

Full spectral approach fostering the development of new innovative concepts

A new approach for Mid Infra-Red (MIR) calibrations is evolving. It is based on creating universal equations independent of the machine brand used. This is made possible by the creation of large international milk MIR spectral databases related to large-scale phenotype measurements and the use of instrument standardization procedures. Since the first patent application in 1961, MIR spectroscopy has become the most used method for liquid milk testing. Many reasons explain this success story: MIR allows a fast, precise, non-destructive quantification of milk composition in order to avoid reference methods, which are usually difficult, expensive, and time consuming. All over the world, thousands of MIR apparatus are used daily to predict traditional components such as fat, protein and lactose. From 1993, new models of MIR instrument were available such as Fourier transform infra-red (FTIR). This new technology has been rapidly adopted by researchers to use the full MIR spectra and predict multiple new parameters thanks to new developments in chemometric's and computer processing power.

Regards

Gavin Scott

Technical Manager | MilkTestNZ