OBJECTIVE

The Objective of this project is to study some of the common food adulterants present in different food stuffs.

EXPERIMENT 1

To detect the presence of adulterants in fat, oil and butter.

REQUIREMENTS

Test-tube, acetic anhydride, conc. H_2SO_4, acetic acid, conc. HNO_3.

PROCEDURE

Common adulterants present in ghee and oil are paraffin wax, hydrocarbons, dyes and argemone oil. These are detected as follows :

(i) *Adulteration of paraffin wax and hydrocarbon in vegetable ghee*
Heat small amount of vegetable ghee with acetic anhydride. Droplets of oil floating on the surface of unused acetic anhydride indicates the presence of wax or hydrocarbons.

(ii) *Adulteration of dyes in fat*
Heat 1mL of fat with a mixture of 1mL of conc. sulphuric acid and 4mL of acetic acid. Appearance of pink or red colour indicates presence of dye in fat.

(iii) *Adulteration of argemone oil in edible oils*
To small amount of oil in a test-tube, add few drops of conc. HNO_3 and shake. Appearance of red colour in the acid layer indicates presence of argemone oil.