

Supplementary information

Table S1 – Macronutrients of the samples analyzed and labels used in the manuscript. The content in proteins, fatty acids, carbohydrates and fibre correspond to g per 100 g of insect powder.

| Insect type | Label | Producer or importer | Proteins (g) | Fatty acids (g) | Carbohydrates (g) | Fibre (g) |
|-------------------------------|-------|-----------------------------------|--------------|-----------------|-------------------|-----------|
| <i>Acheta domesticus</i> | A1 | Nimavert, Harelbeke, Belgium | 57.3 | 21.5 | 2.7 | 4.9 |
| <i>Acheta domesticus</i> | A2 | Crunchy Critters, Derby, UK | 66 | 25.5 | 2 | 3.5 |
| <i>Tenebrio molitor</i> | T | Nimavert, Harelbeke, Belgium | 50 | 30.8 | 6.7 | 3.3 |
| <i>Alphitobius diaperinis</i> | AD | Entofood, Emerlo, The Netherlands | 59.6 | 28.7 | 2.7 | 3.7 |
| <i>Locusta migratoria</i> | L | Entofood Emerlo, The Netherlands | 56.3 | 31.6 | 1.6 | 8.5 |

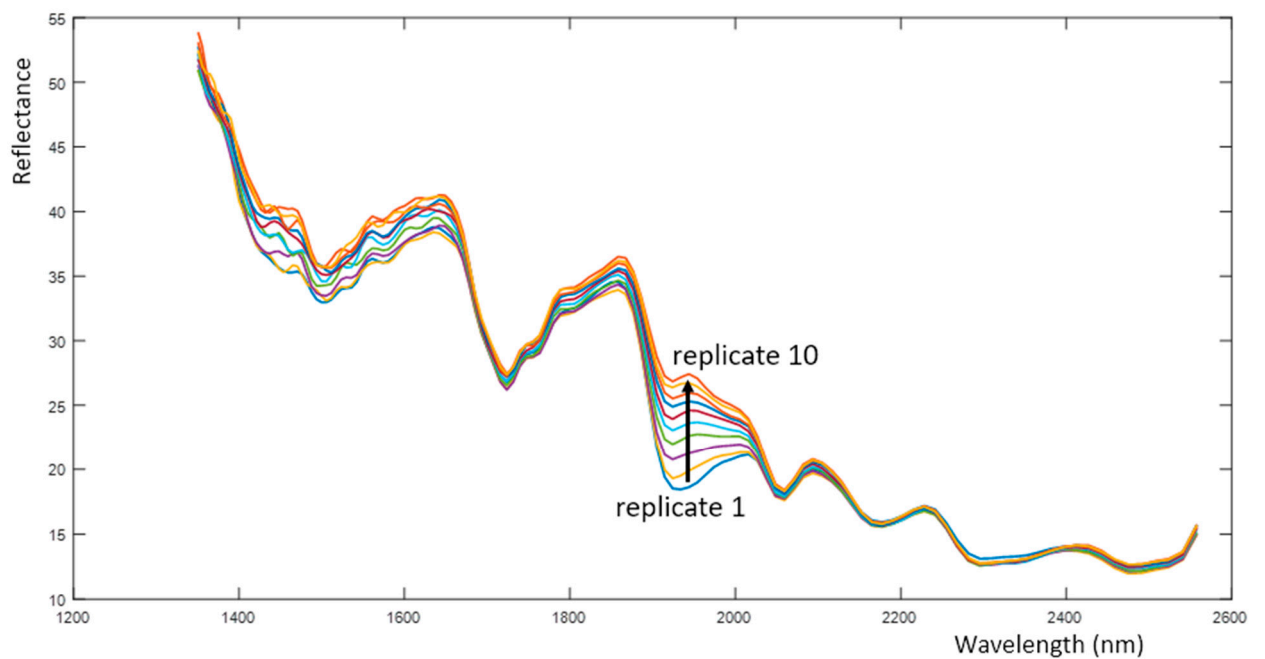


Figure S1. Ten instrumental replicates of a random A1 sample without sample repositioning. The band around 1950 nm shows a loss of humidity on consecutive replicates, probably due to the high temperature of the measurement window. The sample had been opened 10 days before and stored in room conditions.

