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Transferability study of a Near-Infrared Microscopic method for the detection of banned Meat and Bone Meal in feedinfstuffs

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In the development of a method, a crucial step is the transferability of the method from the developer lab to another laboratory. A near-infrared microscopic (NIRM) method has been developed by CRA-W for the detection of banned meat and bone meal (MBM) in feedingstuffs. The method is based in the analysis of the particles in the sediment fraction ($d > 1.62$) obtained from compound feeds after applying the same protocol for sample preparation as for the European official microscopic method. A set of sediment samples fortified or not with MBM at different concentrations were analysed by CRA-W and sent to two different and independent laboratories of the JRC in order to assess transferability of the method. These laboratories were equipped with near infrared microscopes from the same company as the one used at CRA-W although the models were different. The samples were analysed in blind and at least 300 particles of the sediment have to be analysed to reduce the number of false positives. The results were compared not only in terms of sensitivity and specificity but also in terms of the percentage of bones measured in the sediments.

The correct classification of unknown samples using the method previously established by another laboratory has been demonstrated, thereby indicating the transferability of the method between various laboratories.