Survey and Identification of Gastrointestinal Parasite in Domestic Chicken (gallus domesticus L.) in Lowland of Cambodia

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Introduction
Nowadays, the citizens in Cambodia, they interested to raised chickens. They are raised chickens on backyard where the chickens free feeding on the field. The chicken was eaten either seeds or insects as the intermediate host and transport host of parasitic diseases in the chicken. Some parasites caused zoonosis in human. In Cambodia was not reported of gastrointestinal parasitic diseases on the backyard chicken. This study aimed to survey and identify gastrointestinal parasitic diseases in domestic chicken (gallus domesticus L.) in lowland of Cambodia.

Materials and Methods
The samples were collected from five provinces in lowland of Cambodia. Total of 509 gut specimen samples of backyard chicken were bought from local butcher house at Takeo, Kampong Speu, Kandal, Prey Veng and Kampong Cham and feces (100, 102, 105, 102, 100 and 409 samples respectively). The specimens were examined under stereomicroscope and light microscope for finding the parasites. The feces were used fecal examination.

Results and Discussion
The gastrointestinal parasites were found 94.89% (483/509). The trematode, cestode, and nematode were found 6.09%, 84.47% and 86.58%, respectively. The eggs and oocyst of parasites were positive 92.90%. The eggs of trematodes, cestode, nematode and oocyst of Eimeria spp were found 5.13%, 13.20%, 89.48% and 60.88%, respectively. The most common species of nematodes were Heterakis gallinarum (74.65%), Ascaridia galli (51.47%), Tetrameras americana (23.77%), Capillaria spp. (19.25%), Gongylonema ingluvicosa (16.69%), and moreover, the cestodes were found Raillietina echinobothrida (58.15%), R. tetrogona (42.82%), Hymenolepis spp. (25.14%), R. cesticillus (14.14%), Cotugnia digonopora (9.62%), and Choanotaenia infundibulum (8.64%), nevertheless, the light infection of trematodes were Echinostoma revolutum (4.71%), Notocotylus spp. (1.76%), and Prosthogunimus sp. (0.98%), respectively. The feces were found helminths eggs and protozoa oocysts such as; Ascaridia galli, Heterakis gallinarum, Capillaria spp., Spirurid, Strongyloides, cestodes egg, Echinostoma, Notocotylus spp., Eimeria spp. (43.52%, 62.59%, 9.53%, 21.95%, 67.97%, 13.20%, 3.91%, 2.20% and 60.88%), respectively.

The gastrointestinal parasites were importance in chicken especially backyard chicken. Many reports from neighbor country of Cambodia was highly found endoparasites of backyard chicken (1-3). The GI parasitic disease in chickens were cause highly economic loss on backyard chicken and importance for zoonotic parasite.

The gastrointestinal parasites in lowland of Cambodia was highly prevalence in domestic chicken. In this study, it was found 3 species trematodes, 6 species cestodes, 6 spicies of nematodes and protozoa.

References