

THE COMPETITIVENESS OF RABBIT MEAT PRODUCED IN REPUBLIC OF MOLDOVA

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Abstract

The notion of competitiveness is very complex and there is no a unique notion regarding competitiveness. This notion is very discussed in both in the business environment and in the scientific environment. It is the foundation of the economic power of the enterprise, which need to be capable to identify the changes of the business environment, in order to adapt more quickly to the changes, thus elaborating the competitiveness strategy of the company. The producers of rabbit meat from the Republic of Moldova are facing many problems which negatively influence the competitiveness of the production of rabbit meat, which is considered a delicacy, becoming more and more popular, because it doesn't contain cholesterol, has a high digestibility and is rich in essential amino acids. The purpose of this scientific research is to analyse the competitiveness of rabbit meat produced in Republic of Moldova, to determine the strong and weak points the producers of rabbit meat are facing, to analyse the food safety of rabbit meat which is traded, to determine the main markets of rabbit meat and to propose solutions for increasing competitiveness of rabbit meat from the Republic of Moldova.

Key words: competitiveness, rabbit meat, food safety, markets

INTRODUCTION

In our daily life is very important what we eat. Food has a vital importance in our lives. It is necessary for growth, working, including our maintenance and reproduction. On average, a person consumes 30 tons of food during his lifetime, under different diet versions that vary locally, nationally and internationally. Generally speaking, they are a mixture of chemicals, which can be divided into four broad categories: nutrients, natural toxins, contaminants and additives. A food is safe when its consumption does not alter or affect the health of the consumer [1].

Rabbit meat is considered a delicacy, becoming more and more desired, being considered a delicacy because it does not contain cholesterol has a high degree of digestibility and is rich in essential amino acids[4]. It has no fat and in addition it has healing properties for cancer patients. In addition, rabbit meat is a light meat, tasty and distinguished from other types of meat. It has a lower fat percentage than chicken, turkey, beef or pork. It is dietary and healthy, because it has

very low cholesterol content and is recommended by many nutritionists [3, 14].

In Republic of Moldova, rabbits are grown mostly in domestic conditions, by small farmers.

The local farmers does not cover the local demand of rabbit meat because they grow hard, get sick quickly and the subsidies granted for their growth is the lowest compared to other domains.

A special attention must be directed to the quality of the rabbit meat in order to ensure the food safety. The concept of food safety does not have a universally accepted definition. Food safety can be defined as all activities that ensure that food does not cause any health problems for the consumer. This simple definition covers a wide variety of activities ranging from basic ones such as personnel hygiene to the most complex technical procedures for removing contaminants from the technological process or from ready-to-eat foods and ingredients [15]. It is considered that food safety is the main aspect when it comes to the production and marketing of food. Those

involved in the food chain but mainly the producers are responsible for ensuring it.

Thus for increasing the competitiveness of rabbit meat produced in Republic of Moldova, it is necessary to create conditions for growing rabbits not only domestically, under house conditions, but also at the level of enterprises, to support the farmers by organizing different round tables, meetings with experts which will share their experience regarding growing of rabbits, to review the subsidy regulations in order to increase the attractiveness of this domain for the young generation.

The purpose of this scientific investigation is to analyze the problems of the producers of the rabbit meat produced in Moldova and to identify solutions; to analyze the competitiveness of the rabbit meat produced in the Republic of Moldova and the factors which influence this indicator; to analyze the main markets and the quality of rabbit meat sold at these markets in order to ensure the food safety.

MATERIALS AND METHODS

The scientific research was performed based on the data from:

- The Food and Agriculture Organization of the United Nations;
- The National Bureau of Statistics of the Republic of Moldova;
- Other economic sources concerning the competitiveness of agricultural production.

As research methods were used: analysis, deduction, comparative method, graphical method.

In the same time, the researches were performed in the microbiology and immunology laboratory of the Faculty of Veterinary Medicine, Department - Clinic 2.

As a research material was used rabbit meat commercialized in the Chisinau at the Central Square, at the supermarket and house rabbit meat.

For this purpose, the superficial and in-depth microflora of these 3 categories of rabbit meat and liver portions were studied. The classical microbiological methods of the laboratory conduct were used for the investigation of the

microflora of the food products: bacterioscopic method and bacteriological method.

