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MEDI-BEEB



Medical Beekeeping for Beekeepers

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MEDI-BEEB

NEEDS ANALYSIS REPORT IN ITALY



**Confederazione Italiana Agricoltori
Regionale Umbria**

2022- Italy

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Needs Analysis Report in Italy - Authors



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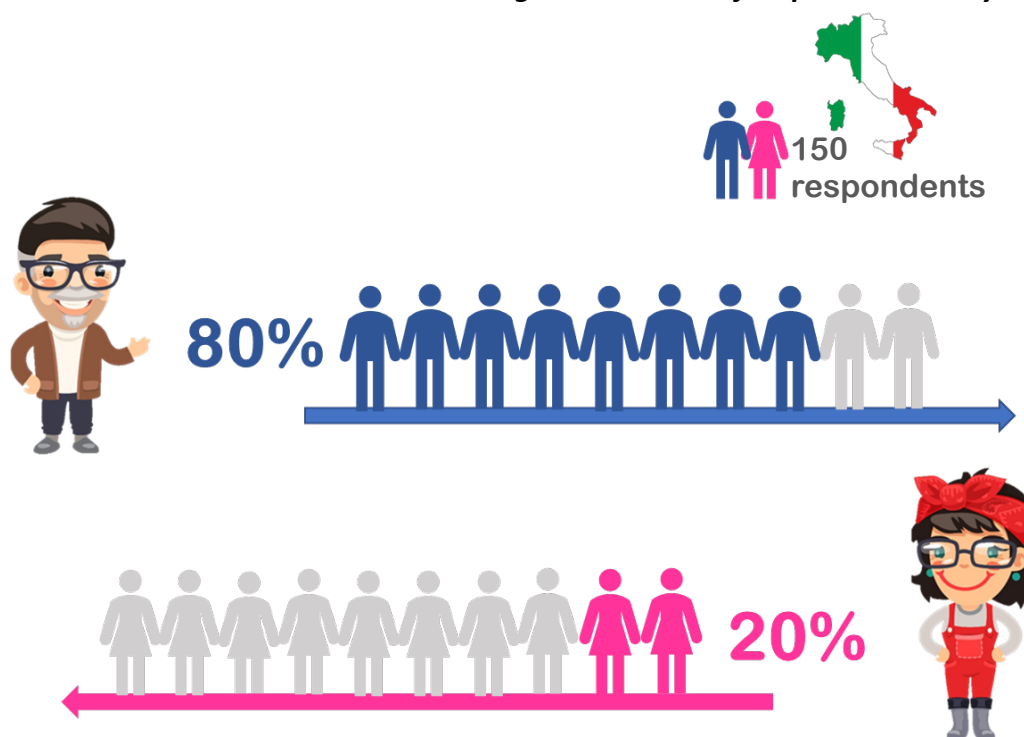
Needs Analysis Report in Italy – General information

A survey was conducted in Italy, with involvement of 150 beekeepers, focused on a questionnaire constituted of 4 questions related to personal information and 22 questions with technical content. All the beekeepers were contacted individually by WhatsApp calls and e-mails. The interviewees were members of beekeepers' associations, Associazione Produttori Apistici Umbri, APAU, collecting more than 500 beekeepers, individuals and members of cooperatives, Apicoltura Etica e Solidale AES Umbria, and Apicoltori Gubbio Gualdo Tadino soc. coop. agr.

Needs Analysis Report in Italy – Responders' profile

Question No. 1. Your gender? 1.

