

SHORT COMMUNICATION: RABBIT MEAT CONSUMPTION TRENDS IN SELECTED MALTESE RURAL AREAS

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Abstract: This study aimed to analyse trends in rabbit meat consumption amongst consumers in selected Maltese rural communities. To the best of the authors' knowledge, this is the first study that attempts to assess and report on Maltese consumer perceptions and behaviours related to rabbit meat. Data was collected using a survey conducted through random telephone calls. Results indicate that only 19 of the 250 interviewees did not consume rabbit meat. This meat source is perceived as being lean and low in cholesterol, healthier and tastier than other meats, and price does not seem to be an issue. However, this meat is consumed in moderation. Nonetheless, it is an esteemed food item that is generally the main dish on special occasions (*fenkata*), including the Sunday meal. Thighs are the most preferred part of the carcass and frying/braising is the most frequent method of cooking. An element of mistrust in the supply chain exists, so much so that consumers prefer to source from family and friends that rear rabbits mainly for their own consumption. While rabbit meat consumption is still popular among Maltese consumers, the retail sector marketing rabbit meat needs to be aware of the fact that there is a strong consumer tendency towards lack of trust in the supply chain.

Key Words: rural areas, rabbit meat consumption, consumption behaviours, Malta.

INTRODUCTION

The Mediterranean region has always been characterised by its culinary penchant for rabbit meat, which frequently features in celebratory dishes and local specialities (Kallas and Gil, 2012; Petracci and Cavani, 2013). In the past, meat from the trapping and hunting of wild rabbits was a staple protein source for people living in the rural parts of Malta. The consumption of this meat is also well entrenched in the Maltese cuisine, culture and traditions, so much so that the Maltese easily identify with the term *fenkata*, a dish based primarily on the preparation of rabbit meat (De Battista, 1985; Cassar, 1994, 2016; Buttigieg and Cassar, 2020). This meat source has traditionally always played an important role in providing high quality proteins, essential amino acids, B vitamins, minerals and other bioactive compounds (Nistor *et al.*, 2013) to the Maltese civil society at large. The report by the Directorate-General (DG) for Health and Food Safety of 2017 estimated that the average per capita of rabbit meat consumption in Malta is more than 3 kg, which is significantly higher than in any other European country. Recently, Petracci *et al.* (2018) reported that the Mediterranean region is experiencing a decrease in the per capita consumption, especially among the younger population segments (González-Redondo and Contreras-Chacón, 2012).

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In this context, the aim of this study was to analyse trends in rabbit meat consumption amongst consumers from selected Maltese rural communities that until recently had a pervasive nature of backyard rabbit rearing within domestic environments.

MATERIALS AND METHODS

All procedures used in this study were approved by the Research Ethics Committee of the University of Malta.

Selection of rural communities

The Maltese Rural Development Programme's (2014-2020) definition of rural areas was adopted, and out of a list of 47 such localities, five localities situated in the Western part of the island and in close proximity to each other were selected. According to a recent publication by Attard *et al.* (2023) the areas selected for this survey were classified as still retaining food consumption culture synonymous with Maltese rural society.

Questionnaire

The survey data sheet was designed, developed and compiled after reviewing similar studies (Beal *et al.*, 2004; Bodnar and Horvath, 2008; Mailu *et al.*, 2012; Maigida *et al.*, 2018; Escribá-Pérez *et al.*, 2019; Adanguidi, 2020) reported in the scientific literature. The questionnaire addressed the following themes:

- Personal information (locality, gender, age, level of education and family income per month).
- Whether during their childhood their household bred rabbits for own consumption.
- Ranking of pork, beef, poultry, rabbit and lamb in order of perceived healthiest meat according to the interviewer.
- Ranking of pork, beef, poultry, rabbit, and lamb in order of frequency of consumption within the household.
- Consumer attitudes towards rabbit meat consumption and trust in the supply chain.

Experimental design

The period in which interviews were conducted was from the 1st of March 2020 till the 30th of April 2020, which coincided with the COVID-19 outbreak. Due to the restrictions of the pandemic that limited face-to-face interviews, candidates were randomly chosen from the telephone directory of the selected localities. Telephone calls were carried out between 15:00 and 19:00, since it was the most convenient time for the respondents, so much so that all the selected candidates agreed to be interviewed, and a total of 250 interviews were held.

Data analysis

Data was analysed through descriptive statistics using the Microsoft Excel Database. Since a limited number of interviews were carried out, the data was analysed assuming that all the participants came from one group. Results were expressed as proportions and percentages of the analysed sample. Out of the 250 interviews, 19 identified as being non-consumers and hence consumption patterns and trends were calculated based on n=231.

