



Hydrometers, Hygrometer and Lactometer

Hydrometer: measures the (specific) density of a liquid relating to either dissolved sucrose (common table sugar or saccharose) or salt. The fruit juice, wine-making and sugar industry use the Brix scale to indicate sugar level (*Antoine Brix, 1850 Frenchman devised the scale to measure sugar content of grape juice*). Other scales are used for other industries.

Lactometer: measures the specific gravity of milk and indicates the content of unsaturated fats, proteins and calcium. In this respect it is a hydrometer. To obtain the % total solids in milk you would need to determine the % fat using the Babcock or Gerber methods and use the Lactometer reading in the calculation.

Hygrometer: measures relative humidity (R.H.). The older mechanical technology uses hair (human (blonde is most predictable and consistent), animal (horse), synthetic (petroleum based plastic)) or other materials that absorb moisture (paper coated metal coil) that change their length when absorbing moisture as sensors. Thus, this measurement is temperature dependent. Points of consideration for sensor choice include precision, accuracy, longevity and response time. The most accurate hygrometers are electric and measure the weight of the water absorbed by a specific material.