

TITLE

B-ESECURE INTERNAL BIOSECURITY PROGRAM IMPROVES FARM STAFF BEHAVIOR, VIREMIA, HEALTH AND PRODUCTIVE PERFORMANCE IN PRRSV POSITIVE FARMS

Inmaculada Díaz¹, Cristina Escudero², Antonio Pelaez², Julian Gonzalez², Carlos Pineiro¹, Maria Aparicio², Ricardo Perez²

¹ *Pig Champ Pro Europa S.L.*

² *Pig Champ Pro Europa SL*

CONTENT

Background and Objectives

Biosecurity is a top concern in the swine industry since it affects performance, health and therefore, economic results. Regarding internal biosecurity, movements between barns are the highest risk in swine farms (Chantziaras, 2018). The objective of this study is to control the PRRSV spreading in farms by controlling farm staff movements using the B-eSecure System (MSD, Madison, NJ, USA) and evaluating the subsequent performance in 3 commercial EU farms for 12 months.

Material & Methods

The system uses small transmitters worn by farm staff read by devices placed at every barn. Movements within the different farm's areas were classified as safe, unsafe or risky, according to the PCR status for PRRSV. The program started in July 2017 and after 2 months measuring the baseline staff movements, a training session about PRRSV and its spreading capacity related to staff behavior was performed.

PRRSV prevalence was evaluated bimonthly by PCR in different age groups: from suckling piglets to ending nursery phase, breeding sows and gilts. Farm vets had real-time access to farm staff movements' data. Finally, performance KPIs were evaluated monthly: Non-Productive Days (NPD), Repeat Rate (RR) and Nursery Mortality (NM). Mann-Kendall test for trends detection was used to detect differences after the implementation of the B-eSecure system.

Results

Risk movements decreased between 35-90% and PCR + results decreased between 10-60%. Finally, performance results improved as well for the main KPIs; RR decreased between 50-75%, NPD decreased between 10-28 d per sow per year and NM decreased around 45-48% ($P < 0.05$ for all of them).

Discussion & Conclusion

These results confirm the influence of farm staff movements and its impact on controlling PRRS disease and the consequences on farm health and performance.