

# Contribution of Rearing at Pasture on Improvement of Animal Welfare in Fattening Pigs

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**2-2. Contribution of Rearing at Pasture on Improvement of Animal Welfare in Fattening Pigs**

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Rearing livestock at pasture is expected to improve animal welfare. On the other hand, it is thought to have possibility to loss physical health as the life in the outside environment is likely to contact with pathogens or being injured. To understand the contribution of rearing livestock at pasture on improvement of animal welfare, we examined behavior and health of fattening pigs by comparison to rearing outdoor pasturing system (OP) and indoor intensive system (IS).

From the behavior observations, the time budget of feeding concentration was at the same level ( $P = 0.69$ ). OP pigs additionally expressed plant and soil eating, this resulted the total time budget of foraging became higher than IS pigs ( $P = 0.03$ ). OP pigs spent exploring 3.7 times more ( $P = 0.03$ ) and active 1.8 times more ( $P = 0.03$ ) than IS pigs. OP pigs expressed play behavior ( $P = 0.05$ ) as positive emotion and less disturbed behavior ( $P = 0.02$ ) as negative emotion than IS pigs.

For physical health, we compared about incidence of pneumonia from *M. hyopneumoniae* (MPS score) and wounds on the body using the existing scoring method. Incidence of pneumonia was not affected by rearing system ( $P > 0.05$ ). The score of wounds on the body of OP pigs was lower than that of IS pigs ( $P = 0.03$ ). Rearing pigs at pasture have the possibility of improving physical health.

In conclusion, improvement of animal welfare for fattening pigs reared at pasture is provided by not only the opportunity to express normal behavior and become more active but also improving physical health.