CHEMICAL AND BIOLOGICAL STUDIES OF SOME POPULAR MEALS

THESIS

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BY

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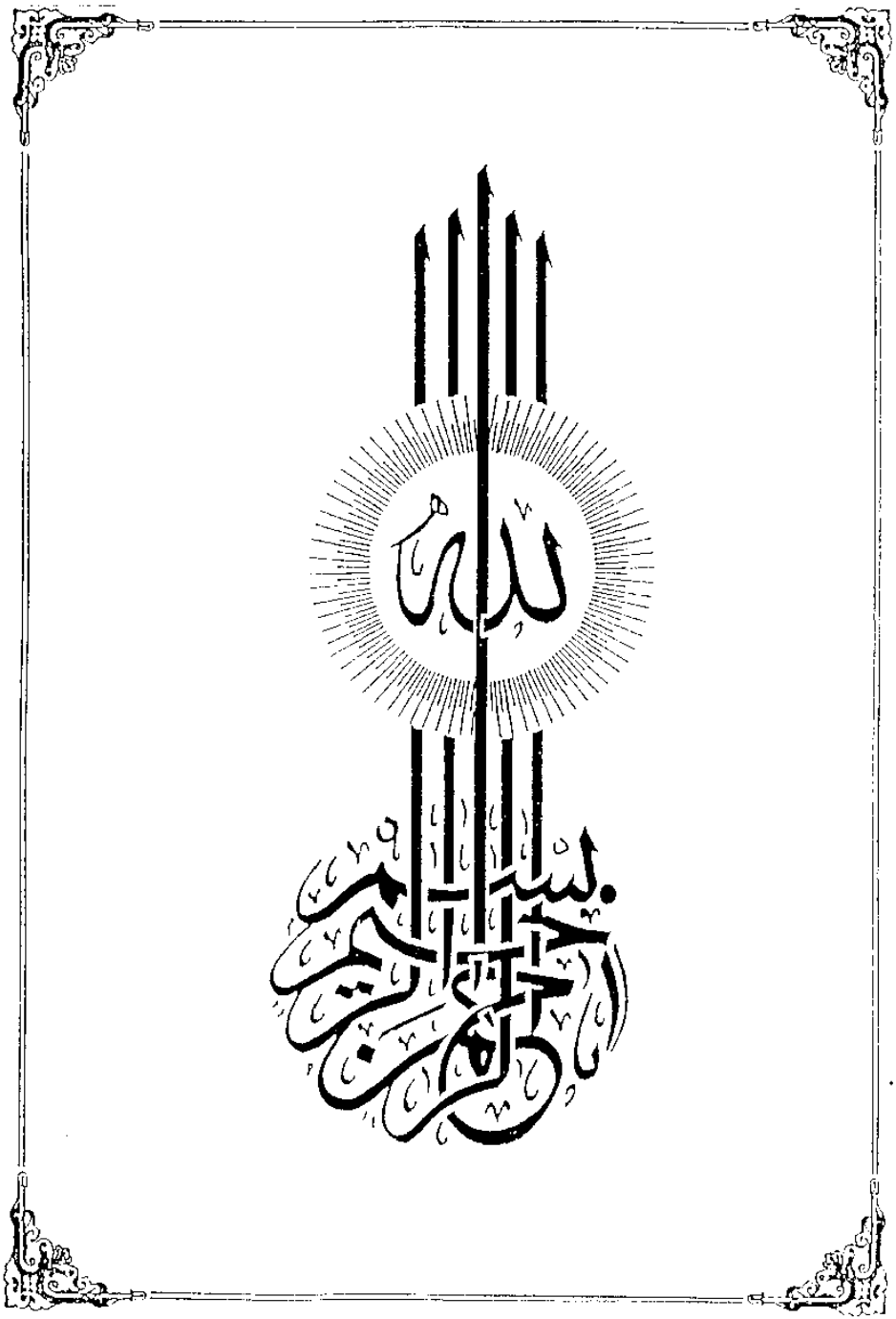

DEDICATION

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C O N T E N T S

INTRODUCTION

Popular dishes are defined as the most common diets which are prepared and consumed by large sectors of the population with variable socio economic standards. Not all popular dishes are adequate, since some of these dishes are imbalanced as one or more of the nutrients is messing.

While primary food deffeciency results from the continued consumption of such unadequate dishes, secondary or defeciency may cause failure of the consumer to digest or absorb digested foods.

An adequate diet should satisfy the needs of the consumers for colories, essential nutrients, vitamins, oxides of inorganic elements and their salts, water and it should be acceptable by the consumers.

In Egypt as well as in many other developing countries, cereals are still the main sources of energy and even of protein in the diets. (Morcos, 1966 A). There are also decrease in the daily intake of animal

protein as a result of the higher growth rate of population which does not go parallel with the amount of food produced and the gained income.

