

## Survey Report of APITERAPHY PROJECT Transnational Synthesis

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## Introduction

We have ended the phase one, of the beekeeping project of APITERAPHY, it is time to give a report about how everything went the last seven months. This is supported by Erasmus +. The main, structural sponsor in this project is EU. The report covers activities of the project from the month of September 2014 till march 2015. The project is a livelihood improvement project, targeting mostly beekeepers and other target groups with %95 percent male inclusive supposed to be implemented in two phases within two years. The content of this report covers the activities that have taken place, the achievements so far.



## A-General Information about Apitherapy Partner Countries

### Beekeeping Sector

**A1-Romania:** Beekeeping in Romania is one of the sectors of agriculture with the oldest traditions. Thracians and Dacians, ancestors of the Romanian people were involved from which it obtains bee honey, wax and other bee products. Honey is a very pleasant food, nutritious, with high biological value and calorific value (3150 kcal). Therefore, honey was used by Greek athletes before entering the Olympic arena, and today it is recommended to climbers, athletes, and also entering in the nutrition of astronauts. Honey is an easily digestible product as bees, the biochemical process invert sucrose turned two of its components, into glucose and fructose, so it is basically digested. Due to the presence of real honey it has an antibacterial property. It was used by the Romans to preserve game raw, and the embalming. And today is used in lung, heart, stomach, liver, skin, eye, treatment of neuroses, etc. The basis of our country's honey bee sums up a total surface of over 5 million hectares, of which 3 million acres it can harness the bee by picking up maintenance and production. From the area of 3 million hectares, most, ~ 60% is represented by forest species and ~ 40% of cultivated plants and wild species. As the structure and size, the honey suffers permanent changes.

**A2-Turkey:** Turkey has considerable potential in beekeeping with its rich flora, proper ecological conditions and existence of colony. However Turkish beekeeping sector has not utilized the rich natural resources sufficiently. Turkey is one of the most important honey producer countries. In Turkey, 200.000 agricultural organizations have activities in apiculture. But, only 20 000 of these organizations deal with apiculture as their main source of income. The natural conditions, appropriate climate conditions and rich vegetation of Turkey are suitable for all kind of beekeeping activities. Being carried out the beekeeping activities without sticking to the land, requiring less capital and labor force, its shorter investment return period make the beekeeping more advantageous than the other livestock sub-sectors. It is possible to categorize the beekeeping activities carried out in Turkey as conventional, organic and migratory beekeeping. The establishment number which is active in the field of organic beekeeping was recorded as 355 as from the end of 2012 in Turkey, the beehive

number was 47.065 and total organic honey production amount was 516, 8 tons. Turkish beekeeping sector produced 99,245 tons of honey with 6.011.332 beehives as from 2014 and, by this production figures, Turkey is the second country which produces the most honey after China. In spite of this, Turkey is ranked 30th in the world's honey exportation and in rankings of efficiency per beehive.

**A3-Poland:** According to data obtained from the register of the Veterinary Inspection there were 49 432 beekeepers, owning 1 246 633 bee colonies in Poland. The highest numbers of colonies were kept in the following voivodeships: Lubelskie, Podkarpackie, Warmińsko-

Mazurskie and Małopolskie (49% of the total number of colonies in Poland). The smallest numbers were noted in the voivodeships: Podlaskie, Opolskie and Łódzkie (9% of the total number of colonies in Poland). The highest number of colonies kept in apiaries consisting of 5 or less colonies was registered in the Śląskie Voivodeship. Over 7 colonies per 1km<sup>2</sup> occurred in the Małopolskie Voivodeship and 6.7 colonies per 1km<sup>2</sup> in the Podkarpackie Voivodeship.

In the Podlaskie Voivodeship it was only 1.6 colonies per 1km<sup>2</sup> ; the density values in the Łódzkie Voivodeship and the Mazowieckie Voivodeship was 2.35 and 2.52, respectively. The average apiary size was 25.2 colonies. The largest apiaries were noted in the Warmińsko-Mazurskie Voivodeship. The average apiary in this region consisted of over 44 colonies. The smallest apiaries dominated in the Śląskie Voivodeship. The percentage of small and medium apiaries in Poland (up to 80 colonies) was very high - 97.46%. Apiaries of this size do not need to be registered as a special branch of agricultural production. The percentage of the rest of apiaries (over 80 colonies) was only 2.54%. The number of colonies kept in those apiaries made only 14.43% of the total number of bee colonies in Poland. Most of beekeepers were middle-aged or older. According to data obtained from voivodeship and regional associations of beekeepers in 2011 25.5% was 66 or more years old.

