



# Role of the dietary grape seeds meal given to fattening pigs on the oxidative status of meat



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Session 15  
Poster No. 29200

## Introduction

Pork is known to have a higher intramuscular lipid concentration, making it more susceptible to oxidation, even more when is enriched in polyunsaturated fatty acids (PUFA  $\omega$ -3). Polyphenols from grape seeds are characterized by high antioxidant activity and improve the quality of animal products thus contributing to human health.

**Objective:** to evaluate the effect of dietary grape seeds meal given to fattening pigs on the oxidative status of meat.

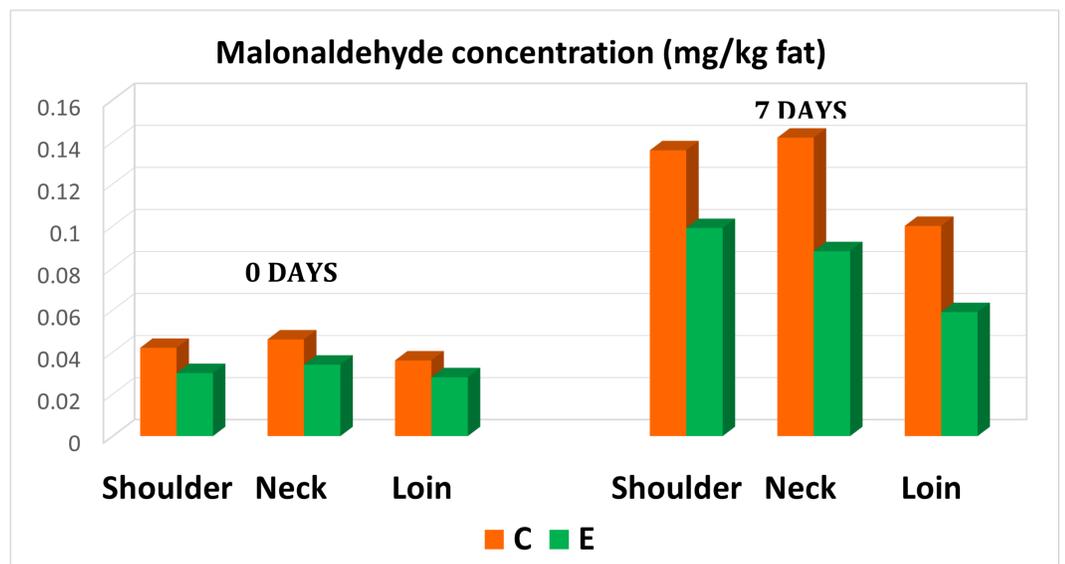
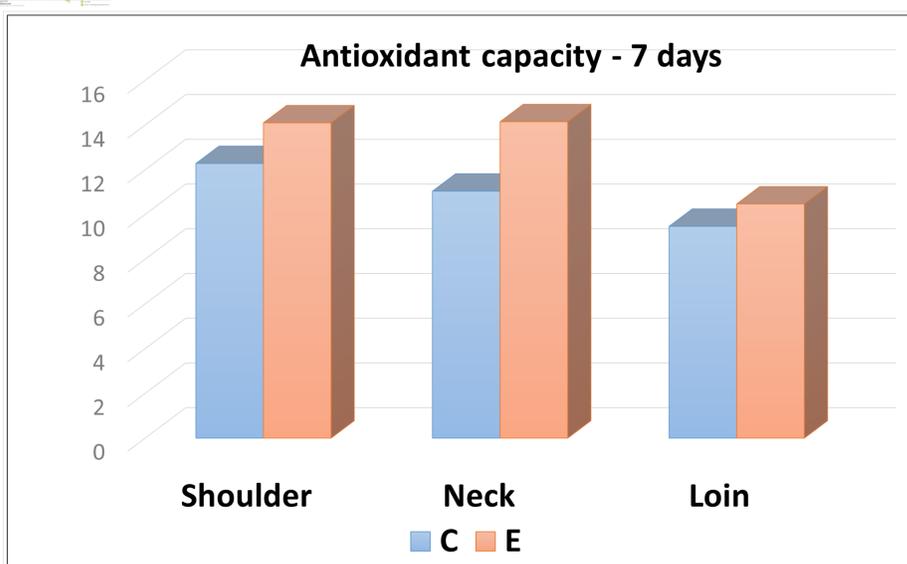
## Material and Methods

The experimental study run in the experimental hall of IBNA Balotesti, on 12 Topigs growing-finishing pigs (Large White x Pietrain) x (Talent), with an initial bodyweight of 66.42 kg $\pm$ 10. The pigs were assigned to 2 groups (C, E), housed in the same hall, in two distinct pens, with 6 pigs/pen.

Group	Basal diet	Slaughtered	Samples	Measurements
C	Conventional diet, with corn, wheat, soybean meal and rapeseeds meal as basic ingredients (3110 kcal/kg ME and 17.60 % CP).	6 pigs/ group	shoulder, neck, loin samples	- TBARS (mg/kg malonaldehyde)
E	Conventional diet+ 7.5% flax meal+ 1% grape seeds meal			- Antioxidant capacity (mM equivalent ascorbic acid)
At 0 and 7 days after refrigeration (4°C)				



## Results and discussion



After 7 days of refrigeration, the antioxidant activity of the samples from group E was significantly ( $p \leq 0.05$ ) higher than in the samples from group C.

Both at 0 and at 7 days of refrigeration, the shoulder, neck and loin samples from group E had significantly ( $p \leq 0.05$ ) lower malonaldehyde concentrations than those from group C.

## Conclusions

The grape seeds meal added to high polyunsaturated fatty acids diets for fattening pigs inhibited the propagation of the oxidative reactions within the muscle tissues, thus proving its antioxidant activity.

## Acknowledgements

This work was supported by a grant of the Ministry of Education and Research of the Romania (Project PN 1820 0102).

