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TYPES AND PREVALENCE OF HELMINTH SPECIES IN LOCAL SHEEP IN PANGALENGAN DISTRICT

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**STUDY PROGRAM OF VETERINARY MEDICINE
SCHOOL OF VETERINARY MEDICINE
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BOGOR
2026**





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ABSTRACT

NUR ALYA INANI BINTI NAZARUDDIN. Types and Prevalence of Helminth Species in Local Sheep in Pangalengan District. Supervised by RISA TIURIA and LINA NOVIYANTI SUTARDI.

Gastrointestinal parasitism remains a major constraint to sheep productivity in tropical smallholder systems. This study identified gastrointestinal helminths and concurrently detected coccidian oocysts, determined prevalence, and characterized L3 larvae morphometrically in 26 local sheep from Pangalengan District, West Java. Fecal examination using flotation and McMaster techniques detected three parasite groups, namely strongyle-type nematodes (88.46%, mean 748.1 EPG), coccidian oocysts (96.15%, mean 825.0 OPG), and *Trichuris* spp. (7.69%). Morphometric analysis of 50 cultured L3 larvae indicated mixed infections provisionally consistent with *Trichostrongylus* spp., *Cooperia* spp., and *Haemonchus* spp. Morphotypes provisionally consistent with *Trichostrongylus* spp. and *Haemonchus* spp. predominated, comprising 82% of larvae examined, with body dimensions smaller than published reference values.

Keywords: gastrointestinal helminths, morphometric analysis, Pangalengan, prevalence, sheep.

ABSTRAK

NUR ALYA INANI BINTI NAZARUDDIN. Jenis dan Prevalensi Spesies Helminth pada Domba Lokal di Kecamatan Pangalengan. Dibimbing oleh RISA TIURIA dan LINA NOVIYANTI SUTARDI.

Parasitisme gastrointestinal merupakan kendala utama produktivitas domba pada sistem peternakan rakyat tropis. Penelitian ini mengidentifikasi helminth gastrointestinal dan secara bersamaan mendeteksi ookista koksidia, menentukan prevalensi, dan mengkarakterisasi larva L3 secara morfometrik pada 26 ekor domba lokal di Kecamatan Pangalengan, Jawa Barat. Pemeriksaan feses menggunakan metode flotasi dan McMaster mendeteksi tiga kelompok parasit, yaitu nematoda tipe strongyle (88,46%, rata-rata 748,1 EPG), oosista koksidia (96,15%, rata-rata 825,0 OPG), dan *Trichuris* spp. (7,69%). Analisis morfometri 50 larva L3 menunjukkan infeksi campuran yang secara tentatif konsisten dengan *Trichostrongylus* spp., *Cooperia* spp., dan *Haemonchus* spp. Morfotipe yang secara tentatif konsisten dengan *Trichostrongylus* spp. dan *Haemonchus* spp. mendominasi, mencakup 82% larva yang diperiksa, dengan dimensi tubuh lebih kecil dibandingkan nilai rujukan yang dipublikasikan.

Kata kunci: analisis morfometri, domba, helminth gastrointestinal, Pangalengan, prevalensi.



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TYPES AND PREVALENCE OF HELMINTH SPECIES IN LOCAL SHEEP IN PANGALENGAN DISTRICT

NUR ALYA INANI BINTI NAZARUDDIN

Undergraduate thesis
as one of the requirements to obtain a degree of
Bachelor of Veterinary Medicine
in the School of Veterinary Medicine and Biomedical Sciences

**STUDY PROGRAM OF VETERINARY MEDICINE
SCHOOL OF VETERINARY MEDICINE
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PREFACE

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May this scientific work provide benefit to readers and contribute to the advancement of knowledge in veterinary parasitology.

Bogor, July 2026

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