HHM-PP-04

TITLE
ANALYZING THE GROWTH ON 50 FATTENING FARMS; THE ROLE OF PIGLET GROWTH, HYGIENE AND SEROLOGICAL DISEASE STATUS.

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CONTENT
- Background and Objectives
De Heus Feed company developed a monitoring program for fattening farms which (besides checking feed requirement) gathers various data like piglet history, health and hygiene. This study determines their influences on growth.

- Material & Methods
Included were 50 farms monitored between 2014 and 2018. To determine health status blood was taken at the age of 10, 15, 20 and 25 weeks old and as age-sample serologically tested on antibodies to APP, Influenza, M. hyo, PRRS, PCV2, Lawsonia and Salmonella. Ascaris suum was tested at 25 weeks. For each pathogen on each age, results counted as positive if probably due to circulation of field strains. The number of positive serology at 10 weeks (PS10) and the period 10-25 weeks (PS25) was counted. Hygiene(HY) was judged as sufficient(1) or not-sufficient (2). Data were compared with growth and analyzed in SPSS statistics.

- Results
'Fattener-growth 10-25 weeks' (FG) varied from 669 to 1012 g/day. At 10 weeks old FG could be predicted with the following model: FG = 589.1+0.831*PG-23.9*PS10-30.8*HY (R2=0.785).
Number of 'positive serology at 10 weeks old' was well correlated with 'total number of positive serology in the period 10-25 weeks' (R2=0.652, P =0.000). Looking at total 'positive serology 10-25 weeks', FG could be explained with the following model: FG = 768,5 + 0,591 *PG -7,818*PS25 -39,3*HY (R2= ,840). Significant correlations of serology with FG were 'total numbers of positive serology in the period 10-25 weeks' (R2=-0.579) , and for individual pathogens the total serological positives for APP, Influenza, Mhyo, PRRS and Salmonella (R2 resp. -0.370, -0.322, -0.367, -0.311, -0.358).

- Discussion & Conclusion
Piglet growth, serological health status and hygiene were important indicators for fattener growth. Total number of positive serology on 8 pathogens can be used to estimate the negative influence on fattener growth.