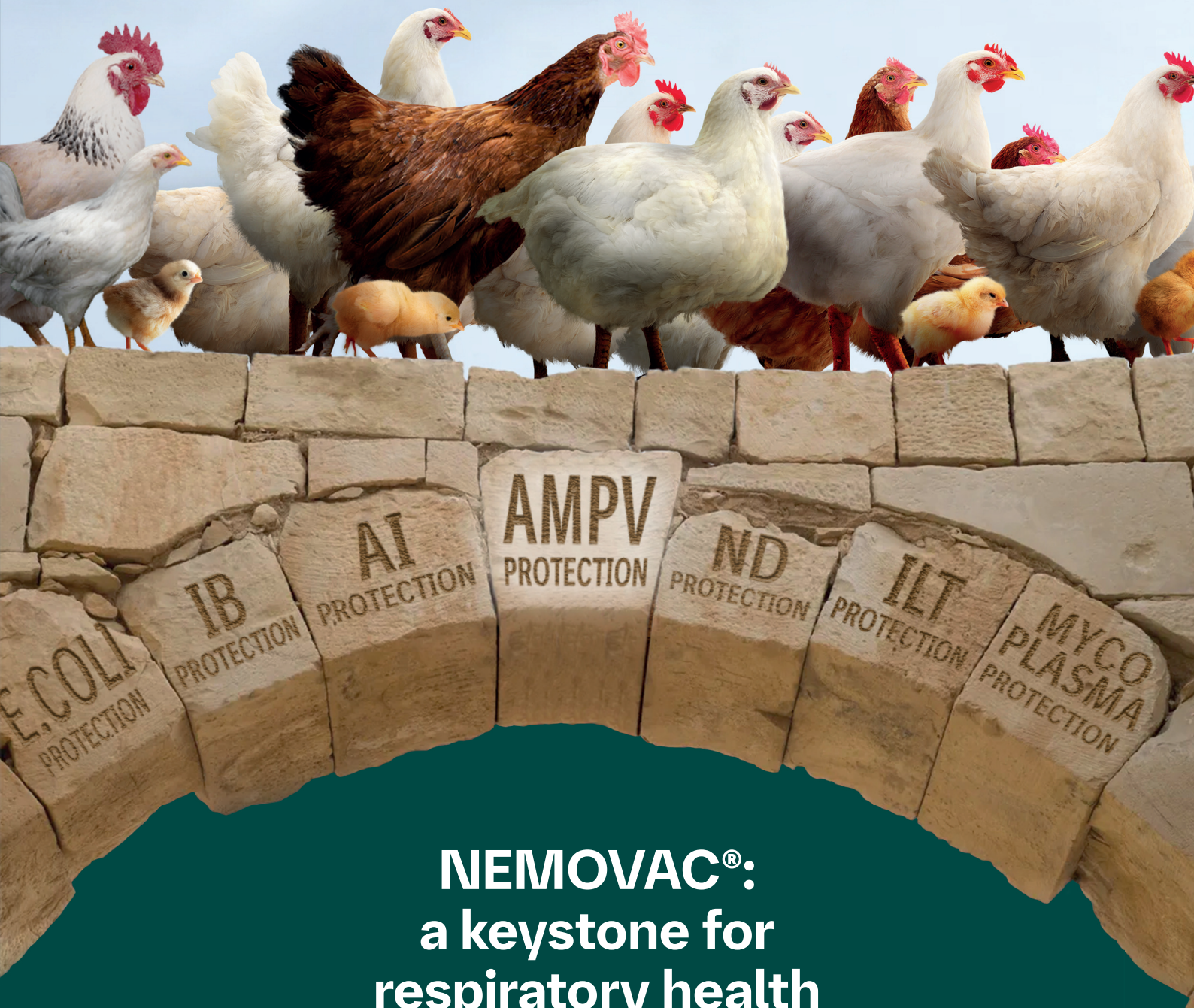


NEMOVAC®

Protection against aMPV



NEMOVAC®: a keystone for respiratory health

1

Benefit from the first chicken origin PL21 strain for strong protection against virulent aMPV and safety

2

Preserve performance levels in your broilers, breeders or layers flocks

3

Prevent secondary viral and bacterial infections



Boehringer
Ingelheim

NEMOVAC[®], the first chicken-derived live avian metapneumovirus vaccine

**Avian rhinotracheitis (ART)
is caused by the avian
Metapneumovirus (aMPV).**

The virus causes micro-lesions in the upper respiratory tract (sinus, trachea and bronchi) and inhibits the activity of tracheal epithelial cilia. This predisposes the birds to other infections, by numerous viruses (e.g., infectious bronchitis, Newcastle disease) and bacteria (e.g., *E. coli*, *Mycoplasma*, *Pasteurella*, *Ornithobacterium*). **ART also referred to as Swollen Head Syndrome (SHS)** which is a multifactorial syndrome caused by various respiratory viruses associated with bacterial infections in chicken.

In **broilers**, these lesions are often associated by unfavourable housing conditions – stress, high stocking density, ammonia, poor ventilation – leading to immunosuppression, depression, dyspnoea, ocular/nasal discharge and swollen heads. Often, clinical signs are absent, but the birds show poor performance.

In **layers and breeders**, aMPV infection can profoundly affect egg production and shell quality. Respiratory signs may or may not be present. In hens with poor egg production, even without exhibiting any other clinical symptoms, the aMPV infection can be present⁽⁷⁾.

Although antibiotics may reduce the impact of secondary bacterial infections, they are ineffective against aMPV or other viral infections.

Economic losses due to aMPV can be:

- Direct: increased mortality, delayed growth, poor feed conversion, drop in egg production and shell quality.
- Indirect: increase in treatment costs, poor uniformity, poor hatchability and drop in egg production.

**Vaccination
is a powerful
tool to control the
economic losses
caused by
aMPV.**

