

Procedure:

10 minced beef samples were scanned with the Cropscan 2000. Sample 9 was very finely minced. 28.9 g of sample were weighed out, wrapped in cling film and fitted into a 5 mm sample squeeze cell. 10 scans were taken throughout the cell per sample.

Wet chemistry was carried out on the samples and the data file was used to assess suitability for further calibration development using the NTAS software. One sample was excluded from the sample set, as the fat value appeared too low.

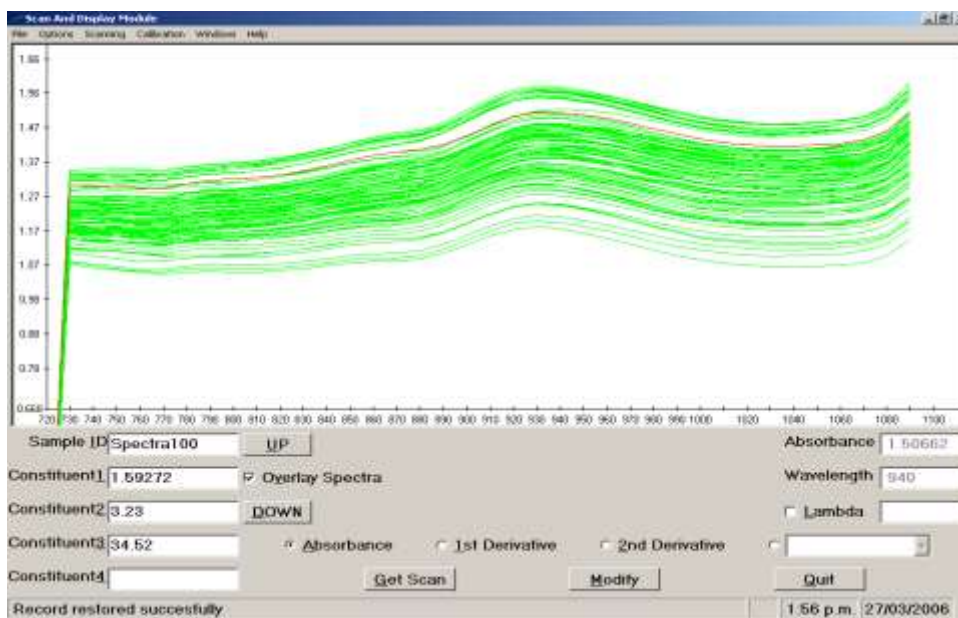


Figure 1: Absorption spectrum of mince beef samples

