بسم الله الرحمن الرحيم

شبكة المعلومـــــات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

﴿ قـــسـم ﴾

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد اعدت دون آية تغيرات

يجب أن

تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15 – 20 مئوية ورطوبة نسبية من 20-40 %

To be kept away from dust in dry cool place of
15 – 25c and relative humidity 20-40 %

بعض الوثائق الأصلية تالفة

بالرسالة صفحات

لم ترد بالأصـــل

Tanta University
Kafr El-Sheik
Faculty of Agriculture
Food Technology Department

Chemical and technological studies on Mono-sex Bolti fish

By

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B. Sc. (Agric.), Tanta University, 1996.

Thesis

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M. Sc.
In
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DEDICATED TO

My

Father

Mother

SISTER

FOR THERE HELP AND SUPPORT

TO FINISH THIS

INVESTIGATION

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1.Introduction

Fish are one of the excellent and important sources of high quality protein in many countries allover the world. Fish production account for 20 % of the protein requirement of Arab Republic of Egypt (A.R.E) which is extremely low comparing with other countries. In the past few years has been considered as the most widely used protein sources in many of developing countries, and in A.R.E. Increasing of fish production is one of the main objects of the government to cover the existing gap between production and consumption of animal protein. Fish resemble meats in composition, being high in protein and very low in carbohydrates. Fish proteins are more easily to be completely digested and assimilated in the body than the protein of beef, (Tressler and Lemon, 1960).

Nile Bolti fish (***Oreochromis niloticus***) are one of the delicious fish for Egyptian consumers and the most popular fish in A.R.E. At Kafr El Sheikh governorate, we have different sources for collection of this fish, as governmental fish farms (Khashaa and El Zawia farms), private fish farms, Brollus lake, drains and canals.

In recent years, there is a rapid increase in the production of farm grown fish in A.R.E. From table (1) we can observed that the production of Bolti fish was increased in A.R.E from 127746 tons in 1992 to 153010 tons in 1996. Table (2) shows that the production of both Nile Bolti fish and mono sex Bolti fish in Kafr El Sheik governorate from 1992 to 1997. It

is noticed that the total production of Nile Bolti increased from 3890 tons to 37400 tons also mono sex Bolti fish increased from 105 tons to 450 tons.

**Table (1): Total production of Bolti fish in A.R.E (in tons).*

Years	*Production in tons*
1992	**127746**
1993	**121444**
1994	**129241**
1995	**131887**
1996	**153010**

*** Annul report of Organization for Aquarium Development, (Nasr city, Cairo) 1998.**

**Table (2): Total production of both Nile and mono-sex Bolti fish in Kafr El-Sheik governorate (in tons).*

Years	*Common Bolti fish*	*Mono-sex Bolti fish*
1992	**3890**	**105**
1993	**4000**	**160**
1994	**4044**	**240**
1995	**7446**	**310**
1996	**46843**	**390**
1997	**37400**	**450**

*** Kafr El-Sheikh governorate statistical year 1998.**

Nile Tilapia (Nile Bolti fish) is a genus of tropical fishes, belonging to the Cichlid family. The genus is thought to have existed for about 24 million years. There are 14 species of Tilapia, all native to tropical fresh waters of Africa. Several species are popular aquarium fishes because of their interesting