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## Honey market in the opinion of young consumers

### Summary

Focus of this study was to determine quality and marketing factors that affect purchase of honey by young consumers. The research was conducted in the form of diagnostic survey with use of a questionnaire. The study group consisted of 200 participants, aged 20 to 25 years old. It was assumed, that the final result of the research will be the answer that allows to identify the behaviour of young consumers in the honey market. As a result of this study it can be concluded, that the purchasing preferences of young consumers depend on the traditions brought from home and consumers food habits related to honey. Said group of consumers prefer to select wildflower honeys because of their market availability. The main factor taken into consideration by young people purchasing honey is its price, then honey's sensory characteristics.

**Key words:** honey, consumer preferences, honey market.

**JEL codes:** A13 M31 L66

### Natural honey

Honey is a natural food product, produced by bees *Apis mellifera*. It is produced by mixing nectar or honeydew with enzymes from bees' secretions (Popek 2001; Wilczyńska 2012; Regulation Dz.U.04.40.370.). From the consumer's point of view, honey is sweet, high-calorie product with preservative and therapeutic properties. It has a wide range of applications, known for thousands of years (Roman et al. 2013b). For instance, it was recommended in the Sumerian writings from 4000 years ago, as a nutritional and therapeutic product. Hippocrates, considered the father of medicine (V in. .. BCE), used honey for preparation of ointments used on wounds. The history of beekeeping in Poland dates back 2000 years (Madras-Majewska et al. 2006).

Despite the valuable properties of honey, literature sources indicate its only occasional consumption (Majewska et al. 2012; Przybyłowski et al. 2011; Roman et al. 2013a). It may result from the fact that Polish consumers treat honey as a remedy for colds and a therapeutic agent to improve their bodies immune system especially during the fall and winter seasons. At that time of the year honey sales increase noticeably (Semkiw 2015). Consumers of natural honey and bee products are mainly of the older generation. Pro-health trend of food market has been noticeable for several years now. As a result, honey begins to be present in Polish homes not only as a therapeutic agent, but also as a dietary product consumed daily, used for example for sweetening (Majewska et al. 2012; Wilczyńska 2011).

Polish people eat about 0,60-0,62 kg of honey per person each year. It has been confirmed that consumption of honey is increasing steadily, as 20 years ago it was at about 0,30 kg per person per year, but it is still a significantly lower than the average consumption in the EU. Compared with other countries, for example the Greeks consume 3,5 kg per person per year, residents of Austria or Germany - about 2 kg per person per year (Polish honey in the EU in 2014).

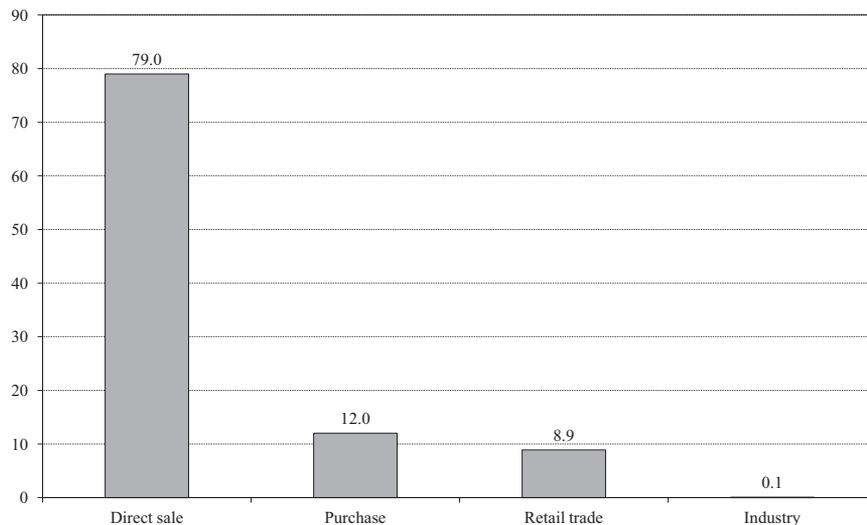
Promoting a healthy lifestyle and pro-health diet is not the only way to increase consumption of honey. Another aspect is the promotion of regional products, especially honeys. However, while using all available marketing tools it is important to remember, that the actual increase in consumption of honey is possible only after reaching out to broader consumer base to target both groups and individuals. Young consumers are a very important part of the market base. On the one side they don't have yet formed any purchasing behaviour, but are relatively easily influenced by trends.

