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- A GLOBAL VIEW -.**

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## CONSUMERS' MOTIVATION FOR (NOT) CHOOSING RABBIT MEAT - A GLOBAL VIEW -

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### ABSTRACT

The aim of the study was to examine consumers' attitudes and motivations for (not) choosing rabbit meat through a questionnaire. The global consumer study was conducted online in 2018. The motivation of 420 Hungarian, 229 Spanish, 201 Chinese, 242 Italian, 198 Polish, 69 French, 59 Mexican and 442 other nationality respondents was evaluated. The most frequent rabbit meat consumption was registered in the Mediterranean countries. However, the rabbit meat consumption of younger generation is low. Since they are the consumers of the future, particular emphasis should be placed on increasing their awareness on the benefits of rabbit meat, besides introducing rabbit meat in kindergarten and school catering. The availability of semi-finished products and ready-to-eat meals could also encourage consumption.

**Key words:** Global, Rabbit meat, Consumption, Consumer attitude

### INTRODUCTION

World rabbit meat production is constantly increasing. However, this is primarily due to the growth in China (FAO, 2019). In some other countries (e.g. Russia, Egypt, Mexico) an upward trend can be observed, but in the most important European countries (Italy, France, Spain) the production is declining.

In order to increase rabbit meat production, better understanding of consumer habits is needed. Several researchers have conducted studies for this purpose: Beal *et al.* (2004) in the USA, Villanueva *et al.* (2015) in Mexico, González-Redondo and Rodríguez-Serrano (2012) and Buitrago-Vera *et al.* (2016) in Spain, Szendró (2016) in Hungary, Gomant (2018) in France, Petrescu and Petrescu-Mag (2018) in Romania, Gao and Zheng (2016) in China, Hoffman *et al.* (2005) in South Africa. Obviously, rabbit meat consumption is different in each country. While those living in Mediterranean countries (e.g. Malta, Spain, Portugal) consume a lot of rabbit meat (Kallas and Gil, 2012; Petracci *et al.*, 2018), other countries have less tradition in this regard (Petrescu and Petrescu-Mag, 2018).

Despite the negative trend that some countries face continuous decline in rabbit meat consumption, consumers identify rabbit meat as a healthy meat (EC, 2017). Positive attitude towards rabbit meat is influenced by age, gender, race, education, household income, education, size and composition, as well as areas of residence (Beal *et al.*, 2004; Szendró, 2016; Buitrago-Vera *et al.*, 2016; Gomant, 2018). González-Redondo *et al.* (2010) highlighted that the reason for avoidance or absence of consumption is threefold: organoleptic characteristics, lack of consumption habit, and emotional and moral reasons. Some meat consumers refuse animals that are considered as pets (Isaacs, 2013). According to Bodnár and Horváth (2008) and Szendró (2016), those who had negative attitude towards rabbit meat were either vegetarian or refused consumption due to emotional reasons. Moreover, changing consumer habits towards convenience foods and consumer price expectations and price competition at retail level versus other meats also affect rabbit meat consumption (EC, 2017).

In previous studies the factors influencing the consumption of rabbit meat have been studied in a particular country. In the present study the same (translated) questionnaire was sent to consumers in

different countries. Therefore, this paper deals with the drivers of consumers' motivation for (not) choosing rabbit meat, globally.

## MATERIALS AND METHODS

### Experimental design

The global consumer study was conducted in 2018. The survey consisted of 28 structured questions, asking respondents – among other questions – regarding their frequency of consumption, healthiness of rabbit meat compared to meat of other animal species (beef, chicken, equine, fish, lamb and pork), causes of rejection and background information. Among non-probability sampling techniques, snowball sampling of data collection was used meaning that the structured survey was given to an initial group of respondents (those who used the Internet) selected randomly. Respondents were encouraged to locate other members of the target population whom they know; i.e. friends, relatives, colleagues, etc. Multiple responses were excluded since the system allowed only one response/IP address. The total number of responses analyzed was 1580 (Hungary: 401, Spain: 190, China: 187, Italy: 177, Poland: 166, France: 62, Mexico: 50, others: 362).

