Consumer expectations for beef in the French region Auvergne-Rhône-Alpes

S. Chriki [1,2*], J. Normand [3], F. Noël [3], V. Payet [2], J.F. Hocquette [1]

[1] INRAE, VetAgro Sup, UMR1213 Herbivores, Theix, 63122, France.

[2] Isara, 23 rue Jean Baldassini, 69364, France.

[3] Institut de l'Elevage, 23 rue Jean Baldassini, 69364, France.

*Corresponding author email: schriki@isara.fr

I.   INTRODUCTION

In France, beef consumption has been in steady decline for many years [1], from 25.8 to 22.3 kg/capita/year between 2010 and 2023 (-1.1% per year) [2], although it remains the third most consumed meat in France after pork and chicken [2]. The reasons are multifactorial [3] and linked to (**i**) the controversial image of beef (its environmental impact, the competition between feed and food, respect for animal welfare), (**ii**) the change in consumption patterns (reduction in the daily time devoted to cooking and eating), (**iii**) its high price and, finally, (**iv**) its variable sensory quality [4]. Thus, consumers are not always satisfied with the organoleptic quality of beef [5]. In this context, the scientific project OABov-AURA (2022-2024) was carried out to better identify consumer expectations in the French region of Auvergne-Rhône-Alpes (AURA). This region is the second largest in terms of beef cattle in France (after Nouvelle-Aquitaine), with a strong consumer base offering marketing opportunities for regional production. Therefore, **the aim of this study to better identify consumer expectations** regarding the intrinsic and extrinsic qualities of beef.

II.   MATERIALS AND METHODS

The online survey was formatted using LimeSurvey. Before distributing the survey, project partners pre-tested the questionnaire to identify any errors or incomplete responses. The survey was then disseminated to AURA residents online at various periods between April 15, 2022, and December 11, 2023. The responses were analyzed using R software.

III.   RESULTS AND DISCUSSION

This study involved 712 respondents, mostly female (62%), young (50% < 37 years of age *vs* 25% > 52 years of age), students (25%) and executives (33%), with a good knowledge of farming (51%), and preferring to buy beef in butcher shops (27%).

Of those surveyed, 48% reported having reduced their meat consumption in recent years (compared to 42% who reported no change). The two main reasons for the decline in beef consumption are explained by health (52% of responses) and ethics (44%) issues.

The majority of consumers (51%) said that eating beef for pleasure was their primary motivation, and are not disappointed with raw (83%) or cooked (54.5%) beef.

Origin (44%), proximity (38%) and the presence of signs of quality and origin (SIQO) (34%) are the most important extrinsic criteria (% of respondents who selected the answer: "very important"). However, taste (62%), tenderness (59%) and freshness (58%) are the most important intrinsic criteria of beef for the respondents (Figure 1).

