

The **NEW** InfraLab Series 9 Meat Analyzer

Nordson Measurement & Control Solutions has over 50 years of experience in the design, development and manufacture of process instrumentation developed specifically to meet the exacting requirements of the foods industry.

Our Applications Engineering team has a thorough knowledge and understanding of the physical and chemical attributes of food products, the process measurement and control requirements, and the many analytical methods used in quality assurance systems.

Assuring and Controlling Quality

During the further processing of meat products there is a need to monitor and control the fat and also the protein, moisture and collagen content to insure consistent quality and to meet product specifications. This applies in particular to the manufacture of burger patties, supermarket ground meat portions, and bulk sausage production.

The InfraLab Series 9 Meat Analyzer has been developed specifically to replace laboratory methods during processing of Beef, Pork, Lamb, Poultry and other meat products, requiring no special skills in routine use. It enables operators to analyze samples rapidly to insure that the fat, moisture, protein or collagen content meets specified values. During its extensive development program, InfraLab has been independently tested in worldclass laboratories to prove the veracity of results against accredited methods. Performance, convenience, ease of use, and Nordson's global customer support infrastructure, have made InfraLab Series 9 the analyzer of choice for meat processors worldwide.



Meat Analyzer			
User: Engineer	Sample	Product: Meat	
Moisture	18.61	Protein	4.31
Fat	29.63	Collagen	45.44

10-inch, high-resolution capacitive touchscreen display



Use encrypted USB sticks (BitLocker) for data download to spreadsheet programs



Reference standard for routine stability checks and standardization after servicing

Sample History			
Meat	ALL	ALL	
Moisture	18.61	Protein	4.31
Fat	29.63	Collagen	45.44

History Audit Log and On-board data storage (up to 10,000 sample measurements)

The InfraLab Series 9 Advantage:

- Advanced high-accuracy, at-line meat analyzer designed for rapid analyses in process environments
- Direct replacement for time-consuming laboratory analyses or at-line instruments which have inherent operator-dependent repeatability and reproducibility performance issues
- Intuitive to use with user-friendly reporting of measurement values for rapid monitoring of processes
- Enables greater processing and measurement capability for deeper process insight
- Significantly reduces your operational expenditure and delivers a strong return-on-investment over the lifetime of operation

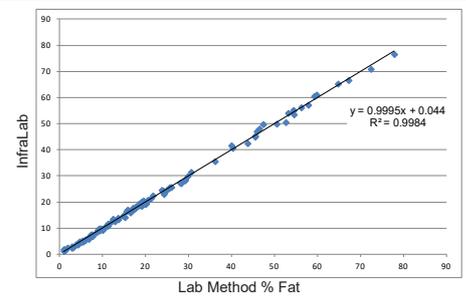
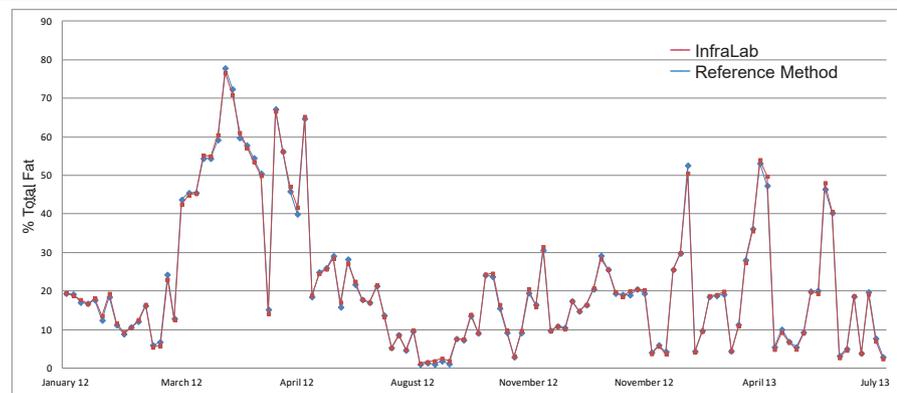
Validating to the Laboratory

The InfraLab Series 9 uses NIR (near infrared) measurement technology, and therefore like other secondary correlative techniques, requires local validation against appropriate AOAC or ISO chemical analysis methods.

The convenient transfer of measurements in-house to the InfraLab enables rapid local analyses which agree statistically with the accredited laboratory method.

Laboratory Reference Methods		
Measurement	AOAC	ISO
Crude Fat	960.39 or 991.26	1444
Total Fat	-	1443
Moisture	950.46B	1442
Protein	992.15	937
Collagen (hydroxyproline)	990.26	3496

Long-term stability and accuracy - proven through independent testing



The graphs compare a single InfraLab's measurements of total fat to external lab data (wet chemistry) over a period of 18 months. From April 13 onwards, the external lab changed to using NMR.

The InfraLab is designed for ultimate long-term stability and automatically monitors and manages its opto-electronic performance, using an internal reference standard. InfraLab has been developed specifically for the process environment, remaining completely uninfluenced by both product and production environment changes area such as ambient temperature, relative humidity and factory lighting.

