

Abstract

The effect levels of 0(control), 0/25, 0/5, 0/75 and 1 ml of plants extract of Purslane and wild oregano on cow rumen fermentation parameters and gas production in vitro checked out. The parameters studied include total gas produced, separationality index and microbial biomass. The effect of these two plants was studied too on protozoa population and pH gas production at 2, 4, 6, 8, 12, 24, 48, 72 and 96 hours after incubation were recorded. The Purslane and Oregano secondary compounds increased the produced gas of insoluble part. The most rate of gas production was about 1 ml of the mentioned extract. Also the PF index in treatments supplemented with Oregano extract showed a significant difference with control treatment. PF index in all treatments completed with Purslane extract had significant difference with control treatment. But this difference was not significant between treatment. Oregano extract has been able to significantly increase the microbial biomass ($P < 0/05$). The increase in treatments completed with Purslane extract is meaningful only in 0/5, 0/75 and 1 ml of extract. The study of effect of different levels of mentioned extract on protozoa population of rumen was showed no significant effect of these compounds on protozoa population ($P > 0/05$). Also experimental treatment in this review except didn't have meaningful effect on rumen fluid in environment of rumen.

Key words: rumen fermentation, microbial biomass, gas production, extract.



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Title:

**Effect of two plant extract of *Portulaca Oleracea* L. and
Mentha Pulegium L. on the rumen fermentation
parameters by in vitro method**

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