Therefore knowledge of their preferences is very important, that is why the aim of this study was to determine the factors of both quality and marketing/promotional that are affecting the purchase of honey by young consumers.

## Polish market of honey

In 2015 it was noted, that the number of registered beekeepers in Poland increased by approximately 8%, and reached 62 575. The data of Veterinary Inspection shows, that the least beekeepers were in Podlaskie province (approximately 1600), and honey production was the lowest here as well - about 382 tons; the most beekeepers were in Malopolskie province (approximately 7000) and Lubelskie province (approximately 6600), where honey production was the highest - about 3050 tons. Total honey production in 2015 amounted was at about 22 thousand tons, which was at about 8 tons more than in 2014. The average amount of honey from one colony/ hive was approximately 19 kg. The highest production of honey from one hive was noted in Malopolskie province (27.5 kg), and the lowest – Pomorskie province (12.8 kg). The higher production of honey did not affect its wholesale price. According to data obtained from beekeeping organizations, the main channel of sales of honey as through direct sale – 79% of the total production of honey (Semkiw 2015). This data is shown in Figure 1.

For many years Poland has been importing large quantities of honey and this number is constantly increasing. For example, in 2014 import of honey into the country reached approximately 22,6 thousand tons, at an average price about EUR 1.9/kg (Table 1.). Polish honey is also exported to foreign markets - in 2014 we have exported 15.3 thousand tons with a value of approximately 38.7 million EUR (about EUR 2.5/kg). When comparing 2015 situation to 2013, the value of import increased by about 13,1% and value of export by about 36,5% (Semkiw 2015).

**Figure 1****Forms of honey sales on the Polish market (%)**

Source: Semkiw (2015, s. 9).

**Table 1****International trade in the market of honey**

Time	Export		Import		Balance (export-import)
	Volume (tons)	Value (thousand EUR)	Volume (tons)	Value (thousand EUR)	Volume (thousand EUR)
2014	15 356,4	4 38 757,8	8 22 686,9	9 42 502,1	-3 744,3
I-IX 2015	7 274,5	20 727,5	13 949,6	6 30 847,6	-10 120,1

Source: Semkiw (2015, s. 11).

During the first 9 months of 2015, the volume of honey exported out was more than 7,2 thousand tons, mainly to Germany (approximately 1,9 thousand tons) and France (1,03 thousand tons). Polish honey can also be found in Saudi Arabia (approximately 96 tons) and in the USA (approximately 56 tons). Comparing the same time, import of honey reached volume of about 14 thousand tons. Most honey brought to Poland came from China and Ukraine - total of approximately 11,3 thousand tons. The average price of imported honey was about 2,2? per kg, while the price of this commodity exported from our country was at 2,8 EUR/kg (Semkiw 2015).

## Own research

The research was conducted in the first quarter of 2016. The study was in the form of a diagnostic survey using a questionnaire consisting of 11 single and multiple choice questions. The study group consisted of 200 participants, aged 20 to 25 years old. It was assumed, that the final result of the research will be the answer that allows to identify the behaviour of young consumers in the honey market. A slight advantage in volume of the study group population had women - accounted for 56%, while 44% participants were male. Respondents were college students with majors in fields of:

- related to human nutrition – 60%;
- not related to human nutrition – 40%.

In addition, in a study they conducted statistical study of the relationship between variable factors and the claimed factors to be taken when choosing honey. The results of the survey were examined using the  $X^2$  statistic with a significance level of 0,05.

## Results of empirical research

In the first part of the study respondents were asked about the frequency of honey consumption. Only 11% of respondents admitted that they consume honey daily, while astounding 55% of the respondents eat honey occasionally (Figure 2). According Majewska et al. and associates research from 2010, the majority of students eat honey at least once a month (33.3%), while a small group of participants admitted to consumption of honey several times in the week - only 12,5% (Majewska et. al. 2012). Whereas Giemza in 1998 indicated, that just over half of respondents consumed honey occasionally (Giemza 2004). Research from 2011 and 2012, carried out by Roman et al., indicate clearly the nature of occasional consumption of honey among the Poles (Roman et al. 2013b).

