Prodcut Quality Analysis Laboratory

The Product Quality Analysis lab is having the facilities for analysing various quality parameters of foods, food formulations, developed products and other processed materials. The quality analysis ranges from texture, color, water activity, viscosity, asceptic handling, culturing and maitenance of microorganisms alongwith routine analysis of food quality. The lab is well versed with ultra low storage and drying of bioactive compounds and neutraceuticals, estimation of volatile compounds like ethylene (ripening related hormone) and estimation of internal environment of modified atmospheric/controlled atmospheric packaged food/food formulations.

Texture Analyzer: Determination of textural properties such as rupture force, energy, cutting force strength etc. of food products

UV/VIS SPECTROMETER

Determination of minute quantities of substances like micronutrients in agricultural soil, plants; organic components in biological matter; glucose, fructose etc in foods based on Lambert-Beer’s law

Gas Liquid Chromatography: Separation and quantification of volatile components and pigments

Digital microscope: For seeing micro objects like microorganisms viz. bacteria, fungus

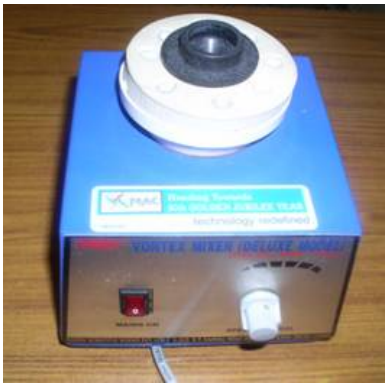
Lyophilizer: For drying of samples at ultralow temperatures

Universal Oven: To measure moisture content of samples and sterilization of glass-wares

Laminar air flow: For aseptic maintenance and transfer of microorganimsmal cultures

Environmental Chamber: For growth of microorganisms at different environmental conditions

Incubator cum shaker: For growth of microorganisms at particular temperature under shaking condition



Vortex shaker: Mixing of samples by shaking

Headspace gas analyzer –Estimation of gas concentrations in MAP food

Autoclave: Sterilization of glasswares, media etc. for microbiology purpose

Incubator: For growth of microorganisms at particular temperature

Deep freezer: For preservation of samples and costly chemicals at ultralow temperature

BOD Incubator: Incubation could be given for the growth of specific microbes with specific heat and relative humidity.

Hand colormeter: Measurement of colors

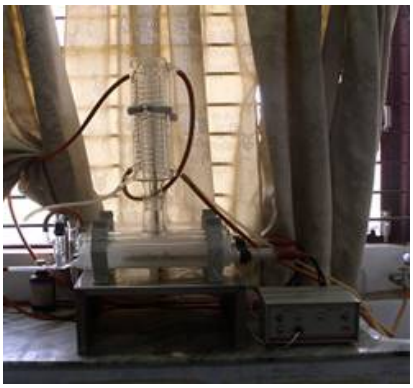
Water activity meter: to measure the available water in food

Viscometer: Determination of viscosity of samples

Noncontact thermometer: Measurement of surface temperature

Incubator: For growth of microorganisms at particular temperature

Vacuum flesh evaporator: To do evaporation under vacuum



Distillation assembly: For preparation of distilled water

Vacuum dryer: Drying of food samples by vacuum

Water bath: During analytical experiments to give a particular temperature