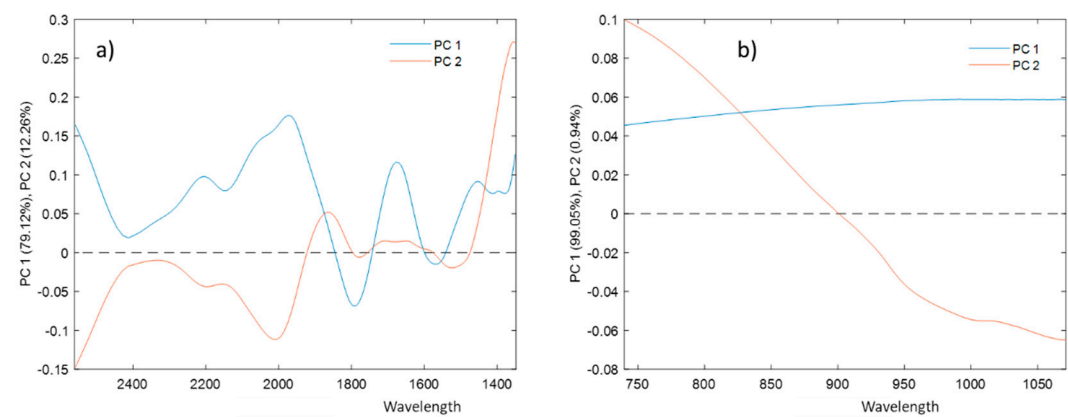


Figure S2. Loading plots for the two first PCs obtained with the PCA models using the a) NeoSpectra MDK and b) SciO data.

