

ABSTRACT

RELATIONSHIP BETWEEN FEEDING AND AFFECTING FACTORS FOR NATURALLY INFECTION *Fasciola* sp. WITH PARAMETERS OF BODY WEIGHT, EGG PER GRAM (EPG), AND BLOOD CHEMISTRY ON BEEF CATTLE IN ALONG PROGO RIVER, YOGYAKARTA

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Fasciolosis is a disease in livestock caused by *Fasciola hepatica* and *Fasciola gigantica* infections. The incidence of phasiolosis is often found in cattle. *Fasciola* sp. infection derived from feed containing metacercariae. Detection of phasiolosis can be done by examining *egg per gram* (EPG) from feces and supported by blood tests in the form of *Alanine Aminotransferase* (ALT) and *Aspartate Aminotransferase* (AST) activities. *Fasciola* sp. infection. can be influenced by several factors such as gender, type of feed and source of feed and cattle species. *Fasciola* sp. infection affect body weight in cattle, so the study of the relationship beetwen feeding and natural affecting factors of *Fasciola* sp. infection with parameters of weight, *egg per gram* (EPG) and blood chemistry including *Alanine Aminotransferase* (ALT) and *Aspartate Aminotransferase* (AST). This study used adult beef cattle from various breeds (male and female), aged more than 1 year with a total of 30 animals that were raised in along Progo River in Banaran Village, Galur District, Kulon Progo Regency. Cattles were randomly selected with type of feed criterias including combinations of hay and concentrate (10 cattle's), grass and concentrate (10 cattle's), and combination of hay, grass and concentrate (10 cattle's). The sample of cattle's were measured for initial body weight and feses examination. Positive sample feces then tested for parfit and bank. Weight measurements were done once a week for interval 10 weeks. Examination of ALT and AST activities were carried out at the 10th week. The results of the descriptive analysis showed that there were influences of factors such as gender, type of feed and source of feed and cattle species to *Fasciola* sp. Infection in beef cattle in along progo river, there was no relationship ($P > 0.05$) between feeding against natural infections based on weight, EPG, and AST and ALT.

Key words: weight, egg per gram (EPG), factors, *Fasciola* sp. natural infection, blood chemistry.

ABSTRAK

HUBUNGAN PEMBERIAN PAKAN DAN FAKTOR-FAKTOR YANG MEMPENGARUHI INFEKSI ALAMI *Fasciola* sp. DENGAN PARAMETER BERAT BADAN, EGG PER GRAM (EPG), DAN KIMIA DARAH SAPI POTONG DI DAERAH ALIRAN SUNGAI PROGO, YOGYAKARTA

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Fasciolosis adalah penyakit pada ternak yang disebabkan infeksi *Fasciola hepatica* dan *Fasciola gigantica*. Kejadian fasciolosis sering ditemukan pada sapi. Infeksi *Fasciola* sp. berasal dari pakan yang mengandung metaserkaria. Deteksi fasciolosis dapat dilakukan melalui pemeriksaan *egg per gram* (EPG) pada feses dan didukung oleh pemeriksaan darah berupa aktivitas dari *Alanin Aminotransferase* (ALT) dan *Aspartat Aminotransferase* (AST). Infeksi *Fasciola* sp. dapat dipengaruhi oleh beberapa faktor seperti jenis kelamin, jenis pakan dan sumber pakan serta bangsa sapi serta infeksi *Fasciola* sp. mempengaruhi berat badan pada sapi sehingga penelitian hubungan pemberian pakan dan faktor-faktor yang mempengaruhi infeksi alami *Fasciola* sp. dengan parameter berat badan, *egg per gram* (EPG) dan kimia darah [*Alanin Aminotransferase* (ALT) dan *Aspartat Aminotransferase* (AST)] penting untuk dilakukan. Penelitian ini menggunakan sapi potong dewasa dari berbagai *breed* (jantan dan betina), umur lebih dari 1 tahun dengan jumlah total 30 ekor yang dipelihara di daerah aliran Sungai Progo Desa Banaran, Kecamatan Galur, Kabupaten Kulon Progo. Sapi dipilih secara acak dengan kriteria berupa, kombinasi pakan jerami dan konsentrat (10 ekor), pakan hijauan dan konsentrat (10 ekor), dan kombinasi dari jerami, hijauan dan konsentrat (10 ekor). Sapi sampel diukur berat badan awal dan dilakukan pemeriksaan feses. Sapi yang dinyatakan positif kemudian dilakukan pemeriksaan EPG dan pengukuran berat badan setiap minggu selama 10 minggu. Pemeriksaan aktivitas ALT dan AST dilakukan pada minggu ke-10. Hasil analisis deskriptif menunjukkan bahwa terdapat pengaruh faktor-faktor seperti jenis kelamin, jenis pakan dan sumber pakan yang diberikan serta bangsa sapi terhadap infeksi *Fasciola* sp. pada sapi potong di daerah aliran sungai progo, namun tidak adanya hubungan ($P > 0,05$) antara pemberian pakan terhadap infeksi alami yang dilihat berdasarkan berat badan, EPG, dan AST dan ALT.

Kata kunci : berat badan, *egg per gram* (EPG), faktor-faktor, *Fasciola* sp. infeksi alami, kimia darah.