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## PRESENT SITUATION OF RABBIT PRODUCTION IN CUBA

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#### PRESENT SITUATION OF RABBIT PRODUCTION IN CUBA

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#### **ABSTRACT**

Cuban rabbit production was practically devastated as a result of the viral hemorrhagic disease in 1993. Great efforts were made for its recovery to guarantee the strengthening and development of this activity. At present, 85% of the exploitations secure a production of 30 young rabbits/year. Mortality is mainly due to internal parasites and respiratory diseases provoked by our rearing conditions. Also, to organize technically and socially the producers, the Cuban Society of Rabbit Breeders/Cuban Association of Animal Production (CSRB/CAAP) was created to join together the majority of rabbit breeders of the country, who by more than 85% use a family rearing management (15 does per breeder). All this contributed to put in practice a rehabilitation and development program of rabbit production, and to provide a solid basis for the progress of this task where research institutes and agricultural educational centers are involved. Also, there is a strong government support to promote rabbit meat production as a way of supplying low cost animal protein for the feeding of the population. For year 1999, the estimated rabbit production in Cuba was 700 tons of live weight.

#### INTRODUCTION

The rabbit (Oryctolagus cuniculus) was introduced in Cuba by the Spanish colonizers as a feeding source, mainly for the lowest income people of the society. Thus, it always survived as a backyard rearing. From the second half of the XXth century, specimens from USA arrive to Cuba and semi-industrial rabbit breeding starts to be impelled. It was not until 1965 that its industrialization was conceived and urged. However, many families continued rabbit rearing in their houses due to its easy management, fertility, high prolificacy, and since there was no need of large spaces and investments. In this way, they were provided of animal protein for their feeding and of some extra income. In 1993 outbreaks the Rabbit Viral Hemorrhagic Disease (RVHD). This epidemic affected three provinces (City of Havana, Havana and Matanzas) located at the Western-Central part of Cuba, where was, at that time, the highest rabbit concentration and production of the country. Approximately 50% of the genetic resources and productive herd of this region was lost and more than 122 000 animals were slaughtered (Toledo, 1995). Once the RVHD was eradicated in 1994, the Cuban Society of Rabbit Breeders/Cuban Association of Animal Production (CSRB/CAAP), was created to join together the majority of both small scale family and industrial producers.

From that time, a rehabilitation and development program of rabbit production starts, where research institutes, agricultural educational centers, the CSRB/CAAP, participate with the support of the government and foreign NGOs. This program is directed to promote rabbit rearing and exploitation for family supply of animal protein and surplus sales at the local markets to obtain in this way an extra benefit. Research institutes and agricultural educational centers are also involved in this program.

## MATERIALS AND METHODS

For this study data from the CSRB/CAAP were used. These data are supplied by rearing members, veterinary and agricultural technicians working in State Services to support the rabbit development. Also, reports from the Ministry of Agriculture and different research centers, are considered.

Data are collected through the CSRB/CAAP structures. This organization is formed by a National Board of Directors (NBD) a Board for Technical Advising (BTA), Provincial Boards of Directors and the Stations. The CSRB/CAAP acts at national level with branch offices throughout the 15 provinces of the country and with stations in 95% of the 169 municipalities of the country. There are 2000 members and 85% of them are located in urban and suburb areas, the remaining 15% in rural regions.

#### **RESULTS AND DISCUSSION**

Before and after the RVHD in Cuba, family producers had very rustic facilities, however, industrial rabbit rearing had only one State enterprise. Cages, in family rabbit rearing, were mainly built outdoors with various materials using their own resources and different sizes. Feeding was based on fresh forages (grass and creeping or tree legumes), harvest wastes, some by-products of the milling industry (wheat bran, rice or maize) and other residues from the sugar cane industry (molasses). Mortality was mainly due to internal parasites and respiratory diseases provoked by our rearing conditions. There was a traditional reproductive management system, with a poor exploitation of does as demonstrated on table 1 for year 1994. Production was mainly guided to family consumption (Riverón, 1995).

Table 1. Average figures of doe production in family breeders in 1994 and 1999

Indicators	1994	1999
Average number of does/breeder	5	15
Fertility	55%	80%
Kindling interval (days)	90	45-60
Kindlings/doe/year	3.6	6
Kits born/kindling	7.0	7.5
Kits born/doe/year	25	45
Rabbits weaned/kindling	5.0	6.5
Weaned/doe/year	18	39
Young Rabbits slaughtered/kindling	4	5
Slaughter rabbits/doe/year	14	30
Mortality (from birth to slaughter)	40%	29%
Slaughter weight	2 kg	2 kg
Slaughter age in days	-	80-90
Live weight production /doe and /year	28 kg	60 kg

The rabbit herd between 1990-1994 was distributed in the following way: 60% of the does were in family exploitations and 40% in the industrial rabbit enterprises. This 40% was of improved breeds (White New Zealand, Chinchilla, California and White Semigiant). Family rearing animals were non-specific crossbred rabbits or *criollos* without genetic improvement (Ponce de León, 1994).

When the CSRB/CAAP was created a rehabilitation and development program of rabbit

production started. Consequently, the number of family exploitations increased as well as the average number of does per breeder (table 2).

Table 2. Total production of the Western-Central region of Cuba

INDICATORS	1996	1997	1998
No. of breeders	582	870	1 174
No. of does	3 674	7 830	13 400
Tons of live weight produced	77 tons	195 tons	361 tons

This rehabilitation and development program for rabbit meat production, introduced substantial changes in rabbit rearing. The improvement of the rearing conditions started, prevailing today the exploitations in sheds and free environment (not outdoors), in wire cages and flat deck arranged. Feeding is based on dry forages (mainly hay of grasses) and semi-industrial concentrates with some pelleting level.

Controlled lactation was introduced as a method for increasing receptivity and fertility in the reproductions (Riverón, 1997). At the same time, there was a genetic progress in the herd due to the selection and improvement program carried out by State institutions. In 1999, the national production, according to data of the Technical Advising (TA), was of 700 tons of meat rabbits (live weight) and the production levels of the breeders showed a notable increase when compared to 1994 figures (table 1). It can be assumed that now about 85% of the exploitations can secure the reported production of 30 young rabbits/year.

### **CONCLUSIONS**

As a conclusion of this analysis, it can be said that for developing countries, rabbit production is an option to improve the feeding of the population with a healthy meat, with high protein content and low cholesterol. Also, it has been demonstrated that when producers are organized, production levels can be increased, since a close link is created between breeders, research institutes, agricultural educational centers and a greater government support is attained.

Also rabbit rearing can be put in practice in urban and suburb areas, since feeds for rabbits do not compete with human foodstuffs and wastes derived from the activity are an important source of organic fertilizer for urban gardens and city plots.

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