RESULTS AND DISCUSSIONS

Growing rabbits is a very efficient business, because it has the following advantages:

- The period of growth is very short and gives possibility to obtain dietary quality meat and other sub products;
- Low expenses for starting the business and reduced spaces for maintenance;
- Furs which can be used in light industry;
- Obtaining of manure which can be used as organic fertilizer to increase the soil fertility;
- The business can be started in low sizes and to be extended after a period of time;
- The business can be managed by the members of a family.

Although exists a lot of advantages of growing rabbits, the local farmers from the Republic of Moldova say that rabbits grow very slowly, the subsidies for growing rabbits are the smallest one, rabbits are very sensible and get sick very quickly and the medicines for their treatment are expensive. The local producers of rabbit meat affirm that in Republic of Moldova, doesn't exist a culture of consumption rabbit meat. Moldovans consume rabbit meat especially at weddings, christenings and Easter Holidays.

Table 1. The Global production trend of rabbit meat during 2015-2017, thousand tons

Country \ Years	2015	2016	2017
China	815.17	855.31	931.83
North Korea	160.51	172.68	154
Spain	54.08	59.59	57.26
Egypt	64.95	61.65	56.13
Italy	55	51.18	46.53
France	52.13	48.4	44.02
Germany	39.82	41.02	42.35
...
Russia	17.37	18.19	18.88
Ukraine	13.30	12.20	12.20
...
Moldova	1.28	1.14	0.872

Source: elaborated by the authors based on the data from: www.tridge.com/markets/rabbit-meat-MD; www.fao.org.

Analyzing the data from Table 1 we can reveal that the leader in producing rabbit meat in the

World is China, which produced in 2017, 931.38 Ktons (62.9% from Global production of rabbit meat), being followed by North Korea with 154 Ktons of rabbit meat (10.4% from Global production of rabbit meat) and on the third place is Spain which produced 56.13 Ktons of rabbit meat (3.9% from Global production of rabbit meat) [2].

As we can see from the Table 1, Republic of Moldova produced in 2017, according to FAO, 872 tons of rabbit meat which decreased compared to 2016, by 268 tons.

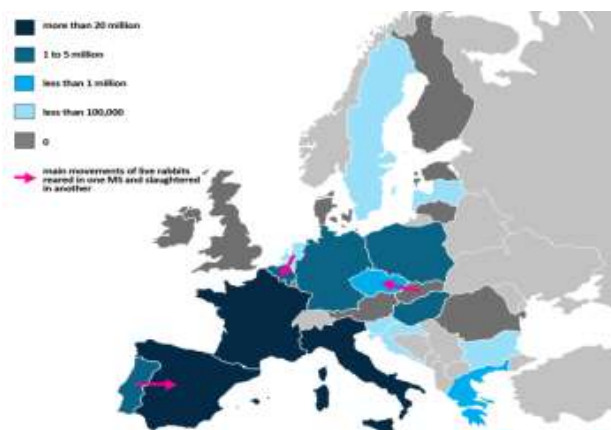


Fig. 1. Number of rabbits slaughtered at approved rabbit slaughterhouses in EU Member States
 Source: [1].

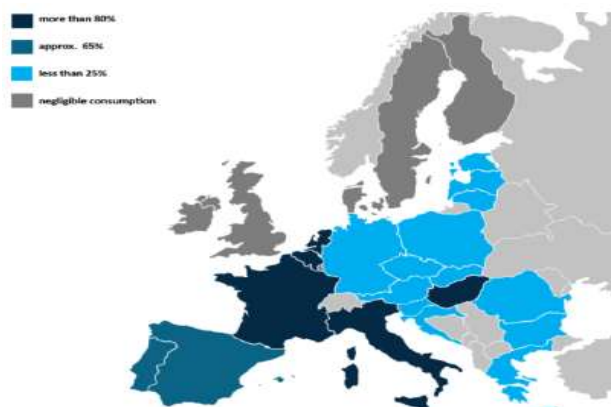


Fig. 2. Percentage of rabbit meat consumption in EU Member States
 Source: [1].

