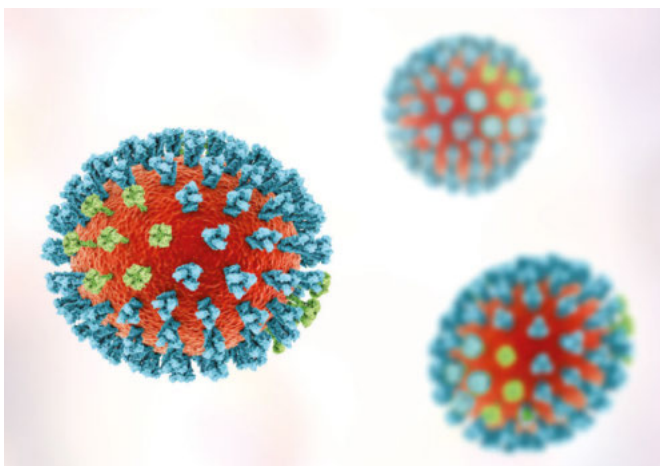


Virkon® S to Assist Avian Influenza Outbreak Prevention and Control

More than 20 European countries and the UK have been confronted with highly pathogenic avian influenza (HPAI) outbreaks in both wild birds and domestic poultry since the first reported outbreak in October, 2020. The latest news in February also confirmed 7 human cases on a poultry farm in the south of Russia!

The initial introduction of the virus into poultry premises and subsequent transference into different areas was, in all probability, due to the movement of wild birds. However, it is likely that the most important transmission mechanism was secondary spread along industrial contact networks. Strengthening biosecurity - including proper cleaning and disinfection - is, therefore, one key measure in preventing, or, controlling outbreaks as guided by governing bodies in many countries.



Although avian influenza virus (AIV) is an enveloped, single-stranded RNA virus (which is supposed to be easily inactivated by common disinfectants), studies suggested that the virus is much more stable at a wide range of pHs from 3 to 12 compared to other enveloped viruses, and that one isolate could be more resistant to disinfectants,



temperatures, and pHs compared to other isolates. Furthermore, a 2017 study by Hauck et al indicates that disinfectant footbaths comprised of quarternary ammonium compounds (QUATs) and glutaraldehyde were ineffective against HPAI H5N8 while the same chemistry completely inactivated the H5N1 subtype; suggesting that selecting the right disinfectant is key to successful disinfection!

Virkon® S has been proven against a wide range of avian influenza virus subtypes: H5N1, H9N2, H7N9, H3N2, including the recent subtype H5N8, at a short contact time and low dosage, using the European test method EN 14675. It also remains highly effective in cold temperatures, in the presence of organic challenges and across the pH spectrum, without the need to increase concentration.



Table 1: Virkon® S latest tests against multiple AIV strains with multiple dilutions and in various conditions (temperatures, organic challenges and water hardness)

AIV subtype	Dilution Rate	Contact time (min)	AIV subtype	Dilution Rate	Contact time (min)
AIV H5N8	1:500	1	AIV H7N9	1:600	10
AIV H5N8	1:1500	30	AIV H5N1	1:800	5
AIV H7N9	1:300	15 seconds	AIV H7N1	1:320	30

It is highly recommended that Virkon® S is used at a dilution of 1:100 (1%) for preventative and continuous biosecurity measures to rapidly provide high levels of efficacy in the emergency disease control.

Table 2: A summary of Virkon® S dilution rates and applications to assist prevent and control AI outbreaks

Application	Dilution Rate
Animal building & Equipment disinfection/Vehicle spray	1:100 to 1:200
Foot dip	1:100
Vehicle spray†	1:500 to 1:600
Water system disinfection between production cycles (to remove biofilm)	1:100
Misting/Aerial Spray in the presence of animals*	1:200
Animal drinking water*	1:1000

*the application is subjected to local registrations.

†the dilution rates are guided when only AIV is targeted for the application, otherwise 1:100-1:200 dilutions are recommended in order to cover other disease challenges.

NB

- 1) Virkon® S is UK DEFRA Approved at the dilution rates of 1:280 for Diseases of Poultry Order (DoP) and the Avian Influenza and Influenza of Avian Origin in Mammals Order and 1:100 for General Orders (GO).
- 2) The specified uses and registered claims for Virkon® S may vary from country to country.



Antec International Limited
 LANXESS Material Protection Products
 Windham Road, Chilton Industrial Estate,
 Sudbury, Suffolk, CO10 2XD
 United Kingdom
 Tel: +44 (0)1787 377305
 biosecurity@lanxess.com
 biosecuritysolutions.lanxess.com
 lanxess.com

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The specified uses and registered claims for the product/s may vary from country to country.

Please contact LANXESS directly to verify country-specific approved usages.

Use biocides safely. Always read the label and product information before use.