

Abstract:

The aim of this research was to investigate the chemical compositions and nutritive value of processed *Prosopis cineraria* pods by using of heating, sodium hydroxide and sodium chloride processing methods in two times , 24 and 48 hours. All samples were collected from Hormozgan province. After drying, samples prepared in 2 mm by grinding,. The treatments include; 1- treated with heat at 70 °C for 24 hours , 2- treated with heat at 70 °C for 48 hours, 3- treated with sodium hydroxide (4%) for 24 hours, 4- treated with sodium hydroxide 48 hours, 5- treated with sodium chloride for 24 hours, 6- treated with sodium chloride for 48 hours, 7- control group. According to standard methods, chemical compositions include DM, CP, EE, ADF, and NDF were determined. Metabolizable energy and organic matter digestibility were determined by using *in vitro* gas production and *in situ* nylon bag technique used to determining dry matter degradability and the data was statistically analyzed by complete random design. The results of chemical composition showed that processing methods have significant difference ($P \geq 0.05$) in DM, OM, NDF, ADF, CP, and ASH than the control group. Also, The DM degradability results showed that processed groups of heating and NaCl were affected ($P \geq 0.05$) compared with the control group. Gas production and gas production parameters results processing increased significantly ($P \geq 0.05$) ME, OMD and DOMD compared with control group. Overall, this study showed that probably processing can improve the nutrition value of *Prosopis cineraria* pods for animal nutrition.

Keywords: Gas Production, Digestibility, *Prosopis cineraria*, pods, Processing



University of Zabol
Graduate School
Faculty of Agriculture
Department of Animal Science

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Titel:

**Study of chemical composition and nutritive value of
processed *Prosopis cineraria* pods**

Supervisor:

Dr. M. Yousef Elahi

Advisors:

Dr. A. Z. M. Salem
M. Asghari Moghadam

By:

J. Asghari Moghadam

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