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Results of the dissection of ripened prosciutto
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SUMMARY – The study was carried out on 26 prosciutti (dry-cured hams) obtained from the Casertana pig, an AAGT mostly reared in Campania (Italy), with the aim to point out some possible differences due to the sex in linear size and weight parameters detected at the dissection in pera, falsa pera and gambo. The results showed, within the limits of the observation field, that the maximum thickness is higher in the females (P < 0.05), as well as the weight of pera (P < 0.05) and falsa pera (P < 0.05).

Key words: Casertana, autochthonous ancient genetic type, dissection of prosciutto.

RESUME – “Résultats de la dissection de prosciutto (jambon sec) affiné obtenu à partir de porcs de l’ancien type génétique autochtone Casertana (TGAA)”. L’étude a été conduite sur 26 jambons issus de TGAA Casertana, élevés principalement en Campanie (Italie), afin de vérifier les éventuelles différences dues au sexe dans les mesures linéaires et dans les paramètres pondéraux décelables à la dissection sur pera, falsa pera et gambo. Les résultats mettent en évidence, dans le domaine d’observation, que l’épaisseur maximale est plus grande chez les femelles (P < 0.05), comme le poids de la pera et de la falsa pera.

Mots-clés : Casertana, type génétique autochtone ancien, dissection du prosciutto.

Introduction

In the Italian pig-breeding, prosciutto (dry cured ham) represents the product of greater value that covers more than 60% of the commercial value of the side of heavy pork. Even if knowledge from previous studies (Bergonzini and Ferrari, 1980; Baldini, 1986; Zappa et al., 1991) about some factors influencing the quality of "flow diagram" for "typical" prosciutto production may be transferred to sannita production, the specificity of some phases of the "flow diagram" needs ad hoc research.

The traditional processing of the prosciutto has very ancient roots, probably going back to the Etrurian who salted the pig hams with a technique increasingly improved up to now. It's known that the prosciutto "salting technique" was used, for the first time, by ancient Romans who named the full pig leg, dried by salt and ripened, perexsuccus (very dried) from which the current word prosciutto derives (Matassino, 2001).

The aim of the present paper is to study the influence of sex within the genetic type in relation to the parameters detected at the dissection of the prosciutto obtained by Casertana pig AAGT, seasoned for at least 24 months.

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Materials and methods

The study was carried out on 26 prosciutti manufactured in a salami making factory in Circello (BN), obtained from 21 castrated males and 5 entire females, belonging to Casertana AAGT, reared in multiple boxes at ConSDABI experimental farm, slaughtered at 160 kg of live weight.

After 72 hours of aging, each ham, isolated from the side of pork, was trimmed according to Napoli cutting model (Montemurro et al., 1974), in order to give at prosciutto the characteristic roundish shape known as "chicken leg".

After trimming, the prosciutto was subjected to salting process with coarse dry salt (for the lean parts) and wet damped salt (for the pigskin) for a month; during this period prosciutto was subjected to massages. In the ripening phase (about 9 months), after the salting, prosciutto underwent to stuccatura (plastering), process that allows to keep tender the prosciutto and to give meat flavour. At the 20th month, the prosciutto was subjected to the puntatura to verify the development of ripening.

The values of the experimental data were corrected for the net live weight of the animal.

The significance of the differences between the estimated mean values was tested by Student's t test.

Results and discussion

Data reported in Table 1 show a greater development of the prosciutto obtained from the entire female in comparison with that derived from castrated male (P < 0.05), in both maximum thickness (12.90 vs 11.04) and in the incidence of the two portions: pera (4.96 vs 4.04) and falsa pera (2.21 vs 1.61).

Table 1. Prosciutto sannita. Some linear size and same corrected weight parameters obtained during the dissection, distinctly by sex

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Castrated male</th>
<th>Entire female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\bar{x} \pm \sigma$</td>
<td>$\bar{x} \pm \sigma$</td>
</tr>
<tr>
<td>Linear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum length (cm)</td>
<td>56.00 ± 3.21</td>
<td>56.20 ± 4.78</td>
</tr>
<tr>
<td>Maximum breadth (cm)</td>
<td>29.98 ± 2.54</td>
<td>31.66 ± 1.67</td>
</tr>
<tr>
<td>Maximum circumference (cm)</td>
<td>72.06 ± 6.44</td>
<td>76.64 ± 3.34</td>
</tr>
<tr>
<td>Maximum thickness (cm)</td>
<td>11.03 ± 1.52</td>
<td>12.90 ± 1.34</td>
</tr>
<tr>
<td>Weight</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fresh weight (iw) (kg)</td>
<td>12.1 ± 2.2</td>
<td>13.7 ± 2.3</td>
</tr>
<tr>
<td>Final weight (fw) (kg)</td>
<td>8.6 ± 2.2</td>
<td>10.3 ± 1.7</td>
</tr>
<tr>
<td>Trimmed weight (tw) (kg)</td>
<td>7.7 ± 1.9</td>
<td>9.3 ± 1.4</td>
</tr>
<tr>
<td>Pera (kg)</td>
<td>4.04 ± 1.1</td>
<td>4.96 ± 0.7</td>
</tr>
<tr>
<td>Falsa pera (kg)</td>
<td>1.61 ± 0.6</td>
<td>2.21 ± 0.3</td>
</tr>
<tr>
<td>Gambo (kg)</td>
<td>1.13 ± 0.5</td>
<td>1.37 ± 0.5</td>
</tr>
<tr>
<td>% loss</td>
<td></td>
<td></td>
</tr>
<tr>
<td>fw/iw</td>
<td>28.9</td>
<td>24.8</td>
</tr>
<tr>
<td>tw/iw</td>
<td>36.3</td>
<td>32.1</td>
</tr>
<tr>
<td>tw/fw</td>
<td>10.5</td>
<td>9.7</td>
</tr>
</tbody>
</table>

\(^{a,b}P < 0.05.\)

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There are no significant differences between sexes for:

(i) The length, the breadth and maximum circumference of the prosciutto, even if, certainly, these parameters are influenced by the weight class of prosciutto; indeed, a study carried out by Fabbri et al. (1983), examining data obtained from 504 dry cured hams, pointed out that the length parameter is less noticeable in the "heavy" classes as the weight and adiposity of prosciutto oppose to the natural twitch during drying process, while the breadth and the thickness parameters are similar for any weight class.

(ii) Some weight traits done on the prosciutto, in agreement with other studies (Quadri et al., 1981; Fabbri et al., 1983; Bittante et al., 1991; Gallo et al., 1994).

After 24 months of ripening, the castrated male has an apparent higher per cent loss (28.9%) if compared with entire female (24.8%).

On the prosciutto, the entire female has an apparent higher per cent incidence of pera (53.63 vs 52.24), falsa pera (23.88 vs 20.79) and gambo (14.76 vs 14.58), respect to the castrated male.

Conclusions

The results, valid within the limits of the observation field, point out that the entire female has a higher incidence of the noble parts (pera and falsa pera) in which prosciutto is divided, when it is boned.

References


