Use of PADRAP – Production Animal Disease Risk Assessment Program – in 91 farms in Spain

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INTRODUCTION

One of the foundations upon which prevention, control and eradication of the diseases are based is identifying and controlling internal and external risks factors for introduction and spreading of pathogens into the farms. The PADRAP-Production Animal Disease Risk Assessment Program- was developed to support evaluation and management of risks that are predictive of clinical PRRS episodes for individual farm sites[1]. The objective of this study was to evaluate the biosecurity level of Spanish farms using PADRAP.

MATERIALS AND METHODS

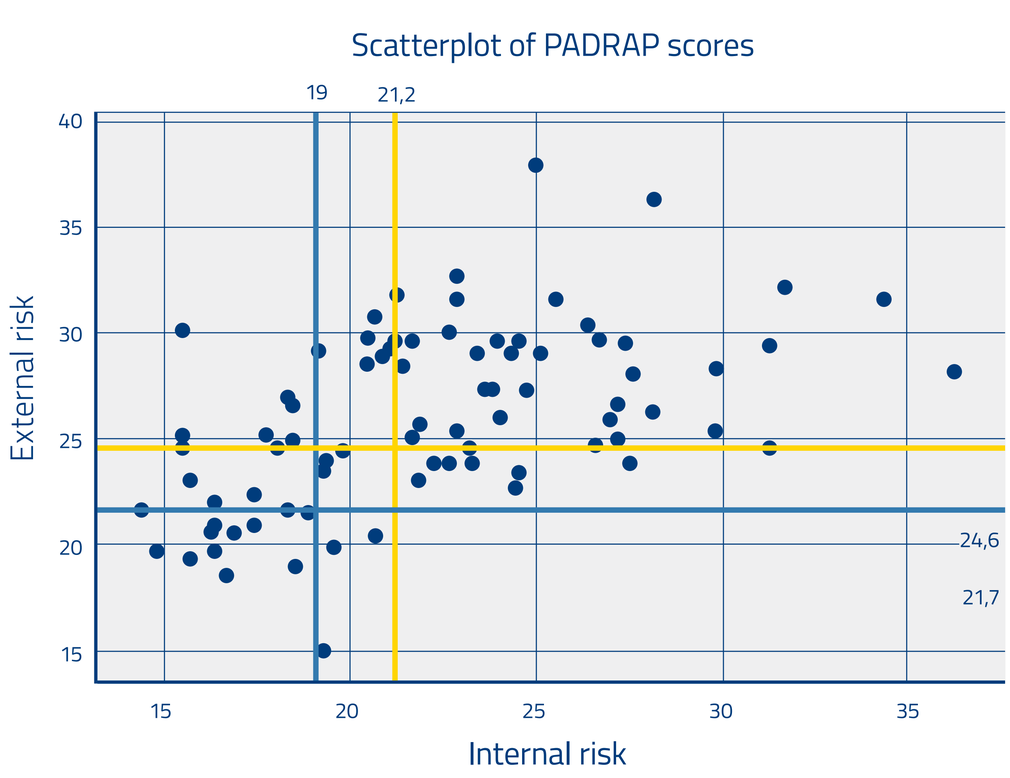
In Spain 91 sow farms completed PADRAP on-line between 2014 and 2015 to assess the current biosecurity status. The results were compared to other swine farms round the world in the PADRAP database, mainly in EEUU[2].

Commercially available software (Minitab 16 for windows) was used for statistical analyses.

RESULTS

From a database of 91 Spanish farms PADRAP mean external and internal distribution scores were used to build risk quadrants on a scatterplot and the results in Spain were compared with the global database of PADRAP (Figure 1). Both, mean external and internal risk scores were higher in Spain (yellow reference lines) than global scores (blue reference lines). For internal risks the mean was 21.2 vs 19.0 and for external risks the mean was 24.6 vs 21.7.

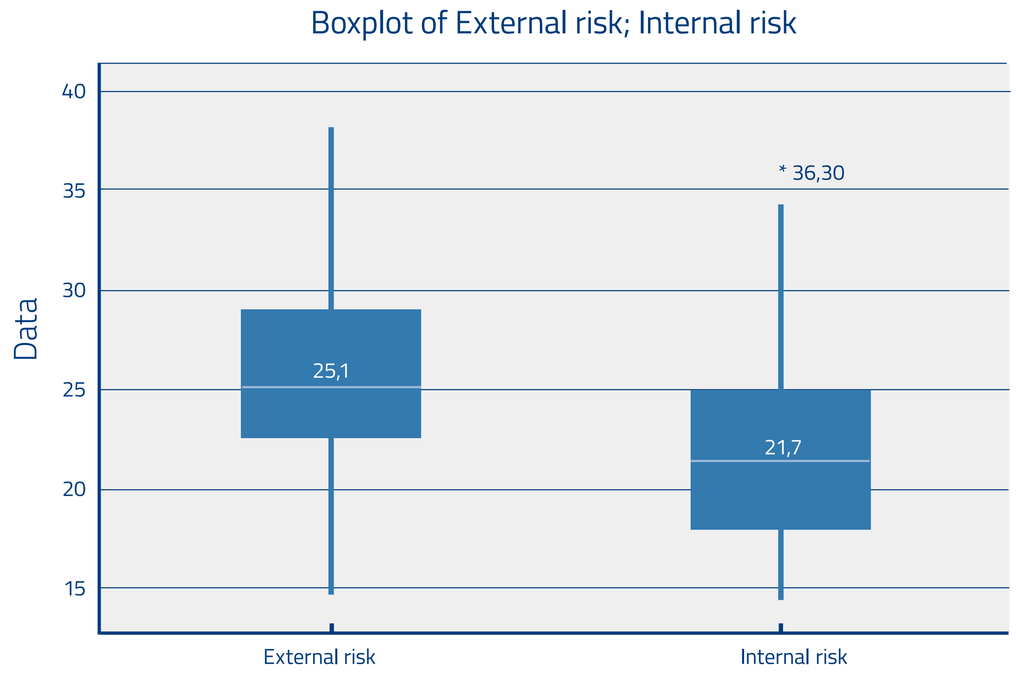
Figure 1: Scatterplot of PADRAP scores for 91 Spanish farms



Nevertheless a 14 % of the farms had a score below the global mean external and internal risks.

As seen in figure 1 there is a high dispersion in the scores of the 91 Spanish farms for both external and internal risks. Due to this fact a boxplot was made to analyze this dispersion. The score for external risk was between 14, 6 and 38. The 50 % of the farms were between a score of 22, 4 and 29,1. The score for internal risks was between 14, 44 and 34, 4. The 50 % of the farms were between a score of 18, 35 and 25 for internal risks.

Figure 2: Boxplot of PADRAP scores for external and internal risks in 91 Spanish farms



CONCLUSION AND DISCUSSION

Measuring external and internal risks is necessary to improve the understanding and management constraints that affect in a PRRS control program. PADRAP is a tool to measure risks as well as rank the farms. A correlation between less score and lower occurrence of PRRS outbreaks has been demonstrated[3].

In Spain we still have several farms which are above to the global median scores and the dispersion is very high, so we still have to go on making more efforts to improve biosecurity in farms with high scores, mainly in high pig density regions.

REFERENCES

1. Polson et al. (2006) IPVS 003 – 05
2. http://padrap.org/
3. Waddell et al. (2008) IPVS: P01 – 135