Consumers also prefer meat that is bright red (72%) and rather fatty (64%).
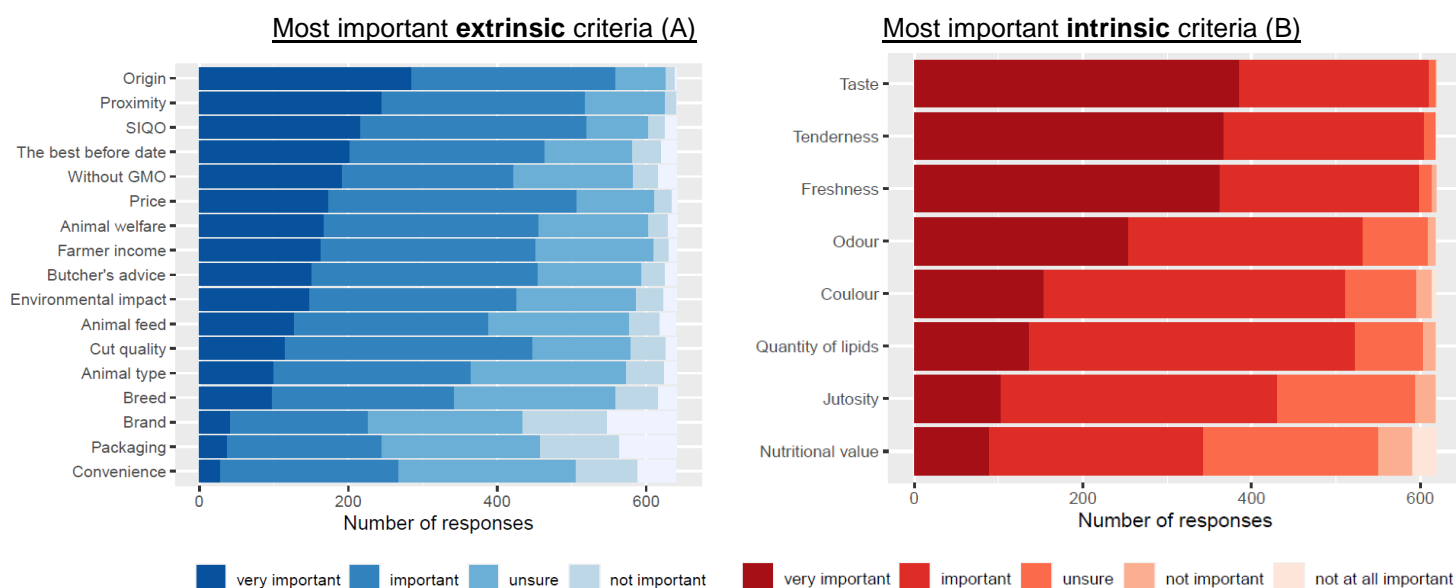
Figure 1. Most important intrinsic (A) and extrinsic (B) criteria of beef quality

Our results align with those of Liu et al. [1] on the extrinsic criteria of beef quality. They found that the most important factors when purchasing food products are sensory quality (67%), price (56%), food safety (47%), origin/traceability (45%), ethics (42%), nutritional value (35%), and environmental impact (33%). Respondents of our study considered taste (flavour) the most important intrinsic criterion for beef, which is consistent with the findings of Liu et al. [6] on a European scale.

IV. CONCLUSION

In conclusion, it is important that consumers in the AURA region have access to various meat types in butcher shops, mainly of French origin and under quality signs to better meet their diverse expectations.

REFERENCES

1. Liu, J.; Chriki, S.; Kombolo, M.; Santinello, M.; Pflanzer, S.B.; Hocquette, É.; Ellies-Oury, M.-P.; Hocquette, J.-F. Consumer Perception of the Challenges Facing Livestock Production and Meat Consumption. *Meat Sci.* 2023, *200*, 109144.
2. GEB *Chiffres clés bovins 2023 : Productions lait et viande*; 2023.
3. Font-i-Furnols, M.; Guerrero, L. Spanish Perspective on Meat Consumption and Consumer Attitudes. *Meat Sci.* 2022, *191*, 108874.
4. Chriki, S.; Renand, G.; Picard, B.; Micol, D.; Journaux, L.; Hocquette, J.F. Meta-Analysis of the Relationships between Beef Tenderness and Muscle Characteristics. *Livest. Sci.* 2013, *155*, 424–434.
5. Normand, J.; Noël, F.; Denoyelle, C. Enquête nationale sur les qualités organoleptiques de la viande bovine proposée aux consommateurs français, quelles évolutions 10 ans après ? *Rencontres Rech. Rumin.* 2020, *25*, 464–468.
6. Liu, J.; Ellies-Oury, M.-P.; Chriki, S.; Legrand, I.; Pogorzelski, G.; Wierzbicki, J.; Farmer, L.; Troy, D.; Polkinghorne, R.; Hocquette, J.-F. Contributions of Tenderness, Juiciness and Flavor Liking to Overall Liking of Beef in Europe. *Meat Sci.* 2020, *168*, 108190.