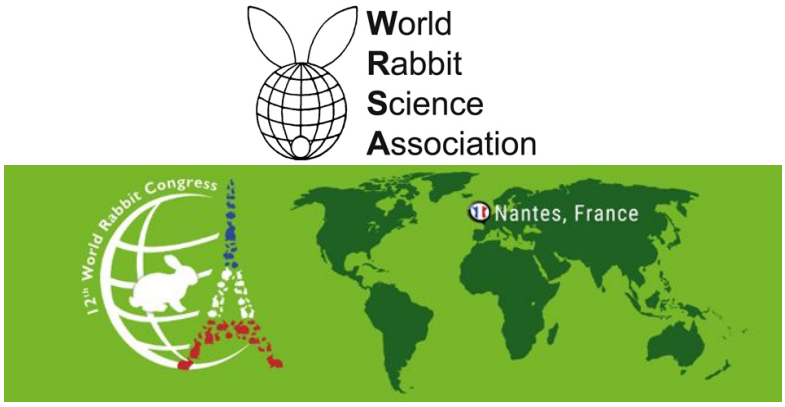

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IMPORTANCE OF THE CONTRIBUTION OF RABBIT MEAT IN THE DIET OF FAMILIES IN VULNERABLE CONDITIONS, IN DEPARTMENTS OF NORTHEASTERN MENDOZA, ARGENTINA.

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IMPORTANCE OF THE CONTRIBUTION OF RABBIT MEAT IN THE DIET OF FAMILIES IN VULNERABLE CONDITIONS, IN DEPARTMENTS OF NORTHEASTERN MENDOZA, ARGENTINA.

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ABSTRACT

The feeding of families in poverty, especially in developing countries, is limited in the intake of animal protein, among other deficiencies. The diet can be improved from the raising and consumption of rabbits at the family level. This has been demonstrated by the results of the implementation of projects and programs for this purpose, in different emerging countries of the world, over time. The PROHUERTA Program, financed by the Ministry of Health and Social Development of the Argentine Republic and executed by INTA (National Institute of Agricultural Technology), has been implemented for almost 30 years, with the purpose of improving the diet of the population in a situation of vulnerability through orchards and breeding of domestic species. In this research work, the amounts of protein contributed to the family diet and the times for animal care were quantified, which determine the importance of this type of breeding in rural and peri-urban areas in the east of the Province of Mendoza. The methodology was based on the analysis of the results of 32 surveys of members of these families. In addition, interviews were conducted with qualified referents: Pubic agents of the Area of Extension and Rural Development of INTA, responsible for the territorial execution of the PROHUERTA Program. As a result, it is possible to observe that the contribution of rabbit meat was sufficiently significant for the families surveyed, who consume it with a weekly frequency in 44% of the cases or monthly in 56%.

Key words: rabbit, feeding, poverty, Prohuerta, Inta.

INTRODUCTION

General context

The National Institute of Agricultural Technology (INTA) is a public body in Argentina, leader of the agro-technological scenario in research, extension and innovation in value chains, in various regions of the country to improve competitiveness and rural development. It integrates capacities to foster inter-institutional cooperation, generate knowledge and put it at the service of the agricultural sector through its extension, information and communication systems. INTA has distribution and presence in all regions of Argentina (Northwest, Northeast, Cuyo, Pampeana and Patagonia), through a structure comprising: a headquarters, 15 regional Centers, 52 Experimental Stations, 6 Research Centers and 22 Institutes of research, and more than 350 Extension Units

Work objective

Know the contributions of rabbit meat in the diet of families in situations of social vulnerability, in departments of northeastern Mendoza, Argentina.

Mendoza, characterization of agricultural activities

Located to the west center of the Argentine Republic, it has an area of 148,827 km2 (5.4% of the National territory) and a population of 1.8 million inhabitants. Due to its low rainfall (annual average 250 mm), its cultivated area is only 4.8% of the territory where 95% of the population is located (they

are called oases). As productive activities, two asymmetric models are observed: intensive agriculture under irrigation (vine, fruit trees, olive trees, horticultural species) and extensive livestock farming in the dry land area (cattle and goats).

