

***Eimeria tenella* PATHOGENICITY ATTENUATION THROUGH THE SERIAL PASSAGE OF PRECOCIOUS LINES TOWARD MORPHOMETRY AND MORPHOLOGY DEVELOPMENT OF SEXUAL GENERATION**

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ABSTRACT

The aim of the research was to produce an attenuated strain of *Eimeria tenella* by the serial precocious lines. This research used the morphometry (cross sectional area / size) of sporulated oocyst, time and percentage of sporulation, and oocyst production that the *E. tenella* had been attenuated. Four parts series has occurred in 24 broilers with five male chicken for treatments and one male chicken for control each passage. First part used *E. tenella* parent lines, the second part of the precocious lines used *E. tenella* of the first part, the third part of the precocious lines *E. tenella* used of the second part, then the fourth part of the precocious lines *E. tenella* used of the third part. the sample used a feces was processed by sediment and floating method. The oocysts obtained was sporulated by potassium bichromate 2.5% in room temperature. The morphometry of sporulated oocyst was measured by *Moticplus 2.0* program with magnification 400x. The oocyst production was counted by *Universal Whitlock McMaster Chamber* modification under microscope with magnification 100x. The result showed there was significantly different ($p < 0.05$) in the time of percentage 100% sporulation between the first, second, and third passage. The fourth passage was the same as the third passage. The morphometry of sporulated oocyst showed significantly different ($p < 0.05$) between the first, second, third, and fourth passage. The oocyst production showed significantly different ($p < 0.05$) between the first, second, third, and fourth passage.

Key words : *Eimeria tenella*, precocious lines, time of sporulation, percentage of sporulation, morphometry.