

ANALYTICAL METHODS USED IN THE CHEMICAL ANALYSIS  
OF  
FOOD COMMODITIES AND LIQUOR.

by

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## ABSTRACT.

Agriculture and food production are the main areas of economic development of most developing countries. The development have contributed to the greater need for laws to regulate the safety of the food supply.

The adulteration of the food product is a main problem in the food market. More and more instances of the adulteration and preservation of food items with substances and chemicals that are injurious to the human body. To prevent this problem Food and Drug Act No.26 was established in 1980.

Law provide to assess whether the food comply with any minimum quality standard or maximum limits for injurious elements or materials which have been officially prescribed or recommended. The standards are very useful for quality assurance of product intended to market. Standards are meaningless unless the methods of analysis are also standardised.

The most important aspect of a food item to the consumer is its safety and quality.

Food analysis include several methods that are physical, chemical and microscopical examination. These methods are helpful to detect the adulterated food items.

Most foods are examined for moisture, ash and sugar. Powdered products are examined under the microscop to detect any foreign matter. The chemical analysis will provide the correct information regarding the genuiness of the product.

Public health inspectors brought the samples of oils and fats, beverages (tea, coffee, non-alcoholic beverages), milk powder, jaggery, spices and condiments, baking powder, vinegar and police officer brought the samples of liquor from the Magistrate to the Govt. Analyst Department to detect the genuiness of the above samples.

oils and fats are adulterated with cheapest oils that are detected by the determination of saponification value, iodine value, acid value and RPK values. Tea is adulterated with foreign leaves and coffee with roasted flour and husk that are detected by the determination of ash content, extract, and caffeine content. Non alcoholic beverages adulterated with addition of water, addition of saccharin, and colouring matters. These are detected by the determination of preservatives, saccharin content sugar percentage and colouring matter, carbondioxide for baking powder, acid insoluble ash for spices and condiments, acidity, oxidation value, alkali oxidation value, iodine value, ester value for vinegar, and alcohol percentage, acidity, esters, aldehyde, furfural, copper for liquor are used in the chemical analysis of the food items.

The detection of foreign substances of powdered product is carried out by the microscopic examination. Powdered products are adulterated by the addition of flour, brick powder, powdered paddy husk, saw dust and poonac.

The most frequent form of adulteration of liquor is the addition of water.

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