

Samruay Engineering  
48/5 Moo 9, Soi Nualthong  
Setthakij Rd. Suanluang  
Krathumban Samutsakorn 74100  
THAILAND

Center of Veterinary Research and Diagnosis  
Faculty of Veterinary Medicine  
Kasetsart University, Kamphaengsaen Campus  
1 Malaiman Rd. Kamphaengsaen  
Nakhonpathom, 73140, THAILAND

January 23th, 2012

Dear Sir/Madam

We are pleased to inform to you that we study the efficacy of “Samurai Ionizer” (IWS1 and ISI-12D3) to inactivate highly pathogenic avian influenza H5N1. The residue of the virus (after directly applied “Samurai Ionizer” onto the virus containing allantoic fluid) is checked by virus isolation based on method of Office International des Epizootics (OIE), inoculation into allantoic sac of chicken embryonic eggs, hemagglutination test, and hemagglutination-inhibition test. It is found that “Samurai Ionizer” (IWS1 and ISI-12D3) can inactivate the virus,  $10^{5.8}$  EID<sub>50</sub> in 1.0 ml of allantoic fluid completely within 10 minutes.

Regards,



(Assoc. Prof. Dr. Thaweesak Songserm) D.V.M., Ph.D.  
Head, Center of Veterinary Research and Diagnosis  
Faculty of Veterinary Medicine  
Kasetsart University, Kamphaengsaen Campus  
Nakhonpathom 73140, Thailand  
Tel: 66-34-351-901  
Fax: 66-34-351-405  
E-mail: fvetss@ku.ac.th

Details of the test

“Samurai Ionizer” (IWS1 and ISI-12D3) were tested for their inactivation efficacy of highly pathogenic avian influenza (HPAI) H5N1. The test was performed by direct releasing the ion from “Samurai Ionizer” onto  $10^{5.8}$  EID<sub>50</sub> in 1.0 ml of virus containing allantoic fluid. The ion was directly released  $10^9$  ion/second on the virus at 1 inch in depth. The virus in allantoic fluid was collected by swabbing and then re-isolated in chicken embryonic eggs at 0, 5, 10, 15, 20, 25, 30 minutes after application of “Samurai Ionizer”. The virus was tested by hemagglutination test and hemagglutination- inhibition test.

Result

Samurai Ionizer	The most minimal minute that the equipment could completely inactivated the HPAI H5N1 virus, $10^{5.8}$ EID <sub>50</sub> in 1 ml allantoic fluid, when applied the equipment 1 inch above the fluid.
IWS1	10 minutes
ISI-12D3	10 minutes

.....

