Impact Case Study: Use of Pig Temperature App

Point of production: Finishing
Country of origin: UK

The pig temperature app – Degree2Act was featured in 2019 as a solution to more accurate disease forecasting. The app allowed the integration of thermal images and machine learning to predict the health of a pig population.

This UK farm has seen the potential to utilise the technology to not only continue to monitor their high standards of health but also to improve labour efficiency.

The solution – Best practice

The farm manager stated that, "We saw the Spanish EU PiG entry and we were keen to trial the camera within our buildings. We would like to see if we can identify and treat illness earlier which would help reduce our mortality across our finishers." The app offers a more effective way to gather the data needed over a site that has a finisher population of between 10,000 and 11,000 pigs at any one time.

Currently any predictive identification of illness in the pigs is reliant on staff visualisations and the passing of that data to the vet. The Degree2Act app can help in validation of staffs' high skill levels in identifying those pigs requiring interventions and supports more effective data handling.

Data held within the app is easier to access and can be used in conjunction with the vet and the apps outputs to provide faster more efficient diagnosis.

Points to consider and additional information

This case study is of particular interest because it explores the use of a health solution for pigs to maximise labour efficiency which is an issue of time and skill in people.

Early detection of hyperthermia allows the farmer to promptly manage disease outbreaks which is important when managing medicine use.

This system should not be used as a diagnostic tool and veterinary advice should always be sought to determine appropriate treatments in each case. The farm plans to utilise the data in conjunction with the vet to ensure appropriate diagnosis and treatment.

Cost/Benefit analysis

Benefits:

- Mortality rates may be reduced by 20-25%.
- Average daily gain (ADG) may increase by 10-15%.
- This would then result in a reduction in the production costs per kg of meat (1.7% in the original case study).

Costs:

- £99 for the Degree2Act license per year allows access to cloud data and images (£49 per year with reduced access)
- £179 for a Flir One (Gen3) thermal camera
- £90 for an Android mobile device with a type C USB connection

Further research & Project links
https://eupig.eu/
Link to technical report
Contact RPIG (UK):
Ben Williams

Theme: Health

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