REVIEW

POULTRY RAISING SYSTEMS AND HIGHLY PATHOGENIC AVIAN INFLUENZA OUTBREAKS IN THAILAND: THE SITUATION, ASSOCIATIONS, AND IMPACTS

Wasan Chantong¹ and John B Kaneene²

¹Food and Agricultural Technology Program, Faculty of Science and Technology, Chiang Rai Rajabhat University, Chiang Rai, Thailand;
²Center for Comparative Epidemiology, College of Veterinary Medicine, Michigan State University, East Lansing, Michigan, USA

Abstract. Highly pathogenic avian influenza (HPAI), caused by the virus strain H5N1, currently occurs worldwide with the greatest burden in Southeast Asia where the disease was first reported. In Thailand where the disease was first confirmed in January 2004, the virus had been persistent as a major threat to the poultry industry and human health over the past several years. It was generally hypothesized that the main reason for the disease to circulate in Thailand was the existence of traditional backyard chickens and free-range ducks raising systems. Consequently, this study reviewed the structure of poultry raising systems, the recent outbreaks of HPAI H5N1, the disease association to the backyard and free-grazing poultry production, and consequences of the outbreaks in Thailand. Although the major outbreaks in the country had declined, the sustaining disease surveillance and prevention are still strongly recommended.

Keywords: avian influenza, outbreak, poultry raising, Thailand

Correspondence: Professor John B Kaneene, Center for Comparative Epidemiology, A-109 Veterinary Medical Center, Michigan State University, East Lansing, Michigan 48824-1314, USA.

Tel: +1-517-355-2269; Fax: +1-517-432-0976 E-mail: kaneene@cvm.msu.edu