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ActiSaf

# Benefits of live yeast on sow milk quality and piglets performance

**Objective:** Evaluate the effect of Actisaf® supplementation in the diet of sows and piglets at the end of gestation, during lactation and post-weaning on the nutritional and immunological properties of milk and piglets performance post-weaning.

## Trial design

Comparative experimental study
Location: Iowa (US)

## Species/life stage

Gestating and lactating sows
Suckling and weaned piglets
Breed: Yorkshire x Landrace

## Main criteria

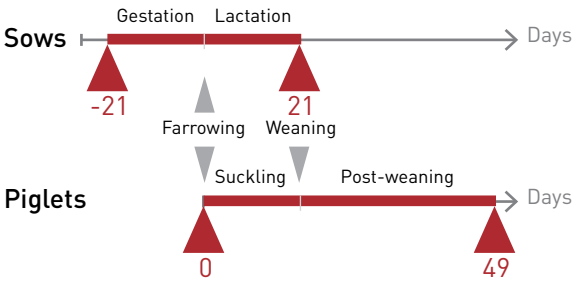
Sow milk quality (dry matter, fat, protein, immunoglobulins), weight gain and feed conversion ratio of weaned piglets.

## Reference

Jurgens *et al.*, J. Animal. Sci, 1997.

## Protocol

| | Control | Actisaf® |
|---|---|---|
| **Gestating and lactating sows** | 10 | 10 |
| **Piglets** | 160 | 160 |




## Main results

### Milk parameters

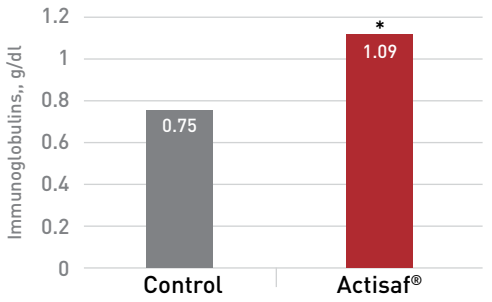
↗ gamma-globulin (g/dl) in milk : + 45.0 %

↗ dry matter content : + 10.0 %

↗ protein content : + 7.0 %

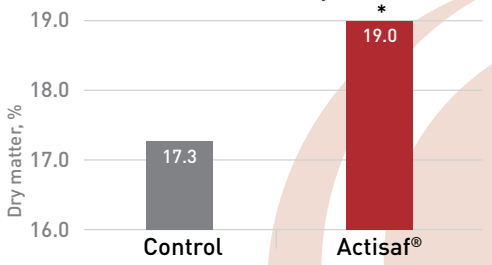
↗ fat content: + 14.2 %

**Better immunological properties of milk at 21 days**




*p<0.02

**Better nutritional properties of milk at 21 days**




*p<0.05

### Piglets post-weaning performance

↗ daily weight gain: + 14.0 %

↗ feed efficiency: + 7.2 %

## Conclusion

Actisaf® supplementation in sows' diets improved the immunological and nutritional properties of milk. Additionally, Actisaf® improved weight gain and feed efficiency of weaned piglets.

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## Introduction

This study was conducted to assess the benefits of Actisaf® supplementation in the feed of sows and piglets on sow milk parameters and piglets performance. Because weaning can be stressful for piglets – with the adjustment from a liquid to a dry diet potentially altering the digestive tract – the addition of live yeast in the diet may improve the post-weaning growth rate and feed efficiency of piglets.

## Materials & methods

- 20 multiparous sows (Yorkshire x Landrace) were allocated to 2 treatments. All sows were housed in individual gestation stalls and received on average 2.27 kg of feed daily. At farrowing, the sows were transferred into farrowing crates and were hand-fed their diet to satiety twice daily throughout the 3 weeks of lactation. Pre-starter feed was presented to the suckling pigs at 12 days of age and continued for 1 week after weaning.
- At weaning (21 days of age), piglets remained in the same treatment group (20 litters corresponding to 160 piglets/ group). A starter diet was fed *ad libitum* from 1 week post-weaning. Body weight and feed intake were recorded weekly for 4 weeks after weaning.

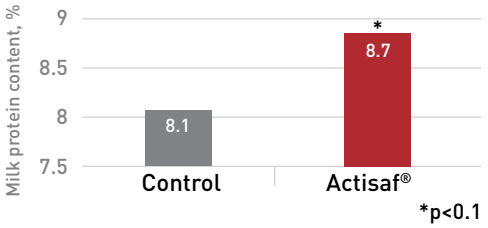
The treatments were as follows:

| | Control | Actisaf® group |
|---|---|---|
| Sow gestating diet *From 21 days before farrowing to farrowing* | Basal diet | Actisaf® 1.0 kg/t |
| Sow lactating diet *From farrowing to weaning (21 days)* | Basal diet | Actisaf® 1.5 kg/t |
| Piglet creep feed *From 12 to 28 days of age* | Basal diet | Actisaf® 2.0 kg/t |
| Piglet starter feed *From 28 to 49 days of age* | Basal diet | Actisaf® 1.25 kg/t |

## Results and discussion

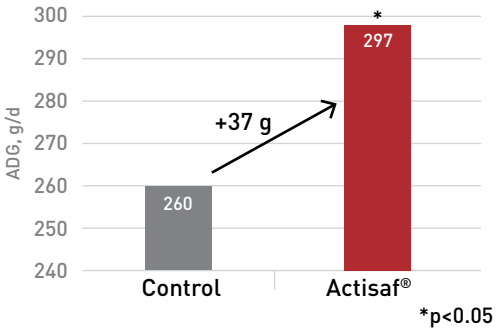
### Milk parameters

- [Gamma-globulin] in milk at 21 days was significantly ($p<0.06$) improved with Actisaf®: 1.09 *vs* 0.75 g/dl in Actisaf® group and Control group respectively.
- The milk dry matter content was significantly higher ($p<0.05$) in Actisaf® group: 19.0 % *vs* 17.3 % in Actisaf® group and Control group respectively.
- The milk protein content was higher ($p<0.1$) in Actisaf® group than in Control group: 8.7 *vs* 8.1 % respectively.
- The milk fat content was higher in Actisaf® group (6.5 %) compared to Control group (5.7 %).




### Post weaning performance

- The average daily gain (ADG) per piglet was improved significantly ($p<0.05$) in Actisaf® group (+37 g).




- The feed efficiency of piglets supplemented with Actisaf® was improved significantly ($p<0.05$) compared to piglets from the Control group: 1.69 *vs* 1.82 in Actisaf® group and Control group respectively.

## Conclusion

The addition of Actisaf® in the feed of sows and piglets significantly improved the milk composition and performance of weaned piglets.

**Keywords** Actisaf®, milk composition, piglets performance.

**Reference** Jurgens M.H., Rikabi R.A. and Zimmerman, 1997. The effect of dietary active dry yeast supplement on performance of sows during gestation-lactation and their pigs. Journal of Animal Science; 75; 593-597.

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