Figure 1. Gender of responders in Italy

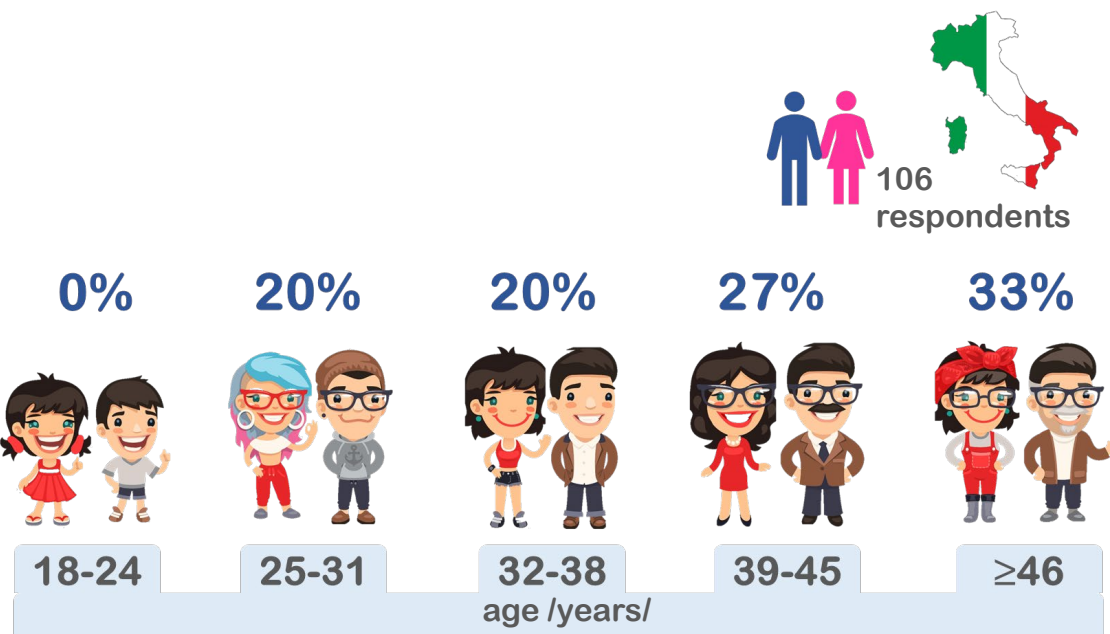


Your gender: 120 Male (80%) – 30 Female (20%)

Question No. 2. Your age?

Your age: 0 (18-24) - 30 (25-31) (20%) - 30 (32-38) (20%) - 40 (39-45) (26.7%) - 50 (46 and over) (33.3%).

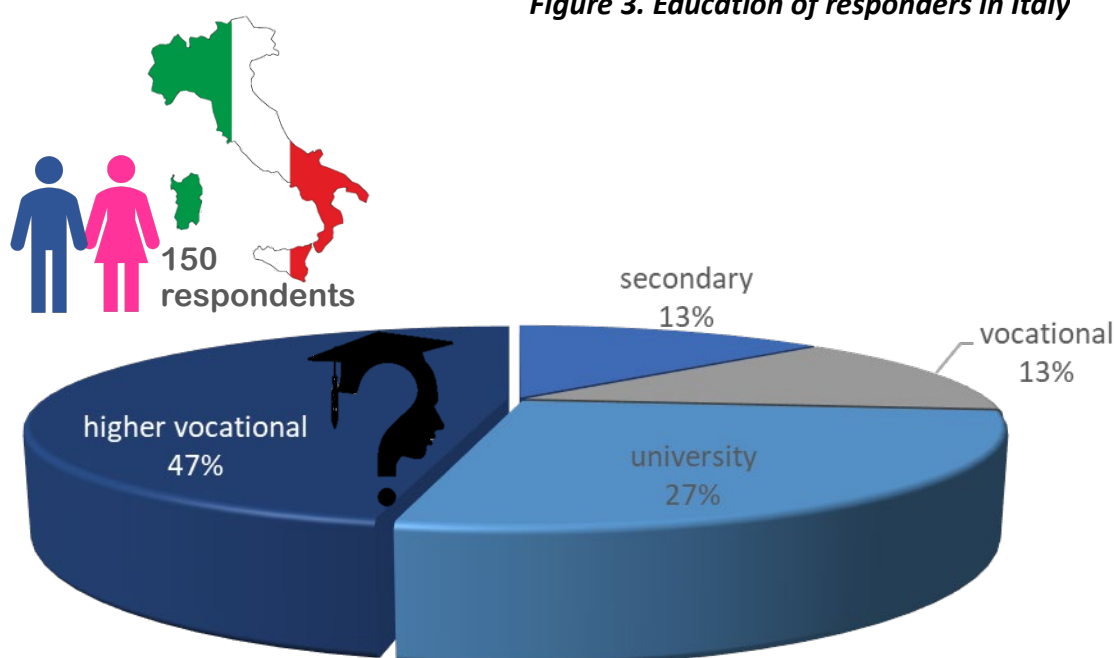
Figure 2. Age of responders in Italy



Question No. 3. Your education?

