

Effect of live yeast on growth performance in young bull calves during the fattening period

Objective: To evaluate the effect of Actisaf® Sc 47 supplementation in young cattle during fattening on growth performance and carcass weight.

Trial design

Comparative field trial
Location: France, southwest region

Species/life stage

Bull calves
Breed: Limousin

Main criteria

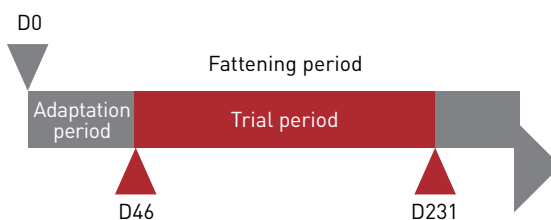
Live weight, ADG, carcass weight.

Reference

Data on file – France, 2016.

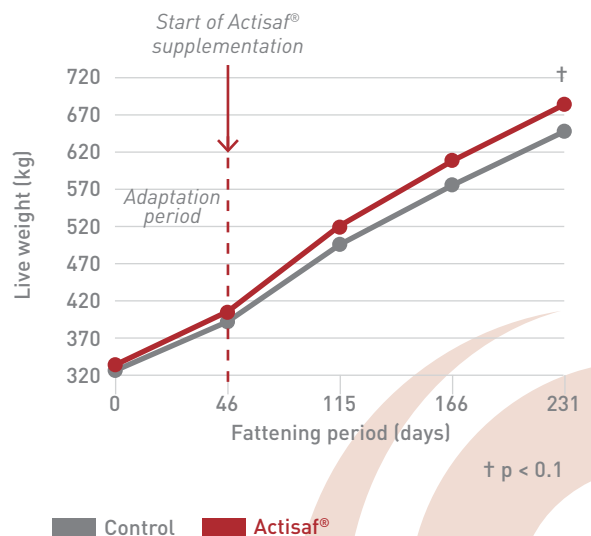
Protocol

	Control	Actisaf®
Bull calves	16	16



Main results

- ↑ Live weight: + 40 kg at D231
- ↑ ADG: +0.14 kg/d



Conclusion

This study demonstrates that supplementing the feed of young bull calves with Actisaf® Sc 47 during the fattening period increases live weight and average daily gain throughout this period, with a return on investment up to 60:8 in this trial.

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Introduction

The main objectives when fattening young cattle are to produce heavy, well-shaped animals which make the best use of the food supplied to them, in the shortest time possible. These three technical objectives are linked to economic factors aimed at creating a financial margin for the fattener.

This trial assesses the ability of Actisaf® to achieve these objectives, by enhancing nutritional intake, reducing digestive disorders linked to fattening, and homogenizing batch performance.

Materials and methods

The animals entered the farm for fattening at around 350 kg. They were weighed on entry (D0) and again 46 days later (D46), before the trial started. The results obtained from this adaptation period allowed the 32 young bull calves to be grouped according to the following criteria:

- Date of birth
- Weight at D46
- ADG between D0 and D46

They were then separated into 2 batches of 16 animals each, distributed in such a way that each bull has its equivalent in the other group.

The treatments were as follows:

- **Control group:** animals were fed the basal diet.
- **Actisaf® group:** animals were fed the same basal diet, supplemented with 4 g of Actisaf® per animal per day for the first three months, and 5 g per animal per day for the last three months of fattening.

Before the trial started, there was no statistical difference between the Control group and the Actisaf® group for the 3 criteria mentioned above, so results from the two groups during the trial can be accurately compared.

It should be noted that all animals in this trial were fed exactly the same quantity of the same basal diet, so any differences in growth are based on the supplement fed to the Actisaf® group and represent a true evaluation of the daily ration.

The basal daily diet was based on a very good quality wheat straw fodder and a complete pellet feed (concentrate), according to the following schedule:

Days	0-21	22-70	71-120	121-170	171-231
Straw (kg)	3	2	2.4	2.9	3.3
Concentrate (kg)	5	8	8.6	8.8	9

Nutritional composition

UFV*	PDIN	PDIE	TN**	Starch	Fibre
0.97	110	102	16	38%	13%

*UFV = feed unit for meat production - **total nitrogen

It should also be noted that all animals were fed a 'finishing' diet with a very similar composition to the initial ration, but with a slightly higher energy value for the last 50 days of the trial.

The two groups were physically separated to facilitate feed distribution, but housed in the same building to exclude any possible effect of the building itself.

Individual growth performance was measured by weighing at D115, D166 and D231.

Carcass weight at slaughter was also measured.

Results and discussion

The addition of Actisaf® to the feed increased ADG by 0.14 kg/day, corresponding to 40 kg of additional live weight for the same amount of feed consumed.

	Control	Actisaf®	p
Weight D115 (kg)	500	516	0.331
Weight D166 (kg)	575	608	0.122
Weight D231 (kg)	648	688	0.095
Overall ADG (kg/day)	1.416	1.559	0.047
Carcass weight (kg)	408	425	0.273

At the end of the trial, the carcass weight of animals in the Actisaf® group was an average of 17 kg higher than animals in the Control group. From an economic point of view, each carcass was worth €68 more for a supplementation cost over the whole fattening period of only €8 per animal. This results in a 60:8 return on investment for the farmer. Further studies should confirm these encouraging results.

Conclusion

This trial demonstrated that Actisaf® Sc 47 supplementation in young bull calves increases average daily gain, live weight and carcass weight at slaughter, therefore increasing profits for the fattener.

Keywords Actisaf® Sc 47, beef cattle, live weight, ADG, carcass weight.

Reference Data on file – France, 2016.