Original Article

Point prevalence of gastrointestinal parasites in double purpose cattle of Rio de Oro and Aguachica municipalities, Cesar state, Colombia

Juan Carlos Pinilla a, Paola Flórez b, Marly T. Sierra b, Elsa Morales b, Raúl Sierra b, María Cristina Vásquez b, Julio César Tobon c, Alfredo Sánchez c, Diego Ortiz d

https://doi.org/10.1016/j.vprsr.2018.01.003

Highlights

• Animals younger than 12 months old were more likely to be infected with Strongyloides sp., Haemonchus sp. and Trichostrongylus sp.

• The high prevalence of Eimeria sp. in adult animals indicates that this age group could behave as a potential infection source for calves.

• Bovine from the municipalities of Aguachica and Rio de Oro are infected with a great variety of gastrointestinal parasites

Abstract

Gastrointestinal parasites are one of the most important health problems in cattle worldwide, as they cause economic losses in the herds. Twenty-seven double purpose herds were visited to determine the prevalence of gastrointestinal parasites in cattle at the Rio de Oro and Aguachica municipalities. Overall, 862 fecal samples were collected in three age groups: < 12 months, 12–24 months and > 24 months. Stool samples were taken directly from the rectum and refrigerated until processing. For parasite determination, fecal samples were processed using coprological techniques. The parasitic genera were identified by egg or infective larval morphology. The global prevalence of gastrointestinal parasites was 83.2%, being the highest values for Eimeria sp. (77.9%), Strongyloides sp. (10.8%) and Haemonchus sp. (8.5%). Regarding the prevalence by municipalities, there was no statistical association (P > 0.05) indicating that the prevalence was similar in the two municipalities. Regarding the results for Eimeria sp., different degrees of positivity were observed, reflecting that there was statistical association (P < 0.05) with respect to the age group, suggesting that adult animals may act as infection source for calves. Likewise, there was statistical association (P < 0.05) between the prevalence for Strongyloides sp., Haemonchus sp. and Trichostrongylus sp. with respect to the age group. It is concluded that there is a high prevalence of gastrointestinal parasites in dual-purpose cattle in the municipalities under study, and that it could be controlled by improving the hygienic conditions of the herds, and informing the farmer about parasite control programs.

Keywords

Cattle; Gastroenteric; Helminthes; Parasitism