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TITLE

THE INFLUENCE OF A RESPIRATORY DISEASE IN PIGS OF THE SAME AGE BUT DIFFERENT WEIGHTS ON THE DEVELOPMENT OF BACKFAT THICKNESS AND M. LONGISSIMUS DORSI DIAMETER

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CONTENT

Background: The influence of a respiratory disease in pigs of the same age but different weights on the development of backfat thickness and M. longissimus dorsi diameter may be of interest to see if specific types of pigs react different. The hypothesis was that differences in backfat thickness and diameter of M. longissimus dorsi occure depending on the body mass at the time when infections affect the pigs.
Material & Methods: The study was performed in a conventional pen with a sorting gate and automatic body weight recording. In a period of 10 weeks every second week ultrasound images of backfat and longissimus-muscle were taken from 169 animals of the same age. The 10 weeks were divided into 5 periods, and the differences of the periods were compared to each other. For the scientific evaluation the data were allocated to three groups by means of the body mass: “heavy”, “middle”, “light”. The period of time four weeks before, four weeks during the disease (serological confirmed) and two weeks after were examined.
Results: In the first period of illness the backfat growth of the “heavy” group was significantly lower (? backfat-thickness (cm) Heavy/Middle/Light: 0.01±0.12/0.04±0.13/0.06±0.12), but in the second period the backfat growth was higher (? backfat-thickness (cm) Heavy/Middle/Light: 0.09±0.10/0.03±0.10/0.03±0.10). Independent of the body weight all animals reacted promptly with a reduced muscle growth (? muscle-diameter (cm) Heavy/Middle/Light: -0.03±0.47/0.05±0.48/0.05±0.40). However, muscle growth was significantly higher in the second period of the disease in the “heavy” group (? muscle-diameter (cm) Heavy/Middle/Light: 0.31±0.44/0.17±0.38/0.15±0.34).
Conclusion: Under the influence of respiratory disease during the last fattening period, changes in body mass, backfat thickness, and muscle diameter vary with body weight at the beginning of the infection. The temporal changes in growth and growth composition appear to occur earlier and more clearly in affected “heavy” animals.