



University of Zabol

Graduate Management

Faculty of Veterinary Medicine

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**The Thesis Submitted for the Degree of M.Sc (in the field of Food  
hygiene and quality control)**

# **Investigation of coliform infection in local cookies of Zabol city**

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## **Abstract**

Local food has been considered according to the customs of each region of Iran, And they have a special popularity. One of these local Foods was local cookies, Which are part of dry and semi-dry sweets. And according to each region, the construction method and its components are different. Local cookies of Zabol city are produced and supplied in two simple and date forms. This food is produced by people in rural houses as a home-made product, in cookie shops and in bakeries in the city. Due to the increase in food poisoning through eating infected sweets in recent years, local cookies in Zabol may also be infected with coliform bacteria. The aim of this study is to investigate coliform infection in local cookies in Zabol City. In this study, 200 samples of simple and date cookies were selected, which included 50 simple home-made samples, 50 home-made date samples, 50 simple market samples and 50 market samples. They were collected from 16 centers in three stages and transferred to the Food Laboratory of Zabol University College of Veterinary Medicine under sterile conditions and Necessary microbial tests were performed on them. The results showed that from 200 cookie samples studied in this study, 31.5% of the samples were infected with coliforms and 19.5% of them were infected with *Escherichia coli*, of which 13.5% were fecal *Escherichia coli*. The results showed that the highest level of contamination was related to home-made date cookies and the lowest level of contamination was related to simple market cookies. Also, according to the type of cookies (simple / date), it was observed that date cookies had the highest level of contamination. In terms of the place of production of cookies (home-made / market), it was observed that cookies that are produced at home and then sold, have the highest level of contamination. The results also show that non-compliance with personal and environmental hygiene of the supply of cookies has caused contamination in these products. It is suggested that the manufacturers and suppliers of these products, especially the manufacturers of home-made cookies, be given the necessary hygiene training in the field of personal hygiene, environmental hygiene, and the processing and supply stages of these products. It is also necessary for the relevant authorities to have full supervision in this regard.

**Keywords:** Contamination, Coliform, Local cookies, Zabol