بسم الله الرحمن الرحيم

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد أعدت دون أية تغيرات

يجب أن

تحفظ هذه الأفلام بعيدا عن الغبار

في درجة حرارة من ١٥-٢٥ مئوية ورطوبة نسبية من ٢٠-٤٠%

To be Kept away from Dust in Dry Cool place of 15-25- c and relative humidity 20-40%

بعض الوثائق الأصلية تالفه

بالرسالة صفحات
لم ترد بالاصل

STUDIES ON THE CONTAMINATION OF DOMIATI CHEESE WITH SOME HEAVY METALS

BY

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B.Sc. Biochemistry, Faculty of Agriculture,
Ain Shams University (1981)

A thesis submitted in partial fulfillment
of
the requirements for the degree of

MASTER OF SCIENCE
In
Environmental Science

Department of Agriculture Science
Institute of Environmental Studies and Researches
Ain Shams University

1998

Approval Sheet

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ABSTRACT

***Karima Abou El-Enein Mostafa Abou El-Enein*, Studies on the contamination of Domiati Cheese with some Heavy Metals. Unpublished Master of Science, Ain Shams University, Institute of Environmental Studies and Researches (1998).**

Monitoring of aluminium, cadmium, chromium, copper, iron, lead and zinc in 70 samples of Domiati cheese from the market of Cairo, Giza, Fayoum, Domiate, Dakhalya, Gharbia and Sharkya were determined. Proximate chemical analysis and microbiological content of the cheese were determined. All samples except Cairo samples were not conformed with the Egyptian standards chemically and microbiologically. All samples contained the tested heavy metals especially aluminium, chromium and lead in higher concentration than the IDF-values. Domiati cheese was manufactured under the industrial conditions, raw materials, cheese and whey were analysed periodically during pickling over 90 days. Raw milk contained higher concentration of tested heavy metals than those reported in literature. Rennet contained high concentration of aluminium and edible salt was highly contaminated with heavy metals. Over 60% reduction in aluminium, chromium, lead and zinc concentration in cheese were found after 90 days of pickling. Accordingly, it is recommended to inface strict inspection of raw

materials used in cheese industry especially edible salt to reduce the source of this hazard. Also it is nesessary to revaluate, the permissible levels of heavy metals in Egyptian food standards in order to ensure the safety of food consumption.

Key words: Domiati cheese, white pickled cheese, edible salt, rennet, heavy metals monitoring, aluminium, cadmium, chromium, copper, iron, lead, zinc.

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