0 Primary school – 20 Vocational education (13,3%) - 20 Secondary school (13.3%) - 70 Higher vocational education (46.7%) - 40 University (26.7%)

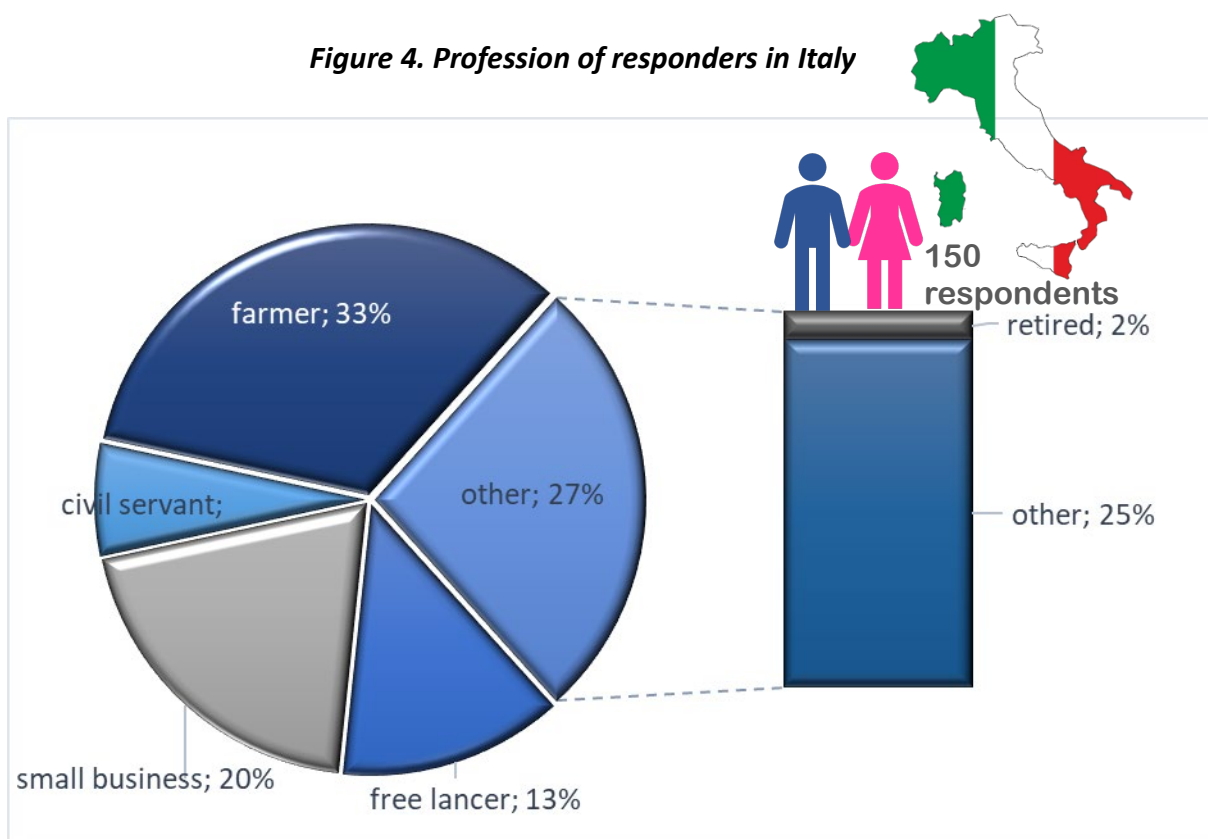
Figure 3. Education of responders in Italy



Question No. 4. Your profession?

