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Health status in organic pig herds in Europe

Sundrum A., Goebel A., Bochicchio D., Bonde M., Bourgoin A., Cartaud G., Dietze K., Dippel S., Gunnarsson S., Hegelund L., Leeb C., Lindgren K., Prunier A., Wiberg S., E-mail: Sundrum@uni-kassel.de

Introduction

Organic pig production is still a small-scale production, achieving, however, increased interest by consumers who are concerned about the conventional production method. The EU-Regulation (EEC-No. 1804/1999) on organic livestock production, now replaced by EEC-No 834/2007, was introduced to provide a framework ensuring living conditions for organic livestock to be better than those in conventional systems and to harmonize the rules across member states. Scientifically based information on how and to what degree the EU-Regulation contributes to the objective of a high status of pig health in organic farming is scarce. Further information is needed to assess whether consumer expectations in organic pig production in Europe are met.

Material and methods

An epidemiological study was performed on 101 organic sow herds in 6 European countries (Denmark, Germany, Austria, Sweden, Italy and France). 13 to 20 farms per country were assessed. On-farm data included a comprehensive interview with the herd manager in relation to housing conditions, feeding regime, data acquisition, cleaning and disinfection measures, medicine usage, culling reasons, vaccination protocols, etc.. Recorded livestock data included: liveborn and stillborn piglets/farrowing, weaned piglets/sow/year, piglet losses/farrowing, losses of weaned piglets, litters /sow lifetime, and the prevalence of diseases according to the treatment records. Data from all countries were merged into one joint database and analysed statistically.

Results

Although dedicated to the same minimum standards, the farm structures were characterised by a huge heterogeneity. 67 farms were keeping their sows outdoors while 34 farms were indoors with outside runs. Group suckling was implemented on 52% of the farms. The degree of specialisation was comparatively low. About 40% of the farms had another economically relevant livestock enterprise on the farm apart from keeping pigs. Farmers differed widely in their feeding regimes, in making use of phase feeding and diet calculations. Moreover, the farms varied in the cleaning management and in the implementation of disinfection measures. The study also revealed large differences in animal health management with respect to the use of quarantine, availability of hospital pens, presence of the farmer during farrowing, and regarding routine measures such as castration, teeth reduction, and iron supplementation of piglets. For 50 % of the farms the abattoirs provided feedback of pathological findings for slaughtered sows, and 80 % for fattening pigs. Huge differences were detected in the perception of the farmers with regard to health problems on their farm and with respect to the availability of laboratory results.

Mean mortality rates of piglets until and after weaning averaged 19.7 ± 9.7% and 4.9 ± 5.4% resp., showing clear differences between countries and farms. Mean values for the annual replacement rates of sows and litters per sow lifetime were 32.4 ± 14.3% and 6.3 ± 2.3 resp. According to the treatment records, metritis and mastitis appeared as the predominant diseases of the sows, nearly all treated with antibiotics, followed by cases of lameness and abscesses. In the case of suckling piglets, diarrhoea, arthritis and respiratory diseases were predominant. Also the weaned piglets suffered primarily from diarrhoea. Farms showed an incidence of 27.6 ± 34.3%. of piglets treated with antibiotics against diarrhoea.

Conclusions

The results indicated that in general the status of animal health in organic pig herds was comparable to data found on conventional farms. Differences between farms appear to be greater than those between production methods. Obviously, the production method defined by standards does not provide a homogenous outcome with respect to the animal health status. Differences in management practices and in feedback and control mechanisms within the farm system might be the main reasons for substantial variation in the prevalence rates of diseases. Any improvements in organic pig production require the use of feedback mechanisms and a clear definition of the expected results with respect to the outcome of the farm system. Consequently, there is a need for a change in the paradigm from standard and resource oriented to a result and outcome oriented approach. The implementation of a monitoring system including on farm clinical assessment, abattoir data and review of treatment data, concepts to deal with potential problems (e.g. health planning strategies, HACCP protocols, etc.) and a definition of the expected results with respect to the output of the farm system might be a way forward for organic farming ensuring a high status of animal health and welfare.