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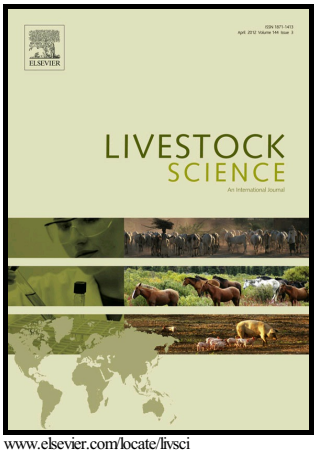

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Application of natural wax markers in equine nutrition studies – current state, limitations and perspectives

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ABSTRACT

The basis of a successful assessment of the nutritive value of feeds and an animal's supply with dietary energy and nutrients is having sufficient knowledge on key indicators such as feed intake, diet composition, digestibility and the kinetics of gut passage. In horses and other equids, the determination of such indicators is impractical outside controlled conditions, particularly in pasture-based husbandry. Natural wax components such as *n*-alkanes, alkenes, primary alcohols and fatty acids might be beneficial estimators, but their application is limited in practice. This review provides a concise view into the application of plant wax components, especially alkanes and their external counterparts, in equine nutrition studies. Recent methodological developments and the current state of knowledge are summarized as an interim conclusion. Methodological limitations still hamper an easy application of the method, and some perspectives for future methodological research are discussed. Conclusively, little information is available on feed plant concentrations and variations of primary

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