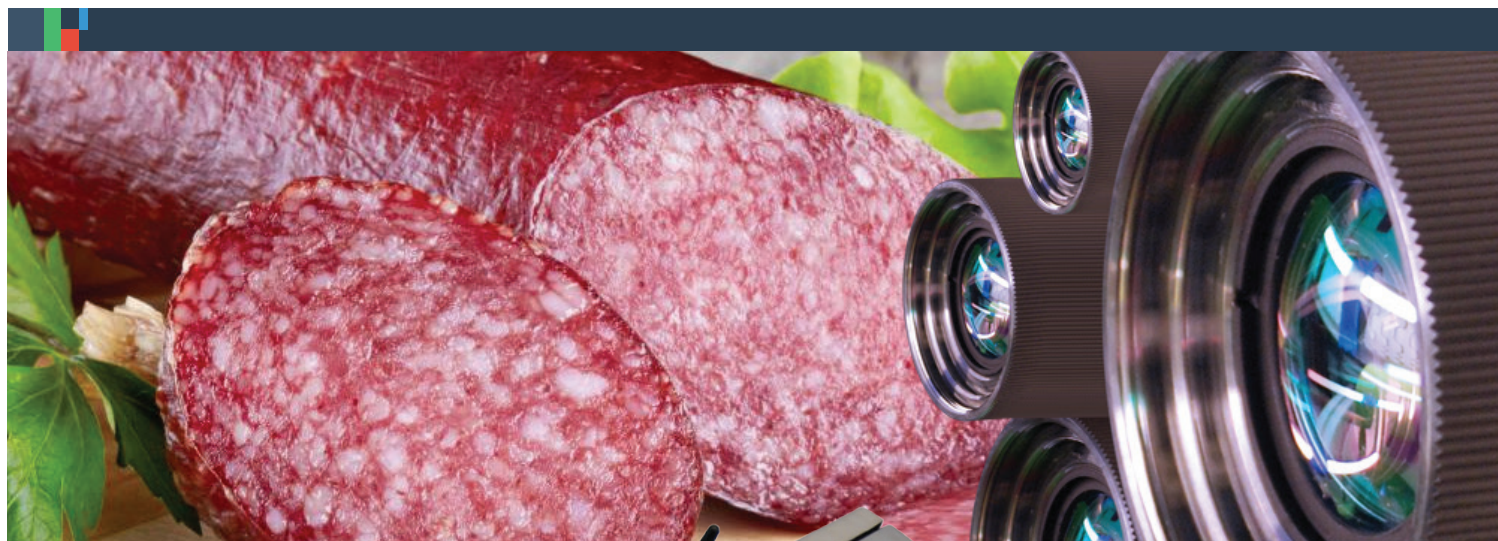


MONITORING OF MEAT AND SALAMI QUALITY PARAMETERS: MOISTURE, FAT AND PROTEINS.



Best quality and cost savings through product standardization

- Continuous and non-destructive measurements
- Real-time in situ analysis to immediately adjust process parameters
- Simultaneous measurement of multiple parameters
- No need for sample preparation



VISUM IN-LINE: Monitoring of moisture, fat and proteins for higher quality at an affordable price

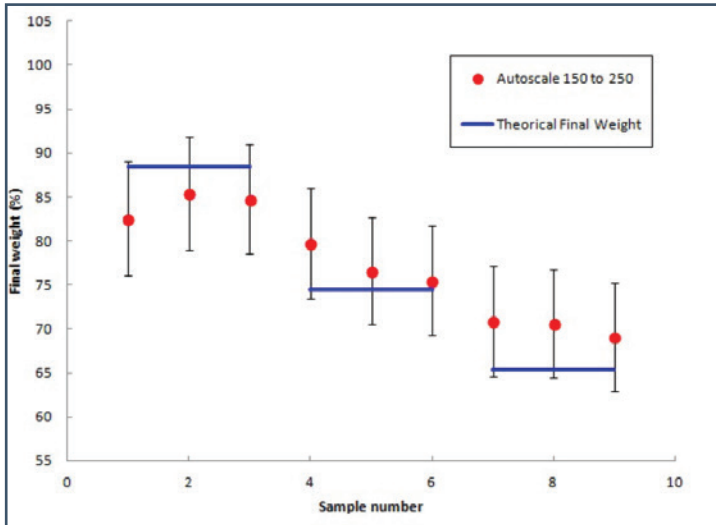
Affordable quality control is a common objective of all meat and sausage processing companies: Maintaining moisture, fat and protein parameters as close as possible to target values means that quality standards can be met without incurring increased costs.

Our VISUM NIR device enables product standardisation and minimization of process variability, because it continuously controls in real-time each piece and therefore is able to detect any process outlier.

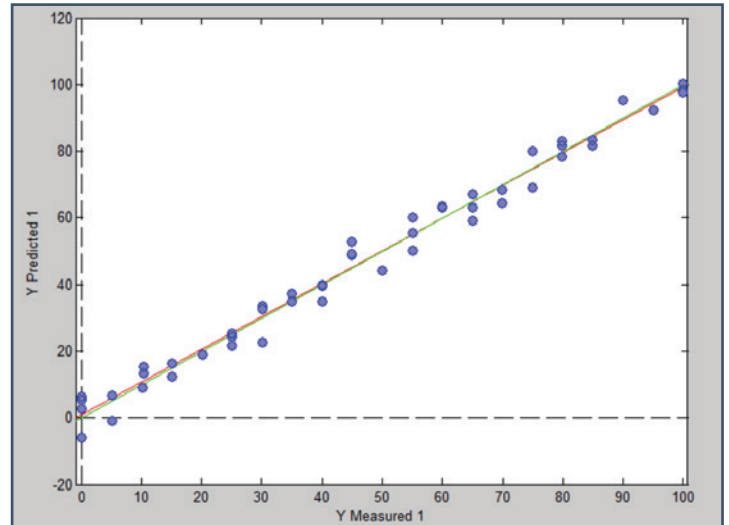
Case study

Samples studied in these tests are slices of pork loin and salami with different levels of moisture, fat and protein contents. Spectra were taken with the **VISUM IN-LINE NIR** analyser and multi-parameter chemometric models were developed to measure successfully moisture, fat and protein contents.

Reference analysis were only partially available: E.g. different moisture values were measured by weight loss over time, but even with incomplete reference analysis, predictions were successful thanks to chemometrics and the homogeneity of pork loin slices.



Predicted loss weight (dots) and theoretical loss weight (line) for different calibration samples using data between 1327 nm and 1627



Initial meat calibration model. Y measured vs Y predicted.

Conclusions



VISUM NIR successfully measures moisture, fat and protein content of pork slices and salami. Continuous in-line quality parameter control opens the door to minimize process variability for high quality products at reasonable costs.