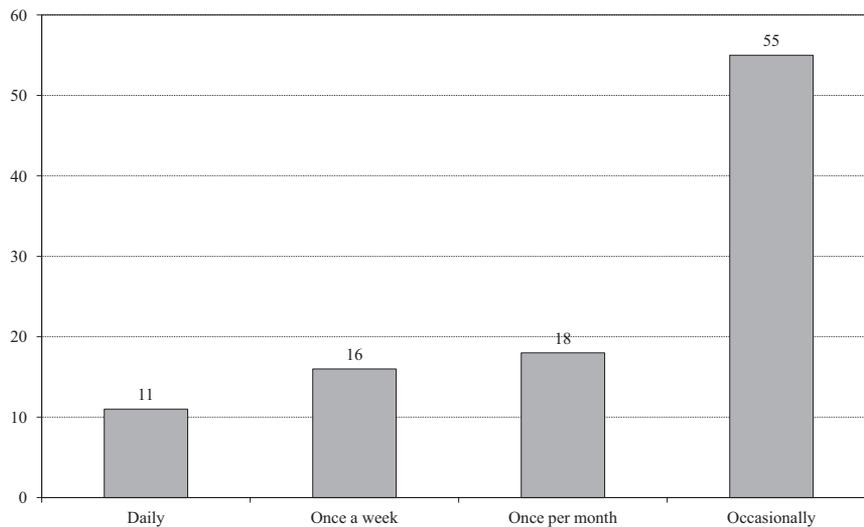
The vast majority of young people (85%) consume very small amount of honey per month – less than 250g. Only 15% of people eat up to 0,5 kg of honey per month, and this group consists of college students majoring in fields related to human nutrition (Figure 3.). According to study's by Giemza from 1998, nearly 20% of respondents consume 250 g-500 g of honey per month, and slightly more than 3% consume more than 500 g of honey per month (Giemza 2004).

Young people admit that they consume honey, because it was always present at their family's dining tables (27%). Almost one third of respondents (26%) eat honey for its pro-health properties; they believe that honey contains a lot of nutrients (20%) and has a therapeutic properties (20%). Only 11% of students consume honey because of its taste – this will be a typical response for a group of respondents that consists of students with major not related to human nutrition. The supporting data is shown in Figure 4.

Another aspect on which respondents were asked, was the place of purchase and the related to it frequency of honey purchases. The vast majority of young people always buy honey at the local farmer's markets (58%), directly from the beekeeper (62%), gets from

**Figure 2**

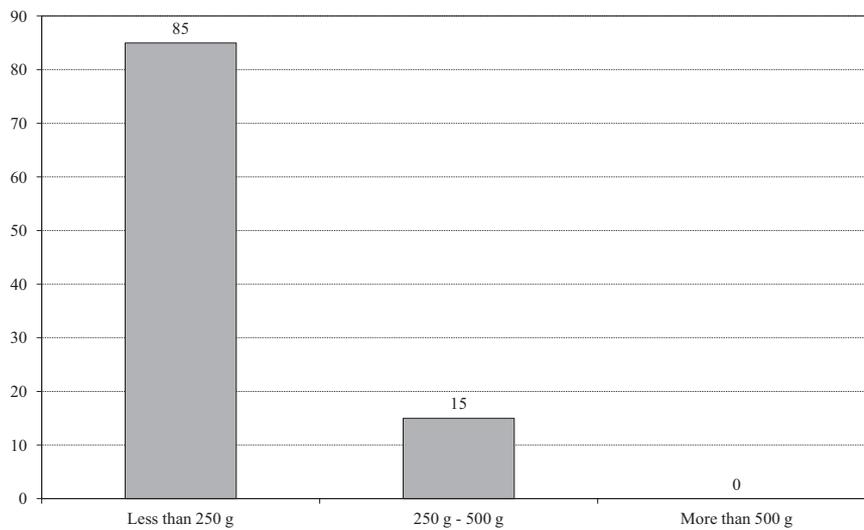
**The frequency of honey consumption by young people (%)**