### Statistical Analysis

The questionnaire was evaluated with One-way ANOVA using SPSS 10.0 software:  $Y_{ij} = \mu + V_i + e_{ij}$ , where:  $\mu$  =general mean,  $V_i$  =effect of the variables ( $i=1-2$ ),  $e_{ij}$  =random error. Frequency distributions, cross tables (for determining the relation of a variable to the background variables and to other involved variables) were used in the evaluation of the questionnaire. In addition, mean calculations and significance analysis ( $\chi^2$ -probe) was performed. For background variables, those respondents were excluded from the analyses whose proportion did not reach 3%, due to the low number of items.

## RESULTS AND DISCUSSION

The majority of respondents (81.7%) have already consumed rabbit meat. Higher than the average consumption was found in men (87.9%), older age groups (89.7% of those aged 50-59 and 88.0% of those over 60) and respondents living in good financial conditions (85.2% of those who live well) ( $P < 0.001$ ). Almost the entire population (98.6%) in France has already consumed rabbit meat, but the consumption was over 90% in Mexico (94.9%) and Spain (91.7%). By contrast, in Poland and Hungary, only 80.8% and 79.8% of the population has tasted rabbits, respectively ( $P < 0.001$ ).

The most common frequency of rabbit meat consumption was 1-2 times a year (26.7% of the respondents). The proportion of those who consumed monthly was 21.7% and those who have never eaten rabbit meat or meat products was 21.3%. However, the share of those with less than a year frequency (15.8%) exceeded that of daily and weekly consumption (8.2%). Significant results were found for rabbit meat consumption in gender ( $P < 0.001$ ), age groups ( $P < 0.001$ ), country ( $P < 0.001$ ) and income categories ( $P = 0.001$ ). Men in all categories had higher frequency of consumption than women. Only in the non-consumption category women (27.5%) outnumbered men (15.1%). Almost one third (29.5%) of men and women (28.0%) consumed rabbit meat 1-2 times a year, while 23.9% of men and 19.6% of women indicated consumption on a monthly basis. In terms of age, the weekly and monthly consumption was the highest in the 50-59 age groups (15.9% and 29.5%, respectively). Rabbit meat was most commonly consumed 1-2 times a year by 30-39 year olds (32.2%) and 18-29 year olds (29.5%), but non-consumption was also the most common in these two age groups (22.0 and 27.2%, respectively). In general, people living in better financial conditions were more likely to consume rabbit meat. Spanish and Mexican respondents consumed rabbit meat quite frequently; weekly consumption was indicated by 25.3 and 24.0%, respectively. Rabbit meat went to the table monthly of

38.7% of respondents in France, 38.0% in Mexico and 36.8% in Spain. On the other hand, nearly one-third (32.1%) of Chinese responses have never eaten rabbit meat.

It was also part of the research to ask what drove consumers eating rabbit meat by a multiple choice question. Results – excluding 331 “other” answers – show that rabbit meat was mainly consumed for its palatability (61.2%), as well as health reasons (31.2%), but very few consumers chose rabbit meat because they found it cheap (4.3%), or because rabbit meat was the main source of meat in the family (3.3%). Tastiness and nutritive features were considered by 56.8% of men and 45.8% of women ( $P<0.001$ ). In terms of age, 49.1% of 18-29 year olds, 46.3% of the 30-39 age group, 55.3% of 40-49 year olds, 55.6% of the 50-59 age group and 47.5% of those over 60 chose rabbit meat because of its taste ( $P=0.023$ ). Regarding the settlement type, mainly respondents living in Italy (69.0%), Mexico (64.4%), France (63.8%) and Spain (60.7%) chose taste as a drive, while for Poland, China and Hungary the proportion was 56.1, 45.8 and 39.3%, respectively ( $P<0.001$ ). Regarding health reasons, significant differences were found in gender ( $P=0.014$ ), age ( $P<0.001$ ), country ( $P<0.001$ ), and type of settlement ( $P<0.001$ ). Men (28.6%), the elderly (33.5%) and those living in smaller settlements (32.3% of 1-10,000 inhabitants, 30.1% of 10-100,000 inhabitants) were more likely to opt for rabbit meat for its healthiness than women (23.6%), the young (17.7% of 18-29 year-olds), capital city citizens (16.9%) and those living in cities with more than 10 million inhabitants (18.4%). Hungarians (34.3%), Mexicans (35.6%), Polish (27.8%) and Italian (27.3%) respondents choose rabbit meat because of healthy reasons, but only 10.4% of Chinese and 7.2% of French eat rabbit meat due to this reason.