Pro Huerta Program

It is a program financed by the Ministry of Social Development and executed by INTA, which promotes the production of food for self-consumption for almost 30 years. It is aimed at people in a situation of social vulnerability, and serves urban and rural families located under the so-called "poverty line"; where situations of structural poverty are included, as well as sectors impoverished by the fall in their income or by unemployment. The population served includes unemployed, under-employed, smallholders, rural wage earners, aboriginal communities, schools in socially critical areas, and families in situations of food insecurity.

Numerous local institutions and organizations participate in this operation, through their volunteer promoters and in conjunction with the program technicians, in the task of identifying the target population. The requirements for families to access the program are: have the minimum area necessary for the implementation of an orchard and participate in training instances.

As part of the operation, birds and rabbits have been historically delivered; the conditions that the family must meet to receive the animals are: to have a family garden at least one year old; have available space and infrastructure to carry out animal husbandry.

In Argentina, PROHUERTA reaches more than 2.8 million people, through a network of 7,500 volunteer promoters, coordinating actions with more than 3,000 organizations and institutions, and promoting 455,000 family gardens, 6,000 school gardens, 1,000 community gardens, 2,700 Orchards in institutions and 676 agroecological fairs.

In Mendoza, Prohuerta attends 18,135 family gardens and 659 farms, while in the area selected for our case study, it has a total of 5865 family gardens and more than 450 farms of birds and rabbits.

Table 1: Number of family gardens and farms by department

Department	Number of family gardens	Number of Farms
Guaymallén	1030	60 chickens only
Maipú	1500	No data
Santa Rosa	1340	150 chickens and rabbits
Junín	1145	77 chickens and rabbits
Rivadavia	850	164 chickens and rabbits
San Martin	925	No data

Source: PROHUERTA Program, Mendoza

Rabbit breeding in the selected area

This research work focuses on the raising and consumption of rabbit meat in order to know the nutritional contribution it provides in the diet of the families surveyed in the eastern departments of the Province of Mendoza, Argentina: Maipú, Guaymallén, Santa Rosa , Rivadavia, Junín and San Martin.

In the search of antecedents, diverse works were found on the implementation of the rabbit for self-consumption in families in poverty situation, and information on programs executed in developing countries linked to the raising of rabbits to improve the feeding of the family.

Characteristics of rabbit meat

It is a meat noted for its nutritional and organoleptic properties (taste, aroma and texture). It is considered a lean meat, easily digestible and tender, due to its low lipid and collagen content. It is qualified as a "white" meat, for its lower amount of myoglobin (protein that gives the meat a characteristic red color).

Rabbit meat is one of the highest in protein (19 to 25%), compared to meat from other domestic animals. These proteins are of high biological value (it contains the essential amino acids that the human organism needs in the different periods of life).

It is a lean meat, with low fat content (no more than 5%) and cholesterol; with a fairly balanced lipid profile, with a lower proportion of saturated fats compared to other types of meats, which is why it is recommended in obesity and cardiovascular disease prevention diets.

MATERIALS AND METHODS

The main tool was the realization and processing of surveys, complemented with interviews and participant observation, in order to obtain data referring to the nutritional contribution of animals to the families' diet.

The methodology used in this research is of mixed type, since it was based on the collection of quantitative and qualitative data associated throughout the work, using various analysis methods to present the results related to families that have rabbits delivered in the context of Pro-Huerta Program or that were animals of the families. The qualified informants for the selection of the families to be surveyed were the technicians linked to the Program.

RESULTS AND DISCUSSION

An analysis and graphical representation of the data obtained from the surveys was carried out. As Figure 1 shows, most of the families surveyed were composed of a high percentage of adults (55%); while the segment of children and adolescents added, represented 42% of the members of the families surveyed. This is a point to consider, considering that in Argentina at present, 6 out of every 10 children or adolescents are considered poor (Report Universidad Católica Argentina, 2019).