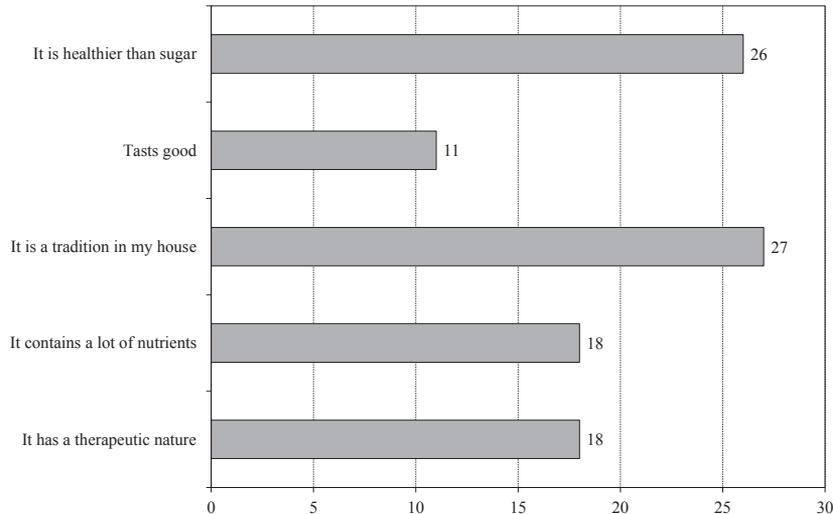
Source: Own research.

**Figure 3**

**The volume of honey consumption by young people in a month (%)**



Source: like in Figure 2.

**Figure 4****Motivation behind honey consumption by young people (%)**

Source: like in Figure 2.

friends (66%), gets it at local fairs (70%), or receives as a gift (80%). More than half of the respondents declared, that they had never purchased honey at a health food store (60%) and/or on-line (64%). Only 44% of young people buy honey in local convenience stores, then 6% is reporting that their supply of honey comes from his own apiary. Detailed data is presented in Table 2. According to a study conducted in 2008 by Bratkowski et al. and associates (Bratkowski et al. 2008), respondents most likely will buy honey from a beekeeper (84.8%), cherishing the direct contact with the manufacturer. Form of this type of sale is characterized by continuous contact with the consumer, which allows consumers to develop their own knowledge and awareness regarding product. This also promotes trust in product. According to research by Przybyłowski et al. and associates from 2010, respondents were reluctant to purchase honey online (0% of respondents). This is probably due to lack of direct contact with the seller, as well as lack of trust in this form of purchase (Przybyłowski et al. 2011).

Suitable purchase honey can be difficult, especially when we want to purchase a good quality honey. Selection of honeys on the market is very large. It appears that consumers are very much aware of their choices, considering the place of honey purchases.

Next, respondents were asked to determine which factors have influence on the purchase of honey. Participants have agreed that the following factors have a very significant impact on their purchase decision in regards to honey: price (68%), taste (65%), the country of origin (46%), and a type of honey (42%). Consistency (53%), colour (44%) and fragrance (42%) were identified by respondents as important purchasing factor. At the same time,

respondents declared that they do not pay attention to the brand of honey (41%), and its packaging (40%). This data is shown in Table 3.

**Table 2**  
**The location and frequency of purchase of honey by young people (%)**

Place sourcing / purchasing honey	always	sometimes	seldom	never
Supermarket	41	33	21	5
Local convenience store	20	32	44	4
Beekeeper	62	27	8	3
Local Farmer's Market	58	20	10	12
Online	2	6	28	64
Health Foods store	4	10	26	60
From friends	66	18	7	9
Fairs	70	10	16	4
As a gift	80	12	6	2
From my own apiary	6	0	0	94

Source: own research.

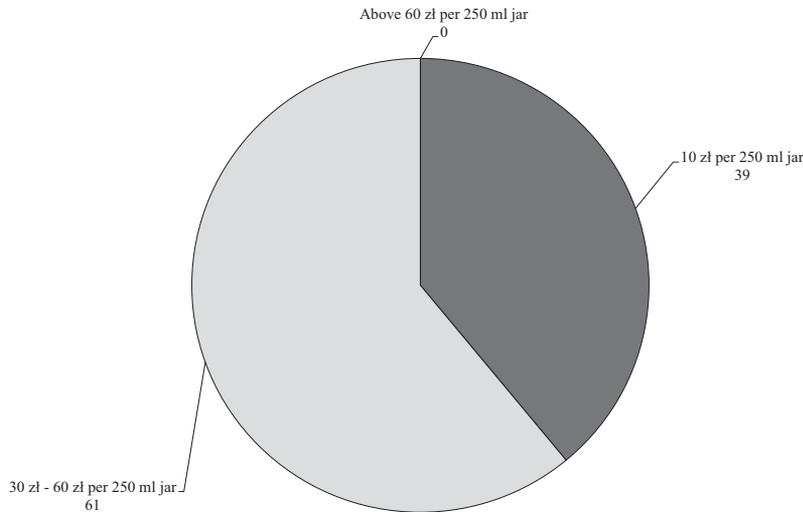
**Table 3**  
**The level of importance of individual criteria considered when purchasing honey (%)**

