1C-109: Animal welfare monitoring in pig research

Project Leader - Maxine Rice, University of Melbourne

Background

Increasing community concern about farm animal welfare has highlighted a need for a valid method of on-site welfare assessment. For a welfare monitoring system to be effective and acceptable by all key stakeholders (including industry, government, science, farmers, veterinarians, educators, and animal welfare groups), it must be able to measure broadly-accepted welfare indices in a way that is practical, reliable and repeatable. The current project developed an assessment tool to monitor and benchmark the welfare of animals in the husbandry and housing systems under study in Pork CRC-funded projects.

Methodology

The project involved a comprehensive literature review of current animal welfare assessment tools which identified animal and resource-based welfare criteria (9 animal-based and 14 resource-based) according to existing validations as well as the reliability and feasibility of the methods.

The identified indices were tested for feasibility in research settings and adjusted as required. Based on the adjusted indices, two questionnaires were developed and circulated to 2 research and development units currently running animal-based research projects that are funded by Pork CRC, APL and relevant research institutes. Researchers were asked to provide feedback on the relevance and comprehensibility of the questionnaires via a feedback form. The questionnaires were refined based on this feedback.

Key Findings/Conclusions

1. The final animal-based indices included fear of humans, BCS, bursitis, lameness, skin injury scores, stereotypies, panting, manure on body and play behaviours. The resource-based indices used were ventilation, housing type, water supply, age of weaning, castration, ammonia level, mortality, morbidity, cleaning routine, tail docking, teeth clipping/grinding, bedding, environmental temperature, floor type, environmental enrichment, and space allowance.

2. Feedback from the primary investigators predominantly indicated that the questionnaires were relevant to the research projects conducted with many of the animal-based indices already routinely recorded within the scope of the research. The time taken to undertake the full assessment was between 1 to 2 hrs which is considered well worthwhile in order to collect reliable data on welfare risks.

3. This project recommends the use of the animal welfare monitoring protocol for sows and piglets in research settings to monitor and benchmark the welfare of animals in husbandry and housing systems under study in Pork CRC-funded projects.

4. As a preliminary step before being more widely implemented in all Pork CRC-funded projects, it is also recommended that the welfare assessment tool should be examined and refined if necessary by a wider audience of representatives from industry, policy and research in a facilitated workshop to identify the indice scores within the acceptable ranges of welfare outcomes.

Potential Users of Information

The animal welfare monitoring protocol for sows and piglets in research is designed to monitor and benchmark the welfare of animals in husbandry and housing systems under study in Pork CRC-funded projects.