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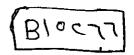


بالرسالة صفحات

لم ترد بالأصل



COEFECT CARGINATION



INFLUENCE OF SOME FACTORS ON THE YIELD, COMPOSITION AND PHYSICAL PROPERTIES OF COTTONSEED OIL

BY

Ibrahim Mohamed Ibrahim Galal

B.Sc (Food Science and Technology)

EL Mansura Univ. 1980.

M.Sc (Food Science and Technology)

Ain Shams Univ. 1992

A thesis submitted in partial fulfillment.

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ABSTRACT

Ibrahim Mohamed Ibrahim galal. Influence of some factors on the yield, composition and physical properties of cottonseed oil. Unpublished Doctor of Philosophy, University of Ain Shams faculty of Agricultre, Department of food science 1996.

Ten Egyptian varieties of cottonseeds were subjected to physical and chemical analysis. Results reveald that, variety. Of Giza 75 gave the highest value of seed index, while variety 45 was the highest yield of oil. The highest protein was 24.1% in cottonseeds variety 85. The lowest crude fibre was, 18.45% in Giza 77. Whereas ash value were closed in all Egyptian cottonseed varieties. Specific gravity, refractive index, free fatty acids, iodine number, unsaponifiable matter were determined in cottonseed oil extracted from each variety - Morever GLC analysis showed, fatty acids structure of each oil.

Moisture content in Engel hard type (U.S.A) contained was the highest value of moisture, 13. 16%. The values of pH were very close. The highest bleachability was observed by using Engel hard. Egyptian bleaching earth reduce 12.5 % of peroxide value and 26.14% of TBA value.

Edible cottonseed oil was packaged in different containers and stored at different conditions. Measurements of peroxides,. Anisidine, TBA and flavor scores indicated that, lacquered metal cans was the best protection for destruction during storage of oil in the presence of 10% head space or in light. Glass pakaging gave better

protection than polyethylene. Best storage condition at room temperature was in darkneses and zero head space.

Edible cottonseed oil packaged in polyethylene terephthalate bottles recorded lower total oxidation values (peroxide, anisidine value and TBA) and highest flavor score than high density polyethylene bottles

Key Words: Cottonseed, Cottonseed oil, Bleaching earth, Packaging materials, Storage conditions

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