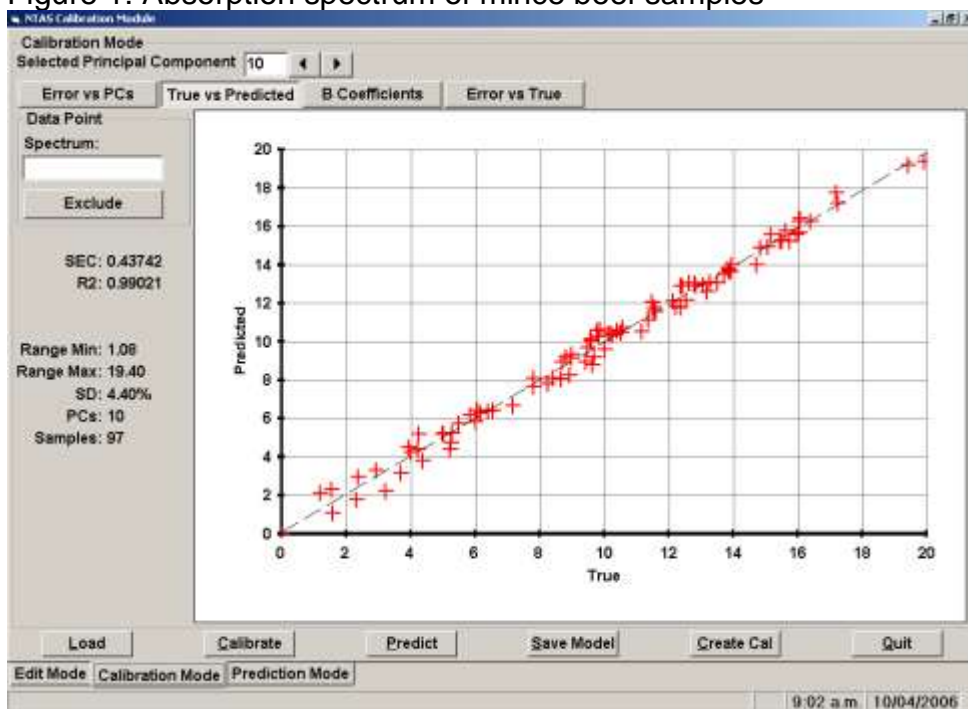


Figure 2: Calibration plot for fat

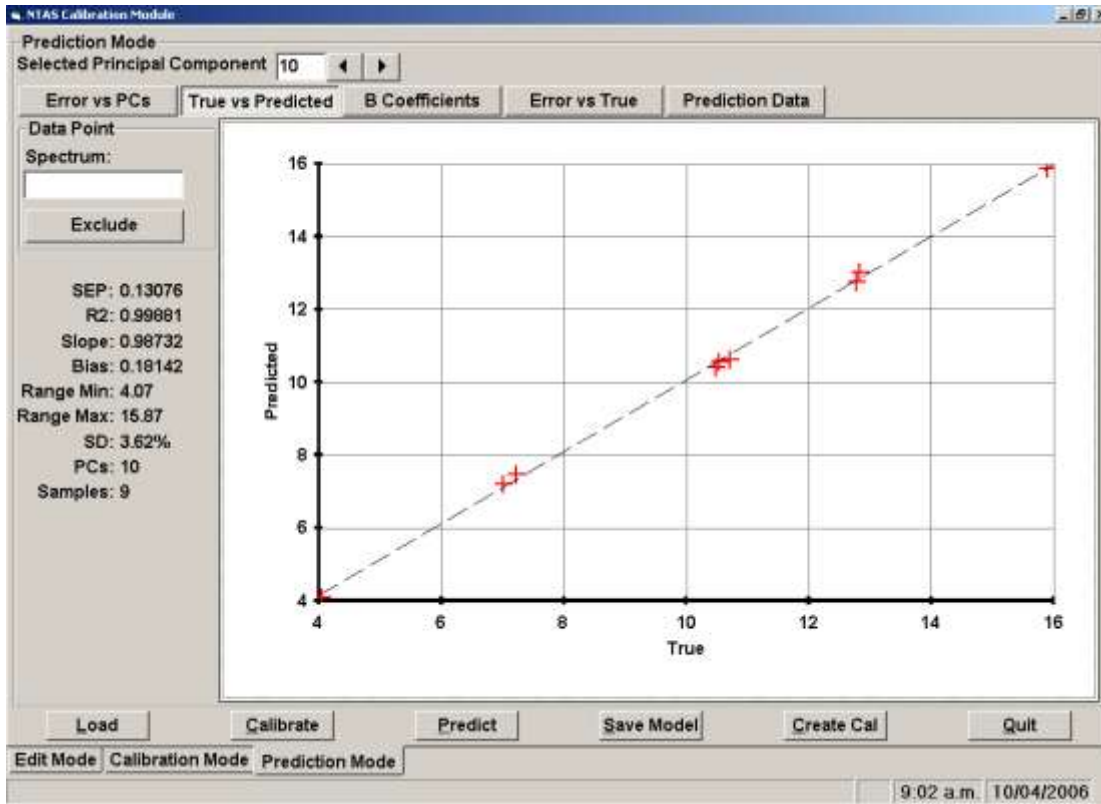


Figure 3: Prediction plot for fat

Discussion:

The calibration plot in Figure 2 shows good linearity and a reasonably good standard error of calibration considering the small sample set. The prediction mode was used to analyse the sample set against itself. The result can be seen in Figure 3. Again the linearity is good. The standard error of prediction is very good. The preliminary results indicate a promising basis for developing a robust calibration for mince beef.