Application Note 010: Cropscan 2000G
Measurement of Fat and Moisture Content in Pie Dough

Introduction

This report summarises the study done with Pie Dough samples provided by a food large US bakegoods company. The samples were supplied to calibrate a Cropscan 2000G for moisture and fat content of the samples. The samples were stored in plastic bags in a refrigerator for two days before the study was accomplished.

Description

The samples were removed from the refrigerator and allowed to equilibrate to room temperature. Each sample was cut out of the dough with a biscuit cutter to the appropriate size of 50mm wide by 25mm thick. This was appropriate for correct fitting into the squeeze sample cell, which had a 20mm pathlength. The samples were wrapped in plastic sheets and put into the squeeze cell. This helped to keep the cell clean for the next sample.

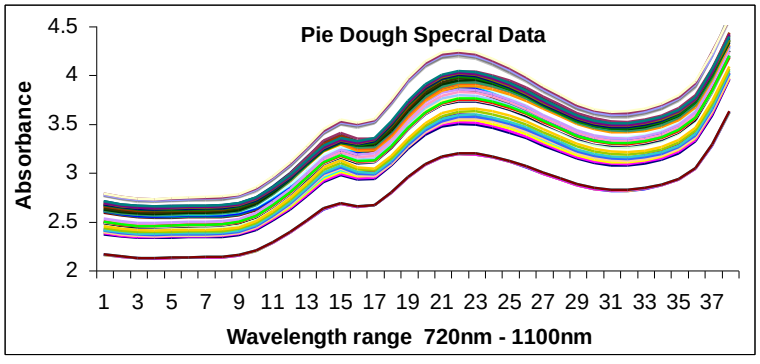
Each sample was scanned on the Cropscan 2000G between 720-1100nm obtaining 5 replicates for each sample. The spectral data was saved and uploaded as a Microsoft Excel spreadsheet to be correctly formatted for calibration using the Unscrambler® regression software package.

Results

The regression statistics for the calibration are given below

Constituent	SED (%)	Corr
Moisture	0.28	0.985
Fat	0.13	0.994

The chart shows the spectra for the samples scanned on the Cropscan 2000G.



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