

CONSUMER PREFERENCES FOR DIFFERENT HONEY VARIETIES IN THE NORTH WEST REGION OF ROMANIA

Cristina Bianca POCOL¹

Email: pocolcristinabianca@yahoo.com

Abstract

The objectives of the study on the perceptions of different honey varieties produced in Transylvania originate in the assumption that in the region under study there is a great diversity of honey varieties, but there are not significantly promoted so that they are known and purchased by consumers. The research was conducted using the sociological survey and a number of 1449 questionnaires was applied, both in urban and rural areas. The results show that the most popular honey among consumers in the North West Region is the acacia honey, followed by polyfloral honey and linden honey. The least purchased varieties (and hence less consumed) are honeydew and *calluna vulgaris* honey. A deeper analysis of the most purchased types of honey leads to the following conclusion: honey is bought by persons with higher education or by those with high occupational status, and also by the median age category (26-50 years old). The quantitative results of the study were completed by a sensory analysis based on the use of the certain varieties of honey (acacia, linden, sunflower, honeydew and mountain flowers). The results show that the more rare varieties (honeydew and mountain flowers) are actually very pleasant for consumers, but are little known.

Key words: consumer, types of honey, preferences

In the world context, the European Union is an important honey producer as its production in 2008 reached 201.80 thousand tonnes in volume. The main varieties of honey produced in the EU are polyfloral honey, alongside other varieties of monofloral honey, especially acacia honey, as this tree is spread in all Europe (CBI Market Information Database, 2011). Other types of well-known honey varieties include linden blossom, lavender, rosemary, thyme, sunflower and forest honey. Spain is the leading EU honey producer and owns about 15% of the total production in 2008, followed by Hungary, Romania, Germany, France, Greece, Poland, Italy and Bulgaria. Due to the unfavourable climatic conditions and also to the collapse of the bee colonies, during the 2005-2009 period, the production of honey decreased in several European countries, such as Germany, Austria and Portugal. At the opposite pole, there are countries as Romania, Hungary and Poland that face an increase of honey production for the The National Beekeeping Program.

long term (CBI Market Information Database, 2011). The EU production of honey satisfies the demand for roughly 60%, the rest of 40% being imported from countries outside the EU: China, Argentina and Mexico. In terms of consumption, for the year 2008, Germany owed a percentage of 24% out of the total apparent consumption in the EU, followed by France, England and Spain. The leaders in honey consumption are: Greece, with 1.62 kg/capita, Austria with 1.19 kg, Slovenia with 1.17 kg and Germany with 1.16 kg (Eurostat, 2010). Romania is one of the main honey producers in the EU with a number of 1 275 000 bee families in 2010, that is about 9.15% of the total number of the existing bee families in the EU (www.madr.ro). During the 2005-2010 period, we witnessed a spectacular evolution of the number of bee families (*fig. 1*) mainly relying on the support policies, active through The National Program for Rural Development, and also through

¹ University of Agricultural Sciences and Veterinary Medicine of Cluj Napoca

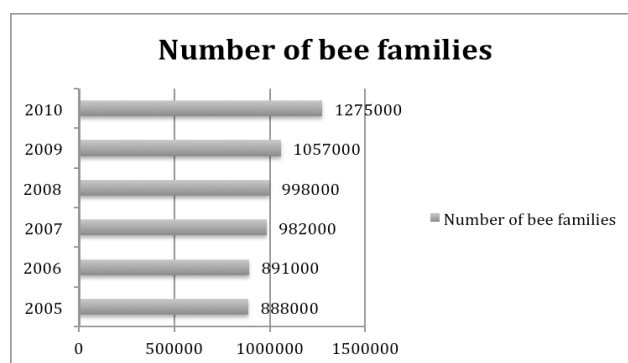


Figure 1 The evolution of bee families number during 2005-2010
Source: own processing after data provided by Statistical Yearbook, 2011

Regarding per capita honey consumption in Romania, this is approximately 0.37 kg, a low consumption level compared to the EU average of 0.63 kg (Eurostat 2010). Specialty studies show that honey consumer preferences are connected to the features of local production (CBI Market Information Database, 2011). Consumers prefer to buy honey with a familiar aspect and taste. Generally, at EU level, consumers prefer light colour honey, transparent, liquid and with a faint flavour (CBI Market Information Database, 2011). American researchers confirm the fact that in the context of increasing the request for natural products, honey gains more and more momentum (Schuster, R., 2011). A study conducted in Australia in 2009 shows the importance of taste in the decision of buying several types of honey (Peter J. Batt and Aijun Liu, 2012). Multiculturalism determines the usage of several criteria in the buying decision in the case of Australia: country of origin, brand, reputation, colour and the health benefits. Studies conducted in Hungary show that the people who consume honey regularly know the acacia honey and polyfloral one. Except for residence, the other socio-demographic characteristics don't influence the knowledge of honey types (Árváné Ványi G. *et al*, 2011). In Romania, studies regarding honey consumption at national level were conducted in 2007 and their results showed that the main features honey is appreciated for are the quality of natural food and the medical benefits (Pocol C., L. Al. Mărghitaș, 2010).

