

# CONSUMER ACCEPTABILITY OF PORK ENRICHED WITH CLA

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## OBJECTIVES

The aim is to evaluate consumer acceptability of pork enriched with CLA from entire male and female pigs fed CONTROL or CLA (1.0 %) diets during 62 days and slaughtered at 115 kg live weight.

## MATERIAL and METHODS

Animals: n= 36 from the crossbred Pietrain x (Duroc x Landrace).

Two diets: 18 pigs fed CLA and 18 pigs fed CONTROL.

CLA intramuscular fat levels: 0.48% c9t11 and 0.22 % t10c12.

Consumer study: 18 sessions (8-15 consumers/each)

2 samples/session (one for diet)

200 consumers selected by their age and gender according to the Spanish population distribution (Table 1)

Table 1. Consumer selection by gender and age.

	Men	Women	Total	Total (%)
18-25	21	10	31	15.5
26-40	29	38	67	33.5
41-60	32	38	70	35
61-75	19	13	32	16
Total	101	99	200	
Total (%)	50.5	49.5		100.0

Table 2. Consumer Test Score Sheet.

Nº code/sample	Acceptability	Tenderness	Juiciness	Taste
9 - Like extremely	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 - Like very much	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 - Like enough	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 - Like	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 - Neither like nor dislike	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 - Dislike	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 - Dislike enough	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 - Dislike very much	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1 - Dislike extremely	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## RESULTS and DISCUSSION

Table 3. Least Square Means of scores given by consumers according to animal diet and sex.

	Diet		Sig.	Sex		Sig.
	CONTROL	CLA		Males	Females	
Acceptability	6.26	5.87	**	6.31	5.82	NS
Tenderness	6.15	5.62	***	6.12	5.65	NS
Juiciness	5.78	5.27	**	5.81	5.24	NS
Taste	6.13	5.74	*	6.14	5.73	NS

NS: no significant; \*P<0.05 \*\* P<0.01; \*\*\* P<0.001

- There were no sex differences (P>0.05) in pork acceptability.
- Consumers evaluated all pork attributes significantly better for meat from animals fed CONTROL than CLA.

## INTRODUCTION

Conjugated linoleic acid (CLA) is a set of isomers of linoleic acid, which prevail cis-9, trans-11 and trans-10, cis-12, commonly found in the tissues and/or secretions of ruminants.

Previous research suggests that CLA reduces backfat without compromising intramuscular fat. However, it has been found that consumers' acceptability of meat from animals fed CLA is reduced, although there are still very few works to draw consistent conclusions.



Loin slices 1.5 cm thickness.



Cooked in a convection oven at 200°C for 10 min. until internal meat temperature reached 72°C.



Samples kept warm in a heater.



Each slice was cut into 1.5x1.5x4 cm and wrapped in coded aluminum foil.



Samples served to the consumers monadically and in a different order to avoid the first sample and carry over effect.

### Statistical Analysis

- Procedure MIXED of SAS.
- Fixed effect: diet and sex; Block effect : session; Random effect: consumer.
- No interaction between diet and sex.

## CONCLUSIONS

Pork loin from animals fed CLA was rated lower acceptability scores by consumers than meat from animals fed CONTROL.

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