**A4-Hungary:** In Hungary there are 15,000 beekeepers. According to statistical data 960,000 bee colonies are kept. The number of bee yards is decreasing contrarily the number of bee colonies shows a slight increase. There are more and more beekeepers with several hundreds of colonies. One of the biggest private beekeeping business of Europe (6500 hives)

is situated in Hungary. The means of production are varied there's no uniform beehive or frame size. The most popular hive is the so called Nagyboczonádi which was first used in 1913 with 24 frames (size of the frame is  $42 \times 36$  cms). The purpose of this hive is acacia honey production. In the hive beside the acacia blooming time two queens are working in the opposite side of the hive. Two weeks before the starting of the blooming (usually middle of May, the acacia blooming time) the beekeeper removes from the hive the older queen and excludes the other one only for 3 frames. So the colony becomes of an unnatural huge size. In the next two weeks 90% of the open brood are disappears.

So when its blooming time, most of the worker bees are gathering acacia nectar (they do not have any job –like nursing). This is the most effect way to harvest the largest crop from the short blooming time of acacia. Besides acacia Hungary has other important plants which are considerable in honey production: sunflower, rape and lime tree. The Carpathian Basin is rich in rivers and good quality soils, so the vegetation is more than sufficient for the high number of bee colonies. The beekeeping season starts in middle of April and lasts until the end of September. The honey producing months are May, June and July. In this short period most of the beekeepers are moving their colonies. Hungary is a relatively small country so bee hives transport takes only a few hours. Containers (moveable bee-house) are very popular in this country. These are special vans which can carry 40-60 beehives. This system can be very interesting for foreign beekeepers: hives are kept in three floors and an open corridor, which can be moved up or down, helps the work with bees. The native bee variety is the Carniolan bee. This type which developed its characteristics during millions of years is well known by the beekeepers of the world. Its breeding is strictly controlled and only state approved queen breeders are allowed to carry out this work. There are 46 places in the country when Carniolan queen breeding is done. This little country in the middle of Central-Europe by all means is worth to be seen by the beekeepers from the other parts of the world; here everyone can see interesting things and gain experience.

## **B-Methodology of Survey**

B1- In Romania, the survey started on the 19th of January 2015 and ended on the 2nd of February 2015, by contacting various beekeeping associations via email and by giving the



need analysis questionnaires to the beekeepers in person. **19** representative beekeepers is the total of people who participated at the APITHERAPY project's survey.

**B2- In Turkey**, survey was conducted to determine occupational and sociological structures of beekeepers in Turkey since the 10<sup>th</sup> of January 2015 and ended on the 2<sup>nd</sup> of February. The data was obtained through interviews and questionnaires applied to **165** beekeepers distributed in 7 districts of the Turkey via e mail and through beekeepers associations.

**B3- In Poland** the survey started on the 12th of January 2015 and ended on the 12th of February 2015, by contacting various beekeeping associations via giving the need analysis questionnaires to the beekeepers in person. **42** representative beekeepers is the total of people who participated at the APITHERAPY project's survey.

**B4- In Hungary**, the survey started on the 26th January, 2015 and ended on the 3rd February, 2015, by contacting various beekeeping associations via email and by giving the need analysis questionnaires to the beekeepers in person. **25** representative beekeepers is the total of people who participated at the APITHERAPY project's survey.

### **C. Demographics**

**C1- In Romania**, the respondents were 17 males and 2 females, and their education level was mainly University Degree (47%- 9 people), Primary is the next frequent level of education (37%- 7 people), Master Degree (16%- 3 people) and PHD none. The majority of the respondents are the owners of a beekeeping farm (69% -11 respondents), employees (31% - 5 persons), consultant (13% - 2 respondents), and one non-respondent. The average experience in beekeeping is 21 and more (9 respondents, 50%).

**C2- In Turkey** beekeepers respondents were 149 males and 16 females (% 9.7), and their education was mainly primary school degree. High school is the next frequent level of education. MSc. Degree (11 beekeepers - 6.66%) and 1 PhD. The majority of the beekeepers

respondents are the owners of beekeeping farm 138 and (84%) employees (12%), consultant (4%), and 10 non-respondents. The average experience in beekeeping is 16 years (55 respondent beekeepers - % 33.3).

