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# Utilization of Casertana pig to produce traditional typified labelled salami. I. Data at slaughtering and jointing of carcass

G. Gigante\*, C.M.A. Barone\*\*, N. Castellano\*, P. Colatruglio\*\*, C.E. Rossetti\*,  
M. Occidente\*, A. Zullo\*\* and D. Matassino\*,\*\*\*

\*ConSDABI. NFP.I.- FAO.- Centro di genomica e di proteomica per la qualità e per l'eccellenza alimentare. Piano Cappelle 82100 Benevento, Italy

\*\*Dipartimento Scienze zootecniche e Ispezione degli alimenti-Università di Napoli Federico II  
Via Università 100 – 80055 Portici (Napoli), Italy

\*\*\*Dipartimento di Scienze biologiche e ambientali – Università degli Studi del Sannio  
Via Port'Arsa, 11 – 82100 Benevento, Italy

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**SUMMARY** – The investigation was carried out on 15 castrated males and 15 entire females of Casertana pig reared according to the intensive technology at the experimental farm of ConSDABI. The carcasses were chilled for 3 days at 2-4°C and dissected into cuts, according to the Napolitan method. The data were grouped into 3 classes of live weight: 130-160 kg, 161-190 kg, >190 kg. The most important results showed: (i) an expected significant increase of carcass weight from first to second to third weight class, as well as hot dressing percentage, only from 2<sup>nd</sup> to 3<sup>rd</sup> class though ( $P<0.001$ ); (ii) a higher percentage of meaty cuts in pigs belonging to 1<sup>st</sup> class in comparison to 3<sup>rd</sup> ( $P<0.05$ ) but a similar percentage of fatty (7.56 vs 8.69) and bone (6.23 vs 6.15) cuts and (iii) females have a higher proportion of leg ham ( $P<0.05$ ) and overall meat cuts ( $P<0.01$ ), than castrated males.

**Keywords:** Casertana, pig, carcass composition.

**RESUME** – "Utilisation de porcins de race Casertana pour produire le salami sous label "type traditionnel". I. Données d'abattage et de découpe de la carcasse". L'étude a été conduite sur 15 porcs mâles castrés et 15 femelles de race Casertana élevés en système intensif dans la structure expérimentale du ConSDABI. La découpe a été effectuée suivant la méthode "Napolitano" après trois jours de réfrigération des deux moitiés à 2-4°C. Les porcs ont été regroupés en trois classes sur la base du poids vif : 130-160 kg ; 160-190 kg ; >190 kg. Les résultats les plus importants ont démontré : (i) une augmentation logique du poids de la carcasse de 118,75 à 142,74 et à 190,25 kg, significative entre chaque classe de poids, ainsi que du poids net chaud, significative seulement entre la deuxième et la troisième classe ( $P<0,001$ ) ; (ii) Un pourcentage de pièces maigres significativement plus élevé dans la première classe que dans la troisième ( $P<0,05$ ) mais des pourcentages similaires de pièces grasses (7,56 vs 8,69%) et d'os (6,23 vs 6,15%) ; et (iii) chez les femelles, une proportion plus élevée du jambon ( $P<0,05$ ) et du total des pièces maigres ( $P<0,01$ ).

**Mots-clés :** Casertana, porc, caractéristiques de la carcasse.

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## Introduction

The utilization of Casertana pig to produce typified traditional products begin from the knowledge of quanti-qualitative potential of this genetic type. The study of carcass composition and the percentage of different cuts on carcass as well as the incidence of meat, fat and bone on single cut is needed to better understand this genetic type.

In the past (Di Lella *et al.*, 1979), but also more recently (Grasso *et al.*, 1996), it was showed that productive performance of Casertana are not dissimilar from improved breeds ones.

The objective of this study is to evaluate carcass composition in relation to live weight in castrated males and entire females of Casertana pig.

## Material and methods

The research was carried out on 15 castrated males and 15 entire females of Casertana pig reared according to the intensive technology at the experimental farm of ConSDABI and slaughtered at live weight (LW) ranging from 130 kg to 250 kg.

The carcasses were chilled for 3 days at 2-4°C and dissected into primal cuts, according to Neapolitan method: total meat cuts (ham, shoulder, neck prime ribs and loin prime ribs) and total fat cuts (jowl, belly, throat). Weight of head, tail, feet as total bone cuts and kidney weight were also measured.

Experimental data were grouped into three classes based on animals LW: 130-160 kg, 161-190 kg, >190 kg. Two-way analysis of variance using PROC GLM (SAS, 1997) was used to obtain least square means of each carcass component of each class and sex. The Student's *t* test was used to detect significant differences.

## Results and discussion

The obtained results showed: (i) an expected significant increase of carcass weight from first to second to third weight class, as well as hot dressing percentage, only from 2<sup>nd</sup> to 3<sup>rd</sup> class though ( $P < 0.001$ ); (ii) a higher percentage of total meat cuts in pigs belonging to 1<sup>st</sup> class in comparison to 3<sup>rd</sup> ( $P < 0.05$ ), but a similar percentage of total fat (7.56 vs 8.69) and bone (6.23 vs 6.15) cuts. Grasso et al. (1996) working on crosses of Casertana pig and improved breeds, slaughtered at the lowest weight (80-130 kg), obtained a 79 percent of meat cuts and 11% of fat cuts. Bone and muscle develop before the fat deposition increases. In autochthonous genetic types fat deposition probably starts later than in crossed and improved breeds. This concept is supported by the comparison of the current data with literature on topic.