Analyzing Fig.1 we can reveal that rabbit growing in EU Member States is located mostly in 3 countries (83% of total EU production): Spain, Italy and France [1].

Analyzing the consumption of rabbit meat in EU Member States (Fig. 2) we can reveal that mostly rabbit meat is consumed per person/per year in the following countries: Malta > 3 kg, Spain, Portugal - from 1 kg to 1.5 kg, France,

Italy – from 0.5 kg to 1 kg, Belgium, Germany – from 0.1 kg to 0.5 kg.

Most of the rabbits grown in Moldova are grown mainly in domestic conditions. It doesn't exist a culture of growing rabbits in big enterprises [9]. In Moldova, the rabbit meat is sold on the following markets [13]:

- Local agricultural markets and municipal agricultural markets, being sold personally by the farmer at the price of 110-140 MDL or by an employed salesman

- Specialized supermarkets – which receive the rabbit meat packed properly in compliance with the established standards;

- Restaurants – which sign contracts with rabbit meat producers, according to which the producers will ensure constant quantities of rabbit meat.

We have performed the analysis of the quality of the rabbit meat sold in the central square of Chisinau, the rabbit meat sold in the supermarket and the house rabbit meat sold in open air markets. The detailed analysis of Figures 3, 4, 5 shows that in the rabbit meat obtained from the central square the superficial microflora constituted 70 bacteria, compared to the meat from supermarket - 30 bacteria and house rabbit meat - 30 bacteria. The number of bacteria in the depth of the meat determined the smallest number of bacteria in the rabbit meat from the supermarkets - 10 bacteria, followed by the house rabbit meat with 23 bacteria and the rabbit meat from the central square - 50 bacteria. Therefore, these quantitative aspects of the microorganisms in the rabbit meat, denote that the rabbit meat from the supermarket is fresh, compared to other categories of meat (the central square and house rabbit meat sold directly in open air markets), where the quality of meat is doubtful. It is very important to produce high quality products which will find very quickly the customers [5, 6, 7, 8, 11].

How was mentioned above, in Republic of Moldova, doesn't exist a tradition of consumption rabbit meat: it is consumed only at weddings, on Easter Holidays, etc. and there is no production at high scale.

In this sense Republic of Moldova doesn't export rabbit meat, being only as consumer of rabbit meat and also imports rabbit meat from

other countries such as Hungary, from where in Moldova were imported in 2018

approximately 15.09 K tons of rabbit meat [10,12].

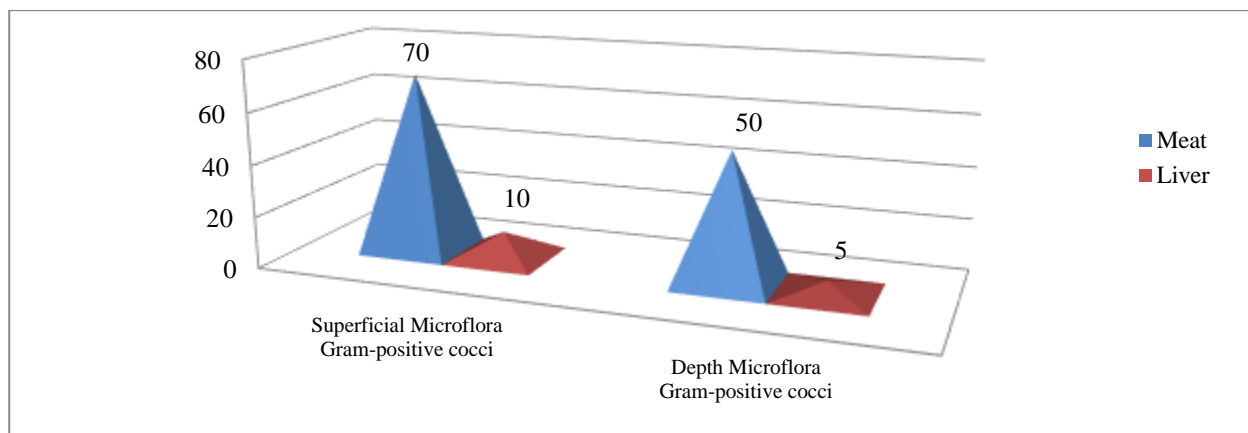


Fig.3. Quantitative aspects of the bacterial microflora on smear of rabbit meat sold in the central square of Chişinău
 Source: elaborated by the authors.

