

## **Automatic recording of behaviour**

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The structural development in dairy farming has led to increased farm size, and the barn staffs are usually responsible for surveillance of increasing number of animals. At the same time there is an increasing focus on animal health and welfare. However, housing has changed from tie-stalls to loose housing systems, where observations of individual animals are more complicated. Thus there is a need for new tools for monitoring and troubleshooting at dairy farms. Observations of behaviour play an important role in welfare assessment, and changes in behaviour are very often the first symptom of a disease. The most well-known changes are reduced activity, decreased eating behaviour and increased lying behaviour. Devices for automatic recording of changes in activity is already in commercial use for oestrus detection, and there is also some evidence that devices for wireless measurements of three-dimensional acceleration can be used to estimate, lying, standing and walking as well as number of steps taken when placed on the leg of cows. Other types of loggers for measurements of activity and rumination are available. I will discuss accuracy and precision in automatic recording of different activities of dairy cattle and the value of these recordings in relation to prediction of the status of the animal.

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