

Improvement of Production Data in a Sow Herd after Implementation of a Novel PRRS Vaccination Program together with Biosecurity Measures



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INTRODUCTION

In Swine Herds PRRS outbreaks can lead to massive clinical symptoms with reproductive and respiratory disorders. Also in subclinical cases the disease can still have a clear impact on performance data. In this case report a novel vaccination program accompanied by improved biosecurity measures helped to improve performance.

MATERIALS AND METHODS

A sow herd with 400 sows and 2.275 nursery piglet with weekly farrowings used to vaccinate sows and piglets against PRRSv. Since spring 2015 more losses and respiratory problems in nursery occurred. Also PRRSv positive piglets were born, indicating an unstable breeding herd. In response to this the sow herd was vaccinated against PRRSv twice within 4 weeks as a mass vaccination with Reprocyc[®] PRRS EU. Piglet vaccination was also changed to PRRSFLEX[®] EU. All sow vaccinations were done as a mass vaccination. In addition a Biocheck.ugent[®] analysis (Ghent University) was discussed twice to improve biosecurity. Based on the identified risks, changes were implemented that resulted in optimized piglet flow, improved hygiene and lowered stocking density. These changes were successful and therefore are still implemented. This becomes obvious by comparison of the categories A, B and F of the Internal Biosecurity part of the Biocheck.ugent[®] analysis from July 2015 and March 2017 (Fig. 1, 2, 3).

RESULTS

Figure 1: Development of the score for the twelve categories of External and Internal Biosecurity according to the Biocheck.ugent[®] analysis (Ghent University) between July 2015 and March 2017

Nr	Description	July 2015	March 2017	
External Biosecurity				
A	Purchase of animals and semen	92%	90%	-
B	Transport of animals, removal of manure and dead animals	83%	87%	+
C	Feed, water and equipment supply	67%	67%	=
D	Personnel and visitors	65%	65%	=
E	Vermin and bird control	90%	100%	+
F	Environment and region	0%	0%	=
<i>Subtotal external biosecurity</i>		72%	74%	
Internal Biosecurity				
A	Disease management	20%	40%	++
B	Farrowing and suckling period	29%	71%	++
C	Nursery unit	50%	50%	=
D	Fattening unit	-	-	n/a
E	Measures between compartments and the use of equipment	39%	43%	+
F	Cleaning and disinfection	38%	73%	++
<i>Subtotal internal biosecurity</i>		37%	55%	
Total		55%	65%	

Figure 2: Spiderweb diagram of Biocheck.ugent[®] analysis (Ghent University) from July 2015 of affected farm (red) against national benchmark (green)

