

Diagnosis of Cryptosporidiosis by Microscopy in Buffaloes

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Cryptosporidium is a coccidian protozoan parasite which causes considerable morbidity and mortality in young animals and in the immunocompromised host. Diagnosis of Cryptosporidiosis is generally done by means of detection of oocysts in faeces using different faecal concentration techniques and staining techniques. This study was carried out to compare staining techniques: MZN and Giemsa; faecal concentration techniques: MSSF and MSF, to identify the most sensitive faecal concentration and the staining technique to diagnose Cryptosporidial infection in buffalo. Out of twenty faecal samples tested, number of Cryptosporidium oocyst positivity and oocyst recovery rate were high in MZN method compared to Giemsa staining technique. Out of 65 buffalo faecal samples, cryptosporidial oocyst positivity for MSSF and MSF faecal concentration methods were 60% and 50.8 % respectively. However, the Cryptosporidium oocyst recovery was high with the MSSF method compared to MSF method.

This study concluded that MSSF and MSF faecal concentration methods are equally efficient in diagnosing severe cryptosporidial infection with high oocyst counts. Preferably, the diagnosis of mild cryptosporidial infection with low cryptosporidial oocyst counts can be efficiently detected by the MSSF method. The study recommends Giemsa staining for the screening and MZN for the conformation of cryptosporidial infection.

Key words: Modified Ziehl Neelsen (MZN), Modified Sheathers Sucrose Flotation, Modified Salt Flotation (MSF)