**C3- In Poland**, the respondents were 26 males and 16 females, and their education level was mainly University Degree (19%- 8 people). Primary is the next frequent level of education (17%- 7 people), Higher education (62%- 26 people). The majority of the respondents are the owners of a beekeeping farm (64% - 27 respondents), employees (29% - 12 persons), consultant (5% - 2 respondents), and one non-respondent. The average experience in beekeeping is 11-20 (15 respondents, 36%).

**C4- In Hungary**, the respondents were 25 males, and their education level was mainly vocational education (40% – 10 people), primary and secondary school are the next frequent level of education (20% – 5-5 people), BSc degree (12% – 3 people), Msc (8% – 2 people) and PhD none. All respondents are the owners of a beekeeping farm (100% – 25 respondents). The most beekeepers have experience in beekeeping 6-10 years (10 respondents, 40%).

#### **D- Structural data to beekeeping farm**

**D1-In Romania:** At the question about the number of hives the respondents have at their farm, the average number of hives used with a commercial purpose is 113.8 (17 out of 19 persons responded), 18 persons have work experience in another field than beekeeping, and the majority of them have member of their families who work at their farm (14 persons – 78%), and only 7 (41%) of them have seasonal workers employed at their farm.

How many hives do you use as commercial in your beekeeping farm?	
The average number of hives used with a commercial purpose is	113.8
1-Do you have work experience in another field than beekeeping?	
Yes	18
No	0
2-Do other members of your family work at your farm?	
Yes	14
No	4

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3-Are there permanent (all year) workers employed at your farm?	
Yes	3
No	14
4-Are there seasonal workers employed at your beekeeping farm?	
Yes	7
No	10

### On Beekeeping farm production

At question number 6, the most common answers given were honey (18 persons), propolis (17 respondents), bee pollen (17), bee wax (17), royal jelly (2), medicinal bee venom (0). The majority of the beekeepers sell the products made at their farm (17 respondents), and also

they do a pre-processing of the bee products (17), packing their products at the farm (12) and in other places (6).

Honey	18
Propolis	17
Bee pollen	17
Bee wax	17
Royal Jelly	2
2-Do you sell your products from the farm?	
Yes	17
No	1
3-Do you do a pre-processing of bee products in farm?	
Yes	17
No	1
4-Where do you pack your products?	
At the farm	12
Other	6

2. Do you know what Apitherapy is?	
Yes, I know	10
I know partially	6
Unfortunately I do not know	2
3. What products are used in Apitherapy?	
Honey	6
Propolis	6

Bee pollen	6
Bee wax	5
Royal jelly	6
Medicinal bee venom	7
All of the above	15
4. Do you know the physiological properties of bee products?	
Yes	6
No	0
Partially	12
5. Where do you follow news about the use of these products in the health sector?	
Media	6
Scientific journals	10
Internet	16
6. Which one has more reliable information about bee products and health?	
Media	1
Scientific Journals	10
Internet	7
7. Do you feel a need for cognitive reference guide in the use of bee products in the treatment of some diseases?	
Yes, definitely	13
Rarely	3
No, I have enough information	2
8. Do you think you have enough information about using bee products in treatments?	
Yes	0
No	8
Partially	10

### 1. Bee products and health sector information

1. Except for honey, which products have the greatest demand to you?	
Propolis	14
Bee pollen	10
Royal jelly	3
Medicinal bee venom	3
2. About which products would you like to receive more information?	
Honey	1
Propolis	5
Bee pollen	5
Bee wax	2

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Royal jelly	2
Medicinal bee venom	3
All of the above	11
3. Do you need to have more skills and knowledge related to apiteraphy, health protection and treatment of diseases?	
Yes	18
No	0
4. Bee products have been used in the treatment of diseases below. What are these diseases?	
Multiple Sclerosis	2
Treatment of infectious auto-immune	7
Cardiovascular, pulmonary, and gastrointestinal disease	9
Neuropathic pain and other chronic pain conditions	3
All of the above	7

**D2- In Turkey:** At the question about the number of hives the respondents have at their farm, the average number of hives used with a commercial purpose is 113.8 (17 out of 19 beekeepers responded), 18 persons have work experience in another field than beekeeping, and the majority of them have member of their families who work at their farm (14 persons – 78%), and only 7 (41%) of them have seasonal workers employed at their farm. At the question about the number of hives the respondents have at their beekeeping farm, the average number of hives used with a commercial purpose is 145 but mostly respondents don't give information about numbers of hives only 10 people give answer about numbers of hives, 10 persons have work experience in another field than beekeeping.

1. How many hives do you use as commercial in your beekeeping farm?

The average number of hives used with a commercial purpose is	45
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2. Do you have work experience in another field than beekeeping?

