Monitoring of Pig Body Temperature Using Infrared Sensors

Jin Cheol Jang, Jun Yeop Lee, Sang Yoon Lee, Hyeok Ju Kim
Dong Yun Choi, Seong Hyeon Lee, Hyeon Tae Kim

Department of Bio-Industrial Machinery Engineering
Institute of Agriculture and Life Science
Gyeongsang National University, Jinju, Korea

ABSTRACT: In this study, an experiment was carried out using three infrared sensors and one body temperature sensor on three pigs. During feeding, the rear body temperatures of the pigs were measured 30 cm from the infrared sensors for over a period of 28 days. Results showed a high correlation with room temperature. The height measured by collecting additional data for 28 days, was compared with the results. When compared 30 cm from the infrared sensor temperature with the measured temperature, it was found an error range of 0.002-1.72, the average of which is 0.48. With the use of the algorithm, height was determined. In conclusion, use of an infrared thermometer made daily monitoring easy. In the ongoing experiments, the possibility of developing a system that determines the errors that could be corrected by using infrared sensor based on humidity variables will be investigated.

Keyword: Infrared sensor, monitoring system, pig, temperature

1 National Academy of Agricultural Science, Suwon 441-707, Korea
2 Institute of Animal Science, Suwon 441-706, Korea
* Corresponding Author: bioani@gnu.ac.kr