30 Small business (20%) - 50 Farmer (33.3%) - 10 Civil servant (6.7%) – 20 Individual (13.3%)

Figure 4. Profession of responders in Italy

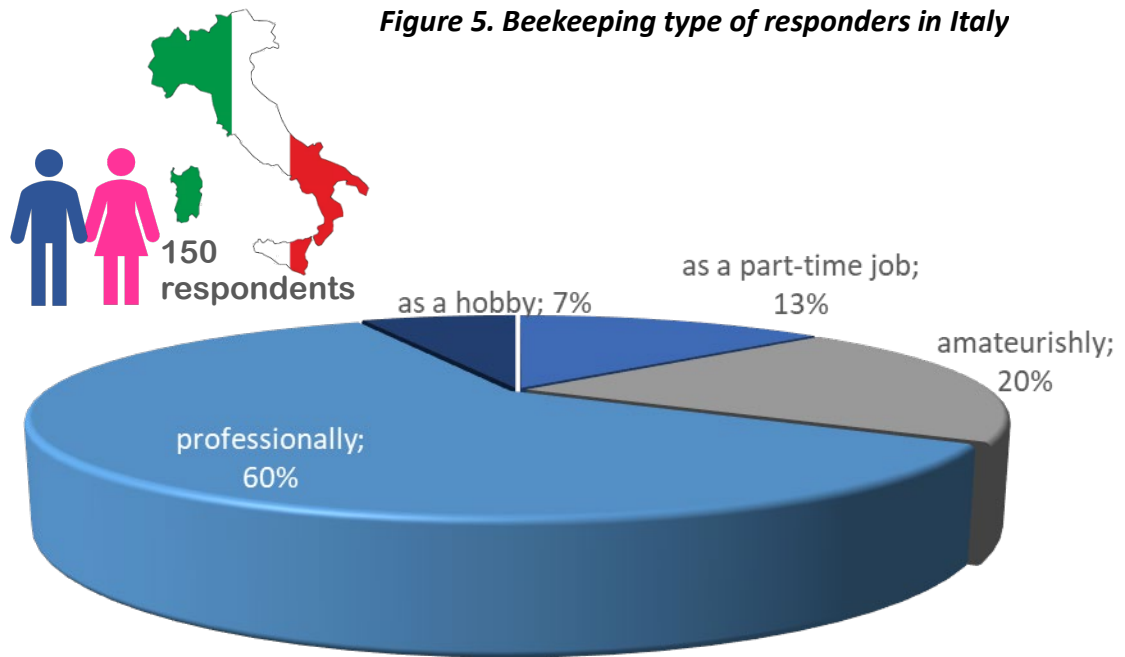


40 Others (26.7) Others are intended as retired (3) and coming from another economic sector (1)

Needs Analysis Report in Poland – Responders’ beekeeping profile

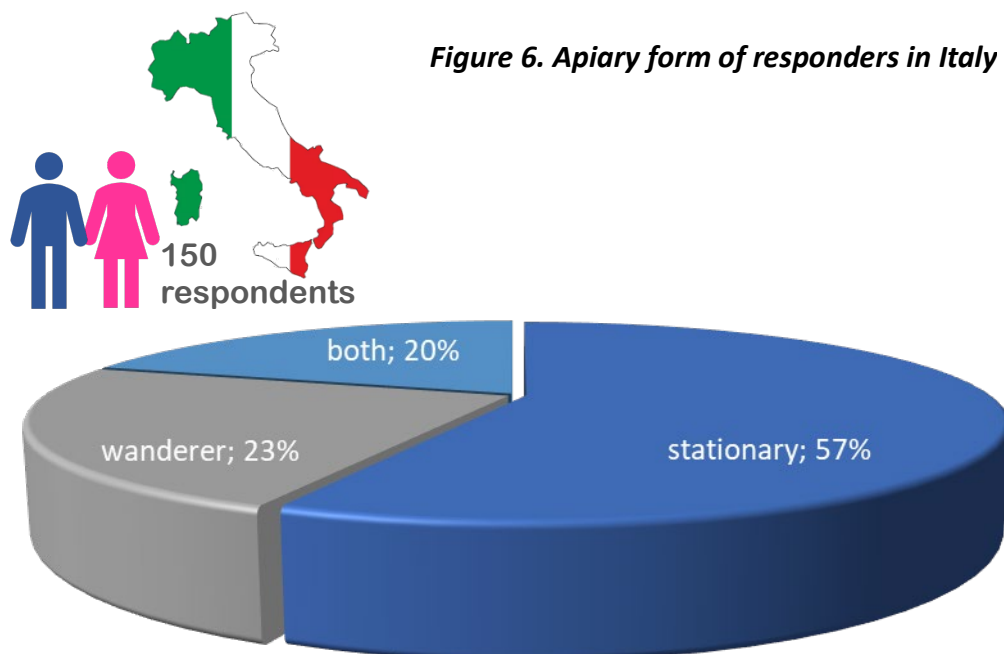
Question No. 5. How do you do beekeeping?