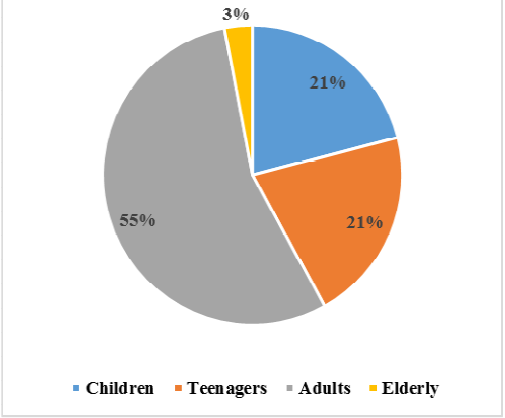

Figure 1: Family composition

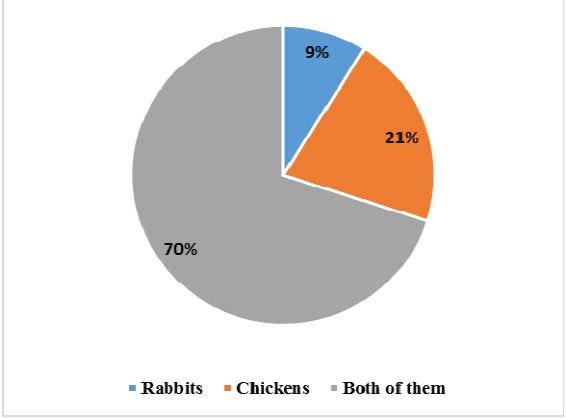

Figure 2: Breeding according to species

In order to establish a comparison between rabbit farming and other domestic species frequently raised in Argentina, families were consulted about rabbit and bird breeding. The results showed that the majority of the families surveyed raise both rabbits and chickens (although it should be borne in mind that with respect to rabbits the reference was used in the surveys of whether they had raised or had rabbits in the past). Thus it is possible to observe that 70% of the families surveyed had raised both species for family consumption with a prevalence of birds (21%) over rabbits (9%). Figure 2.

When consulting families about the reasons for raising domestic animals, the response with the highest percentage (greater than 50% in both cases) was in order to allocate meat to the family's consumption (Figure 3); that is to say, the families interviewed raise animals (rabbits and / or birds) to consume their meat or eggs, spending an average of 30 minutes of work daily.

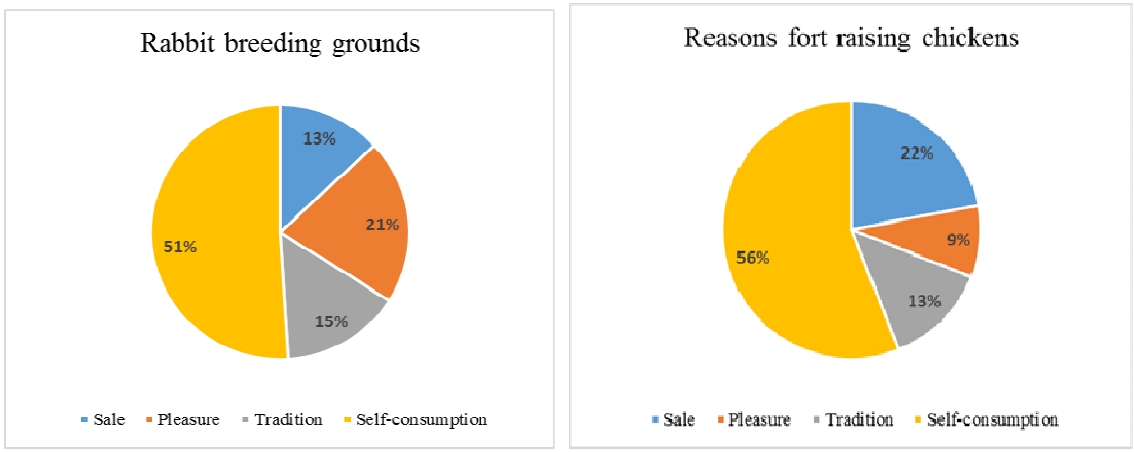

Figure 3: Rabbits and birds breeding reasons

The surveys carried out revealed that in the 32 families interviewed, a total of 1160 birds and 852 rabbits were counted (Figure 4).

