

## RESEARCH REGARDING CONSUMERS ATTITUDE, IN RELATION WITH POULTRY MEAT PURCHASE AND CONSUMPTION. CASE STUDY SIBIU, ROMANIA

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### Abstract

*The paper is based on the study of various reports and different type of articles regarding the EU poultry meat production and poultry meat's quality. In order to determine the Romanian consumers' perception regarding the quality of poultry meat, a questionnaire was prepared which was completed during February-April 2019 by 240 people from Sibiu County. Chicken meat is in the top of the preferences of Sibiu consumers. Consumers associate chicken meat with healthy meat from poultry fed with cereals, with a low-fat content. The respondents consider that the chicken meat contributes to maintaining the health status.*

**Key words:** poultry meat, quality, consumers, behaviour, consumption, local market

### INTRODUCTION

Poultry meat is in the top of the consumers preferences due to the costs of sale and due to its nutritional qualities. The biological peculiarities of the birds, the conquests of science and the genetic advances of the last 50 years regarding the production of high-quality meat chickens' hybrids and the achievement of better and better technical indicators, have led to the supply of increasing quantities of meat.

In 2018 the total production of EU poultry meat was 15,145 thousand tonnes, of which 71% was made in six Member States: Poland, UK, France, Spain, Germany, and Italy [12]. In the same year the domestic consumption of the EU member states was 14,457 thousand tonnes, ensuring a self-sufficiency of 106%.

EU poultry producers mainly exported to the Philippines, Ghana, Ukraine, South Africa, Hong Kong, Vietnam and Benin.

World poultry meat production reached in 2018 the amount of 123,205 thousand tons.

Worldwide the main exporters of poultry meat are Brazil, USA, EU, Thailand, China and Hong Kong [17].

The world production of broiler meat in value of 123,205 thousand tonnes carcass from

2018, registered an increase of 111% compared to 2013 when it had the value of 110,415 thousand tonnes.

At the EU level, the main poultry meat is broiler meat with a total production of 12.58 thousand tonnes in 2017 and 12.87 thousand tonnes in 2018 [1].

In 2018 Romania ranks 10th in the EU regarding broiler meat production (405 thousand tonnes carcass) [11].

In countries such as Romania, Poland, Greece and Portugal, the number of poultry farms are very high, with the largest number of farms with less than 99 birds. In these farms with less than 99 heads of birds, it is considered that the growth in the household system takes place [11].

A study by Horne P.L.M. shows that in 2013 Romania had the largest number of holdings under 99 broilers (1.5907.80), which represented 75.9% of the total holdings of this size in the EU. (2.095.460).

Poultry meat is the second most consumed meat in the EU after pork, representing approx. 30% of total meat consumption. Poultry meat consumption continues to grow in almost all EU Member States [15, 16, 18, 19].

The EU consumption of poultry meat per capita increased by 25% from 21.4 kg in 2013 to 26.8 kg in 2018. Countries such as Portugal (37 kg), Ireland (35 kg), Hungary (32.5 kg) registered the highest consumption of poultry meat per capita in 2018 [1, 9].

Per capita poultry meat consumption in Romania was increased from 17.37 kg/inhabitant in 1990 to 21 kg/capita in 2009, 22.9 kg in 2015 and to 24.1 kg in 2018 [1, 7, 13, 19, 25]

A study published in 2017 shows that the most important factor that influenced the consumption of poultry meat/ capita in Romania is the price, which makes this category of meat accessible to all social categories [6].

The level of consumption of poultry meat/ inhabitant is in direct correlation with the meat production and the purchasing power of the consumer.

The main factors that influence the decision to buy meat and meat products are quality and price as shown in 2015 a study by Soucek et al. [22].

There are few studies on the behaviour of the consumers of poultry meat and their perception on the organoleptic characteristics of this type of meat.

In a paper published in 2005 Hernandez J.M. synthesized data resulting from studies conducted among consumers of chicken meat from different countries. Thus, it is shown that 60% of consumers investigated in Spain in 1999, preferred to buy chickens with yellow skin. The main motivations underlying this purchase decision are the belief of better meat quality, freshness and association with the free-range growing system [10].

Another study conducted in South Africa in 2003 shows, that in the perception of buyers there are a strong correlation between the colour of the skin of the chicken and the quality of the products (61% of them prefer yellow chicken).

These studies have shown that the colour of the skin of the chicken is an important parameter of food quality. Consumers consider colour is a quality attribute of poultry products.

The statistical data available on the website of the Ministry of Agriculture and Rural Development showed that in Romania at the middle of year 2018, there were 76,820,437 bird heads. Of these, 33,918,072 heads were exploited in intensive system (about 44%), while in the household system there were 42,902,365 heads (about 56%) of the total. The distribution of the birds according to the type of production was in 2018 by approx. 41% laying hens and 59% poultry meat. In the intensive system 22.1% of the laying hens were exploited in the same year, while in the household system 77,83% were exploited. The meat chickens grew in the intensive system in proportion of 59.36%, while in the household system they grow 40.64%. These data show us the importance given to the raising of birds in the households, in extensive system [20].

