Effect of TakTik X-IN on the performance of weaning piglets

KEY FINDINGS

TakTik X-IN showed:
- ***Increased feed intake***
- ***Improved body weight gain***

INTRODUCTION AND OBJECTIVE

During the weaning phase, feed intake of piglets can be limited due to radical changes in nutrition, new animals groups and housing. Consequently, the major issue of the post-weaning period is the optimization of feed intake.

TakTik X-IN is the latest product of Pancosma Research. It was developed to increase the intake of weaned piglets by incorporating high intensity sweetener with new forms of taste modifiers. The product is manufactured using spray granulation and fluidized bed technology.

This study investigates the effects of TakTik X-IN on the performance of piglets during the post-weaning period, in European production conditions.

MATERIALS AND METHOD

The trial was conducted in a private experimental farm in France

Experimental design

48 piglets, weaned at an average age of 26 days, were used with an average body weight of 7.7kg. Piglets were moved to pens (192x117cm, or 0.33m2/animal, slatted floor) where they were housed during a period of 16 days. At the beginning of the trial, they were homogeneously allotted by sex and by weight to 8 pens containing 6 animals each.

Two dietary treatments (4 pens per treatment) were evaluated:
- Negative control
- 150 g/t of TakTik X-IN 150 added to the negative control.

Experimental diet

The diet used was free of any palatability agent (flavour or sweetener), antibiotic growth promoter or any alternative (acid, botanicals,…). The diet met or exceeded the nutrient requirements recommended by the French pork industry. The composition and calculated analysis are detailed in table 1

Measurements

- daily feed intake per pen,
- individual body weight gain from day 0 to 7, 7 to 12, 12 to 16, 0 to 16,
- incidence of diarrhoea diseases or mortalities.

Table 1: experimental diet

Component	%
wheat	48.50
barley	15.00
lactoserum	10.00
soybean meal	9.50
extruded Soybean seeds	7.00
Soya oil	2.80
potato protein	1.50
wheat gluten	1.50
Premix	4.2

chemical analysis	
Crude protein (%)	18.0
Crude fat (%)	5.5
crude fiber (%)	3.0
Ash (%)	5.0
Copper (mg/kg)	150
NE (Kcal/kg DM)	2580

Premix includes amino acids, vitamins, minerals and phytase

Statistical analysis

The statistical analysis was conducted using SAS Software

RESULTS AND CONCLUSION

There was neither diarrhea nor disease during the whole trial period.

The inclusion of TakTik X-IN in the diet resulted in positive effects on body weight compared to a negative control. (table 2).

Table 2: effect of TakTik X-IN on body weight gain (in kg/head/day)

	Control	TakTik X-IN	RSD	treatment effect
BWG 1-6	0.1548	0.1762	0.140	0.967
BWG 6-12	0.3639	0.3777	0.183	0.361
BWG 12-16	0.4220	0.4495	0.183	0.264

Body weight gain in the first 6 days was improved by 13.8%, and continued to be improved from day 6 to 12, and 12 to 16, respectively by 3.8% 6.5% (graph 1). This resulted in an increased of body weight gain for the whole trial duration by 6.7% (table 3).

Table 3: piglet performance during the whole trial period (in g/head/day)

	Control	TakTik X-IN	RSD	treatment effect
BWG 1-16	300.0	320.1	0.134	0.701
FI 1-16	348.5	365.2	173.6	0.492

Piglets fed TakTik X-IN exhibited a higher feed intake during the whole trial duration compared to the negative control (graph 2). This day on day improvement resulted in a global increase of body weight gain

of the TakTik X-IN fed animals by 6.7% (300g/animal/day for the control group vs 320g/animal/day for the TakTik X-IN group).

Graph 1: relative improvement of body gain with TakTik X-IN
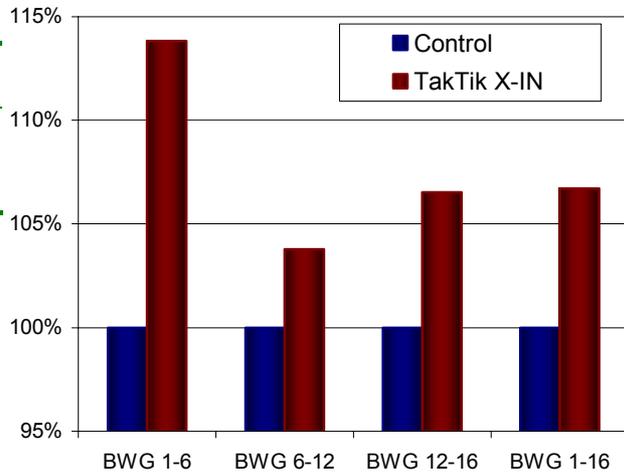
At weaning, piglets tend to exhibit a low feed intake because of stress due to radical changes in nutrition, new animal groups and housing. This low intake limits the growth and affects gut health.
In this study, TakTik X-IN improved feed intake of weaning piglets, resulting in an increased growth of the animals.

Graph 2: effect of TakTik X-IN on the level of feed intake (expressed as % relative to the control)