

Chemical composition and nutritive value of various breads in Saudi Arabia*

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(Received 30 August 1989; revised version received and accepted 17 January 1990)

Six types of local breads; namely, samouli, mafrood, burr, tannouri, tamees and korsan commercially baked from local wheat flour were investigated for their chemical composition and nutritive value.

Carbohydrate content varied from 70.8% for korsan to 82.3% for mafrood. Protein content varied from 12.2% for samouli to 13.8% for korsan. Tamees bread showed the highest fat content (3.3%) whereas burr bread showed the lowest fat content (0.6%). Dietary fibre ranged from 2.6% for tamees to 10.6% for korsan. Korsan also exhibited the highest ash content (3.02%) followed by tamees (1.97%) and burr (1.40%). Other breads had lower ash contents (0.84–0.98%). The energy content ranged from 354.6 kcal/100 g for korsan to 398.1 kcal/100 g for tamees.

Among minerals, Na ranged from 66.4 to 288, K 111–281, Ca 8.7–15.1, P 114–345, Mg 41.4–110, Fe 3.5–4.4, Zn 0.4–2.0, Cu 0.3–0.6 and Mn 0.6–3.6 mg/100 g. All types were low in Ca giving rise to low Ca:P ratios.

Cystine and lysine were the most limiting essential amino acids, and glutamic acid and proline were the highest non-essential amino acids. The chemical scores range from 32 to 35.

Based on FAO RDA, 100 g of Saudi bread would provide 11–124%, and 26.5–30% the daily energy and protein requirements for adult males, respectively. It can be concluded that these types of bread are cheap sources of calories, protein and some minerals. The low caloric values of burr and korsan breads and their high dietary fibre contents make them nutritionally important when planning for low calorie and high fibre diets for the people of Saudi Arabia.