Criteria	1	2	3	4	5
	No matter	Few important	I don't pay attention	Important	Very important
Price	4	7	2	19	68
Packaging	10	40	14	28	8
Country of origin	1	6	15	32	46
Brand	2	4	41	27	26
Type of honey	1	10	13	34	42
Color	6	9	18	44	23
Fragrance	4	5	15	42	34
Consistency	2	2	8	53	35
Taste	1	3	6	25	65

Source: like in Table 2.

The price of honey is a very important factor of choice taken into consideration - 68% (Table 3). Almost the same percent of people declared, that they would spend about 30-40 zł for the purchase of 250 ml jar of honey, when the average price of honey on Polish market is about 30 to 40 zł per liter. Honey priced up to 10 zł per 250 ml jar is bought by 39% of young survey participants. (Figure 5).

**Figure 5**  
**Price range of respondents' honey purchases (%)**



Source: like in Figure 2.

Respondents were asked to identify the main factor taken into account for honey purchase, while there is a possibility of choice between two different factors. For example, participants have a choice between factors like taste and price, which they feel is more important on their purchase decision. Even though 68% of respondents believe that the price is a very important decision factor on purchase of honey (Table 3), at the moment of actual honey selection, the vast majority of young respondents (81%) choose the better tasting honey despite the higher price (Table 4) When making decision between type of honey and its taste, young people are strongly guided by its type (73%) (Table 4), even though much smaller fraction of participants (42%) indicated.

Because of the colour, honey is divided into two categories: bright and dark. College students definitely prefer bright honey (37%), than dark honey (12%), while just over half of participants (51%) believe, that it is irrelevant. This data is shown on Figure 6. According to the results of research conducted by the Giemza in 1998, only about 25% of the respondents showed no preference for the colour of honey (Giemza 2004). It can be noted, that over the years respondents' attitude toward colour of the honey became more neutral.

Crystallization is a natural process, that depends mainly on the type of honey and various external factors. It does not affect the quality of product, but consumers prefer liquid honey. In order to meet customer demands, manufacturers use process of honey's recrystallization (first, product is being warmed up in the order to be transferred into liquid state again), which may have a negative effect on the properties of honey (Wilczyńska 2012; Śliwińska et al. 2012). As underlined above, young people participating in the survey prefer liquid honey (55%) over crystalized honey (12%). The group of participants, that have chosen crystallized

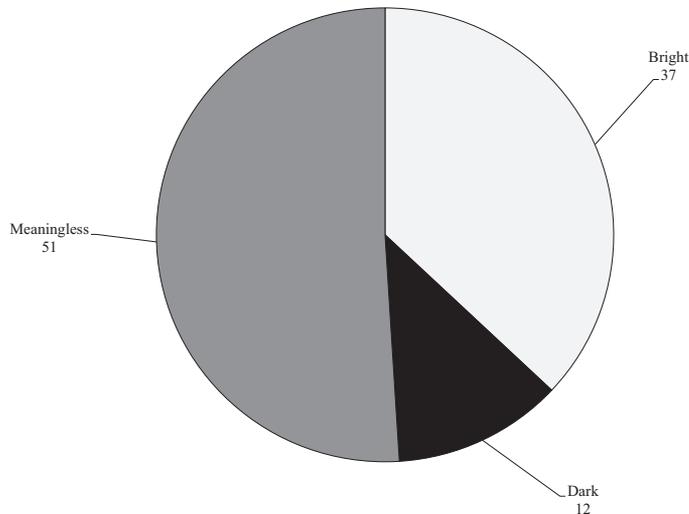
honey, consisted mostly from college students that major in a field related human nutrition. This data is shown on Figure 7. Similar results were obtained during research performed by Majewska et al. and associates in 2010, where the vast majority of young participants also chose honey with a liquid consistency (59.7%), while crystallized honey was chosen only by 14% of respondents. For 26.4% of participants consistency of honey did not matter (Majewska et al. 2012). However, according to Giemza, respondents were defined by more specific preferences regarding consistency of honey, as only 11.97% of them had no preference about the consistency of honey, but about 78% of participants chose liquid honey (Giemza 2004).

