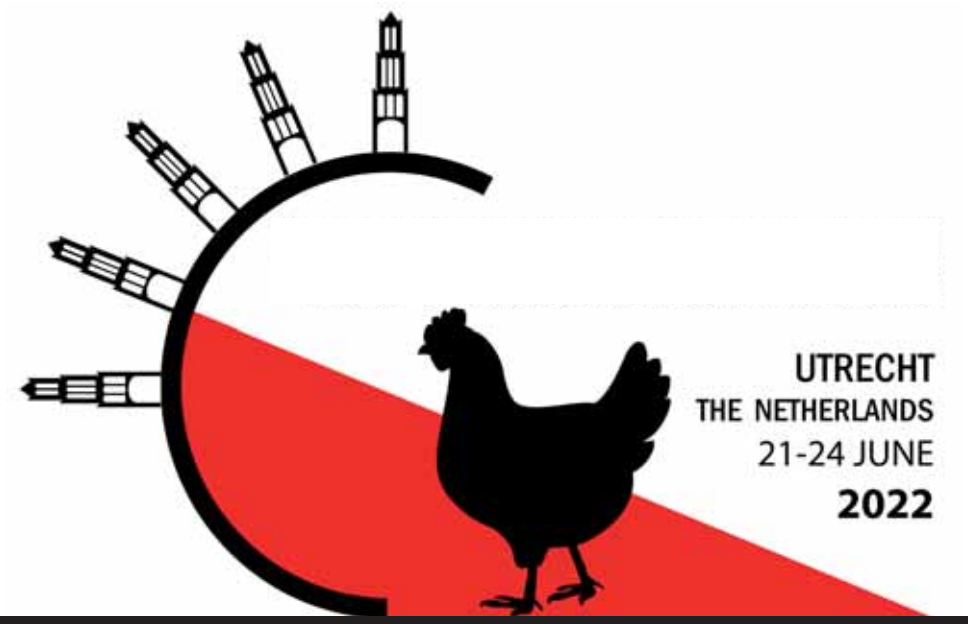
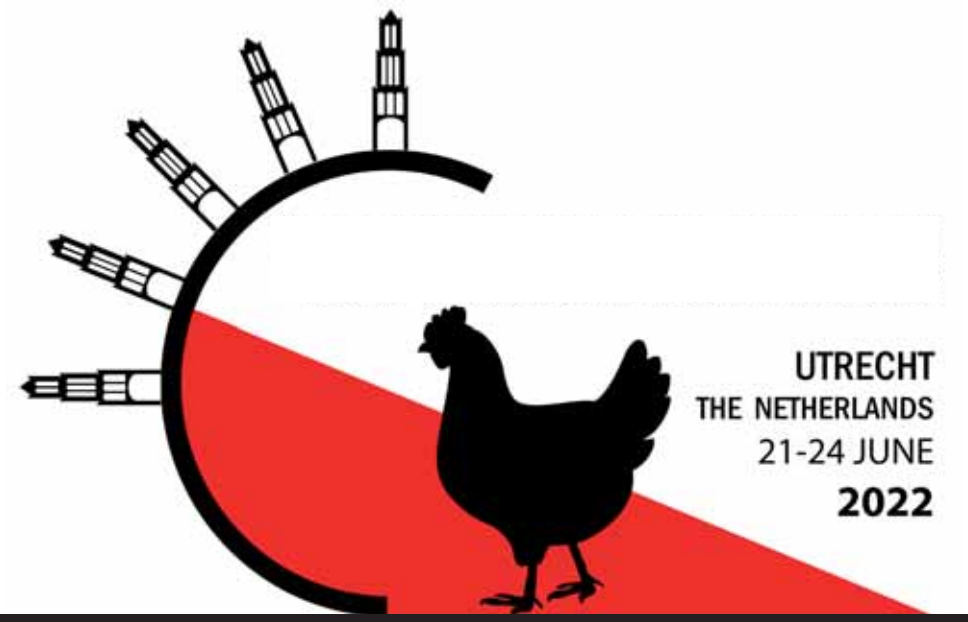
Universiteit Utrecht

AVRD 2022

10TH INTERNATIONAL SYMPOSIUM ON AVIAN VIRAL RESPIRATORY DISEASES



ABSTRACTS



HOST-PATHOGEN INTERACTION

DYNAMICS OF INFECTIOUS LARYNGOTRACHEITIS OUTBREAK IN COMMERCIAL LAYERS

AUTHOR DODOVSKI, ALEKSANDAR, FACULTY OF VETERINARY MEDICINE - SKOPJE, SKOPJE, MACEDONIA (PRESENTING AUTHOR)
SAVIC, VLADIMIR, CROATIAN VETERINARY INSTITUTE, POULTRY CENTRE, ZAGREB, CROATIA

In this study we followed the dynamics of the detection of the virus, and seroconversion during an outbreak of infectious laryngotracheitis. The investigations took place in two flocks of commercial layers from a single farm. Flock 1 (46 weeks) was housed in enriched cages while flock 2 (64 weeks) was housed in battery cages. For this purpose, we tested tracheal and cloacal swabs using qPCR during the outbreak and in convalescent phase. Simultaneously, blood samples were taken in order to evaluate the seroconversion pattern. Molecular and serology results were compared with the mortality data. During the acute phase of the outbreak, we managed to isolate the virus by inoculation of the suspected tissue homogenates from flock 1 on the chicken embryo chorioallantoic membrane. Blood samples were taken on day 8, 15, 22, 30, 36 and 109, and tracheal and cloacal swabs were taken on day 22, 30, 36 and 109 after the onset of increased mortality in flock 1. In flock 2 blood samples, tracheal and cloacal swabs were taken on day 14, 22, 28 and 101, respectively. Increased mortality in flock 2 was observed nine days later than in flock 1. In flock 1 marked seroconversion was evident at the second sampling (day 15). Thereafter, a decrease in antibody titer was noticed but with a subsequent increase reaching almost the same levels on day 109 as it was on day 15. At all sampling points tracheal swabs were positive while cloacal swabs remained negative for virus DNA. In flock 2 seroconversion was already evident during the acute phase of the outbreak, and thereafter similar pattern was observed as in flock 1. The same results were obtained for the swabs. The virus DNA was solely but persistently detected in tracheal swabs even 3 months after the beginning of the outbreak.

Oral presentation