

EVALUATION OF VENASPATI GHEE FOR NICKEL CONTENT

Abdur Rahim Khan and A.K. Baloch
Department of Chemistry, Gomal University, D.I.Khan.

Received 2-04-86.

Accepted 15-11-87.

ABSTRACT

Samples of ghee from Ghee Corporation, Multan and Tullo Industry Hyderabad were bought from shops at different dates over a period of two months and analysed for nickel content. Nickel was estimated making nickel-DMG complex, the complex extracted with chloroform and the intensity of the colour measured with the help of spectrophotometer. The nickel content of samples from Ghee Corporation ranged 0.5 to 3.3 ppm which was much higher than that from Tullo Industries (0.16 to 0.28 ppm). However the nickel contents from both the products are within the limit set up for ghee by Pakistan Standard Institute and World Health Organization. A careful check over the process is recommended to supply uniform product through out the year.

INTRODUCTION

Since the advent of human life fat is being used in the diet in one way or the other due to several reasons. Fats are richest source of energy, act as vehicle for fat soluble vitamins and flavours and are source of essential fatty acids. They enhance palatability of the meal and contribute to the desired physiological balances. Fats slow down the emptying time of stomach and decrease intestinal motility and thus are recognized to have high satiety value. Besides, they exert a sparing action on protein and form a balanced diet.

The fat being used in the early days was mostly of animal origin and firm in texture. Common fats includes tallow and butter or other fats with high melting point. With the increasing demand for fat and keeping in view the advances made in the science of nutrition, other sources of fat with better quality were searched out. Since animal fats are believed to be the probable cause for coronary diseases due to their high saturated glycerides level alongwith cholestrol, the demand for vegetabel oils was increased to provide ghee substitute.

Contrary to animal fat, vegetable oils contain high amount