

**SEROLOGICAL PREVALENCE OF LEPTOSPIRAL INFECTION IN
CATTLE FROM LADANG ANGKAT
AND TAMAN PERTANIAN UNIVERSITI,
UNIVERSITI PUTRA MALAYSIA**

**Azlina Zulkapli,¹ Abdul Rani Bahaman,¹ Siti Khairani Bejo
& ^{2,3}Faez Firdaus Jesse Abdullah**

¹Department of Veterinary Pathology & Microbiology

²Department of Veterinary Clinical Studies

³Ruminant Diseases Research Centre

Faculty of Veterinary Medicine

Universiti Putra Malaysia, 43400 UPM, Serdang, Selangor, Malaysia

Abstract

The study was conducted to determine the serological prevalence of leptospiral infection in cattle from ladang angkat and Taman Pertanian Universiti, Universiti Putra Malaysia (UPM). Leptospirosis is known as an important disease in Malaysia which causes economic losses to the farmers as well as human infection. Previous studies revealed that there were high prevalence rates of leptospiral infection in Malaysia. One hundred fifty serum samples were collected from ladang angkat and Taman Pertanian Universiti, UPM. The samples were then tested for antibodies against 16 *Leptospira* serovars (Australis, Autumnalis, Ballum, Bataviae, Canicola, Celledoni, Djasiman, Hardjobovis, Hardjo, Hebdomadis, Hurstbridge, Icterohaemorrhagiae, Javanica, Pomona, Pyrogenes and Sejroe) using the microscopic agglutination test (MAT). Thirty (20%) of the 150 samples were positive on MAT. Of the 30 MAT-positive serum samples, 18 (12%) were positive against serovar Hardjo, 6 (4%) were positive against serovar Pomona, 2 (1.33%) were positive against serovars Bataviae and Autumnalis, and 1 (0.6%) was positive for serovars Celledoni, Hardjobovis, and Hebdomadis. Kedah-Kelantan breed was shown to have a high prevalence rate. Intensive system showed the highest prevalence rate when compared to the other management system. The age group of 1-2 years old also had the highest prevalence rate when compared to other age groups. Statistical analysis indicated a significant difference ($p < 0.05$) in serological prevalence among different breeds, farms, management systems, and age groups of cattle examined.

Keywords: Leptospirosis, cattle, ladang angkat, Taman Pertanian Universiti, MAT