RESULTS AND DISCUSSION

All the selected candidates are assumed to have participated in this study on a *bona fide* basis. Females made up the majority (75%) of those interviewed. Participants with a non-formal or a primary level of education were 29%, while 40% achieved a secondary level of education and the remaining 31% reached tertiary level.

A very small minority (<8%) of those interviewed identified themselves as non-consumers of rabbit meat. Surprisingly, the number of people who reported leading a vegan lifestyle or associating rabbits as pets was unexpectedly low (2%) and hence do not constitute a threat to the sector. On the other hand, taste, which is a subjective personal preference, was identified as the most frequent motive for non-consumption. In this study the vegan lifestyle appears

to be positively associated with individuals having a higher-level of instruction, giving them the educational/knowledge background to reach a reasoned decision, whereas the association of rabbits as pets is more of a decision based on the individual's emotions.

Most (68%) of those interviewed reported to be over 50 yr old. Tessier and Gerber (2005), Piscopo (2004), and Inguanez and Ellul (2018) identified this age group as having an essential role in transferring recipes and in exposing the younger generations to traditional cuisine. The majority (66%) stated that their households consume rabbit at least once a month, and the preferred cooking method is parts fried/braised with wine and garlic. This study shows that Maltese recipes are preserved as traditional family heirlooms transmitted from one generation to the other. However, oddly enough, none of the respondents showed a preference for rabbit pie. This agrees with Cassar (1994) who suggests that rabbit meat was initially used in pies rather than braised or fried as we know it today.

The preferred dressed carcass weight was reported to be less than 1.5 kg by 86% of the respondents, which coincides with what is available on the local market. An overwhelming majority (65%) consisting of females between the ages of 30 and 75 yr preferred to purchase a whole carcass with the head as a guarantee of the genuine nature of the carcass, while a small proportion (6%) all being under the 34-yr age bracket reported a preference for whole headless carcasses. From the remaining interviewees, 28% preferred individual rabbit cuts (mostly thighs), and only 1% desired processed products.

The reported monthly household income was: 34% earning less than €1000, 27% earning between €1000 - €2000 and 28% claimed earnings of over €2000, while 11% chose not to disclose. At the time of the study, rabbit carcasses retailed at around 10 Euro/kg, making it significantly more expensive than chicken meat and some cuts of pork and beef. Nevertheless, although the majority of the interviewed population declared to have limited disposable income, price was not reported as being of concern when deciding to buy locally produced rabbit meat. Thus, the issue of cost is not a valid argument, because unlike chicken, which is consumed on a regular basis throughout the week, rabbit meat is deeply rooted in Maltese gastronomic culture. This is in contrast to Siddiqui *et al.* (2023), who argued that due to its price, rabbit meat is out of reach particularly among low-income households.

The main criteria stated by 79% of the interviewees for choosing locally produced rabbit meat are taste and quality. Imported rabbit carcasses landing in Malta have to undergo a period of refrigerated storage during which the meat may acquire off tastes and decolourisation as a factor of the storage method and duration (Pereira and Malfeito-Ferreira, 2015), with a consequent decrease in the quality of the product. Furthermore, 95% of the interviewed population declared a preference, when possible, for purchasing home-grown rabbits as opposed to the commercially available ones, while only 19% declared that they regularly buy rabbit meat from local butcher shops and supermarkets. This trend agrees with Bodnar and Horvath (2008) in that the consumer lacks trust in the commercial supply chain.

The interviewees in this study indicated rabbit meat as the healthiest option, followed by poultry, beef, pork and lamb, respectively. However, the same interviewees declared chicken as the most frequent meat consumed, followed by beef, and rabbit in third place. Nonetheless, rabbit meat is an esteemed food item that is generally the main dish on special/festive occasions (*fenkata*), including the Sunday meal.

CONCLUSION

In conclusion, this study presents rabbit meat in Malta as a food item dichotomy. So much so, that rabbit meat is still consumed on a regular basis in households. Its popularity is perceived as the 'go-to' food item, irrespective of cost, in times of festivities, celebrations, family gatherings and get-togethers with colleagues. This research has proven that the Maltese are very particular in their preferences for home-grown rabbits procured from known sources. The sector needs to be aware that the results in this study indicate that there is a strong tendency showing a lack of trust in the supply chain, which the sector must take into consideration in future expansion endeavours. Further research needs to be conducted to include other areas in the archipelago to re-confirm the results of this study and to compare with trends in urban localities to present a holistic rabbit meat consumption pattern in the Maltese islands.

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