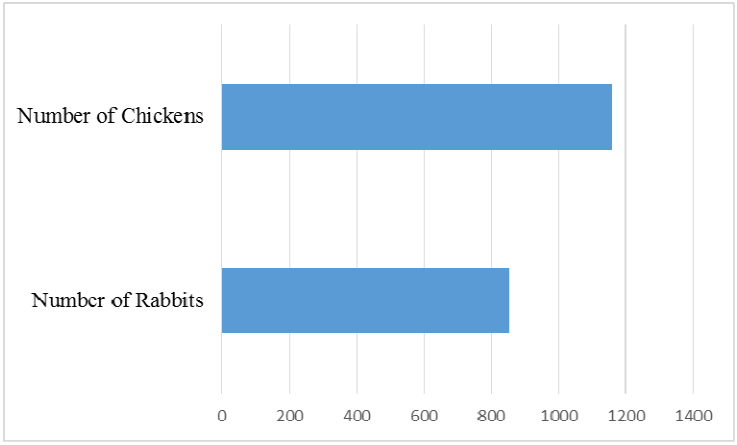

Figure 4: Rabbits vs. Chickens

As can be seen in Figure 5, rabbit breeding is mainly carried out for family self-consumption (72%); a second destination in order of importance is the sale of meat (17%), in order to increase family income.

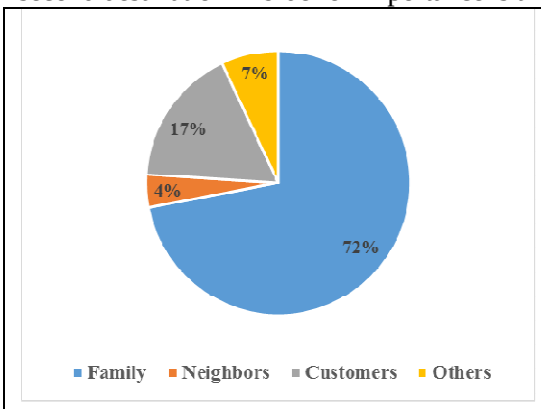

Figure 5: Purpose of rabbit meat

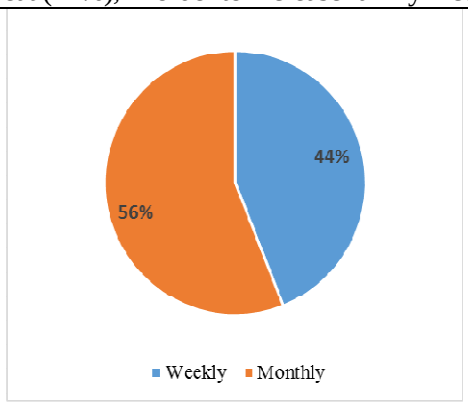

Figure 6: Frequency of rabbit meat consumption

Regarding the frequency of consumption, 44% of the families surveyed responded that they consumed rabbit meat weekly (Figure 6), while the remaining 56% consumed this meat with a monthly frequency.

Taking into account the previous data, obtained from the surveys, it was calculated that on average families consume 2.3 kg of rabbit meat per week, representing almost 120 kilograms of good quality meat annually and 26.4 kg of protein of high biological value (22%).

CONCLUSIONS

This study demonstrates at the local level that the raising of rabbits for family consumption (self-consumption) represents a valid alternative to improve the diet of families in situations of poverty or vulnerability. This family-level activity can improve the economy by generating some income through the sale of meat, with a low dedication of time.

Finally, it can be seen that the local implementation of the Prohuerta Program, which promotes the raising of domestic animals for family consumption, has improved the diet of families in situations of poverty and vulnerability.

REFERENCES

Arroyo, L. 1997. Renace la cunicultura en México impulsada por el «Centro Nacional de Cunicultura» Lagomorpha: *Revista de la Asociación Española de Cunicultura. dialnet.unirioja.es*

Camps, J.1996 -. Carne de conejo: Cualidades dietéticas y futuro. *Boletín de Cunicultura. España*

Cury, K., Martínez, A., Aguas, Y., & Olivero, R. 201. Caracterización de carne de conejo y producción de salchicha. *Revista Colombiana De Ciencia Animal - RECIA, 3(2), 269-282. https://doi.org/10.24188/recia.v3.n2.2011.377*

Diaz Nodaro, L. et al. 2010. Caracterización de la cría de conejos para autoconsumo en familias vinculadas con programas sociales. *Congreso Americano de Cunicultura. Córdoba, Argentina*.