Based on the research mentioned, the purpose of the present study is to investigate

consumer preferences for different types of honey in the North West Region of Romania and also the influence of the socio-demographic variables on these preferences.

MATERIAL AND METHODS

The research methods employed to study the perception of consumers regarding the types of honey produced in Transylvania were both quantitative and qualitative. As a method of quantitative research, the sociologic investigation was used. The research region covered six counties of the North West Region: Cluj, Bihor, Satu Mare, Maramures, Bistrița Năsăud and Sălaj. The volume of the sample was 1449 respondents, 70% from the urban environment, and 30% from the rural one. The research sample was a random probabilistic one, in accordance to the six counties of the North West Region, the size of the cities and the level of socio-economic development for rural areas. The margin of error for the sample was of +/-2.6%. The questionnaires were applied during March-April 2012. The questions were structured into several categories, depending on the objectives of the study, as follows: questions regarding the perceptions associated to honey and other bee products, questions regarding consumer features and consumption habits, alongside socio-demographic questions. The data collected were processed with the help of the SPSS Programme. In order to show thorough results, the quantitative methods were complemented by a qualitative research. As such, during the 2-5 May 2012 period, in the location of the Culinary Theatre – part of the programme entitled Slow Food on Campus 2011-2012, that occurred during the Agraria Fair, tastings of five types of honey produced in Transylvania, were conducted, namely for: acacia, linden, sun flower, mountain flowers and honeydew honey. The visitors of the fair analysed five samples of honey and answered the questions regarding colour, consistence, smell and taste of honey. The answers were ranked a scale from 1 to 5, from „I like best” to „I do not like”. It is important to mention that the results of the sensory analysis are based on the opinions of a limited number of consumers, the date couldn't be considered representative from the statistic point of

view for the entire population under study (Region of North West). The results of the qualitative research were used only to elaborate some orientative hypothesis, offering varied motivations, significance, and opinions regarding the types of honey taken into study.

RESULTS AND DISCUSSION

Quantitative study:

Two of the answers regarding the perceptions on honey that respondents agree or do not agree with, are: „All types of honey sold in Romania are identical in terms of quality” and „All types of honey sold in Romania are highly qualitative”(fig. 2).

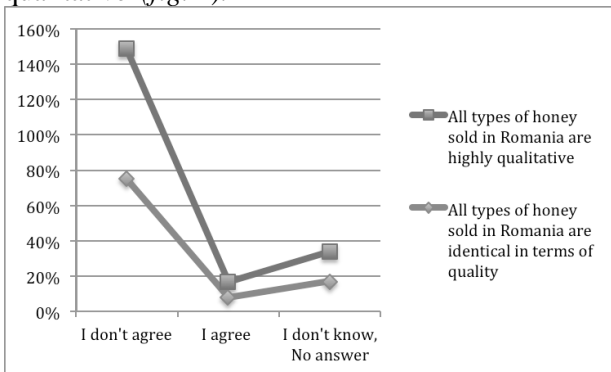


Figure 2 Answers regarding the perception on the quality of honey types produced in Romania

As seen in figure 2, at the level of the population investigated, there is a relatively homogenous optional structure regarding the quality of honey. As such, only 8% of the respondents agree that all honey types sold in Romania have an identical quality and only 9% agree that all types of honey sold in Romania are highly qualitative. Most of respondents (75%, respectively 74%), don't agree with these affirmations. The difference up to 100% represents the non-answer rate.

Another question of the questionnaire referred to the purchase of the following types of honey: acacia, linden, sun flower, *calluna vulgaris*, mountain flowers, honeydew honey and polyfloral honey. The answers to this question highlight the fact that the most popular honey is the acacia one, bought at least once by 80% of the respondents (of which about 2/3 in the last 12 months), followed by polyfloral honey, bought at least once by 70% of the subjects (of which 2/3 in the last 12 months) and linden honey, bought at least once by 54% of the respondents (of which half in the last 12 months).