30 Amateurishly (20%) - 90 Professionally (60%) – 10 As a hobby (6.7%) - 20 As a part time job (13.3%)



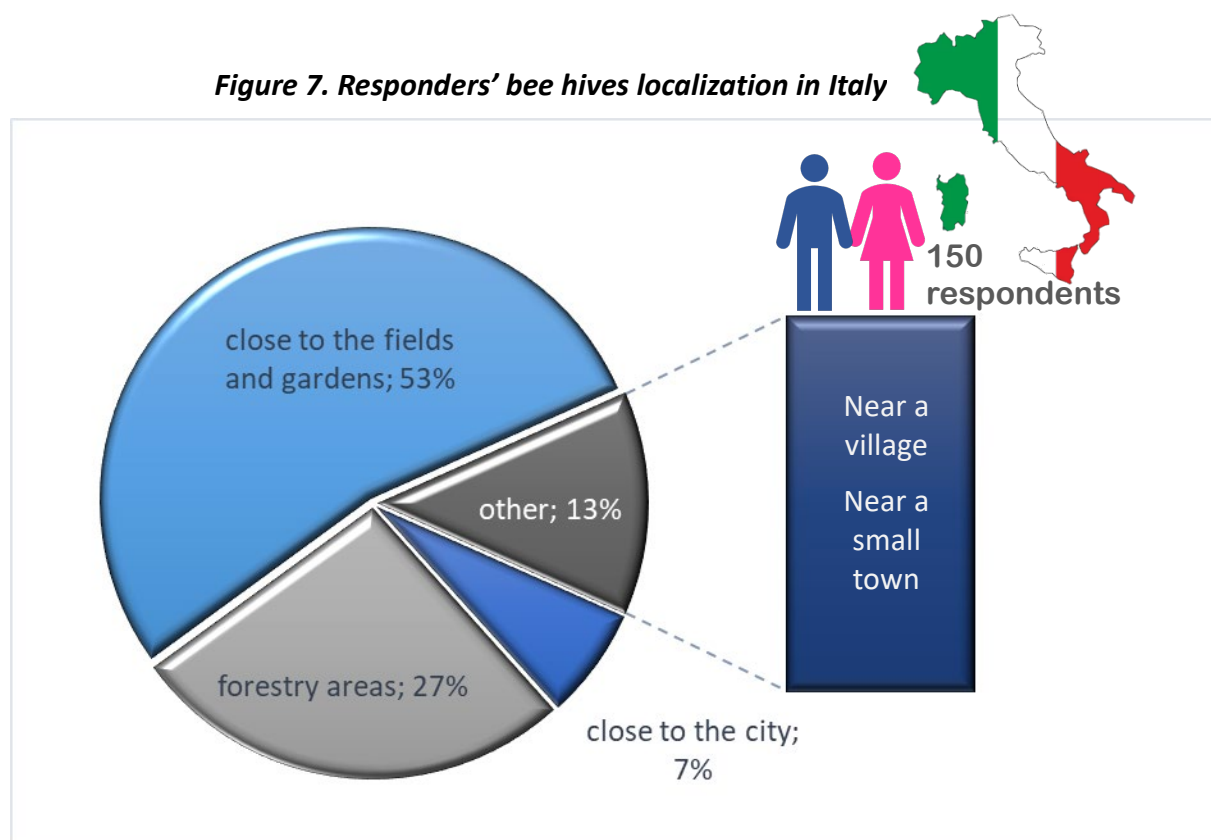
Question No. 6. What is your beekeeping style?

