



2.2 Use of precision livestock farming techniques

Early warning of diseases and production

Information Technology (IT) methods can be adapted to be used to monitor behaviour and production parameters of pigs kept outdoors. This offers an easy to handle and cost-efficient solution to gather behavioural information about the pig herd and indirect data on the health status and production parameters of pigs. With this adapted technology, it is possible to achieve precision pig keeping under free-range conditions.

IT methods can assist outdoor pig breeders to meet existing and new challenges regarding free-range pig farming. The idea is to track the animals and to collect and analyse data using Internet of Things technologies in order to inform the farmer, to monitor the welfare of the individual pigs, and help the farmer to take prompt and efficient management decisions.



www.feednavigator.com/Article/2020/07/07/BASF-invests-in-digital-livestock-farming-technology

Real time data observed by RFID chips (for tracking pigs location and movements) and wireless sensors (e.g. to monitor body temperatures and heart rate of the animals) can be used to detect the pigs by locating individual members of pasture stock and observing their daily rhythm. Changes to the daily rhythm of an animal will be immediately detected as a deviation from the average behaviour of this individual and also from the average behaviour of other individuals, making the detection and treating of sick, possibly infectious, animals faster. The time spent at the feeder gives the farmer information on food consumption, and changes in drinking water consumption can be symptom of a disease. By evaluating the data collected by the sensors, the farmer can get a comprehensive picture of the pigs kept outdoors without disturbing the animals.

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