

## SEROPREVALENCE OF DIFFERENT ORBIVIRUSES IN ALGERIAN DOMESTIC ANIMALS

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■ DATABASE, WEB, GIS, RISK ASSESSMENT

The objective of this work was to determine the prevalence of bluetongue (BT), African horse sickness (AHS) and epizootic haemorrhagic disease (EHD) in Algeria and the possible presence of new virus serotypes. A cross-sectional survey was conducted between August and September 2008. The epidemiological unit was the herd. Analyses were carried out for detection of BT and EHD in cattle herds, BT in sheep, camels and goats, and AHS in donkeys. All the animals were between six and twelve months of age in order to avoid detection of antibodies due to previous outbreaks. Random sampling was performed supposing a herd prevalence of 2% and a within-herd prevalence of 30%. According to these hypotheses, eight animals per herd in 145 herds were sampled, for a total sample size of 1168 animals.

Competitive enzyme-linked immunosorbent assays were used for BT virus and AHS virus antibody detection, whereas EHD

virus antibodies were detected with reagents prepared by the Institute for Animal Health. Out of 1423 sampled animals, 372 (26.1%) had antibodies against BT virus. Positive animals were present in all the regions, except in one. The prevalence in cattle, sheep, goats and camels was 30, 14, 47 and 22%, respectively. A more accurate analysis was being carried out at time of writing to determine possible factors that can be related to these different prevalences. Out of 849 cattle, 66 (7.8%) presented antibodies against EHD virus. Positive animals were detected in 12 of the 20 regions sampled. For AHS, all of the 195 analyzed donkeys were found positive.

**KEYWORDS:** *BLUETONGUE VIRUS – EPIZOOTIC HAEMORRHAGIC DISEASE VIRUS – DISEASE PREVALENCE – ALGERIA.*

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