet, or humid conditions. Dusty conditions and environments that result in high levels of ammonia are also perfect breeding grounds for Aspergillosis. That's why contaminated poultry bedding is one of the most common sources of infection.

Signs and Symptoms

Aspergillosis mainly affects the respiratory system of infected birds, invading the trachea, air sacs and lungs. Infection is typically described as acute or chronic. Chronic infections can lead to severe respiratory distress, eye discharge, blindness, and neurological dysfunction.

Symptoms develop in the first 3-5 days after exposure. The most common symptom is rapid, open-mouthed breathing (gasping) due to gradual air passage obstruction. As the disease progresses, young birds will eventually exhibit lack of appetite, emaciation, increased thirst, and drowsiness. Eye swelling, blindness, and torticollis (twisting of the neck to one side) are also typical of Aspergillosis infections.

How It Is Spread

Aspergillosis in birds is not contagious from bird to bird. Birds are typically infected by inhaling spores found in the environment through moldy litter, poor quality feed, and poor bedding management practices. Factors that promote infection of Aspergillosis include:

- Warm, wet environments
- Poorly ventilated areas
- High humidity environments
- Long-term feed storage
- Impaired immunity

Treatment of Aspergillosis

There is no known treatment for Aspergillosis in infected birds, so prevention is key to controlling the disease and protecting flocks.

Aspergillosis Prevention

In order to effectively prevent Aspergillosis infection in your flock, it's important to control the factors that can lead to the growth of Aspergillus spores.

Practise Good Sanitation

Spores are highly resistant to disinfectants. Be sure to clean and disinfect equipment and air ducts in hatchery and brooder areas regularly. Thoroughly clean feed and water utensils regularly to avoid cross contamination of feed or bedding supplies. Frequently relocate feeders and water dispensers to discourage mold build-up.

Safeguard Feed Supplies

Store feed in clean, dry containers to avoid contamination with mold spores. Discard uneaten food to avoid fungal growth. Avoid dusty feeds that can spread fungal spores throughout the environment.

Safeguard Bedding

Replace bedding regularly to discourage the growth of fungus. Discard wet bedding as soon as possible.

Egg Handling

Store eggs destined for hatching away from dusty areas that may contain spores. Handle, transport, and store eggs to avoid sweating, which creates moisture that promotes fungal growth.

References

<https://www.freedomrangerhatchery.com/blog/what-is-aspergillosis-plus-how-to-prevent-it-in-your-flock/>

<https://thepoultrysite.com/disease-guide/aspergillosis>