

Final project – Straw data

Goal: The goal is to predict the glucose release/content from NIR data.

Filename: straw.ltx (for use in latentix) and straw.mat (for use in PLS toolbox or Matlab)

Number of samples: 1124

Xcal (909x1050): 909 samples measured by NIR in the range 400-2498nm (400-1098 nm is the VIS range, and 1100-2498 nm is the NIR range)

Xval (203x1050): Test set of 203 samples measured by NIR

Ycal (909x1): Glucose content/release (measured by an enzymatic degradation)

Description:

In the energy sector, it is of interest to know the energy potential of the raw material that is bought by the producer. Currently, the state-of-the-art method for determining the sugar potential of straw is by the use of an enzymatic kit, requiring several analytical steps in order to achieve a reference value. It is therefore of interest to investigate whether it is possible to get a faster estimate of the potential through the use of NIR.

This is a dataset collected across several years, and through several locations. It is actually a gathering of experiments done for different purposes, but here all the samples have been measured for the same constituent of interest: glucose release/content.

These data have kindly been made available by Jane Lindedam.