Iliodort Romain, Junior. 2014. Estudio de viabilidad de la producción cunícola con enfoque de granja integral y su articulación a una cadena de valor a nivel de una agricultura familiar en las comunas de Kenscoff y Croix-des-Bouquets, Haití. *Tesis (Máster en Práctica del Desarrollo) -- CATIE. Escuela de Posgrado. Turrialba (Costa Rica). 48 páginas*

Jaume Camps. 2002. Barcelona - (España). Programa básico para la cría de conejos en el medio rural "con mínimos" 2º *Congreso Cunícola de las Américas La Habana*.

Liliana Verónica Tipantasig Moposita. 2013. Estudio de prefactibilidad para la producción y comercialización de carne de conejo (Oryctolagus cuniculus) en la Sierra Centro del Ecuador" *Universidad San Francisco De Quito, Colegio de Ciencias e Ingeniería "*

Lukefahr, S.D. 2000. The National Rabbit Project population of Ghana: a genetic case study. *In: Workshop on Developing Breeding Strategies for Lower Input Animal Production Environments, September 22-25, 1999. Food and Agriculture Organization (FAO) of the United Nations, Rome. ICAR Tech. Series No. 3:307-318.*

Quagliariello, G. 2012. Del territorio al mercado externo: desarrollo y crisis de la cunicultura de exportación mendocina. *Tesis de Maestría. Universidad Mar del Plata. Argentina.*

Universidad Católica Argentina 2019: Pobreza multidimensional fundada en derechos económicos y sociales. Argentina. http://wadmin.uca.edu.ar/public/ckeditor/Observatorio%20Deuda%20Social/Presentaciones/2019/2019-OBSERVATORIO-POBREZA-MULTIDIMENSIONAL-DOCUMENTO-TRABAJO.pdf

Rabbit meat contribution to vulnerable family diet, in Mendoza northeastern departments, Argentina.

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* **

Context and objective: The National Institute of Agricultural Technology (INTA) is a public body leader in agro-technological research, rural extension and innovation in value chains. One of the programs it executes is PRO HUERTA. This Program promotes food production through vegetable pots and farms for self-consumption and is financed by the Social Development Ministry.

The objective is to get to know rabbit meat contribution to the diet of families in social vulnerability situations, in Mendoza northeastern departments, Argentina.

Methods: Executing and processing 32 surveys, complemented with interviews and participants observations.

Results: Interviewed families have an average consume of 2.3 kg of rabbit meat a week. It represents almost 120 kg of good quality meat a year, and 26.4 kg of protein of high biological value (22%).

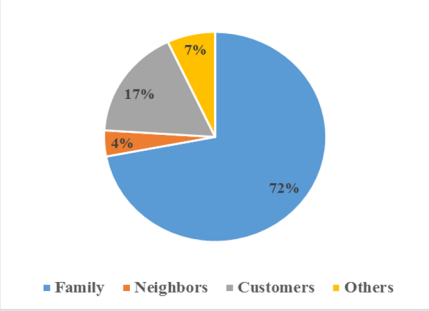

Figure 1: Rabbit meat destination

Rabbit breeding is mainly carried out by families for self-consumption (72%). The second destination, is meat sale (17%) in order to increase family income.

44% of the families surveyed consumed rabbit meat weekly, and 56% monthly.

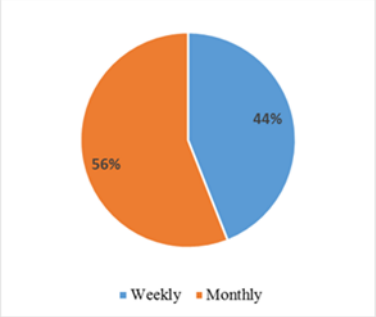

Figure 2: Consumption frequency

Take home message: Local implementation of PROHUERTA Program, which promotes raising of domestic animals for family consumption, can improve the diet of families in situation of poverty and socioeconomic vulnerability.

PRO HUERTA · INTA · Ministerio de Agricultura, Ganadería y Pesca · Ministerio de Desarrollo Social · Argentina