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COMPARATIVE FIELD EFFICACY OF INGELVAC® PRRS ATP VERSUS INGELVAC® PRRS MLV IN GROWING PIGS EXPOSED TO HETEROLOGOUS FIELD VIRUS.

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Introduction

The objective was to compare the efficacy of a full dose of Ingelvac® PRRS ATP vs. a full dose of Ingelvac® PRRS MLV given within 1-2 weeks post weaning for protection against the respiratory form of PRRSv challenge in the nursery-finishing phase of production. The efficacy of the two treatment groups was measured by difference in barn close out data. The primary parameter measured was finishing mortality. Performance data for cull rates, total mortality and cull rate (pigs not going to primary market), average daily gain (ADG) and feed efficiency (FE) were also measured.

Materials and Methods

The study was conducted at 20 double sided curtain, wean to finish (WTF) sites with 40 total barns in the Christensen Family Farms (CFF) system. The sites were located in northern Iowa where weaned pigs were transported from sow farms producing all PRRS PCR negative pigs. The flow is *Mycoplasma hyopneumoniae* positive, with a history of *Mycoplasma pneumonia* at some finishing sites. Three sites were eliminated from the study because of movement of pigs between buildings and rooms that confounded the data.

Pigs were randomly allocated to treatment group by a coin flip between barns upon arrival to the WTF sites. Vaccine was administered 1-2 weeks after arrival to the sites. A full dose of Ingelvac PRRS ATP was administered following label recommendations; (2cc per pig I.M.), to all pigs in treatment group one. A full dose of Ingelvac PRRS MLV was administered following label recommendations; (2 cc per pig I.M.), to all pigs in treatment group two. Performance results were measured for the finishing period. Pigs averaged 54 pounds at 51 days of age at the beginning of the finishing period. Mortalities were recorded at each individual barn; (treatment group). Culls were evaluated from recorded pigs in each treatment group sent to the cull market versus prime market.

Results

Results of the trial indicated that 10 of the 17 finishing barns in the Ingelvac PRRS ATP treatment groups were exposed to a field isolate of PRRS and 9 of the 17 finishing barns in the Ingelvac PRRS MLV treatment groups were exposed to a field isolate of PRRS. There was no statistical difference between the two treatment groups in mortality, cull rates, total mortality and cull rate, average daily gain, and feed conversion, in the finishing phase of production, when comparing field virus infected barns; (Table 1). There was also no statistical difference in any performance results measured when comparing the two treatment groups in the non infected barns; (Table 2).

Table 1: Finishing performance results (Field virus infected barns)

	ATP	MLV	pvalue
No. Barns	10	9	
% Mortality ¹	3.21	3.85	.96
% Culls ¹	3.66	3.52	.9
% Mortality & Culls ¹	6.87	7.38	.9
ADG, lbs ²	1.71	1.74	.53
FE, lbs ²	3.05	3.05	.91

¹Analyzed using Wilcoxin rank sums test.

²Analyzed using two-sample t-test

Table 2: Finishing performance results (Non field virus infected barns)

	ATP	MLV	pvalue
No. Barns	7	8	
% Mortality ¹	2.44	2.09	.39
% Culls ¹	2.22	2.60	.86
% Mortality & Culls ¹	4.66	4.68	.86
ADG, lbs ²	1.78	1.76	.69
FE, lbs ²	3.05	3.02	.64

¹Analyzed using Wilcoxin rank sums test.

²Analyzed using two-sample t-test

Discussion

In this field study, there was no statistically significant difference in the level of heterologous protection against field virus challenge demonstrated by Ingelvac PRRS ATP and Ingelvac PRRS MLV.