Respondents considered fish and rabbit meat as the healthiest meat (39.1, 24.9%, respectively), followed by chicken, beef, lamb, pork and equine (14, 12, 5, 4 and 1%, respectively). Significant differences were found in gender and age; while 27.8% of men considered rabbit meat to be the healthiest, compared to 22.0% of women ( $P=0.024$ ). A higher proportion of older age groups considered rabbit meat healthy (30.3% and 30.6% of those aged 50-59 and over 60) than the young (18.1% of 18-29 year olds) ( $P<0.001$ ). While in China 30.5% of the respondents were convinced of the healthiness of fish and beef, the highest proportion of respondents in France and Spain believed that rabbit meat was even healthier (38.7% and 35.8%, respectively) than fish (25.8% and 30.5%, respectively). This rate was the highest in Mexico, with 74.0% of respondents reporting rabbit meat as the healthiest meat.

Having got to know the drivers of motivation summarized above, get to understand what the motivation is behind non-consumption. The results are shown in Table 1.

**Table 1:** Reasons for rejecting rabbit meat consumption (n=340)

| Statement                                      | n   | %    |
|--|-----|------|
| I do not know this meat (have never tasted it) | 118 | 34.7 |
| I have emotional reasons                       | 118 | 34.7 |
| It does not fit in my dietary habits           | 83  | 24.4 |
| I do not know where to buy it                  | 52  | 15.3 |
| I do not like it                               | 51  | 15.0 |
| I have doubts about rabbit meat                | 47  | 13.8 |
| I am a vegetarian                              | 28  | 8.2  |
| Its preparation is complex                     | 13  | 3.8  |
| I cannot afford it                             | 10  | 2.9  |
| I have religious reasons                       | 8   | 2.4  |

Women and the young generation tended to reject rabbit meat because they have never tasted it ( $P<0.001$ ). For emotional reasons, predominantly women (10.6%;  $P<0.001$ ) and young people (8.5% of the 18-29 age group;  $P=0.008$ ) rejected rabbit meat, compared to men (1.6%) and those over 60-year-old (2.5%). Nine percent of Chinese, 8.3% of Italian, 7.1% of Hungarian and Polish and 4.4% of Spanish respondents did not consume rabbit meat because they felt sorry for the animal or considered

them cute ( $P=0.039$ ). On the other hand, neither those living in France nor those living in Mexico cited emotional reason for refusing rabbit meat consumption. Rabbit meat did not fit in the dietary habits of 6.5% of women and 2.2% of men ( $P<0.001$ ), 7.8% of young people (18-29 years old) and the elderly (1.3% of respondents over 60 years old) ( $P<0.001$ ). Mostly people living in China believed that rabbit meat could not be included in their diet (12.4%), while in Hungary this proportion was only 6.2%. None of those living in France and Mexico indicated this answer, and only 0.9% of the respondents living in Spain considered this category to be a reason for rejecting rabbit meat ( $P<0.001$ ).

## CONCLUSION

The database made it possible to compare rabbit meat consumption patterns in several countries in parallel. Rabbit meat consumption remains the highest in the Mediterranean countries. Since the consumption of rabbit meat among younger generation is low, all countries should take actions to make young people more familiar with and appreciate rabbit meat. Also, the availability of semi-finished products and read-to-eat meals could inspire those who have less time to cook. Data process will be followed by a more detailed analysis.

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