Technical Brief

Circo/MycoGard®

Circo/MycoGard® efficacy in a seeder pig PCV2d/PRRSV174 challenge

Trial conducted by Pipestone Applied Research compared the wean-to-finish performance of Circo/MycoGard® and another commercial vaccine after a seeder pig PCV2d/PRRSV174 challenge.

Trial Design

A total of 1,920 pigs were assigned to 3 treatment groups. Circo/MycoGard® (1 mL), CircoFLEX®/MycoFLEX® (2 mL) or saline (1 mL) was administered once at weaning. Treatments were randomly allocated by litter and weight at weaning. In addition, 240 pigs were enrolled as seeders. Seeders did not receive any PCV2 vaccination. All study pigs were vaccinated once with Ingelvac PRRSV®MLV at processing (2mL).

The sow farm was PEDV, Mhp and PRRSV wild-type negative. This source was also PCV2 positive and PRRSV MLV vaccinated. Pigs were housed in a commercial wean-to-finish facility at Pipestone Applied Research (PAR) in Minnesota. Each pen contained all treatment groups (selected equally and randomly: 8 pigs/trt/pen and 3 seeders-27 pigs/pen). Processing fluids were collected from the selected farrowing group. Serum was collected from 80 pigs/trt and 28 seeders at weaning and challenge.

Challenge was administered to seeders at 5 weeks post vaccination. PCV2d was inoculated both IN (2 mL, 1 mL/nostril) and IM (1 mL). PRRSV174 was inoculated IM (2 mL). Primary market pigs and light culls analysis was based on the number of pigs alive at the end of the study (143 days). Wean-to-finish performance analysis was adjusted by parity, sex, days on feed and weaning weight in SAS and R[1].

Results

Wean-to-finish livability (Fig 1) and ADG (Fig 2) were equivalent for both vaccines. The saline group underperformed both vaccinated groups.

Figure 1

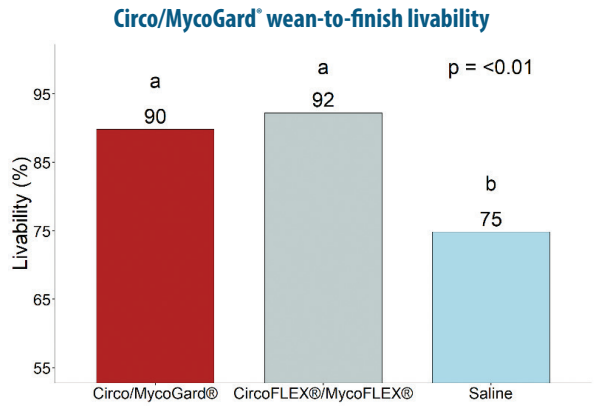
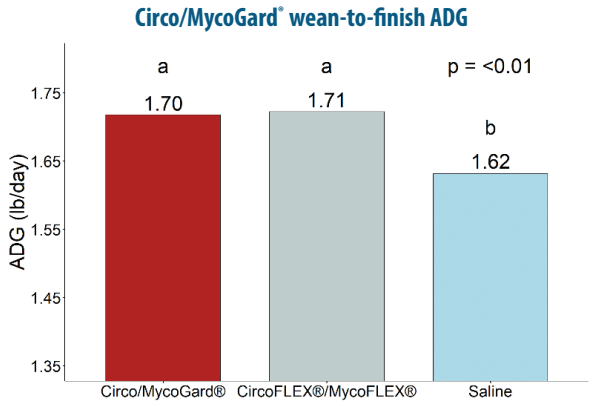


Figure 2



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Results (continued)

The percentage of primary market pigs (Fig 3) and light culls was equivalent for both vaccines. The non-vaccinated group underperformed both vaccinated groups.

Final weight distribution (Figure 4) was equivalent with non-vaccinates having significantly lighter weight variation.

Processing fluids (n=4) from the selected farrowing group tested PCV2 PCR negative. Serum samples tested 0% (0/268) and 1% (3/250) PCV2 PCR positive at weaning and challenge respectively. One ORF2 sequence at challenge was classified as PCV2d. Tissues were collected at approximately 2 weeks after challenge from dead or euthanized pigs to confirm challenge.

Figure 3

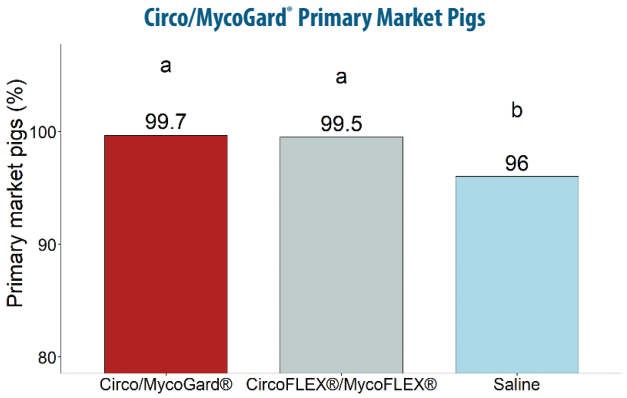
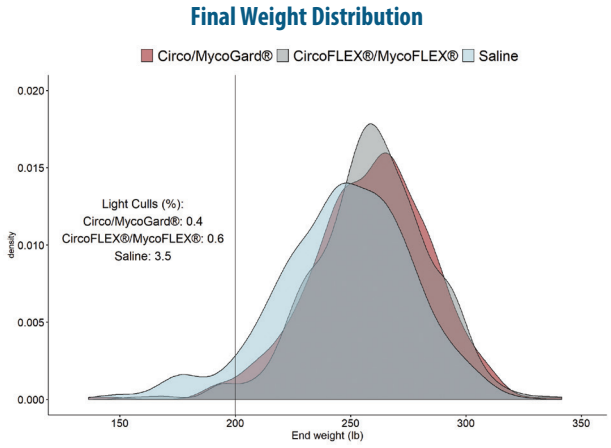


Figure 4



Conclusion

Both vaccines were equivalent and effective against a successful seeder pig PCV2d/PRRSV174 challenge. Non-vaccinated pigs underperformed vaccinated pigs.

References

[1] R Core Team (2020). R: A language and environment for statistical computing. Vienna, Austria, R Foundation for Statistical Computing: Statistical Software

Porcine Circovirus Vaccine, Type 2, Killed Baculovirus Vector, Mycoplasma Hyopneumoniae Bacterin

Circo/MycoGard® | 50 ML 50 DOSES

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This product has been shown to be effective for the vaccination of healthy piglets, 10 days of age or older against Porcine Circovirus, Type 2b, and Mycoplasma Hyopneumoniae. The duration of immunity has not been established. This product is composed of PCV2b.

For more information regarding efficacy and safety data, see productdata.aphis.usda.gov.

ADMINISTRATION AND DOSAGE: Dose: 1.0 ml intramuscularly (I.M.).
CAUTION: For animal use only. Do not mix with other products, except as specified on this label. In case of human exposure, contact a physician. Store at 2 to 8˚C (35˚F to 45˚F). Do not freeze. Shake well before use. Use entire contents upon opening. Do not vaccinate within 21 days before slaughter. Transient reaction may occur at the injection site. If anaphylaxis occurs, use epinephrine or equivalent. Contains merthiolate (Thimerosal) as a preservative. This product has not been tested in pregnant animals. For advice on revaccination frequency, consult your veterinarian.

Product No:
Serial No:
Exp. Date:

Manufactured by:
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