

OPTIMISING CALIBRATION TRANSFER TO MEASURE DEGRADABILITY PARAMETERS OF HAYS AND DEHYDRATED FORAGES

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The availability of *in vivo* and *in sacco* degradability values are limited because those methods require work with fistulated animals and are rather complicated, labour intensive and expensive. That is to say, the dynamics and logistics of the methodology result in considerable work, due to limitations on the amount of samples, number of bags that can be placed in an animal and different time intervals to perform kinetic studies. Therefore, a simpler method is necessary to estimate the degradation characteristics of the feed. In this way, near infrared reflectance spectroscopy has been used to predict degradation characteristics of forages. In other hand, the possibility of achieving successful transfer of spectra and equations between instruments is closely related.

The objective of this study was to confirm the potential of NIR to optimize work conditions to avoid duplicated efforts in collaborative trials on animal feeds evaluation between research institutions.

For this purpose, one set with forty hays and dehydrated forages samples from SERIDA and ten samples with the same characteristics from SIA, were be used to create a spectral database. A calibration was developed using samples from degradation essays made in SERIDA to predict dry matter and crude protein degradability. With the addition of five samples from SIA in original calibration set, the effect of different origin and location was compensated.