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Gastrointestinal Parasites of Domestic Mammalian Hosts in Southeastern Iran

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Simple Summary: Parasitosis of the digestive tract by worms and protozoa in livestock is a veterinary health and economic concern as parasitic infections can cause deterioration of animal welfare and reduced productivity associated with delayed growth rate, weight loss, and reduced milk production. Some parasites of the digestive tract have zoonotic potential, so farm animals can act as source of human infections. This study investigated the prevalence of intestinal parasites in cattle, camels, donkeys, horse, sheep, goats, and dogs from Iranshahr County in Southeastern Iran. Our findings indicate that most animals studied were infected with at least one species of intestinal parasite. Parasitological monitoring, including testing during the rearing of free-range animals, is needed in livestock to detect carriers and shedders of parasite eggs, cysts, and oocysts. It is also recommended that villagers prevent stray dogs from entering agricultural fields and ensure the proper housing and management of animal's facilities, with special attention to their hygienic conditions. Furthermore, accurate diagnosis of parasitic infections, as well as effective monitoring and prophylaxis, are essential to keep livestock free of parasitic infections.

Abstract: Gastrointestinal parasites (GIP) are a major cause of disease and production loss in livestock. Some have zoonotic potential, so production animals can be a source of human infections. We describe the prevalence of GIP in domestic mammals in Southeastern Iran. Fresh fecal samples ($n = 200$) collected from cattle ($n = 88$), sheep ($n = 50$), goats ($n = 23$), camels ($n = 30$), donkeys ($n = 5$), horse ($n = 1$), and dogs ($n = 3$) were subjected to conventional coprological examination for the detection of protozoan (oo)cysts and helminth ova. Overall, 83% (166/200) of the samples were positive for one or more GIP. Helminths were found in dogs, donkeys, sheep (42%), camels (37%), goats (30%), and cattle (19%), but not in the horse. Protozoa were found in cattle (82%), goats (78%), sheep (60%), and camels (13%), but not in donkeys, dogs, or the horse. Lambs were 3.5 times more likely to be infected by protozoa than sheep (OR = 3.5, 95% CI: 1.05–11.66), whereas sheep were at higher odds of being infected by helminths than lambs (OR = 4.09, 95% CI: 1.06–16.59). This is the first study assessing the prevalence of GIP in domestic mammals in Southeastern Iran.