

Degree2act App

Point of Production: Sow farm or finishing

Country of Origin: Spain



As European pig herds continue to increase, the early detection of diseases remains an everyday challenge. Recent advances in automatic systems and technology may provide a viable solution. Body temperature is a key indicator of whether an animal is suffering from hypothermia or has a fever. Detecting changes in body temperature early on may help to contain the spread of diseases and lead to an overall improvement in animal welfare.

The Solution - Best Practice

Rectal thermometers are the most commonly used tool for the detection of body temperature. However, this process involves the restraint of an animal which can often be stressful and result in a temperature increase.

Spanish farmer, Pep Peraire, began using a Flir One infrared thermographic camera for the early detection of hyperthermia. The infrared camera is connected to a compatible smartphone which has the Degree2act app installed.

The app has a traffic light detection system: a green light indicates that the detected temperature is within physiological range; an orange light indicates a slight increase in temperature; and a red light gives out a warning message which indicates that the detected temperature is high and comparable to that of a fever.

	Without Degree2act	With Degree2act	% Change
Feed (€/kg cold weight)	0.914	0.908	-0.7
Other variable costs (€/kg cold weight)	0.233	0.228	-2.1
Labour (€/kg cold weight)	0.097	0.095	-2.8
Financial cost (€/kg cold weight)	0.126	0.118	-6.9
Total costs (€/kg cold weight)	1.372	1.349	-1.7

Other variable costs include veterinary costs, energy, maintenance and bedding material.

Finance costs are those related to depreciation of buildings and equipment and interests on invested capital and on anticipated expenditures.



Pep Peraire



Degree2act app shows pig temperature



Cost/Benefit Analysis

Benefits:

- ✓ This may result in a 25-30% reduction in the cost of antibiotics.
- ✓ Mortality rates may be reduced by 20-25%.
- ✓ Average daily gain (ADG) may increase by 10-15%.
- ✓ This would then result in a 1.7% reduction in the production costs per kg of meat.

Costs:

- Costs of the cameras vary from €250-€500.
- The price of a compatible smart phone will start at around €300.
- The app offers a one month free trial. After this period there is a cost of €49.99/€99.99 per year of subscription.

Additional Information

Early detection of hyperthermia allows the farmer to promptly manage disease outbreaks which is important with the ever growing demand for a reduction in antibiotic usage.

This system should not be used as a diagnostic tool and veterinary advice should always be sought to determine appropriate treatments in each case.

Further Research & Project Links

- <https://eupig.eu/>
- Link to technical report
- Contact RPiG (Spain): Emma Fabrega

