

EFFECT OF ADDITION OF A MULTI-STRAINS YEAST FRACTIONS PRODUCT ON PIGLETS' PERFORMANCE DURING POST-WEANING PERIOD



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INTRODUCTION & OBJECTIVE

■ With the restrictions of use of antimicrobial growth promoters (AGP) and zinc oxide (ZnO) in animal feed, it becomes necessary to look for alternative products to control the growth of pathogenic bacteria, keeping animal health and growth performance. Among others we find the yeast based products, whose cell wall components with β -D-glucans, α -D-mannans and nucleotides are considered the agents for their positive effects (Kogan and Kocher 2007; Sauer *et al.* 2011). A multi-strains yeast fractions product (MsYF) (Yang[®], Lallemand Animal Nutrition) from 2 complementary species of *Saccharomyces cerevisiae* and 1 strain of *Cyberlindnera jadinii* has shown positive antibacterial effects in vitro (Duniere *et al.* 2016).

■ The objective of the current trial was to test the effect of the supplementation of Yang to weaning piglets on growth performance especially when they start eating feed without ZnO.

MATERIALS & METHODS

Animals:

- 480 (LW x LD; Duroc) weaning piglets (6.4 kg, 19 d old)

■ Distributed in 8 nursery rooms of 4 pens each, in groups of 20 piglets/pen, over 4 weaning batches

Treatments: 2 treatments:

- Control (CON; standard post-weaning diets),
- MsYF (CON + 800 g/ton and 400 g/ton of test product in prestarter and starter, respectively) (Table 1)

Table 1.
Experimental treatments

Treatment	Prestarter (days 0-21)	Starter (days 22-55)
CON	Prestarter diet	Starter diet
Y	Prestarter diet + 800 g/t MsYF	Prestarter diet + 400 g/t MsYF

■ Prestarter feeds were medicated with 3100 ppm ZnO (2400 ppm Zn).

■ ANOVA in SPSS Statistics 22.0 (IBM), with batch, treatment and their interaction as main effects. The experimental unit was the pen.

RESULTS & DISCUSSION

■ Besides a trend for a greater average daily gain (ADG) during prestarter (240 vs 255 g/d, for CON and MsYF respectively), final body weight (P=0.008; figure 1), starter and overall ADG (P=0.015 and 0.012, respectively; figure 2) as well as starter feed conversion ratio (FCR) (P=0.041; figure 3) of MsYF fed piglets were significantly improved.

Figure 1. Final body weight (kg)

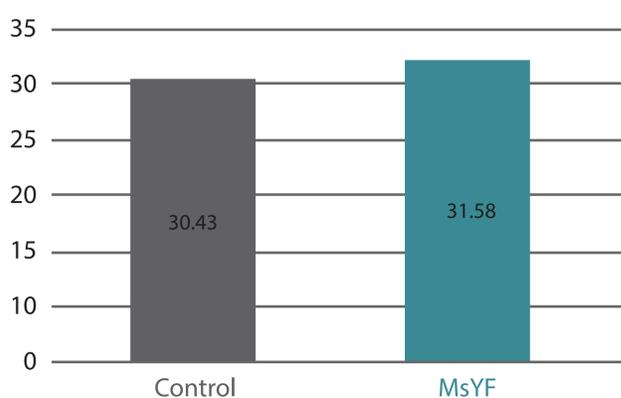


Figure 2. Average daily gain (g/day)

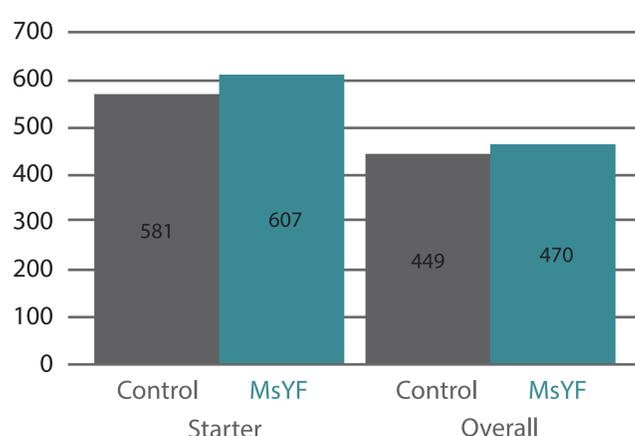
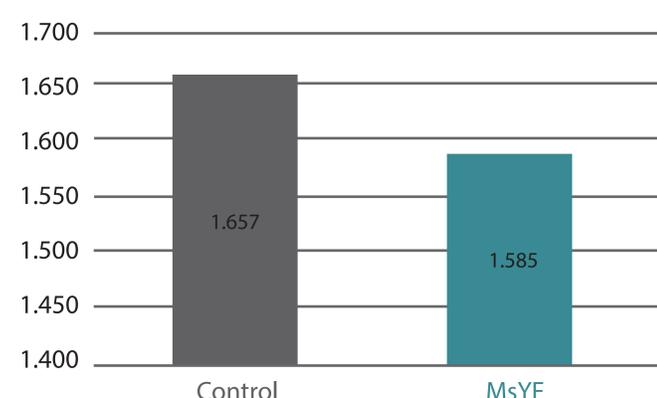


Figure 3. Feed conversion ratio



CONCLUSIONS

■ ZnO removal during the starter phase has been a challenge that MsYF fed piglets better handled as per their improved growth performance and feed efficiency. It is concluded that the addition of a multi-strain yeast fractions product in the post-weaning diets represents an interesting tool alongside with other strategies to replace the pharmacological doses of ZnO in the feed.

REFERENCES: Duniere *et al.* 2016. Symposium of Gut Health in Production of Food Animals, P102. Kogan and Kocher 2007. Livestock Science 109: 161-165. Sauer *et al.* 2011. Nutrition Research Reviews 24: 46-59.