

# Evaluation of the perception of the quality of yellow pigmented broilers by French consumers – The place of colour

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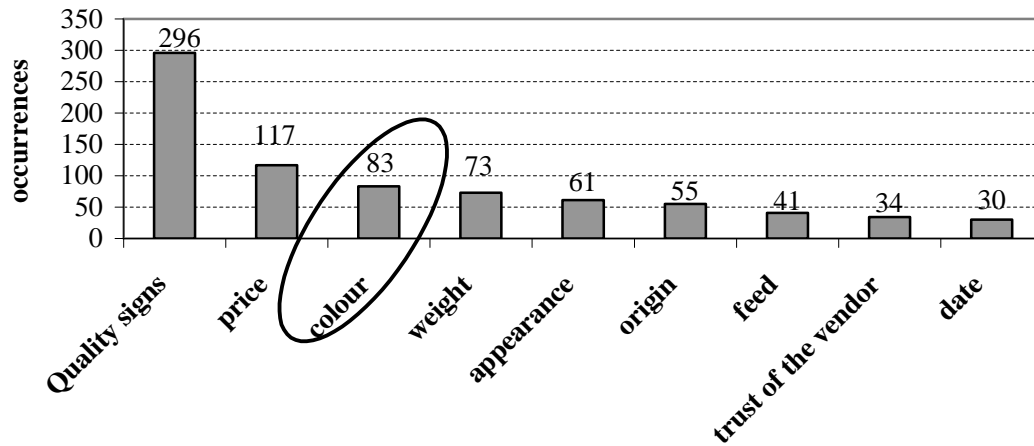
A study carried out in 2000 in a Barcelona supermarket, where yellow broilers are prevalent, revealed that 61% of the people questioned preferred to purchase yellow broilers. The preference test revealed the preference increased in relation to the level of pigmentation. Well-pigmented broilers were considered to be of better quality, fresher and healthier (unpublished results).

In view of the significant increase in the production of so-called 'yellow' broilers in comparison to 'white' broilers, DSM Nutritional Products, who produce pigments for animal feed, would like to obtain a clearer idea of the criteria motivating French consumers to purchase pigmented broilers. Due to possible regional differences, the investigation was carried out in two geographically different populations: the southwest, a traditional region for yellow broilers, and the Paris region.

In April 2004, the CEREOPA conducted a survey on the perception of pigmented broiler quality by French consumers. 356 interviews were carried out simultaneously in two supermarkets located in two different areas (Bois d'Arcy near Paris and Ibos near Tarbes). The interviews lasted for around ten minutes and took place at different times of the day and on different days of the week in order to obtain a diversity of consumer profiles. The questionnaire used open-ended questions requiring spontaneous answers. The people surveyed were considered as fairly representative of the French population in terms of age group and educational level. However, the consumers in Bois d'Arcy were more highly educated and lived in urban areas, whereas the consumers in Ibos lived in a predominantly rural area. With regards to purchasing habits, a huge majority said they purchased whole broilers from the supermarket. In Bois d'Arcy, the main criteria when buying a broiler were the price, the "label rouge", the "poulet fermier" and the weight. In Ibos, these criteria were the "poulet fermier", the "label rouge" and the feed. Regarding the colour, yellow was mentioned in fifth position as choice criteria (17% of the answers) in Bois d'Arcy and in sixth position in Ibos (11%). The colour white was hardly mentioned at all. During the interview, a test was carried out on the people being surveyed using four ready-to-cook broilers of various colours (T1 white broiler, T2 straw-coloured, T3 yellow and T4 dark yellow), produced by the Tours INRA centre. During the first stage, consumers had to rank the broilers in order of preference. In the second step they had to give each broiler a grade between 0 (low quality) and 10 (excellent quality). White broilers were less highly rated than the yellow broilers in the ranking test, both in Ibos and Bois d'Arcy. A marked preference for the T2 and T4 over the white broiler was revealed in Bois d'Arcy. A marked preference for the T3 and T4 over both the white and light broiler was revealed in Ibos. These results confirm the regional South-West preference for more pigmented broilers.

To conclude, a large majority of people mentioned terms with a positive connotation for the colour yellow, whereas the colour white was mostly associated with terms with a negative connotation. This investigation confirmed a preference for the most highly coloured broilers by consumers of the south-western region (ranking tests and perceived quality) and also by consumers in Bois d'Arcy (straw coloured and dark yellow broilers) in the ranking test. The study also revealed that in the two regions white broilers were not appreciated as highly and had worst connotations. In Ibos, they were not appreciated as highly in terms of perceived quality. The colour yellow benefits from an overwhelmingly positive image, contrary to the image of industrial feed and farming attached to the colour white.

**Figure 1** Place of the colour in purchasing habits. Overall, when the 'free-range' and 'red label' broiler replies were grouped together in the category of 'quality signs', and the 'yellow', 'colour' and 'white' replies in the 'colour' category, the first three criteria for choosing a broiler were the quality signs, price and colour.



**Figure 2** Ranking test of the broilers according to a decreasing order of preference by the customers of the two supermarkets - Ibos and Bois D'Arcy. The results of the test were processed statistically using the Friedman Test and by comparing the ranking totals. Within a place, values not sharing a common superscript are significantly different at the 0.07 level..