In Sibiu County in 2018, the County Council authorized just 14 persons to market farmed chickens from household, out all of the total 180 that sell local products in the Transylvania market. The price, at which the meat chicken is currently marketed, varies between 22 lei and 25 lei/kg carcass.

The main purpose of the paper is to know, how the consumers of Sibiu perceive the market of poultry meat and their habits regarding the purchase and consumption of this kind of meat.

## **MATERIALS AND METHODS**

The paper is based on the study of various reports and different type of articles regarding the EU poultry meat production and poultry meat quality.

To know the habits of consumers in Sibiu regarding the purchase and consumption of poultry meat, a sociological survey was carried out, using as a working instrument a questionnaire with 23 items, structured in: the motivation that influences the decision to buy poultry meat, data on preferences and consumption habits, degree of information of chicken products, data on the place of purchase, and data on the needs for improvement of the poultry meat market in Sibiu.

The questionnaire also included demographic data on respondents (sex, age, domicile, last graduated school, labour market status, field of activity, number of family members and income / family). After the elaboration of the questionnaire it was distributed online, and it was completed by 240 respondents during the period May-June 2019. The data were systematized, statistically processed and interpreted.

## RESULTS AND DISCUSSIONS

### The perception of Romanian consumers about the quality of poultry meat. Case study Sibiu

Few studies have been conducted at both international level and in Romania regarding the consumption of poultry meat and poultry production [8].

A study carried out online among 520 consumers in the urban area, by one of the largest chicken producers in Romania, showed that the main motivations underlying the decision to buy chicken are: it is easy cooking (71%), tastes good (62%), is a little fat meat, with few calories (56%). This study brings a current perspective on the culinary and consumption habits of Romanians, but also, about the poultry meat market. The frequency with which this type of meat is consumed, shows that 87.2% of the respondents consume chicken meat at least once a week, which is correlated with the frequency, with which the chicken meat is purchased [23].

Another study published in 2013 on Romanians' preferences for different meat assortments shows that, chicken meat is consumed in large quantities / person, followed by pork and fish. At the opposite end, it is observed that lamb meat is less consumed. Turkey meat is also rarely consumed [14].

### The demographic profile of the respondents

Of the 240 individuals used in this study, 57.4% were females and 42.6% were males.

About 80% were between 21-40 years old and 12.7% over 41 years.

Regarding the average income level per month and family, 42.6% had over Lei 6,000 and 25,5% had between Lei 4,001-6,000.

About 84% of the questioned individuals were from the urban area.

Regarding education level, 54.3% were high school leavers, 39.4% had attended a faculty (Table 1).

Table 1. Demographic profile of respondents

Variable	Operational variable	Respondents distribution, number (%)
Sex	Male	102 (42,6)
	Female	138 (57,4)
Age	<20	18 (7,4)
	21-40	192 (79,9)
	41-60	30 (12,7)
Net income/month/ family	2,001-4,000 lei	77 (31,9)
	4,001-6,000 lei	61 (25,5)
	>6,000 lei	103 (42,6)
Number of persons in the family	<3	41 (17)
	3-4	163 (68,1)
	>4	36 (14,9)
Domicile	Urban	202 (84)
	Rural	38 (16)
Education level	High school	130 (54,3)
	University degree	95 (39,4)
	Post graduated	15 (6,3)
The status on the labour market	Students	105 (43,7)
	Employees	110 (45,8)
	Contractors	13 (5,3)
	Other	12 (5,2)

Source: Survey Data (2019).

### Frequency of buying chicken meat and habits related to its purchase

Chicken meat is purchased at least once a week by 62.48% of the respondents. There are people who buy chicken meat daily (4.6%). 32.92% of those surveyed buy chicken meat minimum once a month. Those surveyed tend to buy chicken meat in the form of carcasses (67.92%), preferring to buy the meat they are going to prepare after.

The respondents prefer to buy mainly fresh meat, in refrigerated condition (63.75%). Only 5.42% of them buy processed chicken meat, in the form of semi-prepared foods.

The decision to buy is influenced by a number of sensory characteristics of the meat: the taste, smell and appearance of meat, quality of meat (65%), freshness / color (63.75%) and

shelf life (58.33%). The price of the product is important for 41.66% of those surveyed.

Respondents tend to buy mostly chicken breast (78.75%) and chicken thighs (65%). The internal organs and spines are purchased by 4.16% of the respondents.

Approx. 60.41% of the respondents used to buy boneless meat. Boneless meat is preferred for grilling or schnitzels. However, for more than one third of them (26.66%), this aspect is not important. A proportion of 12.92% of the respondents prefer to buy meat with bone due to the multiple uses for cooking.

The quantity of meat chicken purchased is for 76.66% of the respondents less than 1 kg, fresh meat, fried.

When buying semi-prepared poultry meat, respondents prefer crispy (41.66%), sausages (32.08%) and cordon-bleu (22.5%).

