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Production Leader

Steven Claas

Production Assistant

Steven Claas

Janice Storebo

Sarah Summerbell

Layout and CD-ROM

David Brown

Tina Smith

Logo Design

Ruth Cronje, and Jan Swanson;

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PRRSV serologic and reproductive stability using live vaccine

Chevez S.J.C.¹, Espinosa J.A.², Angulo E.J.R.¹, Diaz E.E.F.³

¹Boehringer Ingelheim Vetmedica, Mexico, ²Private practice

³Boehringer Ingelheim Vetmedica, St Joseph Missouri USA

Introduction,

The PRRS virus has been the most economical important disease in swine industry, the diseases pathogenesis has direct adverse effects in reproductive and productive parameters in the farms, In order to achieve PRRSv control in our experience is basic began with sow herd stability ; there are several protocols to do it, one of them is the depopulation and repopulation of site one, but as others once we evaluate the cost is very high, and in the most of the experience they re infected risk is very high, so it is important to wide our vision and look for combine strategy that not only control PRRS but still achieve long term stability such as live PRRS vaccination.

In these PRRSv control protocol we set a number of 3 basic Objectives:

1. Achieve serological sow stability
2. Produce PCR PRRS negative offspring
3. Maintain reproductive stability for at least one year.

We evaluate:

1. Fertility
2. Born Alive
3. Born Deads
4. Mummies
5. Abortions
- 6.

Materials and method:

The project was in a 3,500 sow herd, PRRS positive located in Bajío area in Mexico, the production system use multi sites, they have been using PRRS live vaccine Ingelvac@PRRS MLV since late 2005. The control is using mass vaccination four times a year in whole herd and high biosecurity measures and Madec rules. The board stud is PRRS negative and they use 100% artificial insemination.

Results and discussion:

We obtain reproductive stability (Table 1) for more than 12 months (that was the periods of observation, the farm right now remain stable), the farm is producing in a constant way PCR negative PRRS piglets (Table 2); and far more the serological analysis is coherent with stability measuring S/P and Std parameters.(table 3)

We also achieve to flow negative pigs from 3 to 10 weeks of age, but have a late sero conversion in finishing , mostly because the site is all in all out by building not by site .(Table 4).

Table 1.

Reproduction Data														
	Apr 06	M	J	J	A	S	O	N	D	Jan 07	F	M	Average	Std
% Fertility	88	88.6	82	87.6	84.3	84	84.7	87.2	84.9	89	88.6	87.2	86.3	2.3
Born alive	9.8	9.9	9.4	10	9.5	9.4	9.7	9.5	9.4	9.8	9.8	10.1	9.7	0.2
Still Born	5.5	4.8	6.3	5.8	5.6	5.9	5.8	6	5.4	4.6	4.6	4.9	5.4	0.6
Mummies	4.4	4.3	4.6	4.2	4.5	3.9	3.4	4.6	3.9	4.1	3.9	3.9	4.1	0.4
Abortions	5 abortions per month during 12 months period													

Table 2 . PCR negative PRRSv pigs.

Nested PCR Monitoring results						
Age	Agent	Sample	N° Samples	Pool Number	Result	
21 days	PRRS	serum	10	1	Negative	
21 days	PRRS	serum	11	2	Negative	
21 days	PRRS	serum	12	3	Negative	
21 days	PRRS	serum	13	4	Negative	
21 days	PRRS	serum	14	5	Negative	
21 days	PRRS	serum	15	6	Negative	
					Positive control	Positive
					Negative control	Negative

Table 3. Serological stabilization.

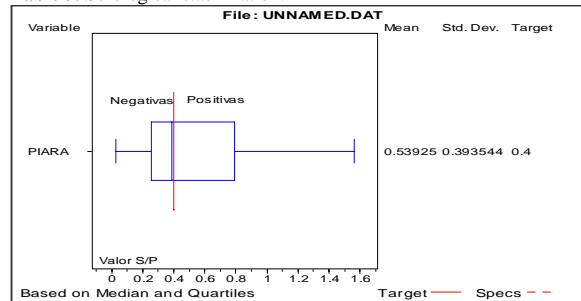
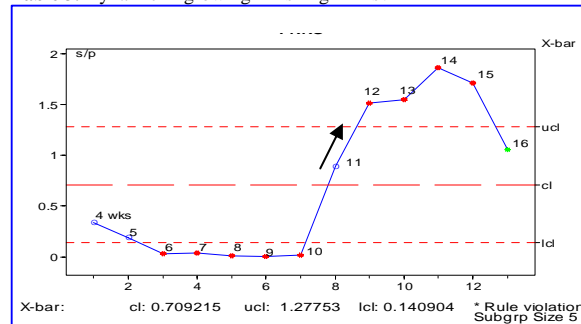


Table 3. Dynamic in growing-finishing PRRSv



Conclusion:

PRRSv control using modified live vaccine and supporting with several management interventions is one strategy capable to achieve herd stability, and most important using intense biosecurity measures we secure reproductive PRRS stability and constant PCR PRRS negative offspring.

In this farm we decide make further analysis to decide the intervention in order to control the PRRS exposure in finishing areas such as Vaccination at 5 weeks of age with Ingelvac@PRRS MLV , or complete depopulation and also both of them.

References:

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2. Dee SA, et al 1994 SHAP. 3:64-6
3. R.C Philips , et al 2000. 16° IPVS Proc 590.