

**MORPHOLOGY AND ULTRASTRUCTURE OF *Blastocystis* sp. IN
CATTLE IN MADURA USING *SCANNING ELECTRON MICROSCOPE***

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ABSTRACT

Until now, there has never been a report on the ultrastructure of *Blastocystis* sp. in cattle in Indonesia, especially in Madura. This study was aims to determine the morphology and ultrastructure of *Blastocystis* sp. in cattle in Madura using *Scanning Electron Microscope* from feces samples and culture media. Identification of parasite microscopically using native method, followed by culture on RPMI media. Three samples positive were collected from the feces and from the culture media, were carried out for the preparation process and then were examined using a *Scanning Electron Microscope* (SEM). The result showed overall positive samples were found *Blastocystis* sp. The forms that were found in microscopic examination are vacuolar, granular and cyst and in culture media, the most dominant form is vacuolar. Ultrastructure picture of *Blastocystis* sp. in the feces samples overall are round, the *surface coat* is uneven and there are rough waves. In cattle feces samples that show clinical symptoms of diarrhea, the surface layer is very uneven with very rough waves, there are large protrusions / folds on the entire cell surface, and the distance of the protrusions from each other is very tight. In cattle feces samples that show no clinical symptoms of diarrhea, the surface layer is uneven and not too rough, there are protrusions that are not too large and uniform throughout the cell surface, and the distance of the protrusions from each other is slightly apart. Ultrastructure picture of *Blastocystis* sp. the culture media overall are round, the *surface coat* looks smooth and wavy. In samples that show clinical symptoms of diarrhea, the surface layer looks smooth and wavy, there are protrusions / folds that are uniform and close together on the entire surface of the cell and looks like a cloud. In samples that show no clinical symptoms of diarrhea, the surface layer is thin and very smooth and there are no visible folds / protrusions on the cell surface.

Key words: *Blastocystis* sp., cattle, Madura, *Scanning Electron Microscope*