COPROLOGICAL SURVEY OF GASTRO-INTESTINAL HELMINTH IN BUFFALO (*Bubalus bubalis*) OF DHRAMPUR, DHANUSHA, NEPAL

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A thesis submitted in partial fulfilment of the

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Submitted to

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RECOMMENADATION

This is the recommended that the thesis entitfed **" Coprological survey of Gastro-intetinal helminth in Buffalo (*Bubalus bubalis*) of Dhrampur Dhanusha, Nepal"** has been carried out by **Prabhaw kumar Sah** for the partial fulfilment of Masters Degree of science in Zoology with Special paper **Parasitology** . This is his original work and has been carried out under my supervision. To the best of my knowledge, this thesis work has not been submitted for any other degree in any Institutions.

Date .....October 2015

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LETTER FOR APPROVAL

On the recommendation of supervisor **"Janak Raj Subedi"** this thesis submitted by **Prabhaw Kumar Sah** entitled **"Coprological Survey of Gastro-Intestinal Helminth in Buffalo (*Bubalus bubalis*) of Dhrampur, Dhanusha, Nepal"** is approved for the examination and submitted to the Tribhuvan University in partial of the requirements for the Master's Degree of Science in Zoology with special paper **Parasitology**.

Date .....October 2015.

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CERTIFICATE OF ACCEPTANCE

This thesis work submitted by **Prabhaw Kumar Sah** entitled **"Coprological Survey of Gastro-intestinal Helminth in Buffalo (*Bubalus bubalis*) of Dhrampur, Dhanusha, Nepal"** has been associated as a partial fulfilment for the requirements of Master's Degree of Science in Zoology with special paper **Parasitology**

EVALUATION COMMITTEE

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DECLARATION

I hereby declare that the work presented in this thesis has been done by myself, and has not been submitted elsewhere for the award of any degree. All sources of information have been specifically acknowledged by reference to the author or institution.

Date:..... October 2015

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Prabhaw Kumar Sah

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ABSTRACT

Buffalo (*Bubalus bubalis*), an important species of domestic livestock, is generally affected by helminth parasites. Present study was carried out to find the prevalence of gastrointestinal helminth parasites of buffaloes. Out of a total of 300 fecal samples collected 150 each during summer and winter season, were tested for the presence of gastrointestinal helminths using sedimentation and flotation techniques and the parasites were identified morphologically under microscope. The test revealed 74% and 84.66% positive for the presence of eggs of gastrointestinal helminths for the winter and summer season respectively. The fecal samples showed the prevalence of trematodes (47.01%), cestodes (2.66%) and nematodes (10.66%) during winter season.

Likewise, the helminth eggs of trematodes, cestode and nematodes were 52.99%, 3.66% and 12 % of respectively during summer. Among the trematodes, *Fasciola* sp showed a a higher (23.33%) prevalence followed by *Paramphistomum* (17.66%) and *Dicrocoelius* (9.66%). Among cestodes, the only eggs detected belonged to *Monezia* (6.33%) sp. Among nematodes *Trichostrongylus* sp showed a higher (9.33%) prevalence followed gradually by *Toxocara* (5.66%), *Strongyloides* (2.66%), *Trichuris* (1.66%), *Ostertagia* (1%), *Haemonchus* (0.66%), *Chabertia* (0.66%), *Cooperia* (0.33%), and *Capillaria* (0.33%) spp. The parasite eggs were identified morphologically under microscope.

The different in the prevalence of positive and negative samples were found statistically insignificant ($\chi^2_{=}$ =51.62, P <0.05, d.f. =14). Single infection was observed in 216 (90.76%) samples, moderate infection in 14 (5.88%) samples and heavy infection 8 (3.66%) samples.

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LIST OF ABBREVIATION

ADPCD: Animal Disease Protection and Control Division

CBS: Central Bureau of Statistics

CVH: Central Veterinary Hospital

FAO: Food and Agriculture Organization

GDP: Gross domestic product

GI: Gastro Intestinal

IAAS: Institute of Agriculture and Animal Science

MOAC: Ministry of Agriculture and Cooperative

rpm: rotation per minute

VDC: Village Development Committee

VEC: Veterinary Epidemiological Center