

COMBAT: Comprehensive Online Management and Biosecurity Assessment Tool



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INTRODUCTION

PRRS (Porcine Reproductive and Respiratory Syndrome) control is based on 3 pillars: prevent infection, maximize immunity and minimize exposure. To help farmers and veterinarians to evaluate and improve the level of biosecurity, pig flow and management procedures, Boehringer Ingelheim has developed a tool, COMBAT (Comprehensive Online Management and Biosecurity Assessment Tool). This tool allows pig producers to evaluate areas for improvement and benchmark against other farms. The aim of the tool is to identify the most important risk parameters related to PRRS by highlighting the areas of risk and correcting high risk practices. This tool can be incorporated into the 5 Step process¹ in step 3: analyzing the system constraints, in a holistic PRRS control program.

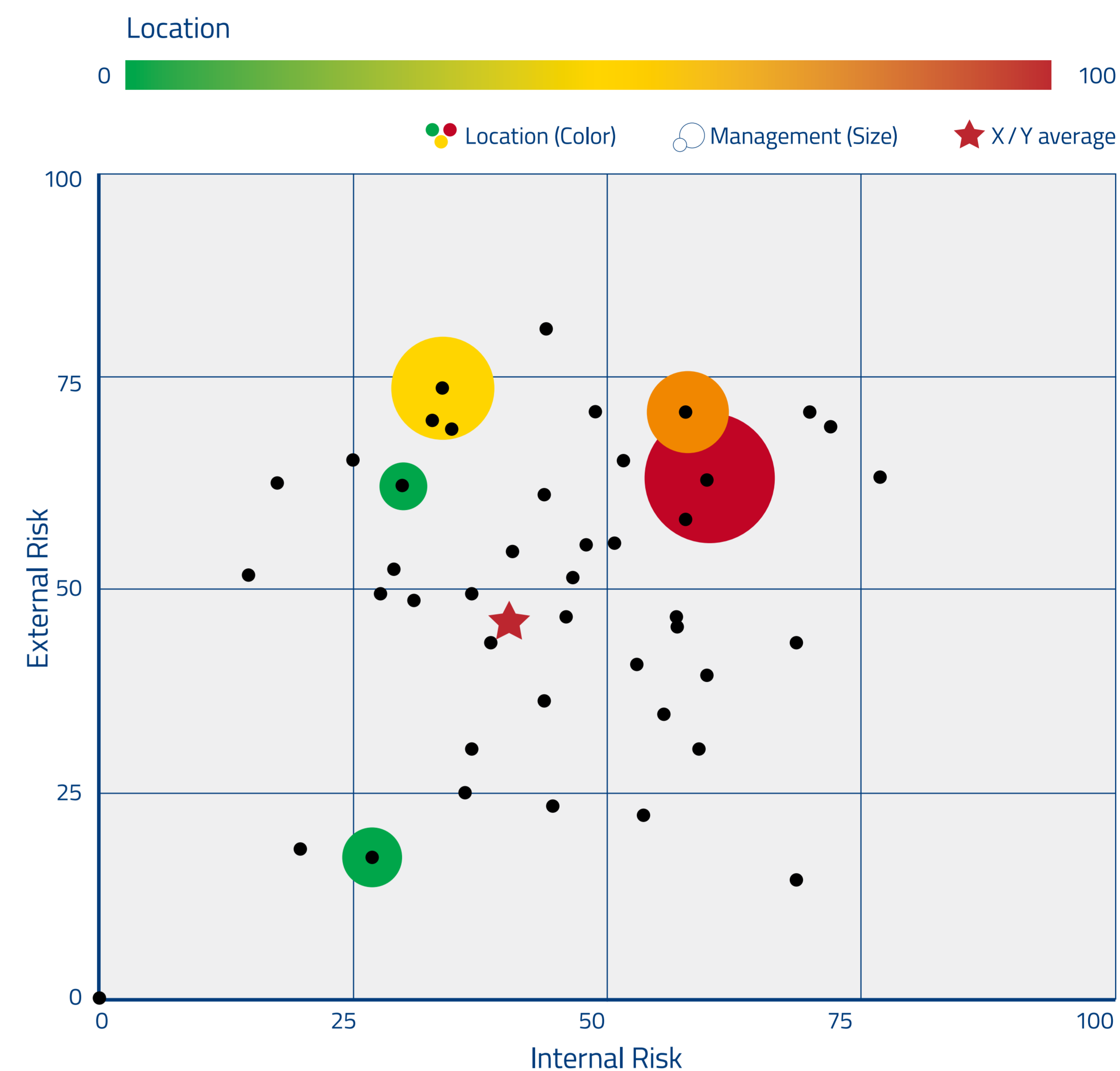
MATERIALS AND METHODS

COMBAT is based on a detailed set of 58 questions, to be answered directly in the application (COMBAT App) or online. The relative risk of not being able to prevent, control or manage a PRRSV infection is calculated in 4 different categories: Internal risks, External risks, Location risk, Management and pig flow risk (all related to 10 Golden Rules for PRRS control²). The weighted risk is calculated based on published literature and previous risk assessments carried out by BI Veterinarians. The risk evaluation output is visualized in a circle chart.

RESULTS

Results from the questionnaire are evaluated and presented in a circle chart, Fig. 1 showing the Internal risks on the X-axis, the External risks on the Y-axis. The color of the circle indicates the relative level of risk for the farm location: red being a high risk location, and green a safe location. The management and pig flow risk is visualized by the size of the circle. The bigger the circle, the higher the risk associated with management and pig flow and the higher the risk of not being able to effectively control PRRS.

Figure 1: Farm overview



4 dimension circle chart, indicating the Internal risks (X-axis), External risks (Y-axis), risks related to location (circle color) and the quality of management and pig flow (size of circle). Benchmark data is represented by black circles. The average is presented by a red star.

DISCUSSION AND CONCLUSION

COMBAT facilitates improved biosecurity, pig flow and management practices, by highlighting the most important risk areas related to PRRS incidence.

As previously demonstrated^{2,3}, successful PRRS control must incorporate measures to reduce the risk of new virus introduction (external risks) and improve the ability to control PRRS on a farm/site/area by reducing the risk of internal PRRSV shedding and transmission. The visualization and anonymized comparison allows the producer to benchmark against other production sites, and to address risky behaviors that affect the disease resilience on the actual production site.

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