

# **Anatomical investigations on meat cuts of guanacos (*Lama guanicoe*, Müller, 1776) in Tierra del Fuego, Chile.**

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## **Introduction:**

Guanacos are New World camelids, which are traditionally used for meat production in South America. Recently, guanaco meat import in the European Union has started, with an amount of approx. 50,000 kg per year. Thus, studies on the yield and the chemical composition of guanaco meat may be of relevance for European meat inspection services as well as meat industry.

## **Materials and methods:**

With the objective of determining the anatomical composition of the meat cuts, calculating the yield of the carcass and carrying out chemical analysis of muscles, 70 young adult male guanacos, hunted in the Chilean region of Tierra del Fuego, were studied.

The deboning of the carcasses was done according to the Chilean standards for cattle.

## **Results and discussion:**

A few anatomical peculiarities were encountered especially in the regio femoris and regio colli.

For instance, in the hind limb the mm. sartorius, vastus medialis, pectineus and gracilis constitute one integrated unit.

The m. semimembranosus is stretched in its medial third. Also, in the neck zone the m. brachiocephalicus is missing.

The m. omohyoideus is rather poorly developed and only present in the anterior third of the neck, where it squeezes between the v. jugularis externa and the a. carotis communis.

Based on the results obtained, it is noted that the Chilean standards for deboning of cattle are feasible for application to the guanaco.

Table 1: Weights of muscle cuts and relation to the carcass weight

N=70	Weight (kg)	% of carcass
Live animal	101.2 ± 12.52	-
Carcass <sup>1</sup>	59.58 ± 7.75	-
Yield of carcass	-	58.88 ± 2.47
Meat cuts		
Loin	4.43 ± 0.76	7.45 ± 0.92
Filet	0.77 ± 0.21	1.28 ± 0.28
Rump, Point of Rump	1.90 ± 0.54	3.16 ± 0.71
Knucle	3.42 ± 0.50	5.74 ± 0.49
Top Round	4.12 ± 0.75	6.91 ± 0.74
Silverside	2.50 ± 0.42	4.21 ± 0.56
Eye of Round	0.72 ± 0.13	1.21 ± 0.16
Blade Clod	0.81 ± 0.17	1.37 ± 0.24
Chuck Tender	0.83 ± 0.17	1.40 ± 0.20
Goulash meat	11.30 ± 2.88	18.94 ± 4.67
Muscles, total	33.34 ± 4.19	55.88 ± 2.50

Data are generated from 70 animals under study and expressed as mean value ± standard deviation. Cutting was according to the Chilean standard NCH1596 Of1999.

<sup>1</sup>=eviscerated, with head-and skin-on.

The guanaco carcass did not has subcutaneous fat. Also, as compared with other animals, the fat/muscle ratio is very low at only 1.02 g/100 g.

The proportion of saturated fatty acids present in the m. longissimus was 47.7% and in the m. semitendinosus 52.3%.

#### Conclusions:

The carcass yield was high. Thus, with rational use, the meat of these free-range animals originating from zones of the southern tip of the planet represents an interesting source of protein from both economic and dietetic points of view.

#### References:

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