The comparison between sex showed that females have higher proportion of leg ham ( $P < 0.05$ ) and an overall meat cuts than castrated males ( $P < 0.01$ ), according to previous study of Colatruglio et al. (1996), whereas no differences were observed for total fat and bone cuts.

Table 1. Estimated mean value ( $\pm$  std error) of some characteristics at slaughtering and dissection of carcass and significant ( $\dagger$ ) comparisons between live weight classes and sex

	Live weight class			Sex	
	1 <sup>st</sup> (130÷160 kg)	2 <sup>nd</sup> (161÷190 kg)	3 <sup>rd</sup> (>190 kg)	Castrated males	Entire females
Net live weight (kg)	140.01 $\pm$ 3.44 <sup>C</sup>	171.24 $\pm$ 4.08 <sup>B</sup>	221.81 $\pm$ 3.88 <sup>A</sup>	181.94 $\pm$ 3.07	173.43 $\pm$ 3.20
Hot Carcass (kg)	118.75 $\pm$ 3.10 <sup>C</sup>	142.75 $\pm$ 3.67 <sup>B</sup>	190.25 $\pm$ 3.49 <sup>A</sup>	153.49 $\pm$ 2.77	147.67 $\pm$ 2.88
Hot net dressing (%)	84.78 $\pm$ 0.53	83.41 $\pm$ 0.63 <sup>B</sup>	85.78 $\pm$ 0.60 <sup>A</sup>	84.28 $\pm$ 0.47	85.03 $\pm$ 0.49
Total Meat cuts (%)	85.08 $\pm$ 0.37 <sup>a</sup>	84.14 $\pm$ 0.48	83.75 $\pm$ 0.40 <sup>b</sup>	82.87 $\pm$ 0.32 <sup>B</sup>	85.78 $\pm$ 0.36 <sup>A</sup>
Neck prime ribs (%)	8.2 $\pm$ 0.15	8.76 $\pm$ 0.20	8.72 $\pm$ 0.16	8.55 $\pm$ 0.13	8.85 $\pm$ 0.15
Shoulder (%)	14.37 $\pm$ 0.31	14.50 $\pm$ 0.40	13.72 $\pm$ 0.34	14.28 $\pm$ 0.27	14.11 $\pm$ 0.30
Loin prime ribs (%)	18.69 $\pm$ 0.55	17.34 $\pm$ 0.73	18.76 $\pm$ 0.61	17.75 $\pm$ 0.48	18.77 $\pm$ 0.55
Ham (%)	27.86 $\pm$ 0.37	27.50 $\pm$ 0.48	27.19 $\pm$ 0.40	27.00 $\pm$ 0.32 <sup>b</sup>	28.04 $\pm$ 0.36 <sup>a</sup>
Total fat cuts (%)	7.56 $\pm$ 0.42	8.39 $\pm$ 0.56	8.69 $\pm$ 0.46	8.60 $\pm$ 0.36	7.82 $\pm$ 0.41
Bone cuts (%)	6.22 $\pm$ 0.35	6.51 $\pm$ 0.45	6.15 $\pm$ 0.38	6.37 $\pm$ 0.30	6.22 $\pm$ 0.34

$\dagger$  Means in the same row with different superscripts are significantly different (a,b:  $P < 0.05$ ; A,B,C:  $P < 0.01$ ).

## References

- Colatruglio, P., Esposito, D.F., Fornataro, D., Capone, A., Zullo, A. and Matassino, D. (1996). Some aspects of meat production in pig autochthonous genetic types. I. Data at slaughtering, jointing of carcass and tissue separation. *Proc. 4<sup>th</sup> Int. Symp. on Mediterranean Pig*. Évora (Portugal), 26-28 November 1998. Tradition and innovation in Mediterranean pig production. *Options Méditerranéennes, Serie A*, n. 41, CIHEAM: 275-278.
- Di Lella, T., Nizza, A., Piccolo, V. and Intrieri, F. (1979). Impiego di diete a elevato tenore di fibra in soggetti di 3 popolazioni suine meridionali in via di estinzione. I. Velocità di accrescimento e indice di conversione dell'alimento. In: *Atti Conv. Salvaguardia genetica e prospettive per il recupero zootecnico di razze-popolazioni autoctone italiane*. Foligno.
- Grasso, F., Cappuccio, A., Colatruglio, P., Girolami, A., Napolitano, F., Zullo, A. and Matassino, D. (1996). Confronto fra suini Casertana e suoi derivati. II. Alcuni rilievi alla sezionatura della carcassa. *Atti III Symp. Int. sul Suino Mediterraneo*. Benevento, 30 November-2 December 1995. *Prod. Anim.*, 9, III Serie: 125-129.