Analysis of mixed feeds and its components with NIRS - possibilities, problems and prospects

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Mixed feeds and their components are a very diverse matrix compared to other agricultural products worked on with NIRS classically. On a database of mixed feeds and their components (n=2.500) universal PLS calibrations and "local" calibrations were compared. The results from validation (n=600) show the potential of the calibrations and their limitations. Crude protein, crude fiber, crude fat, sugar and starch are predicted with SEPs of 0.6%, 1%, 0.3%,1% and 1.5%, respectively. Ash content of 15% and more in several mixed feeds or components as well as rare components limit the use of NIRS for routine analyses.