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# Success factors in weaner production with limited antimicrobials, high health and productivity

## Case studies from Denmark

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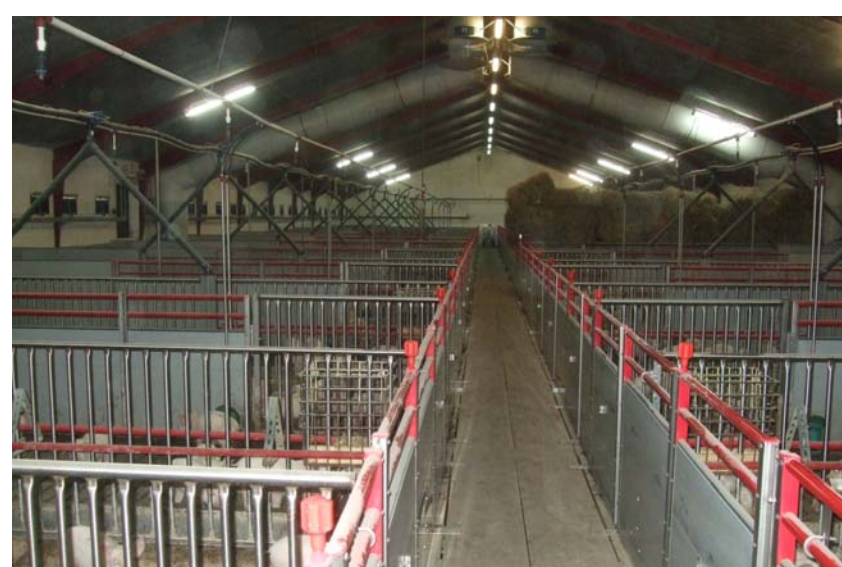
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**Use of antimicrobials in the swine industry** is a major issue of discussion in Denmark and has caused several political initiatives serving a reduced antimicrobial consumption. However, the discontinuation of growth promoters was observed to have a negative impact on health, especially for weaners (Grave et al. 2006). In-depth case studies of eleven well-managed Danish weaner producers highlight **common and individual factors in the management** being the reason for their achievements according to participating farmers and veterinarians.



Home mixed dry feed. Clinical signs of an upcoming gastrointestinal disorder would affect this farmer to fine-tune the grind of the feed.



High degree of sectioning. In this stable, weaners enter at 7 kg and stay until slaughter. The farmer used home mixed wet feed added lactic acid bacteria as starting culture at entrance and in case of upcoming gastrointestinal disorders.



Despite aged stables it is possible to have a successful weaner production, if the work load is adjusted accordingly. For these 4000 weaners the farmer spend 37 working hours weekly (9.3 hours/1000 weaners/week). The number of working hours is especially affected by the medications procedures, age and construction of the stable.

### Common traits

#### (1) High level of hygiene and sectioning

All farms washed after each batch of weaners, while disinfection and days of drying out varied.

#### (2) One supplier of weaners

All farms received their weaners from one sow farm; either their own or one with whom they had a settled agreement. The size of the weaners at entrance were mentioned by some farmers to influence the results in the weaner production.

#### (3) Commitment of the owner

All owners (except one) participated in the management on a daily-weekly basis. The owners' approach highly influenced the core values of the management.

### Discussion and perspectives

These results elucidate the diversity existing in Danish weaner production in terms of management and medication practices, highly influenced by the farmer's approach. The study illustrates factors affecting the antimicrobial use which are not to be found in the national registers. A questionnaire survey is suggested to test the significance of identified factors.

#### Methodology

In 2012, 2,776 Danish weaner producers received antimicrobials according to VetStat. VetStat is the national Danish database monitoring all veterinary drugs prescribed for production animals. Eleven veterinarians working in swine practice were asked to recommend their ideal weaner producers. A total of 47 farms were characterized as being well-managed. Eleven of these fulfilled the three selection criteria and agreed on participation. Farms had to be among the best 50% of producers regarding use of antimicrobials (<8.2 ADD15/100 weaner/day), mortality (<2.8%) and daily growth (>443 g/day). Estimations of mortality and daily growth were based on the individual efficiency-reports of participating farms. The eleven case studies were conducted using semi-open ended interviews of the farm owner / manager contemporary with a farm visit.

#### Acknowledgements

We thank participating herd owners and veterinarians for their time and valuable discussions contributing to this study. Without their willingness to participate, the study would not have been possible.

#### References

Grave K, Jensen VF, Odensvik K, Wierup M, Bangen M. Usage of veterinary therapeutic antimicrobials in Denmark, Norway and Sweden following terminations of antimicrobial growth promoter use. *Prev Vet Med* 2006;75 (123-132)

### Personal passions

#### (1) Feed – home mixed or purchased?

**“Diarrhea?? No. I adjust the feeding.”**

(Farmer C)

Two passionate home-mixing farmers avoided gastrointestinal disorders simply by adjusting the feed.

#### (2) Medication procedures – injection or flock medication of pen or section?

**“I only inject the pigs – it is a principle!”**

**“If you strive towards a low antibiotic use, you need to accept a certain level of diarrhea”** (Farmer B)

Other farmers would have initiated flock medication, but this farmer was determined on an individual-treatment strategy only.

#### (3) Alertness in the management

**“If you want a successive weaner production you need to spend sufficient hours in the stable...”** (Farmer A)

The amount of weekly working hours varied from 1.7 to 9.3 hours per 1000 weaner / week.



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