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Secretaría de Desarrollo Agropecuario del Gobierno del Estado de México, Secretaría de Agricultura, Ganadería, Desarrollo Rural,
Pesca y Alimentación, Consejo Mexiquense de Ciencia y Tecnología

RABBIT PRODUCTION IN COSTA RICA: BREAKING WITH TRADITION

***BRENES S. ANDREA¹**

1-Professor and Researcher. Área de Especies Alternativas, Escuela de Zootecnia, Universidad de Costa Rica, San José, Costa Rica

**Corresponding author: andrea.brenessoto@ucr.ac.cr*

ABSTRACT

Rabbit production should be recognized as an activity with low ambient impact and that can be associated to other productive activities using agro industry residues and other agricultural byproducts. The Costa Rican rabbit meat production is carried out through small/average farms, but the absence of an efficient productive chain causes producers to commercialize their products in informal markets. In the other hand, with this system, farmers can count on a better quality protein source and, at the same time, commercialize the surpluses in the markets and another part of the population mainly the urban has access to this. Costa Rica decided to enter in international markets exporting meat to some countries in Central, North and South America, even, Asia, from 2003 to 2008, but important difficulties related to the commercialization appeared because of the falling demand of rabbits for exportation and a domestic market without development. For that reason, the target market in Costa Rica then changed trying to enhance national consumption. At this moment, 20% of the total market belong to two big farms which sell meat to two big chains of supermarkets and keeping farms with an average of 300 does and a meat production around 450 kg meat/month; 60% of farms have between 25 to 60 does, distributing the product in restaurants, hotels and retail, meanwhile the remaining 20% belongs to small systems with 5-10 does. Medium and small farmers can obtain 20 -200 kg/month. Recently a flagrant demand from high cuisine and touristic industry claimed market organization and suggest production growth.

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Although there's not a national policy established to stimulate the rabbit production, the Rabbit Research Program of the University of Costa Rica is working to improve the use the rabbit as a meat source, thorough projects in reproduction, developing bucks andrologic studies, nutrition trials, tasting sessions, manure used as organic fertilizers, and also educating the consumers about the differences between rabbits for meat production and rabbits for keeping as pets, trying to exceed the current barriers starting with marketing politics for the sector and quality product improvement in the market, with added information for cooking.

Key words: Costa Rica, rabbit, research, reproduction, nutrition.



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INTRODUCTION

Rabbit is especie with good potential to raise in productive systems, with an excellent reproductive output and fast growth and performance (Centro para el Desarrollo Agropecuario y Forestal, 1998).

The use of rabbit as a feeding alternative has many nutritional advantages, including high biological value protein compared to turkey and chicken, less fat and cholesterol than traditional meats, higher iron, zinc, magnesium, niacin, vitamins B₆ and B₁₂, lower levels of sodium and high digestibility (CIBA-GEIGY, 1990. Adaptado por Cordero R, 2003, Dihigo, 2010).

In Costa Rica rabbit production is not well established yet. There have been some farms which tried to enter in commercial meat market, however, the activity haven't been successful at all due to some factors that have affected the production. Rabbit meat demand in Costa Rica had increased during the last years, but there are some myths related to its consumption, due mainly to the feelings that keep the idea that rabbit can be only a pet.

In the last six years, rabbit meat have been entering strongly in the national market, as an exotic meat, and now can be found in supermarkets, hotels and restaurants, becoming a good quality protein source for the population as well as proving extra income by commercialization of surplus meat; the country stopped the meat imports few years ago.

Taking into account this situation, six years ago the Alternative Livestock Area of Animal Science Department have evaluated the rabbit meat production and use in Costa Rica, trying to get tools to decide the best management system and enhancing its use as a source of animal protein and being a rentable activity to stimulate its farming. Knowing the kind of systems used in the country, it is easy to decide what areas are needed to explore for research to obtain information and improve the national rabbit farming.

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METHODS

We have revised the lists of registered rabbit farms from the database of National Health Service of the Ministry of Agriculture and Livestock, and then they were classified in three categories depending of their quantity of does and objective of the farm, among others. Two of those commercial farms were completely characterized, determining its productive parameters, nutrition, reproduction and manure disposition.

Also other farms were visited, including one of the biggest one, other specialized in genetics and another that use rabbits as laboratory animals. An analysis of market behavior along the time was done, evaluating the exports and imports in the last years, and the actual situation of the trading.

All those information was evaluated and analyzed to establish the lines of research of our department, that began three years ago with a small nutritional trial using a tropical forage in diets for fattening rabbits, the productive characterization of commercial farms, and starting this year with a four-year research project determining reproductive output, feeding management, quality of manure and meat characterization.

RESULTS AND DISCUSSION

Respecting to trading, in 2000 was registered the largest export of rabbit meat sent to Nicaragua and Hong Kong, due mainly to the establishment of a group which got some markets out of the country. But unfortunately, that initiative wasn't successful, and almost all the farmers abandoned the activity and closed their farms. According to PROCOMER (2014), the last exports of rabbit meat were registered in 2008 (14.6 ton) and 2009 (1.8 ton) sent to the United States. The farms were classified depending of its main activity; results are showed in figure 1.

