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# Res. Agr. Eng.

U. Brehme, U. Stollberg, R. Holz, T. Schleusener

# new sensor-aided measurement system for improvement in oestrus detection

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Without sensor-aided animal data measuring systems far fewer oestrus cycles are recognized because cycle length, oestrus duration and oestrus intensity have developed negatively at high animal performance rates. This development makes it eminently clear that observation of the mating season in the dairy cattle sector is even more important than assumed so far if the financial losses due to insufficient herd fertility are not to become a business problem. Electronic identification and measuring systems represent key technologies for progressive automation in animal husbandry in modern, futureoriented livestock farming. Suitable objective measuring systems are needed in animals husbandry to quickly and safely recognize animal illness, normal

stress. Pedometer and transponder from different companies play an important role for measuring from animals data and statements in animals health and oestrus monitoring. Modern sensors (sensors, bio sensors), increasingly non-invasive measuring and transfer methods make crucial improvements in the potential for measuring animal data. A new type of pedometer, called ALT pedometer, for three measurement parameters (activity, lying time, temperature), a real time watch and a change measuring time interval was developed. With this system it is possible to select different time intervals between 1 and 60 min for continuous measuring. The results for oestrus detection are excellent. The high correspondence between the measuring parameters activity and lying time allow a statement to be made early and safely on animal illnesses and the time of the oestrus cycle.

### Keywords:

oestrus detection; pedometers; sensors; dairy cow

[fulltext]