Yes	30
No	135

3. Do other members of your family work at your farm?

Yes	117
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No	48
4. Are there permanent (all year) workers employed at your farm?	
Yes	41
No	124
5. Are there seasonal workers employed at your beekeeping farm?	
Yes	124
No	41

At question 6 below, the most common answers given were honey (145 beekeepers), propolis (70 beekeepers), bee pollen (120 beekeepers), bee wax (15 beekeepers), royal jelly (55 beekeepers), medicinal bee venom (25 beekeepers), all of the above (85 beekeepers). The majority of the beekeepers sell the products made at their farm (125 beekeepers), and also they do a pre-processing of the bee products (45 beekeepers), packing their products at the farm (40 beekeepers) and in other places (25 beekeepers).

<b>6. What kind of bee products do you generally produce at your farm?</b>	
Honey	145
Propolis	70
Bee pollen	125
Bee wax	15
Royal Jelly	55
Medicinal bee venom	25
All of the above	85
7. Do you sell your products from the farm?	
Yes	145
No	20

8. Do you do a pre-processing of bee products in farm?	
Yes	40
No	125
9. Where do you pack your products?	
At the farm	145
Other	20

### C. Bee products and health sector information.

10. Do you know what <u>Apitherapy</u> is?	
Yes, I know	60
I know partially	85
Unfortunately I do not know	92
11. What products are used in <u>Apitherapy</u> ?	
Honey	145
<u>Propolis</u>	55
Bee pollen	45
Bee wax	0
Royal jelly	155
Medicinal bee venom	5
All of the above	35
12. Do you know the physiological properties of bee products?	
Yes	35
No	90

Partially	40
13. Where do you follow news about the use of these products in the health sector?	
Media	95
Scientific journals	15
Internet	55
14. Which one has more reliable information about bee products and health?	
Media	16
Scientific Journals	18
Internet	14
15. Do you feel a need for cognitive reference guide in the use of bee products in the treatment of some diseases?	
Yes, definitely	140
Rarely	10
No, I have enough information	15
16. Do you think you have enough information about using bee products in treatments?	
Yes	80
No	50
Partially	35
17. Except for honey, which products have the greatest demand to you?	
Honey	135
Propolis	25
Bee pollen	55
Bee wax	0
Royal jelly	85

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Medicinal bee venom	3
All of the above	75
<b>18. About which products would you like to receive more information?</b>	
Honey	55
Propolis	110
Bee pollen	100
Bee wax	2
Royal jelly	130
Medicinal bee venom	15
All of the above	145
<b>19. Do you need to have more skills and knowledge related to <u>apitherapy</u>, health protection and treatment of diseases?</b>	
Yes	140
No	25
<b>20. Bee products have been used in the treatment of diseases below. What are these diseases?</b>	
Multiple Sclerosis	10
Treatment of infectious auto-immune	115
Cardiovascular, pulmonary, and gastrointestinal disease	10
Neuropathic pain and other chronic pain conditions	10
All of the above	20
<b>21. Do you think that you need a special training of bee products in the marketing health sector?</b>	
Yes	150
No	15

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Survey was very interesting and well known among the survey participants. According to the last question about 150 people want to improve their skills on apitherapy sector and take part in the training of bee products in the marketing health sector. The most of Turkish beekeepers definitely do not consider themselves as apitherapists, although they may be regarded as the primary therapists for this type of medicine. Most have had positive experiences in using honey, propolis, pollen and royal jelly, which they employ for various indications. It is interesting that no adverse experiences were reported by the beekeepers, which implies that these products seem to be safe. This study enabled us to determine the major indications for the use of propolis and pollen in beekeepers and factors which were associated with positive experiences and the use of bee products, especially self-administration of treatment, better health consciousness, greater age, larger number of bee hives tended and positive experiences with using one bee product. In summary, the potential benefit of bee products is supported by several studies but Turkish beekeepers does not know and not knowledgeable, and now also by the positive experiences of a small group of beekeepers who used bee products frequently to treat a wide range of conditions. The survey indicated here may be useful in selecting and designing future trials of bee products. The recent positive findings from the meta-analysis on honey and wound healing show that the some experiences may well prove interesting.

#### In Poland:

1. How many hives do you use as commercial in your beekeeping farm?	
The average number of hives used with a commercial purpose is	32
2. Do you have work experience in another field than beekeeping?	
Yes	30
No	12
3. Do other members of your family work at your farm?	
Yes	11
No	31
4. Are there permanent (all year) workers employed at your farm?	

