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## Performance benefits resulting from vaccination with Ingelvac CircoFLEX and/or Ingelvac PRRS MLV

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### Introduction and Objectives

PCVAD (Porcine Circovirus Associated Disease) and PRRS (Porcine Reproductive and Respiratory Syndrome) are both commonly involved in respiratory disease in growing pigs.<sup>1</sup> However, there is little information published on the benefits of using vaccine for PRRS and PCVAD concurrently to control respiratory disease.<sup>2</sup> This study compares the concurrent use of Ingelvac<sup>®</sup> PRRS MLV and Ingelvac CircoFLEX<sup>®</sup> to each vaccine used alone and to non-vaccinated controls. This study also demonstrates the safety of these vaccines used at 3 weeks of age compared to non-vaccinated controls through the nursery phase.

### Materials and Methods

The experimental unit in this field trial was the farrowing group. Each group contained approximately 1,100 pigs. Approximately 27,500 pigs were included in the study. The pigs were randomly allocated into 4 treatment groups: 1) Ingelvac<sup>®</sup> PRRS MLV, 2) Ingelvac CircoFLEX<sup>®</sup>, 3) Ingelvac CircoFLEX<sup>®</sup> concurrent with Ingelvac<sup>®</sup> PRRS MLV (separate syringes and injection sites) and 4) a non-vaccinated control group. All injections were given IM at ~21 days of age. Pigs were weaned weekly into a nursery room. Nursery room and subsequent finisher room integrity was maintained by all in/all out flow. Diagnostic testing for the presence of PRRSv and PCV2 was done. ANOVA assessment of productivity parameters were used for statistical evaluation of the data with Tukey HSD used to discern pairwise differences using JMP v8.0.

### Results

Exposure to PCV2 was detected in early finishing and to PRRSv in late nursery/early finishing consistent with clinical observations of respiratory disease in the finishing phase. No differences were observed among groups at the end of the nursery period (Table 1). Pigs vaccinated with both Ingelvac CircoFLEX<sup>®</sup> and Ingelvac<sup>®</sup> PRRS MLV had a significantly

reduced cull/mortality rate, significantly increased % pigs marketed, and numerically improved ADG compared to non-vaccinated control pigs (Table 2).

**Table 1.** Nursery Performance

Response variable	NVC	PRRS MLV	CircoFlex	CircoFlex + PRRS MLV
n	4	7	7	7
Average Daily Gain, lbs	0.98	0.97	0.95	0.98
Feed Conversion, lbs/day	1.58	1.59	1.63	1.49
Mortality, %	0.95	1.20	1.02	0.88

**Table 2.** Finisher Performance

Response Variable	NVC	PRRS MLV	CircoFlex	CircoFlex + PRRS MLV
n	4	7	7	7
Average Daily Gain, lbs	1.75	1.77	1.78	1.85
Feed Conversion, lbs/day	3.01	2.91	2.98	2.96
Culls + Mortality, %	16.23 <sup>a</sup>	13.41 <sup>ab</sup>	8.68 <sup>ab</sup>	6.01 <sup>b</sup>
Percent pigs marketed, %	82.45 <sup>a</sup>	85.37 <sup>a</sup>	89.06 <sup>ab</sup>	92.60 <sup>b</sup>

<sup>ab</sup>Within a row, means without common superscript letter differ (Tukey HSD, P≤0.05).

### Conclusions

Based upon results of this study, there were no negative effects on performance in the nursery following vaccination with Ingelvac CircoFLEX<sup>®</sup>, Ingelvac<sup>®</sup> PRRS MLV, or both. Pigs exposed to both PCV2 and PRRS benefited from concurrent vaccination with both Ingelvac<sup>®</sup> PRRS MLV and Ingelvac CircoFLEX<sup>®</sup> compared to non-vaccinated controls.

### References

1. Oppriesnig T. Proc ESVV Intl Conf Animal Circoviruses Assoc Dis, Sept 2005.
2. Jones R., Kolb J. Proc Lemman Swine Conf Research Reports, Sept 2007.