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▶ **To cite this version:**

Willy W. Cei, Jean-Christophe Bambou, Maurice Mahieu, Gisèle Alexandre. Carcass traits of male and female Creole goats according to slaughter weights, preliminary results. Advances in Animal Biosciences, 2010, 1 (2), pp.396-397. 10.1017/S2040470010000245 . hal-02653964

HAL Id: hal-02653964
https://hal.inrae.fr/hal-02653964

Submitted on 29 May 2020

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doi:10.1017/S2040470010000245

Carcass traits of male and female Creole goats according to slaughter weights, preliminary results

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Introduction

A genetic improvement program on the Creole goat of Guadeloupe is presently underway. It is a medium-sized meat breed with a traditional slaughter weight of 18 kg which can be reached at 6 to 18 months of age, depending on the system. Experiments are on-going at INRA upon the effects of diet, management conditions, helminth infestation on Creole kids with the aim of improving the goat meat production level and quality in the Caribbean. Fattening and carcass performances vary widely with genotype, sex, feeding level, weight or age at slaughter. This paper presents some preliminary results on carcass traits of male and female Creole kids.

Materials and methods

After weaning, entire male kids ($n = 20$) and females ($n = 12$) were reared separately indoors on a slatted floor. The diet was composed of a stand of tropical pasture. In addition, they were offered commercial pellet (10.3 MJ ME and 180 g CP per kg DM). Different husbandry conditions and physiological status resulted in contrasted age/live weight at slaughter. Thus two classes of slaughter weight (SW) were discriminated for males (M) or females (F). Light and heavy animals were defined as folloqs: 16 and 24 kg SW for the M kids and 13 and 18 kg SW for F kids, respectively. Animals were sacrificed according to the standardized procedure. Weighing and measuring of carcass, cuts, and tissues were implemented as described in Liméa *et al*. (2009). Statistical analysis took into account the different effects of sex, management conditions, the class of SW and helminth infestation.

Table 1 *Carcass traits of Creole according to sex and slaughter weighs*

Sex	Male		Female	
SW group	Light	Heavy	Light	Heavy
ADG, g/d	29[a]	37[b]	22[a]	31[b]
Empty LW, kg	11.5[a]	16.9[b]	9.7[a]	13.0[b]
Cold carcass, kg	6.2[a]	9.4[b]	5.0[a]	7.0[b]
Carcass yield, %	53	55	52	54
Conformation score	2.5[a]	3.5[b]	2.0	2.6
Abdominal fat (% ELW)	2.5	3.0	3.1[a]	4.8[b]
Fat % (in the shoulder)	4.2[a]	6.4[b]	5.4[a]	6.6[b]
Muscle/bone (shoulder)	3.35	3.51	3.32	3.70
Back length, cm	44[a]	50[b]	42[a]	47[b]
Buttock width, cm	13	14	13	14
Thorax width, cm	19	21	22	23
Leg length, cm	30	32	32[a]	35[b]
Ultimate pH	5.7	5.8	5.8	5.1
Water losses, %	23[a]	16[b]	25[a]	18[b]

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Results and discussion

Some of the carcass traits are tabulated in table 1. Many of the observations were in line with data reported elsewhere. There are sex effects upon, growth, live and carcass weights. The carcass yield did not depend upon these factors as reviewed in Limea *et al.* (2009). The weights of carcass cuts were dependant on SW. The proportion of prime cuts approximated 60 to 61% therefore reaching a good level for their use in the formal meat sector. The F kids tended to have more ($P < 0.05$) fat deposits (fat tissues in the abdomen and in the shoulder) than M kids; the trend was similar for the fat cover score but the values remained at a very low level (less than 2/5).

The linear measurements of the Creole carcass vary according to sex/weights as reported elsewhere.

The pH values and the color parameters (not tabulated) did not vary significantly. While the water losses were higher in F than in M carcasses.

doi:10.1017/S2040470010000257

Establishing sustainable collared peccary (*tayassu tajacu; pecari tajacu*) farming in French Guiana

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Over the last few years sustainable farming systems have become more in focus, with the accent on conservation of the world's natural resources, and the concerns over global food security. In the Neotropics, a large indigenous animal protein resource exists and is being utilised, some to the point of being vulnerable, supposedly due to over-hunting. One animal viewed in this manner is the Collared Peccary, which is found from as North as New Mexico to northern Argentina. In French Guiana, this animal is part of the menu of several restaurants serving local French Guianese cuisine – when it is available. The problem of frequency of supply to the restaurants of this popular meat, coupled with a demand by some local farmers to farm this animal as part of their farm diversification, thrust the Agriculture Chamber of Guyana and the Regional Council of Guyana to develop the international agricultural project with the University of the West Indies, entitled "Knowledge of the wild fauna of Guyana : Management and Domestication Possibilities" (Connaissance de la Faune Sauvage de la Guyane: Possibilites de Gestion et de Domestication). The project's objectives were the following: (i) to initially, transfer small experimental production units to farms; and (ii) to assure a monitoring of these units to eventually respond to the increasing farmers' demand for novel production systems, a complementary revenue for the farmer, increasing demand by restaurants to obtain a regular, legal supply of the meat; to limit hunting pressure and open perspectives to understand ing the immunity defense of the wild animals. The proposed farming system for the Collared Peccary (*Tayassu tajacu; Pecari tajacu*), was the enclosing of 1 ha of forested land on the pilot farmer's holding. This sought to (i) give the animal a sense of its being in as natural a habitat as possible, from which it will derive to a large extent its nutrition, that would be supplemented with rations developed from locally-available feedstuffs; and (ii) reduce the feed and labour cost to the farmer. To assess the potential nutritional capacity of the pilot sites, an initial assessment in the form of a Random Quadratic Sampling, was conducted on each site. The results show that the sites contained many potentially useful flora. It was concluded that more work is needed to assess the nutritional value of these flora to the Collared Peccary, but there is very good potential for the system to be sustainable and low cost to the farmer.

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