

Quality Evaluation of Oils/ Fats in Small Food Outlets (A Preliminary Investigation)

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Abstract: *Issues related to food quality & safety and human health have caused great concern in all communities, world over. Food processing methods play very important role in this context. Infact due to lack of awareness about "Quality- Recipe" matrix especially in small food outlets, the quality of food items may result in health hazards. In this context process of using oils/fats for various items is very crucial due to TFA (Trans fatty acids) generated during the processing.*

Keeping above facts in view, a survey was conducted about use of oils/fats in food outlets in South Delhi. Samples of used oils/ghee etc were also collected. TFA content in these samples was analysed by GC technique. Research findings reveal the presence of high percentage of trans fat in all the oil samples. The amount of trans fat

in oils ranged as 9.92-44.06 gm/100gm of oil, which is 5 to 20 times higher as compared to maximum limit set for TFAs in Denmark for edible oils and other food products. Elaidic acid was the predominant constituent and constitutes about 60% of total trans fat detected in all the samples. High amount of elaidic acid in these samples indicate the presence/use of partially hydrogenated vegetable oils like vanaspati/dalda. Determining total polar compounds (TPC) value is one of the criterions used for evaluating used frying oils and it is recommended that frying oils containing more than 20-25% of total polar compounds should be discarded. The limit established by the French legislation for heated fat is 25% of polar compounds. All the collected oils samples for this study found to have more than 25% TPC determined.