Results of Area Regional Control project in pig dense area The Netherland

B. De Jongh[1], N. Wertenbroek[2]
[1]Vetpractice De Grensstreek, Bladel, The Netherlands; [2]Boehringer Ingelheim The Netherlands

INTRODUCTION

PRRS is in the Netherlands wide spread among many farms (1, 2). Internal circulation of the field virus and new introductions are the reason for the constant threat. Many sow herds have a PRRS vaccination schedule implemented, but still many farms experience by time some clinical PRRS problems. PRRS can spread by pigs, vectors and air in a region. In the south of The Netherlands in a pig dense area (> 10.000 sows and 60.000 finishing pigs, in 18 farm locations in 1 km^2) around Reusel, in 2015 and 2016 many farms experienced more than normal PRRS diagnosed problems. The problems consisted on some farms increased abortions > 5 % of the pregnant sows in 1 month, higher mortality of sows, increased incidence of cough problems in nursery and finishing pigs. All farms weaned at that time PRRS positive piglets.

A group of 5 neighboring producers and their local vet initiated an ARC project, with the objective to control better the PRRS virus on their farms by a joint approach. The objective of this abstract is to share the results and critical success factors for this ARC project.

MATERIALS AND METHODS

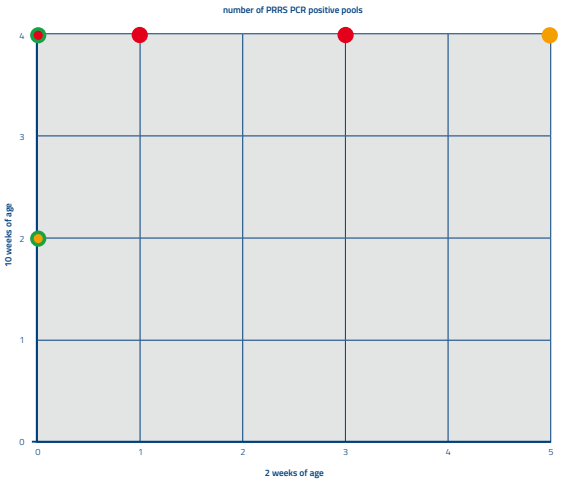
The project started in March 2016. On the farms every 4 months the participating sow farms the PRRS status was monitored by bleeding 25 piglets before weaning (before vaccination of PRRS) and 25 piglets at 10 weeks. Per age group the samples were pooled by 5, analyzed by PCR PRRS. Positive PCR results were sequenced. The results were benchmarked and anonymous shared between the farms. During the project more farms joint the ARC project, now 8 farms participating.

To manage better the circulating field strains, every farm was audited for biosecurity (Biocheck Gent, www.biocheck.ugent.be) and adjusted where needed, and the vaccination schedules on all the sow farms were aligned by mass vaccination with PRRS MLV all the sows over the farms in a one week period every 3 months (7 out of 8 farms with Reprocyc PRRS EU (Boehringer Ingelheim), one with Unistrain (Hipra)).

RESULTS

Before start, sequence results of PRRS strains showed that on the first 5 different farms, the same field PRRS strain was circulating (all >99 % homologue on ORF5; 86 % homologue of Lelystad Virus). All farms weaned at end of 2015 PRRS positive piglets. 18 months after the start of the project, 6 out of the 8 farms were weaning PRRS negative piglets and in 2 out of 8 farms the 10 week old pigs are PRRS field virus negative.

Fig 1: monitoring results at start (March 2016) of the different farms. Number on X- and Y axe represent number of positive PRRS PCR pools. Every dot represents a farm; Green: no circulation on sow farm; orange: vaccine strain ; red: circulation field strain



The 3 most important internal biosecurity points that were improved: keep strict age group together, different materials for the different compartments, not holding back small piglets.

DISCUSSION AND CONCLUSION

For getting the results in this ARC project the following 5 critical success factors were important. Because many farms in that small area experienced in 2015 a higher incidence of PRRS problems in a short period, pig producers were open for a new approach, expanding over the different farms. By sharing the blood monitoring results and Biocheck audits, under the coordination of the local vet, farmers adjusted their internal and external biosecurity protocols and mass vaccination protocols, synchronized over all the sow farms at the same time.

An attention point is to keep the farmers motivated during the program. This could be done by bringing the farmers together and discussing the progress in total. The diagram (fig. 1) made by the vet, visualized the benchmarking PRRS status, what also helped in awareness and progress.

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REFERENCES

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