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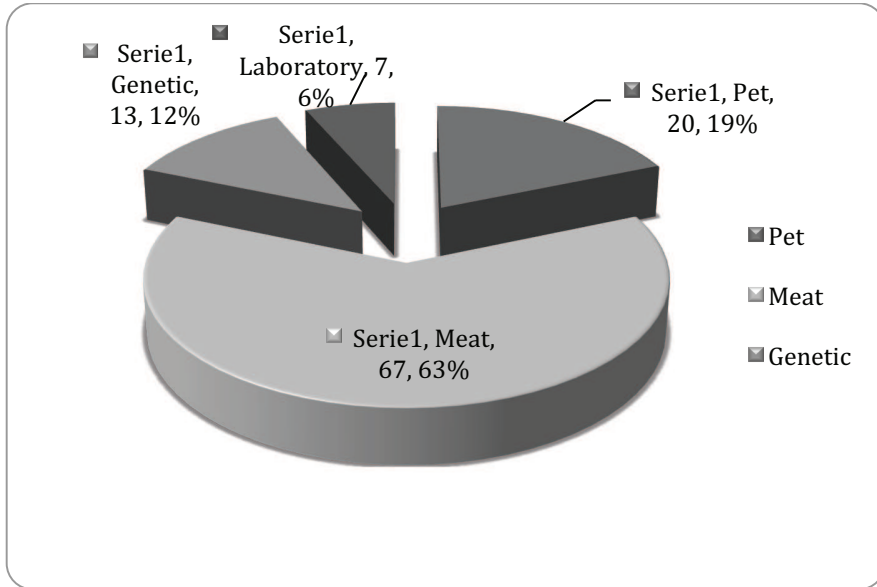


Fig. 1. Classification of rabbits farms according to their activity.

The majority of farms are dedicated to meat production, this is a good signal of the current situation, followed by the pet production, genetic farms and laboratories. The commercial farms were divided according to the number of does, as showed in figure 2.





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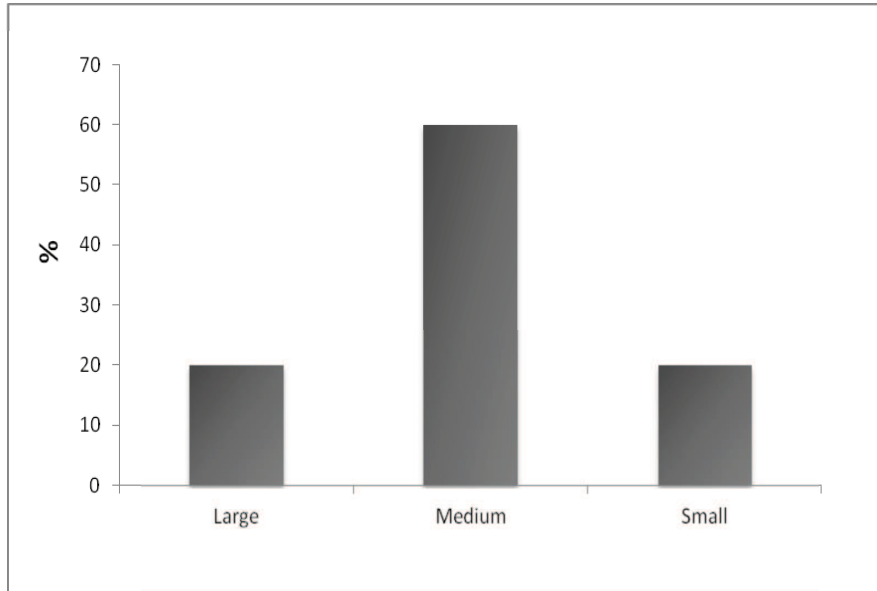


Fig. 2. Classification of rabbits farms in Costa Rica.

For our conditions, most of the farms are medium (60%), maintaining 25-60 does, 20% large (≥300 does), both types producing 210-450 kg meat per month, and 20% are small (5-10 does) with a meat production of 20-80 kg/month. Large farms distribute their meat in two big supermarket chains, meanwhile the rest of production goes to hotels, restaurants and retail sales. These large farms work with high production standards and disease control; feeding is mainly based on concentrates. Medium and small farms include forages in the feeding, and don't have an established genetic management; however, the systems work with intensive facilities and reproduction.

Concerning to pet production, farms have around 30 to 240 does and sell the animals (21 days old) to pet shops and agricultural fairs in the country. Laboratory farms are located in universities and research centers; the production in these systems is less intensive in terms of breeding, weaning age and use of does, but they use high genetic standards.



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Some problems that farmers should face are the fluctuant market, low availability of all-stages concentrates, high production costs and lack of government policies and support, as well as low research in rabbit production. Besides, the farmers are not organized at this moment.

Based on these results, we do have a good initial photography of the current situation in Costa Rica, and the Animal Science Department have started to enhance the activity and improve research to obtain useful information for farmers and consumers, making the information more accessible to the society and explaining them that there are breeds specialized for meat production and other for pet use.

Now we are developing research in animal nutrition, using of forages in diets, making andrologic evaluation of bucks related to does performance, analyzing the manure and its potential as organic fertilizer, and determining meat quality. In addition, we organize tasting sessions, talks and scientific and informal publications about rabbit farming and benefits of the meat as a protein source; some countries are working in the same way (Dihigo, 2010, Motta et al., 2010).

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