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Yes	6
No	36
<b>5. Are there seasonal workers employed at your beekeeping farm?</b>	
Yes	6
No	35

## B. On Beekeeping farm production

At question number 6, the most common answers given were honey (28 persons), propolis (18 respondents), bee pollen (20), bee wax (12), royal jelly (2), medicinal bee venom (0), all of the above (12). The majority of the beekeepers sell the products made at their farm (33 respondents), and also they do a pre-processing of the bee products (33), packing their products at the farm (33) and in other places (7).

<b>6. What kind of bee products do you generally produce at your farm?</b>	
Honey	28
Propolis	18
Bee pollen	20
Bee wax	12
Royal Jelly	2
Medicinal bee venom	0
All of the above	12
<b>7. Do you sell your products from the farm?</b>	
Yes	33
No	8
<b>8. Do you do a pre-processing of bee products in farm?</b>	



Yes	33
No	8
<b>9. Where do you pack your products?</b>	
At the farm	33
Other	7

### C. Bee products and health sector information.

<b>10. Do you know what <u>Apitherapy</u> is?</b>	
Yes, I know	17
I know partially	16
Unfortunately I do not know	9
<b>11. What products are used in <u>Apitherapy</u>?</b>	
Honey	14
Propolis	5
Bee pollen	10
Bee wax	1
Royal jelly	4
Medicinal bee venom	2
All of the above	21
<b>12. Do you know the physiological properties of bee products?</b>	
Yes	14
No	14
Partially	14
<b>13. Where do you follow news about the use of these products in the health sector?</b>	

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Media	24
Scientific journals	17
Internet	22
14. Which one has more reliable information about bee products and health?	
Media	16
Scientific Journals	18
Internet	14
15. Do you feel a need for cognitive reference guide in the use of bee products in the treatment of some diseases?	
Yes, definitely	23
Rarely	16
No, I have enough information	3
16. Do you think you have enough information about using bee products in treatments?	
Yes	8
No	18
Partially	17
17. Except for honey, which products have the greatest demand to you?	
Honey	33
Propolis	7
Bee pollen	18
Bee wax	5
Royal jelly	5
Medicinal bee venom	1
All of the above	7

All of the above	7
18. About which products would you like to receive more information?	
Honey	3
Propolis	8
Bee pollen	5
Bee wax	5
Royal jelly	7
Medicinal bee venom	9
All of the above	24
19. Do you need to have more skills and knowledge related to <u>apitherapy</u> , health protection and treatment of diseases?	
Yes	40
No	2
20. Bee products have been used in the treatment of diseases below. What are these diseases?	
Multiple Sclerosis	30
Treatment of infectious auto-immune	16
Cardiovascular, pulmonary, and gastrointestinal disease	18
Neuropathic pain and other chronic pain conditions	14
All of the above	10
21. Do you think that you need a special training of bee products in the marketing health sector?	
Yes	40
No	2

Survey was very popular among the meeting participants. According to the last question about 40 people want to raise their skills on apitherapy sector and take part in the training of bee products in the marketing health sector.

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<b>1. How many hives do you use as commercial in your beekeeping farm?</b>	
The average number of hives used with a commercial purpose is	62
<b>2. Did you come from another work experience before beekeeping?</b>	
Yes	25
No	0
<b>3. Have other members of your family employment on farm?</b>	
Yes	20
No	5
<b>4. Are there permanent (all year) workers employed on your farm?</b>	
Yes	0
No	25
<b>5. Are there seasonal workers employed at your beekeeping farm?</b>	
Yes	3
No	22

#### 4. B) On Beekeeping farm production

At question number 6, the most common answers given were honey (25 persons), propolis (15 respondents), bee pollen (4), bee wax (22), royal jelly(2), medicinal bee venom (0). All beekeepers sell the products made at their farm (25 respondents), and also they do a pre-processing of the bee products (25), packing their products at the farm (15) and in other places (10).