**Table 4**  
**Dominant decision factor for honey purchases in population of college students**

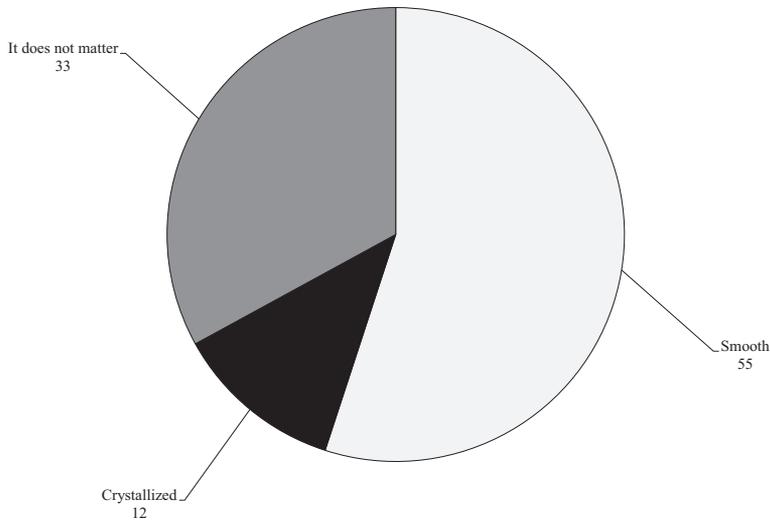
Selection of factors	% answers	Dominant Factor
Taste	81%	x
Price	19%	
Brand	39%	
Country of origin	61%	x
Packaging	26%	
Price	74%	x
Type of honey	73%	x
Taste	27%	

Source: like in Table 2.

**Figure 6**  
**Preferences of young people about selected colour of honey (%)**



Source: like in Figure 2.

**Figure 7****Young people preferences regarding the consistency of honey (%)**

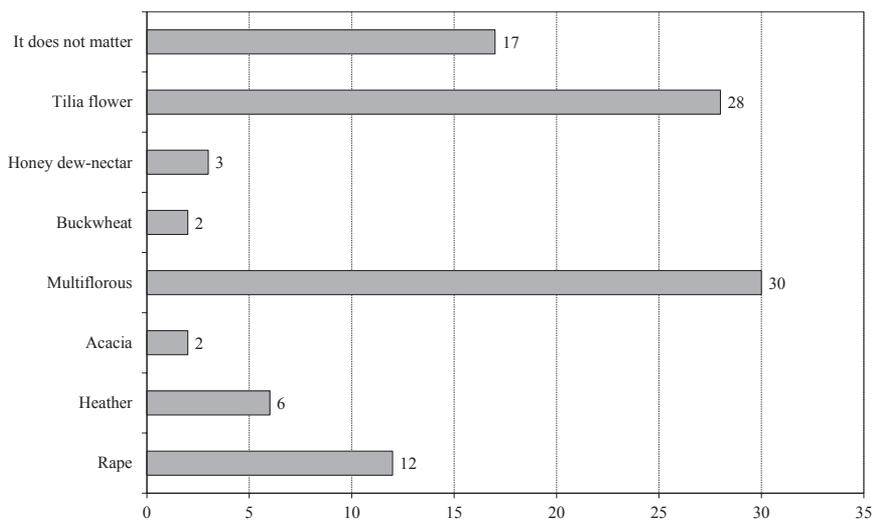
Source: like in Figure 2.

A further criterion pointed out by 42% of respondents as a very important in purchasing decision process is honey type. College students usually choose following honey types: multiflower (28%), tiliaflower (28%), and rape (12%). For 17% of young people honey type is not relevant. Few respondents (about 2%) admitted to selecting either buckwheat flower honey and/ or acacia flower honey. This data is shown in Figure 8. Similar consumer preferences related to selection types of purchased honey were noted during study conducted by Majewska et al. and associates in 2010. During this research it was recorded that majority of respondents selected wildflower honeys (33.1%), as well as tilia flower honeys (30.9%) (Majewska et al. 2012).