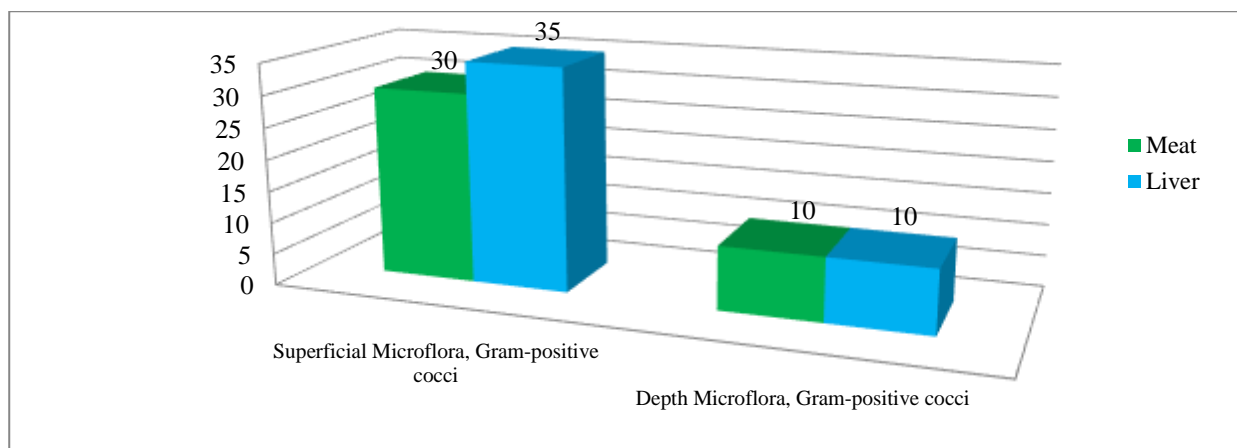


Fig.4. Quantitative aspects of the bacterial microflora on smear of rabbit meat sold in the supermarket
 Source: elaborated by the authors.

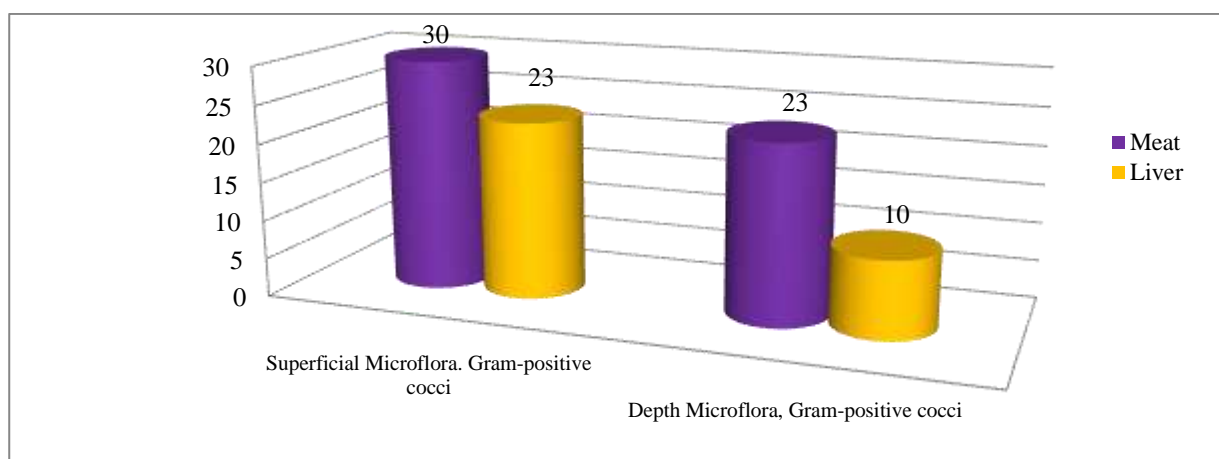


Fig.5. Quantitative aspects of the bacterial microflora on smear of rabbit meat sold in open air markets
 Source: elaborated by the authors.

