

## Abstract

Ciliated are the most abundant type of rumen protozoa that participate in the digestion of plant material in the host animal. In this research, comparison and identification of the protozoa in the rumen of Sistani and Holstein cows at the dry climatic has been studied. Counting was performed using a special neobar slab and a magnification of 100. Microscop, an acid methylene blue solution and a maceration of 400 were used. Ciliated of protozoa were identified according to the shape and position of the nucleus. Also in this experiment, the total protozoa was analyzed in two breeds with SAS software version 9.2 and T-test. The results of experiments showed that the family *Isotrichidae*, *Blepharocorythidae*, *Ophryoscolecidae* subfamily, *Entodiniinae*, *Diplodiniinae*, *Ophyoscolecinae* and genus *Dasytricha*, *Isotricha*, *Diplodinium*, *Entodinium*, *Charonina*, *Polyplastron*, *Elytroplastron* *Eudiplodinium* *Metadinium*, *Ostracodinium* *Epidinium*, *Opisthotrichum* *Ophryoscolex* and species *Isotricha intestinalis* , *Isotrichia prostoma* *Dasytricha ruminantium* *Charonina ventriculus*, *Entodinium nanellum*, *Entodinium ovenum*, *Entodinium simplex*, *Entodinium Exigumum*, *Entodinium rectangulatum farma dubard*, *Entodinium longinucleatum*, *Entodinium vorax*, *Entodinium bursa*, *Entodinium simulans Form lobos spinosum*, *Entodinium rectangulatum form caudatum*, *Entodinium dubardi* *Entodinium rostratum* , *Entodinium simulans, caudatum*, *Entodinium biconcavum kofoid*, *Diplodinium dentatum*, *Elytroplastron bubali*, *Polyplastron multivesiculatum*, *Eudiplodinium dilobum*, *Eudiplodinium bovis*, *Metadinium affine*, *Ostracodinium obtusum*, *Ostracodinium rugoloricatum Kofoid*, *Ostracodinium mammosum* *Epidinium caudatum*, *Opisthotrichum janus*, *Ophryoscolex purkynjei*, there were two Sistani and Holstein breeds in the rumen. There was also a significant difference, in the number of protozoa between two breeds, and the protozoa in the Sistani cow was more than Holstein( $p < 0.05$ ).

**Keywords:** Sistani Cow, Holstein Cattle, rumen protozoa, ruminal fluid



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