According to 28% of young consumers, packaging of honey products plays important role in their purchasing decisions (Table 3). Respondents pay special attention to the labeling that would confirm organic origin of honey (32%), package protection (25%), and type of package (24%) (Figure 9). Few, only around 10% of participants, pay attention to the label itself. Said group of respondents considered mainly of students with major related to nutrition science, with emphasis on the fact that all respondents were female.

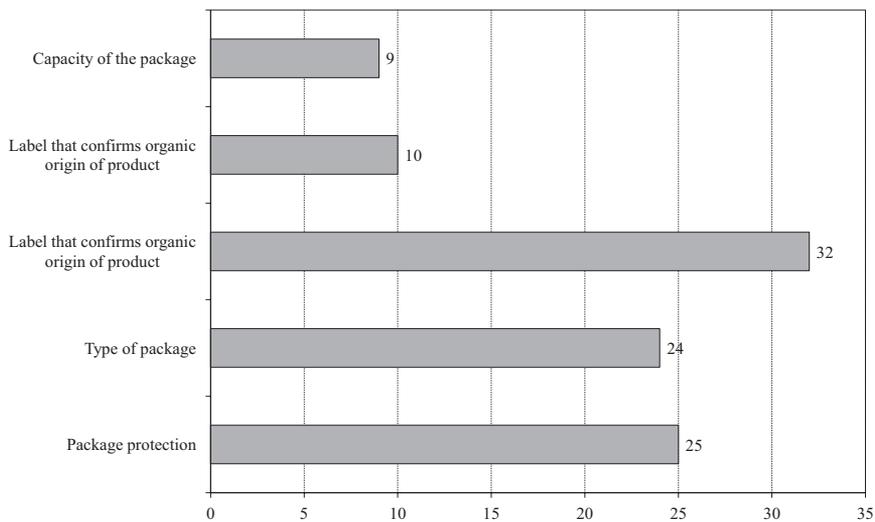
In the last part of the study, respondents were asked about their opinions regarding retail market of honey. Nearly half of participants believe, that honey prices are affordable, and there is a wide selection of products available on the market (43%). According to 34% of young people, honeys offered to consumers are also high quality. Nearly a one third of respondents believe, that honey products very much available in retail, which can be found almost anywhere (27%). Only 14% of participants is convinced, that it is difficult to find a honey of high quality, and the group of respondents that has recorded such response consisted of female students with major related to nutrition science. The data is shown on Figure 10.

**Figure 8**  
**Preferences of young people related to certain honey varieties (%)**



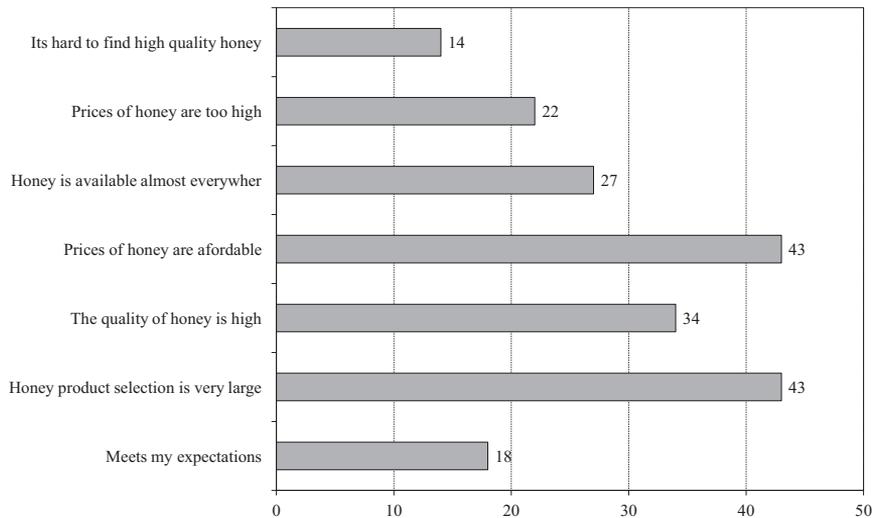
Source: like in Figure 2.

**Figure 9**  
**Packaging of honey and its relation to purchase decision among the group of students (%)**



Source: like in Figure 2.

**Figure 10**  
**Opinion of young consumers regarding market of honey (%)**



Source: like in Figure 2.

According to research conducted by Roman et al. and associates, more than half of the respondents believe that prices of honey are high, and about 10% believe that they are too high (Roman et al. 2013b).