The respondents who buy chicken meat from local producers (from Transylvania market), think, that the chickens are healthy, and as a result they will consume a healthy food (65%). At the same time, they believe that the chicks from the small breeders are tastier (19.16%), were raised slowly (10.42%) and were fed with cereals.

A recent study shows that there is a need to increase the availability of less processed and healthy food, provided by Romanian farmers [24].

#### **Data on consumption preferences**

Chicken meat is consumed by 91.66% of the respondents at lunch. Also, a part of 43.75% of them used to eat this type of meat, for dinner too.

The colour of the chicken meat is considered a quality attribute. For 49.16% of the respondents the colour of the skin, of the chicken is very important. Only a proportion of approx. 16% of them say, that this does not matter.

A study published in 2009 shows that Romanians prefer chicken, and of the carcass parts, the pulp and breast are the most sought after [2].

#### **The degree of information about chicken production.**

By advertising, as a product promotion technique, consumer buying behaviour can be greatly influenced [5].

The main sources of information is the internet (67.92%) and is the nutritionist (25.42%), which shows that the respondents are concerned about their nutrition and health. The print media and the mass-media represent sources of information of nutrition for 28.75% of people.

Only approx. 41% of the respondents know the nutritional value of the chicken meat.

In general, those surveyed (about 80%) are not concerned about how the chickens are raised and do not know about the technology of their exploitation in the industrial system. Only 4.3% of the respondents correctly chose the age of slaughter of the chicks [8].

#### **Data about the place of purchase**

The respondents tend to buy poultry meat especially from hypermarket (53.2%), supermarket (50%) and specialty shops (40.4%). There are also a share of 25.5% of respondents who said, they prefer to buy poultry meat from local producers / farms.

#### **Data on the needs for improvement of the poultry meat market in Sibiu**

In general, the respondents are quite or very satisfied with the market for poultry meat in Sibiu (72.8%).

The respondents expect that the producers to improving the quality of the products and the way they are presented, as well as the diversification of the assortments.

## **CONCLUSIONS**

The purchasing behaviour of agri-food products is different compared to the behaviour observed for other product categories. A major influence on consumer behaviour and food consumption is determined by their lifestyle.

The intensification of advertising could influence a great measure consumer buying behaviour.

At the European Union level consumer surveys show that origin is an important factor in making the decision to buy meat and meat products. The other important factors in making this decision are the price, the taste and the term of validity.

Over time, the consumer profile of poultry products has changed. It mainly looks at the quality of the products and reads the labels.

Different by meat from other species, poultry meat is expected to have an annual growth rate of 1.8% by 2050. Forecasts shows that the price of poultry meat will fall due to lower feed prices [18].

If in 1961 the average weight of the chicken carcasses was 1.3 kg, in 2018 it reached 1.78 kg. On the local market the main hybrids for chicken products are: ROSS 308, COBB 500, Kabir. These hybrids are suitable for use in all 3 production systems (intensive, semi-intensive and extensive).

Currently, there is a trend towards a healthier diet based on local, traditional or organic products [3, 4, 21].

The study proved that Romanians prefer in general chicken carcass parts, especially pulp and breast, many times without bones.

The obtained results. allow us to sign, that 91% of the respondents buy and consume chicken meat, and 67.1% of them buy chicken meat at least once a week. The meat is purchased mainly in refrigerated state (63.8%), in the form of carcass parts (78.7% breast and 64.9% chicken thighs). The quality of the product, the appearance of the product / freshness / colour is the basis of the purchase decision.

Consumers associate chicken meat with healthy meat from birds fed with cereals, with a low-fat content. The respondents consider that, the chicken meat contributes to maintaining the health status.

The respondents mainly buy boneless chicken (60.6%), the quantities purchased weekly are in the case of 76.6% of the respondents to less than 1 kg.

Chicken meat is mainly eaten at lunch (91.50) and dinner (43.6%). Chicken skin colour is an very important organoleptic attribute for 48.9% of the respondents.

Respondents are generally less informed about the nutritional value of the poultry meat and the technology of their production in intensive system. The main source of information remains the Internet (68.1%). Buyers know a lot of the brands under which this type of meat is marketed.

Chicken meat is usually bought from the specialty districts of the big stores (53.2%), although 40.4% of the respondents prefer to buy from the specialized stores of the producers or even from the Transylvania market/ farm (25.5%). Respondents know the local producers in the area, they trust the quality of the chicken raised in the countryside, which they consider to be healthier (53.2%), tastier (19.1%) and raised with cereals (10.6%).

Studies aiming to know the consumers' perception of the chicken market can provide data on the preferences regarding the buying and consumption habits of the poultry meat. Their results can be useful to producers, to improve their product quality and presentation form.

With an average consumption of 26.8 kg per head / inhabitant in 2018, the chicken meat is the second meat from the top of the preferences of the meat consumers in the EU. There must be concerns about improving its quality and increasing the weight of the chest in the carcass. There is also a preoccupation for better promotion of this type of meat, in terms of caloric, protein and vitamin intake.

For the future, consumers need to be better inform about the beneficial effects of the poultry meat. It is also necessary, to improve the confidence of consumers in the labelling system.

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