

## ABSTRAK

### **DETEKSI SEROLOGIS PADA SAPI BERGEJALA *LUMPY SKIN DISEASE* DENGAN *ENZYME-LINKED IMMUNOSORBENT ASSAY***

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Penyakit *lumpy skin disease* (LSD) merupakan penyakit pada sapi dan disebabkan oleh virus LSD. Uji serologis dengan metode *Enzyme-Linked Immunosorbent Assay* (ELISA) sering digunakan untuk mendeteksi antibodi karena cepat, dan sensitivitas (Se) serta spesifisitas (Sp) yang tinggi. Penelitian ini bertujuan untuk mendeteksi adanya respon antibodi terhadap LSDV pada serum dari sapi bergejala LSD dengan uji ELISA. Dalam penelitian ini digunakan 10 sampel (n=10) darah sapi bergejala LSD yaitu lesi nodul pada kulit yang berasal dari Kecamatan Mojosongo, Kabupaten Boyolali, Jawa Tengah dan di beberapa kecamatan di Kabupaten Sleman, Daerah Istimewa Yogyakarta. Sampel darah diambil dari vena jugularis dengan menggunakan spuit 10 ml sebanyak 5 ml, dan dibiarkan hingga terbentuk serum. Sampel serum diuji dengan ID Screen® Capripox Double Antigen Multi-species (IDVet) ELISA kit, dan hasil dibaca dengan menggunakan *Microplate reader* pada panjang gelombang 450 nm. Hasil penelitian menunjukkan bahwa 5 dari 10 sampel (5/10) menunjukkan hasil seropositif dan 5 sampel (5/10) menunjukkan hasil seronegatif. Kesimpulan dari penelitian ini ialah sapi dengan gejala berupa lesi nodul pada kulit terdeteksi secara serologis LSD sebanyak 50%.

Kata kunci: ELISA, lumpy skin disease (LSD), serologis

## **ABSTRACT**

### **SEROLOGICAL DETECTION IN CATTLE WITH LUMPY SKIN DISEASE SYMPTOMS USING ENZYME-LINKED IMMUNOSORBENT ASSAY**

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Lumpy skin disease (LSD) is a disease in cattle caused by the LSD virus. Serological test using Enzyme-Linked Immunosorbent Assay (ELISA) method is often used to detect antibodies due to its rapidity, high sensitivity (Se) and specificity (Sp). This study aims to detect the antibody response to LSDV in serum from cattle with LSD symptoms using the ELISA test. In this study, 10 blood samples (n=10) from cattle with LSD symptoms, specifically nodular lesions on the skin, were collected from Mojosongo District, Boyolali Regency, Central Java, and several districts in Sleman Regency, Special Region of Yogyakarta. Blood samples were collected from the jugular vein using a 10 ml syringe to collect 5 ml of blood, and left until serum was formed. The serum samples were tested using the ID Screen® Capripox Double Antigen Multi-species (IDVet) ELISA kit, and the results were read using a Microplate reader at a wavelength of 450 nm. The results of the study showed that 5 out of 10 samples (5/10) were seropositive and 5 samples (5/10) were seronegative. The conclusion of this study is that 50% of cattle with skin nodule lesions symptoms were serologically detected for LSD.

Key words: ELISA, lumpy skin disease (LSD), serological