In order to increase the competitiveness of rabbit meat, to achieve new levels of development in this domain it is necessary to pass from growing rabbits in domestic

conditions to grow rabbits in enterprises (economy of scale), well organized and well equipped. At the state level must be elaborated programs of financing business activities in the

rural areas at special conditions, which will attract the young people to begin an activity in the rural area.

CONCLUSIONS

The rabbits in Moldova are grown mostly in domestic conditions, the rabbit meat, being consumed totally locally. In Moldova doesn't exist a culture of consumption rabbit meat, being consumed mostly at weddings, christenings, Easter Holidays, etc. The rabbit meat is sold in local agricultural markets and municipal agricultural markets; specialized supermarkets and restaurants. The quality of rabbit meat is different depending on the point of sale, but according to the performed investigations the most qualitative rabbit meat is sold in supermarkets.

Food safety needs to be the main aspect in the production and marketing of rabbit meat, being responsible for the food chain.

In order to increase the competitiveness of rabbit meat it is necessary the involvement of the state authorities which need to elaborate laws for creating development conditions of growing rabbits not only domestically but also at high scale: in enterprises very well organized and well equipped, being financed at low interest

REFERENCES

- [1]EU, 2019, Commercial rabbit farming in the European Union, www.op.europa.eu/en/publication-detail/-/publication/5029d977-387c-11e8-b5fe-01aa75ed71a1/language-en, Accessed on 29.02.2020.
- [2]FAO, www.fao.org, Accessed on 27.02.2020.
- [3]Fiț, N., 2015, General Microbiology. Cluj-Napoca: AcademicPres, 248 p.
- [4]Golban, R., 2015, General Microbiology. Course of lectures. Chisinau, UASM, uasm.moodle.md, Accessed on 26.02.2020.
- [5]Juran, J.M., Gryna, F.M., 1980, Quality Planning and Analysis Mc.Graw-Hill, New-York, 629 p.
- [6]Juran, J.M., 1986, The quality trilogy: A universal approach to managing for quality. In: Quality Progress, no. 19, p. 19-24.
- [7]Juran, J. M., 2000, Planning the quality. Teora Publishing House, Bucharest, p. 30-47.
- [8]Kotler, P., Keller, K.L., 2006, Marketing Management. Prentice Hall; 12 edition, p. 120-133.
- [9]Munteanu, N., 2017, Rabbit meat, between consumption and statistics. When the Moldovans eat it (Carnea de iepure, între consum și statistică. Când o

mănâncă moldovenii), www.moldova.eu/ro/carnea-de-iepure-intre-consum-si-statistica-cand-o-mananca-moldovenii-24544.html/, Accessed on 29.02.2020.

[10]OEC, 2020, Meat And Edible Meat Offal Of Rabbits Or Hares, Fresh, Chilled Or Frozen, www.tridge.com/trades/HS1992/020810-020810-meat-and-edible-meat-offal-of-rabbits-or-hares-fresh-chilled-or-frozen/import/top-importers, Accessed on 29.02.2020.

[11]Porter, M. E., 1990, The Competitive Advantage of Nations. New York: The Free Press, p. 320-357.

[12]Statistical Bureau, 2020, www.statistica.md, Accessed on 29.02.2020.

[13]Suditu, C., 2010, National Federation of Farmers of Moldova AGROinform National Federation of Agricultural Producers from Moldova AGROinform MINI HOUSEHOLD FARM (Federația Națională a Agricultorilor din Moldova AGROinform National Federation of Agricultural Producers from Moldova AGROinform MINI FERMA DE IEPURI DE CASĂ), www.academia.edu/6660970/Federa%C5%A3i_a_Na%C5%A3ional%C4%83_a_Agricultorilor_din_Moldova_AGROinform_National_Federation_of_Agricultural_Producers_from_Moldova_AGROinform_MINI_FERMA_DE_IEPURI_DE_CAS%C4%82, Accessed on 29.02.2020.

[14]Tașbac, B., 2016, Special veterinary bacteriology. Larisa Câmpulung Muscel Publishing House. 284 p.

[15]Tașbac, B., 2018, General food microbiology. Larisa Câmpulung Muscel Publishing House, 225 p.

