

P.32.- FT-NIR Microscopy technique applied to the analysis of bone particles in the sediment fraction of feed

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The ban on using processed animal proteins in feed is an important measure to prevent the spread of Transmissible Spongiform Encephalopathies and it is regulated by Council Decision 2000/766/EC. More recently regulation EC 1774/2002 is imposing a ban on feeding animals with protein of the same species. The application of such legislation requires the availability of reliable analytical methods. From 1998 the classical optical microscopy method is the official one for the determination of processed animal protein in feed. In this method the detection of bone particles are done by microscopic observation after a sample pretreatment for the separation of the sediment. In the present study we test an alternative analytical method based on the FT-NIR microscopy technique; this new vibrational spectroscopy imaging generates spatially localized chemical and morphological information. On this point of view this technique seems to be suitable for the detection of the presence of bone meals in the sediment fraction of feed. Preliminary results obtained by using the mapping procedure are reported . Commercial feed spiked with animal meal in concentration range between 0,1% to 3% are analysed.

Keywords

FT-NIR Microscopy, Animal Proteins, Feed, Bone meals