The least bought (and therefore, consumed) types of honey are honeydew honey, bought at least once by 16% of the subjects investigated (of which about half in the last year) and *calluna*

vulgaris honey, bought at least once by 8%, of which at least half in the last year (fig. 3).

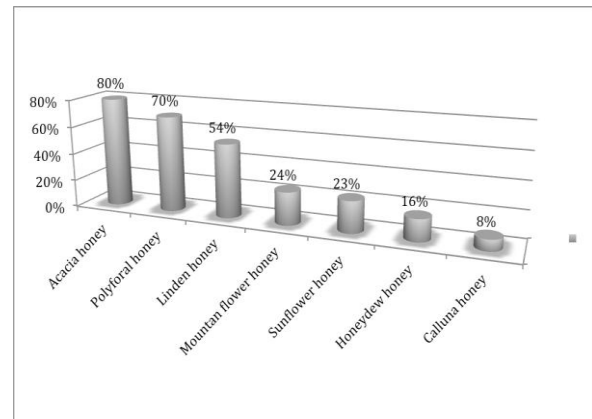


Figure 3 Percentage of the respondents who bought at least once other types of honey

Comparing the purchase of several types of honey with the socio-demographic features, the following can be asserted: those who buy honey have a higher education status or a higher occupational status, as well as the average age category, which is 26-50 years old (tab. 1).

Comparing the results of the present study to the ones of the Hungarian researchers (Árványi G. et al, 2011), many similar situations can be observed regarding the highest purchased types of honey (acacia and polyfloral honey).

Regarding the influence of the socio-demographic features on the preferences for different types of honey, there are differences between the two studies: if in the case of the Hungarian consumers, the residence influences the knowledge on honey, in the case of Romanian consumers the higher education and position have the highest influence (tab. 1).

Qualitative study:

Unlike the quantitative study results showing that the most bought types of honey are the acacia ones, followed by polyfloral one and linden one, the sensory analysis highlighted other preferences. The consumers showed they were impressed by the types of honey tasted, the most appreciated being also the least known– that is mountain flowers honey and honeydew honey. This fact highlights once again the fact that honey produced in Transylvania should be promoted more for the consumers, the non-consumption of several varieties of honey being due to the lack of a promoting strategy for bee products.

Correlation between the highest purchased varieties of honey and socio-demographic features of the subjects

		Acacia honey		Polyfloral honey		Linden honey	
		12 months	ever	12 months	ever	12 months	ever
Sex	Male	49%	76%	39%	66%	26%	54%
	Female	56%	82%	51%	73%	31%	55%
Age	Maximum 25 years	48%	72%	44%	64%	25%	50%
	26-50 years	58%	85%	49%	75%	31%	59%
	Over 50 years	56%	88%	46%	74%	32%	57%
Educational level	Maximum 10 classes	49%	78%	43%	63%	26%	47%
	High school, college	51%	78%	44%	69%	26%	53%
	Higher education	57%	82%	50%	74%	33%	61%
Occupational status	Inactive (retired)	51%	81%	45%	66%	33%	55%
	Non Active (unemployed, daily worker)	56%	82%	47%	71%	28%	54%
	Student	45%	67%	45%	62%	27%	50%
	Employed	54%	83%	45%	72%	27%	55%
	Manager, free lancer	66%	85%	52%	76%	43%	67%
Nationality	Romanian	54%	80%	46%	71%	28%	55%
	Hungarian	43%	81%	41%	65%	24%	51%
	Other nationality	52%	73%	42%	50%	43%	53%
Place of residence	Rural	53%	83%	49%	73%	28%	56%
	Urban under 50.000 inhabitants	54%	77%	40%	64%	29%	54%
	Urban over 50.000 inhabitants	52%	79%	46%	70%	28%	54%

CONCLUSIONS

In Romania, there are many varieties of honey, but the majority of consumers buy only several varieties: acacia, polyfloral and linden honey. *Callunna vulgaris* and mountain honey are sold abroad, especially in Germany, where these varieties are highly appreciated. One other reason why several varieties (mountain flowers, honeydew) are not consumed by the consumers in the North West Region of Romania is based on the lack of information due to the lack of promoting strategies on the Romanian market. The majority of those who didn't buy honey in the last year (83%), declared that this has autochthonous origin, only 6% bought honey from other countries. The educational level and occupation are the main characteristics that influence the honey consumption behavior.

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