## Conclusions

Presented study includes not only a range of information related to the market of honey in Poland, but also selective consumer market research, which can be very valuable. The research allowed to identify factors that influence the behaviours of young consumers in regards of their choice of honey products:

1. Purchasing preferences of young consumers are related directly to family traditions and the fact that respondents were used to consume honey frequently.
2. Majority of young respondents admitted to consume honey products occasionally, rather in small amounts – up to 250g per month.
3. Participants were most likely choosing bright honeys: wildflower and tiliaflower; the reason behind their purchasing decision was linked to the fact that those two types of honey come in a very large variety on the market.
4. It was determined, that the main factor taken into consideration during purchase of honey was its price, then its physical qualities.
5. Participants agree that honey products pricing is reasonable and there is large variety of it on the market.

6. Respondents admitted to have a tendency to use honey for therapeutic purposes, rather than as daily addition to consumed food products.
7. It has been confirmed, that college students with major related to human nutrition science, have shown higher level of knowledge and awareness related to honey. It can be assumed that they will make more smarter purchasing decisions related to honey.

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## Rynek miodów w opinii młodych konsumentów

### Streszczenie

Wybór towaru spośród wielu podobnego typu stanowi problem dla konsumenta poruszającego się w gospodarce rynkowej. Ze względu na znikającą powoli tradycyjną formę sprzedaży bezpośredniej w kontakcie ze sprzedawcą, wybór konsumenta stał się zależny od szeregu różnych czynników, zwanych preferencjami konsumenckimi. W Polsce przyjęło się przekonanie, iż konsumentami miodów są najczęściej osoby starsze, traktujące miód jako panaceum na różne choroby, natomiast interesującym może być poznanie czynników wpływających na wybór miodów przez młodych konsumentów. Stąd celem niniejszej pracy było określenie cech jakościowych oraz marketingowych mających wpływ na zakup miodu.

Badania zostały przeprowadzone w formie sondażu diagnostycznego z wykorzystaniem kwestionariusza ankietowego składającego się z 11 pytań. Grupę badaną stanowiło 200 respondentów w wieku 20-25 lat. Założono, iż końcowym efektem badań będzie uzyskanie odpowiedzi pozwalających na określenie zachowań młodych konsumentów na rynku miodów. W wyniku przeprowadzonych badań można stwierdzić, że preferencje zakupowe młodych osób zależą w głównej mierze od tradycji wyniesionej z domu oraz przyzwyczajenia konsumentów do spożywania miodu. Młodzi konsumenci chętniej wybierają miody wielokwiatowe, ze względu na ich dostępność. Głównym czynnikiem, którym kierują się młodzi ludzie jest cena miodu, a także jego cechy sensoryczne.

**Słowa kluczowe:** miód, preferencje konsumentów, rynek miodów.

**Kody JEL:** A13, M31, L66

## Рынок мёда в оценке молодых потребителей

### Резюме

Выбор товара из многих сходного типа представляет проблему для потребителя в рыночной экономике. Ввиду медленно исчезающей традиционной формы непосредственной продажи в контакте с продавцом выбор потребителя стал зависеть от ряда других факторов, называемых потребительскими предпочтениями. В Польше бытует убеждение, что потребители мёда – это чаще всего пожилые люди, считающие мёд в качестве панацея от разных болезней, тогда как интересным может быть знание факторов, влияющих на выбор мёда молодыми потребителями. Потому цель настоящей работы заключалась в определении качественных и маркетинговых свойств, влияющих на покупку мёда.

Исследования провели в форме диагностического зондажа с использованием анкетного вопросника, содержащего 11 вопросов. Обследуемую группу составляли 200 респондентов в возрасте 20-25 лет. Предполагали, что конечным результатом будет получение ответов, позволяющих определить поведение молодых потребителей на рынке мёда. В результате проведенных обследований можно сказать, что закупочные предпочтения молодых людей

в основном зависят от традиции, вынесенной из дома, а также привычки потребителей потреблять мёд. Молодые потребители более охотно выбирают сорта полифлёрного мёда по причине их доступности. Главным фактором, которым руководствуются молодые люди, являются цена, а также его сенсорные свойства.

**Ключевые слова:** мёд, предпочтения потребителей, рынок мёда.

**Коды JEL:** A13, M31, L66

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