

Mucsol®: A Supportive Tool in Managing Avian Metapneumovirus (aMPV) Outbreaks in Poultry



Avian metapneumovirus (aMPV) is a highly contagious viral pathogen affecting poultry, particularly turkeys and chickens, and is associated with swollen head syndrome (SHS) in chickens and turkey rhinotracheitis (TRT) in turkeys (Jones, 2019). The disease leads to severe respiratory distress, secondary bacterial infections, and economic losses due to increased mortality, poor feed conversion, and immunosuppression (OIE, 2021).

Since no direct antiviral treatment exists, disease management relies on biosecurity, vaccination, and supportive therapies to alleviate respiratory symptoms and improve recovery. Mucsol®, a mucolytic and respiratory support product from Animal Science Products, is designed to help clear excess mucus and improve respiratory function in aMPV-affected poultry.

Understanding aMPV and Its Impact on Poultry Respiratory Health

- aMPV primarily affects the upper respiratory tract, leading to:
- Increased mucus production, obstructing airways.
- Secondary bacterial infections (*E. coli*, *Ornithobacterium rhinotracheale*), worsening disease severity.
- Impaired oxygen exchange, contributing to poor growth rates and performance losses.

Because aMPV weakens the respiratory system, birds often require supportive therapies to maintain airway clearance, reduce inflammation, and prevent secondary infections (Naylor & Jones, 2020). Mucosol® is a critical tool in this approach, helping to reduce respiratory distress and support flock recovery.

How Mucosol Can Help in aMPV Outbreaks

1. Mucosol® as a Mucolytic Agent

Mucosol® contains **guaifenesin**, a proven mucolytic compound that breaks down thick mucus by disrupting disulfide bonds in mucoproteins. In aMPV-infected birds, this action results in:

- **Reduced mucus viscosity, making it easier for birds to clear their airways.**
- **Enhanced ciliary function, aiding natural mucociliary clearance.**
- **Improved oxygen exchange, reducing respiratory distress and promoting recovery.**

2. Reducing the Risk of Secondary Infections

Excess mucus accumulation in the respiratory tract provides an ideal environment for bacterial proliferation, increasing the risk of secondary bacterial infections such as colibacillosis (Naylor & Jones, 2020). By facilitating mucus clearance, Mucosol® helps:

- **Reduce bacterial colonization in the upper respiratory tract.**
- **Lower reliance on antibiotic treatments.**
- **Improve vaccine response, as a healthier respiratory system enhances immune function.**

3. Supporting Flock Recovery and Performance

aMPV infections cause significant production losses, primarily due to respiratory distress that leads to decreased feed intake, lethargy, and increased culling rates. Mucosol® helps mitigate these effects by:

- **Alleviating respiratory symptoms, allowing birds to maintain normal feeding behavior.**
- **Enhancing overall flock health, reducing the number of birds that require culling.**
- **Acting as an effective supplement to vaccination and biosecurity measures.**

How to Use Mucosol® During aMPV Outbreaks

Mucosol® is administered via drinking water, ensuring uniform flock coverage. Recommended usage includes:

Early intervention: Start treatment at the first signs of respiratory distress.

Continuous administration: Maintain for 3–5 days to ensure optimal mucus clearance.

Integration with supportive care: Combine with electrolytes, probiotics, and proper ventilation for improved flock resilience.

While aMPV remains a major challenge in poultry production, Mucosol® from Animal Science Products serves as an effective supportive therapy to minimize respiratory distress, reduce mucus accumulation, and mitigate the impact of secondary infections. When used alongside vaccination programs and proper flock management, Mucosol® helps improve flock health, reduce economic losses, and support optimal poultry performance during aMPV outbreaks.

Jones, R. C. (2019). "Avian metapneumovirus infection: A review." Avian Pathology, 48(2), 77–89.

Naylor, C. J., & Jones, R. C. (2020). "Avian metapneumovirus infections in poultry." Veterinary Microbiology, 246, 108727.

OIE (World Organisation for Animal Health). (2021). Avian Metapneumovirus Infection.

