

INVESTIGATION OF TICK AND FLY INFESTATION IN BALI CATTLE POPULATION ON THE REMOTE ISLAND OF NUSA PENIDA

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ABSTRACT

Bali cattle production systems are characterized by small-scale intensive system, where overall farm management is an occurring issue. Ectoparasites such as tick and fly has become key issue in smallholder cattle farms. The purpose of the study was to investigate the presence of tick and fly infestation and fly lesion in Bali cattle population on the remote island of Nusa Penida. This study was conducted in August until September 2024. In this study, 51 smallholder farmers and 94 cattle were observed through semi-structured interviews and direct observations. The collected data was analysed descriptively, and relationship between factors affecting the ectoparasite infestation and fly lesion was determined by Chi-square test using IBM SPSS Version 26. The results showed a high prevalence of fly infestation and moderate lesion occurrence, while no ticks were found. No significant associations were observed between fly infestation and farm-level variables. Lesion scores were only significantly associated with housing sanitation. It is concluded that good sanitation practices play an important role in controlling both fly infestations and skin lesions. The absence of ticks suggests a potential geographic or management-related barrier, though continued monitoring is recommended. While providing foundational results in the location, method and design of the study cannot determine exact cause of lesions, and the investigation results only represents specific time frame.

Keywords: Bali Cattle, Nusa Penida Island, Ectoparasite Infestation

INVESTIGASI INFESTASI CAPLAK DAN LALAT PADA POPULASI SAPI BALI DI PULAU TERPENCIL NUSA PENIDA

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INTISARI

Sistem produksi sapi Bali dicirikan oleh sistem intensif skala kecil, di mana manajemen peternakan secara keseluruhan menjadi isu yang sering terjadi. Ektoparasit seperti caplak dan lalat telah menjadi isu utama di peternakan sapi skala kecil. Tujuan dari penelitian ini adalah untuk menginvestigasi keberadaan infestasi caplak dan lalat serta lesi akibat lalat pada populasi sapi Bali di pulau terpencil Nusa Penida. Penelitian ini dilaksanakan pada bulan Agustus hingga September 2024. Dalam penelitian ini, 51 peternak skala kecil dan 94 ekor sapi diamati melalui wawancara semi-terstruktur dan observasi langsung. Data yang terkumpul dianalisis secara deskriptif, dan hubungan antara faktor-faktor yang mempengaruhi infestasi ektoparasit dan lesi akibat lalat ditentukan dengan uji Chi-square menggunakan IBM SPSS Versi 26. Hasil penelitian menunjukkan prevalensi infestasi lalat yang tinggi dan kejadian lesi tingkat sedang, sementara tidak ditemukan adanya caplak. Tidak ada hubungan signifikan yang teramati antara infestasi lalat dan variabel-variabel tingkat peternakan. Skor lesi hanya berhubungan secara signifikan dengan sanitasi kandang. Disimpulkan bahwa praktik sanitasi yang baik memegang peranan penting dalam mengendalikan infestasi lalat dan lesi kulit. Tidak adanya caplak mengindikasikan adanya potensi penghalang geografis atau terkait manajemen, meskipun pemantauan berkelanjutan direkomendasikan. Meskipun memberikan hasil dasar di lokasi tersebut, metode dan desain penelitian tidak dapat menentukan penyebab pasti dari lesi, dan hasil investigasi hanya mewakili kerangka waktu tertentu.

Kata kunci: Sapi Bali, Pulau Nusa Penida, Infestasi Ektoparasit