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COMPARISON OF ISOTONIC PROTEIN SOLUTION AND MILK REPLACER EFFECTS IN SUCKLING PIGS

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Introduction

The purpose of this study was to investigate the effects of an isotonic protein drink (Tonisity Px^{TM}) on productivity in suckling pigs, when compared to milk replacer.

Materials and Methods

The study was conducted at Swine Innovation Centre Sterksel. 80 litters of York/Dutch Landrace were assigned to treatment groups, randomized by parity and expected farrowing date. Treatment groups were (C) negative control group; (PX) litters receiving 3% Px[™] solution 500 mL/litter/day; (PX+M) Px + Milk replacer group; (M) positive control group receiving only milk replacer. All treatment groups received their respective treatments from day 2 -8 after birth. The volume of milk replacer was increased daily from 100 to 1200 mL in this time. Groups PX and PX+M also received a combination of Px solution and gruel for 3 days before weaning.

Piglets were individually weighed at birth, day 9, and weaning. The amount of Px[™] or milk replacer consumed by each litter was measured daily. All groups received creep feed after day 9. Dry feed intake, mortality, culls, diarrhea scores and medications were also recorded. Weights were analyzed using a GLM using litter as the experimental unit.

Results

Pigs were weaned at 26 days. PX pigs weighed 7.76 kg at weaning, which was significantly greater than other treatment groups (PX+M 7.22 kg, M 7.20 kg, and C 7.13 kg, P<.05).

Discussion and Conclusion

Litters given Px from day 2-8 of age weighed an extra 0.5 kg at weaning compared to litters given milk replacer, a combination of milk replacer and Px, or normal suckling. This represents a 7% increase in weaning weight and suggests that early enterotrophic nutritional support increases productivity weight at weaning.