<b>6. What kind of bee products produce in your farm generally?</b>	
Honey	25
Propolis	15
Bee pollen	4
Bee wax	22
Royal Jelly	2

Medicinal bee venom	0
All	0
<b>7. Do you sell your products from the farm?</b>	
Yes	25
No	0
<b>8. Do you do a pre-processing of bee products in farm?</b>	
Yes	25
No	0
<b>9. Where do you pack your products?</b>	
At the farm	15
Other	10

### 5. C) Bee products and health sector information

<b>10. Do you know what is Apitherapy?</b>	
Yes, I know	15
I know partially	10
Unfortunately I do not know	0
<b>11. What products are used in Apitherapy?</b>	
Honey	25
Propolis	15
Bee pollen	4
Bee wax	0
Royal jelly	2
Medicinal bee venom	0
All of the above	0
<b>12. Do you know the physiological properties of bee products?</b>	
Yes	18
No	0
Partially	7
<b>13. Where do you follow news about the use of these products in the health sector?</b>	

Media	8
Scientific journals	6
Internet	11
<b>14. Which one has more reliable information about bee products and health?</b>	
Media	5
Scientific Journals	12
Internet	8
<b>15. Do you feel a need for cognitive reference guide in the use of bee products in the treatment of some diseases?</b>	
Yes, definitely	18
Rarely	7
No, I have enough information	0
<b>16. Do you think you have enough information about using bee products in treatments?</b>	
Yes	3
No	7
Partially	15

Based on the answers given at the need analysis questionnaire, Hungarian beekeepers consider they would benefit from learning about what apitherapy is and how they can use this knowledge in treating diseases.

<b>17. Except for honey, which products have the greatest demand to you?</b>	
Propolis	15
Bee pollen	4
Royal jelly	2
Medicinal bee venom	0
<b>18. What product(s) do you need more information to bee products?</b>	
Honey	12
Propolis	22
Bee pollen	18
Bee wax	24



Royal jelly	8
Medicinal bee venom	3
All of the above	0
<b>19. Do you need to have more skills and knowledge related to apitherapy, health protection and treatment of diseases?</b>	
Yes	23
No	2
<b>20. Bee products have been used in the treatment of diseases below. What are these diseases?</b>	
Multiple Sclerosis	19
Treatment of infectious auto-immune	11
Cardiovascular, pulmonary, and gastrointestinal disease	24
Neuropathic pain and other chronic pain conditions	13
All of the above	6
<b>21. Do you think that you need a special training of bee products in the marketing health sector ?</b>	
Yes	20
No	5

## CONCLUSIONS:

The APITERAPHY survey aimed to investigate the practice of apitherapy - using bee products such as honey, pollen, propolis, royal jelly and bee venom to prevent or treat illness and promote healing among the target groups of project partners and to evaluate their experiences with these therapies. Even if limited for a well-founded statistic analysis, the report from the questionnaires highlights the opportunities given by the new innovative trends and training for apitherapy products for beekeepers.

The survey results shows that marketing of apitherapy products offers significant potential for the further development of beekeeping industries in partners countries. Starting from the same target groups the demographic data are similar for age and gender, as well as for kind of education, even if

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there are different depending of different school structure in the project countries (RO,TR,PL and HU). Most of the project partners beekeepers are producing the apitherapy products which are the medicinal use of honeybee by-products. These products include, honey, bee venom, pollen, royal jelly, propolis, and beeswax. Bee venom therapy is only one type of therapy under the umbrella term apitherapy. These therapeutic bee stings have been associated with the science behind the application of acupuncture needles. But most of the respondents does not know it and do not produce venom but only some Turkish beekeepers producing venom but unable to sell it, no market.

A significant majority of respondents (TR, PL, RO, HU) have positive thoughts that honey has antibacterial and anti-inflammatory properties and is used as a topical salve on superficial flesh wounds and burns. Honey eaten as a food is a cold and flu remedy. The beekeepers were also asked about the health conditions in which they would use propolis and pollen. Most of their answers shows that propolis is most frequently used for treating the common cold, wounds and burns, sore throats, gingival disorders and also as a general prophylactic.

Survey results showed that Turkish and Polish beekeepers' more experiences with various bee products. It shows that they had the greatest and most favorable experiences with honey, followed by propolis, pollen and royal jelly. Most beekeepers definitely do not consider themselves as apitherapists, although they may be regarded as the primary therapists for this type of medicine. Most have had positive experiences in using honey, propolis, pollen and rojal jelly, which they employ for various indications. It is interesting that no adverse experiences were reported by the beekeepers, which implies that these products seem to be safe. An important part of beekeepers (RO, TR, PL and HU) are not experienced in the use of bee products in Apiteraphy. Even they do not know the concept of apitherapy exactly. The majority of interviewers (TR, RO, PL and HU) have difficulties for the marketing of bee products in good prices. Results showed that the sale of bee products from the farm is much more widespread in Turkey.

All respondents (TR, PL, RO, HU) would like to be informed about the apitherapy for a higher income and they want to be informed scientifically about apitherapy applications.

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