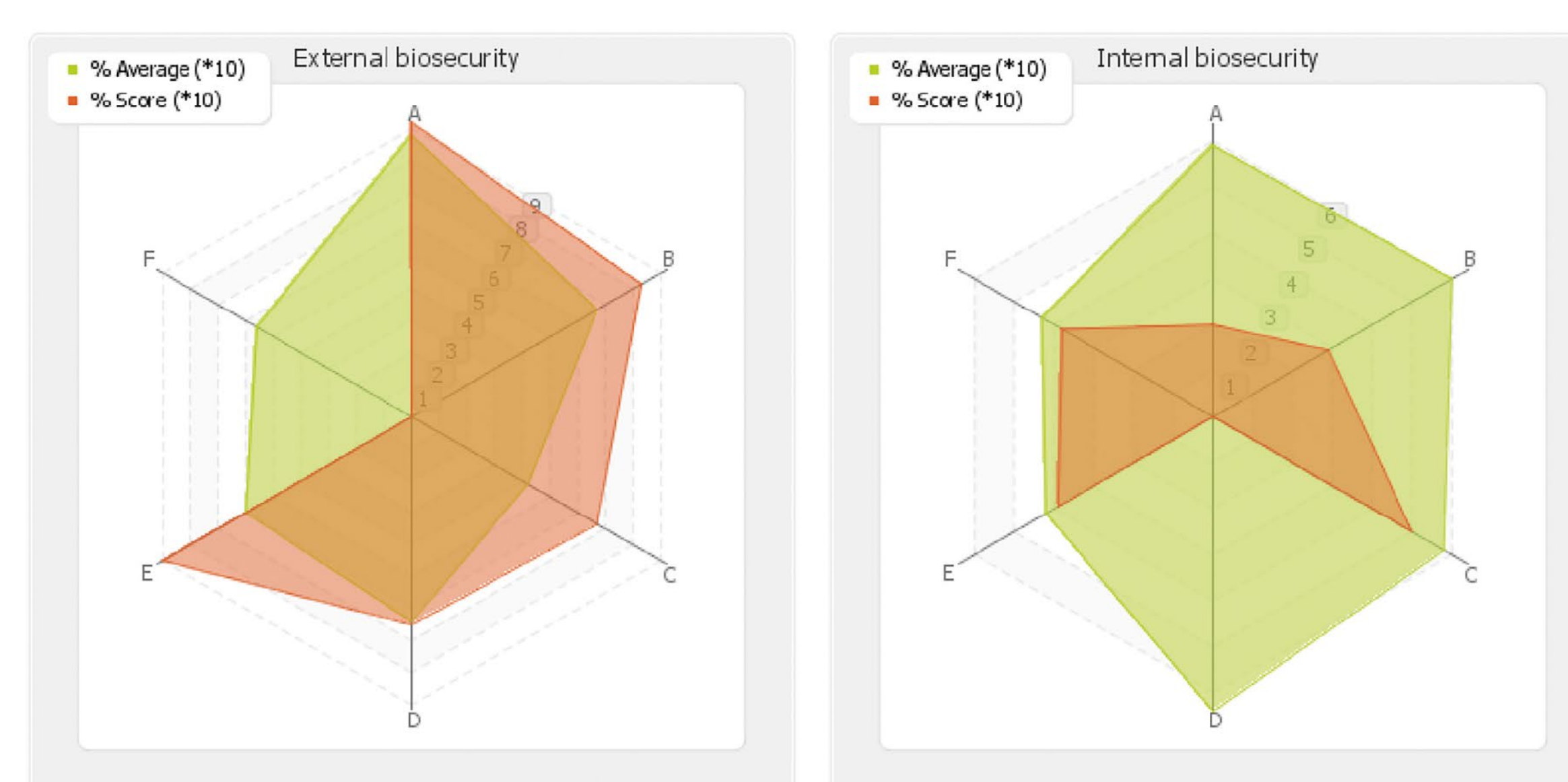


Figure 3: Spiderweb diagram of Biocheck.ugent[®] analysis (Ghent University) from March 2017 of affected farm (red) against national benchmark (green)

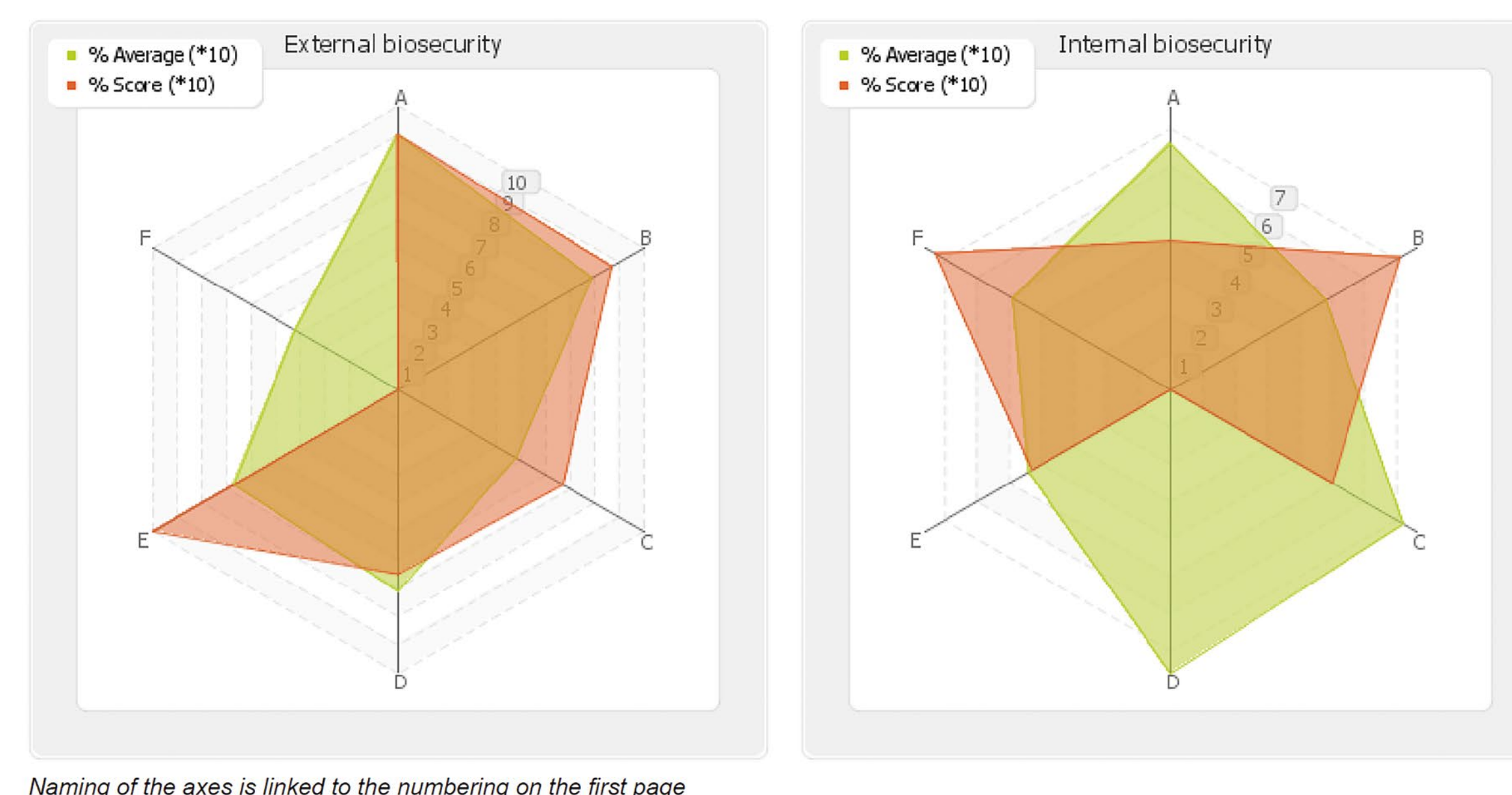


Table 1: Production parameters

	01.03.2015 – 01.09.2015	01.09.2015 – 01.03.2016
Repeat breeders (%)	15,03	12,41
Live born piglets	16,36	17,14
Nursery Mortality (%)	2,5	1,74
Marketed piglets/ sow/year	32,7	33,83

DISCUSSION AND CONCLUSION

Although production parameters were already at a very good level, improvement of the PRRS vaccination program together with improvement of biosecurity helped to raise production performance to a higher level. Other pathogens like *S. suis*, Influenza, *H. parasuis* were also found in necropsies and would also have an influence on production data. By improving biosecurity and controlling PRRSv the impact of the pathogens is tending to be lower than before. This Case Report was financially supported by Boehringer Ingelheim Vetmedica GmbH.