Calibration Software

The InfraLab Series 9 is delivered with our unique factory calibrations that are ready for use for the specified measurements and ranges. On installation, they are adjusted to agree with your reference method. The software simplifies this process by enabling a comparison of instrument values with laboratory results and features the following tools and functionality:

- Instrument setup and calibration
- Product management (product settings)
- Displays of measurement and other key parameters
- Data logging and export
- Diagnostic functions

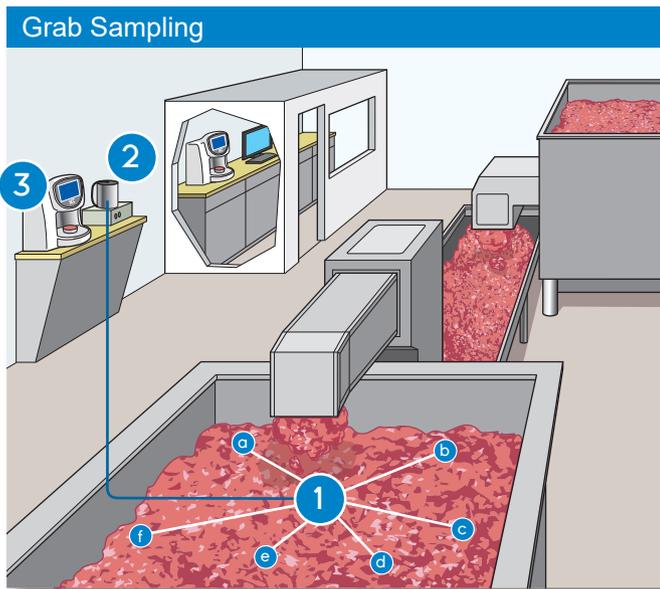


Get Unparalleled Performance in the Following Meat Applications

Applications		Fat	Protein*	Moisture	Collagen*
Measurement Range		2 to 60%	9 to 23%	30 to 75%	1 to 8%Me
Meat Type	Beef	■	■	■	■
	Pork	■	■	■	■
	Poultry	■	■	■	■
	Lamb	■	■	■	■

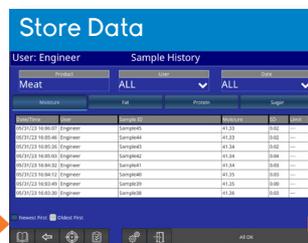
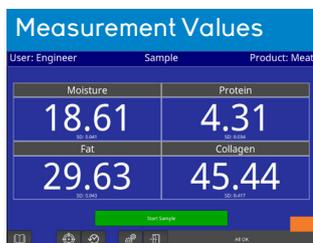
*InfraLab Series 9 can also measure the collagen to protein ratio.

Measure Process Samples



Routine Use of the InfraLab:

- Operator collects multiple grabs from batch (1)
- Homogenizes them together in a Robot-Coupe™ (2)
- Takes one grab from sample (3)
- Logs on to InfraLab
- Selects product name
- Presents sample
- In less than 10 seconds, data is presented on screen and stored in the memory or transmitted via Ethernet



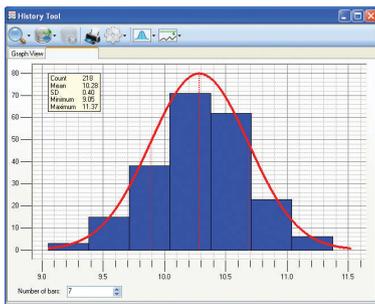
Infralab Manager Software

Network connectivity

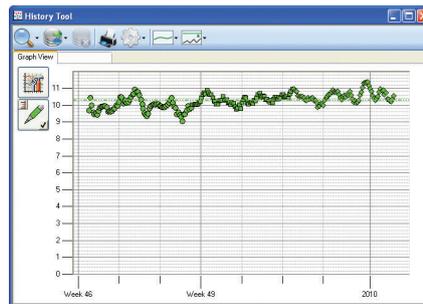
Optional communications interface for sending measurement data over Ethernet for capture and storage in a centralized database.



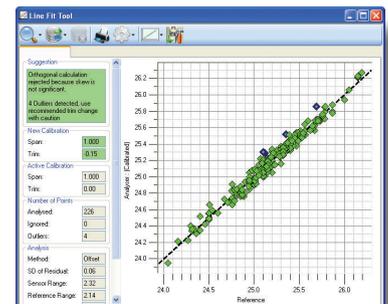
Advanced Data Analysis for Deeper Process Insight



Histogram



Data display



Calibration

With InfraLab Series 9, you realize a greater return on investment by reducing routine sample testing costs.

Nordson Measurement & Control is represented in over 60 countries worldwide. www.ndc.com

Americas
Tel: +1 937 233 9935
Email: info@ndc.com

China
Tel: +86 21 6113 3609
Email: ndchina@ndc.com

Germany
Tel: 08001123194
Email: ndcgermany@ndc.com

India
Tel: +91 7330999755
Email: ndcindia@ndc.com

United Kingdom
Tel: +44 1621 852244
Email: ndcuk@ndc.com

Japan
Tel: +81 3 3255 8157
Email: ndcjapan@ndc.com

Italy
Tel: +39 0331 454 207
Email: ndcitaly@ndc.com

Rest of Asia
Tel: +65 9296 0881
Email: ndcapac@ndc.com

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