INTRODUCTION

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Flaxseed (*Linum usitatissimum* L.), is an important oil seed crop of the world. The average cultivated area of flaxseed in Egypt reached 20820 feddan with average production of 12226 ton as reported by the **Ministry of Agriculture (2007)**. Flaxseed is a good source of protein 20.0-24.8%, oil 37.8-43.2%, ash 3.9-4.8% and crude fiber 6.8-9.9% **(Marck and Rosenberg, 1976)**.

Crude linseed oil has a dark amber colour and strong characteristic odour. The colouration is caused mainly by dissolved carotenoid pigments and xanthophylls and to a much smaller degree by chlorophylls **(Goldovskij and Nikitinskaja, 1973)**. Linseed oil is composed of five long chain fatty acids and is usually classified as drying oil.

Caragay (1992) reported that there are interest in use of flaxseed in human diet for improving nutritional and health benefits due to the high level of α-linolenic acid and other bioactive components such as lignans and soluble dietary fibers. Flax is a nature rich and safe source of ω-3-fatty acids (18-24%). Also, the oil contains some other minor constituents like waxes, sterols and phosphatides **(Rao *et al.*, 1971). Conte *et al.* (1979)** found the presence of 24 methylene cholesterol in linseed for the first instance in vegetable oils.

The main topics of this investigation include the following titles:-

- Chemical composition of flaxseeds and meal.
- Effect of different treatments on the removal of antinutritional factors from flaxseed meal.
- Isolation of flaxseed protein.
- Digestibility of flaxseed protein.