The food consumption and food habits in Egypt lack uniformity where the diets consumed by the public in different areas not only differ in their composition but also in the way of preparation e.g. bread is prepared from wheat in cities, from maize in villages in the north, from millet in the south of the Nile valley and from barely in the oases and some isolated areas of the country.

Usually three meals are taken daily, these include, breakfast, lunch and dinner or supper. A snack is sometimes eaten in between dinner and or supper, the last meal in the day is usually taken at home by the family, on the other hand lunch and breakfast are either taken at home or outside. Breakfast dishes differ from rural to urban areas, even from house to house according to the dominant food habits and seasonal variations, Stewed beans (Foul medamis),bean

cakes or taamiah are mostly consumed in the towns. They are sold in special shops or being prepared by some families at home by leaving beans "Vicia faba" to stew over night at low flame to be ready for breakfast in the morning. However, some families use lentil soup or stuffed cabbage leaves with rice for their breakfast. Dry bread soaked in tea or tea with milk and sugar are sometimes the main breakfast dish.

In the village and most urban areas stewed beans, bean cakes, lentil soup, Koshari which is made from boiled rice, macaronie, chick pea and whole lentils are also included among breakfast dishes. Special dishes of cereals origins are also common in the village i.e. Asida, Sekhina, Saad El-Hanak, Kadosia, Belila Kamh (Wheat belila), Belila Dhurah, (Corn Balila), lokmet El-Kadi, Sheria balady, fattir (dough paste) with dry dates and fattir with chease. These are usually prepared early in the morning by the houswife to be offered to her husband and children before going to work. However, wheat or maize

flour, sugar, mollases, dry dates or chease are used for stuffing such, items.

The scope of such work aims to cover the main following points:-

1. A survey of the popular breakfast dishes.
2. Chemical analysis of such dishes to shed light upon their nutritive value. These includes carbohydrates, fats, protein, fibre, Ash, minerals (Calcium, phosphorus and iron) and the amino acids content.

3. The biological value of such dishes.

4. Supplementation of such dishes with missing nutrients to raise their biological value.

5. Ready to serve the suggested items of such dishes in a short time.

6. The cost of such dishes should be within the consumer income.

REVIEW OF LITERATURE

1. State of Nutrition in Egypt:

Egypt as one of the developing countries of the Middle East, is confronted with economical and social problems. These are reflected on the nutritional status of the population particularly the vulnerable groups including infants and young children (Morocos, 1966 B). On the other hand, Egypt area is about one million km^2 of which 3.3% cultivated and the number of population was about 44 millions in years 1981/1982. However, the population growth rate is about 2.9% per year. It is forcasting the population to be above 70 millions by the year 2000 and therefore the production of food crops should be increased. Table (1) shows the increment of population every five years, consumption of calories and protein, up to the year 2000 as compared to year 1980.

*Table (1):- Forcasting of population numbers, percentage of colories and protein as to the year 2000.

Years	Forcasting population numbers in millions	Forcasting percentage of		
		Populations	Colories	Proteins
1980	40.1	-	-	-
1985	46.0	14.7	13.9	12.9
1990	53.1	32.4	30.4	29.3
1995	61.4	53.1	50.3	48.7
2000	70.6	76.1	73.5	71.9

* Source: The regional conference of food and nutrition, 1976, Cairo.

2. Food Supplies and Food Consumption:

A- Cereals: include:

Whole wheat, parboild wheat, wheat flour of 72% and 87% extraction, barley, millet, sorghum, rice and maize are the main cereals consumed in Egypt as given in table (2).

Cereals as grain crops are valid for their stability, high content of carbohydrates and other nutrients (Schultz, 1964). These grenus grains play an important part in the diet providing 70% of the calories and 66.5% of the protein intake especially in developing countries. On the other hand wheat is considered as the principal food for the over whelming majority of the inhabitants. Table (2) shows the average annual production of wheat which was about 1.8 million tons for the year 1980. While the consumption reached 6.2 million tons i.e. wheat or wheat flour, so the resulted gap i.e. 4.4 million tons were covered by importation.

The stratagy in production during the past few years is still greatly deficient due to rapid

rise in population and also to the farmer's increased consumption of wheat instead of maize.

The wheat maize ratio for the year (1960) that was 1987:1451 thousand tons (Morcos, 1966 C). being 1826:2938 thousand tons in the year 1980 (Ministry of Agriculture). On the contrary the production of rice was 2.5 million tons in the year (1980) and the consumption was 2.2 million tons in the same year.

Table (3) shows that while consumption of cereals decreased by 98.3 gms (15.83%) in the years 1972-1973 compared to year 1967-1968, it increased by 48 grams (28%) in year 1979-1980.

A comparison of the daily food supplies for human consumption percaput as given by the food balance sheets compiled by the (FAO) in years 1960 and 1975 as well as the expected values in the year 1985 in Egypt, Syria and Sudan is presented in table (4).

The expectation in year 1985 will be about