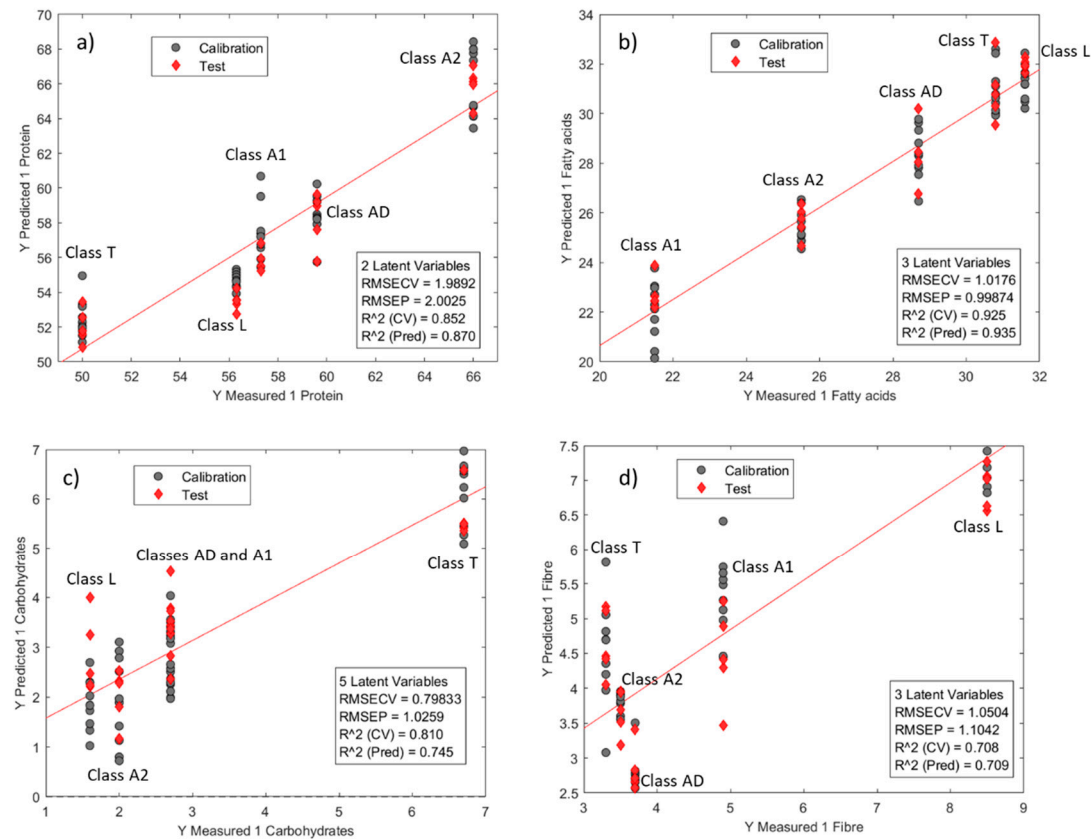


Figure S3. Regression lines between the predicted and the measured values for the different PLS models made with the NeoSpectra data. a) Protein, b) fatty acids, c) carbohydrates, d) fibre

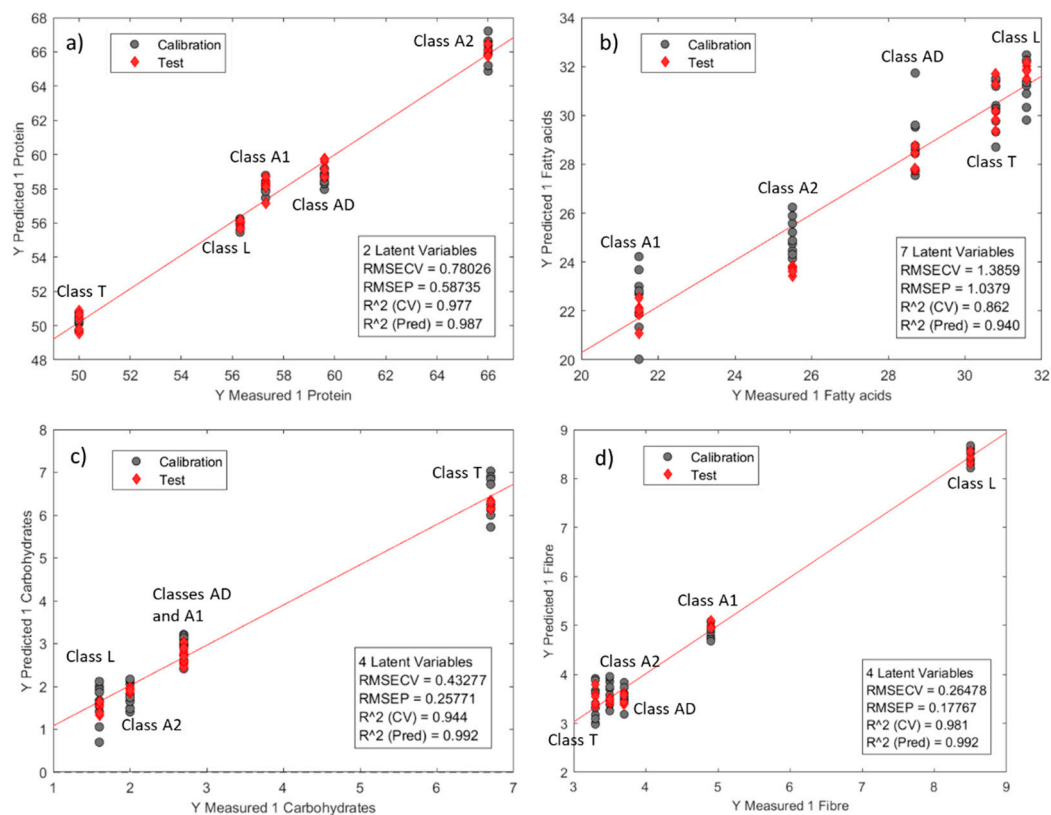


Figure S4. Regression lines between the predicted and the measured values for the different PLS models made with the SCiO data. a) Protein, b) fatty acids, c) carbohydrates, d) fibre