86 Stationary (57%) 35 Wandering (23.4%). 20% of respondents indicated that they run both a stationary and wandering apiary.



Question No. 7. Where do you locate your bee hives?

0 Near asphalt road – 10 Close to city (6.6%) – 40 In forestry areas (26.6%) - 80 Close to fields (53.2) – 20 Other* (13.6%)

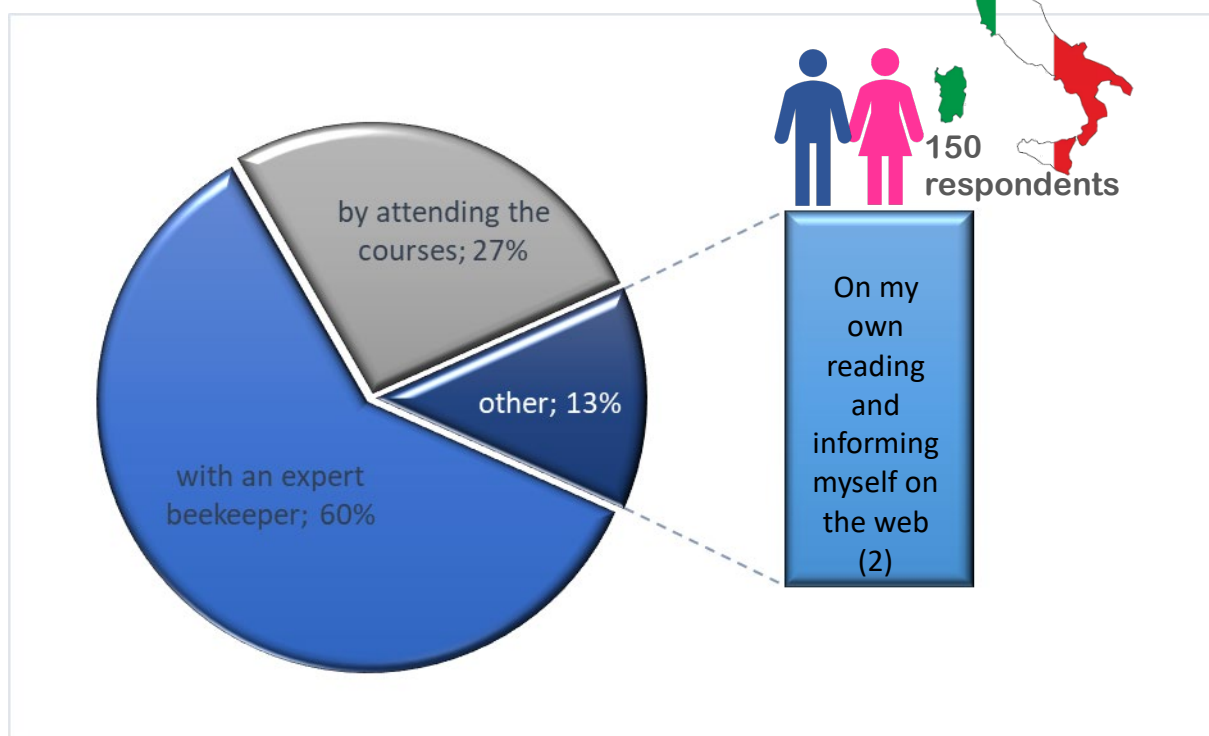


* Respondents answered: near a village/small town

Question No. 8. How did you start beekeeping?

90 With an expert beekeeper (60%) – 40 By attending courses (26.6%) - 20 Other (13.4%) - Respondents: on my own reading and informing myself on the web (2).

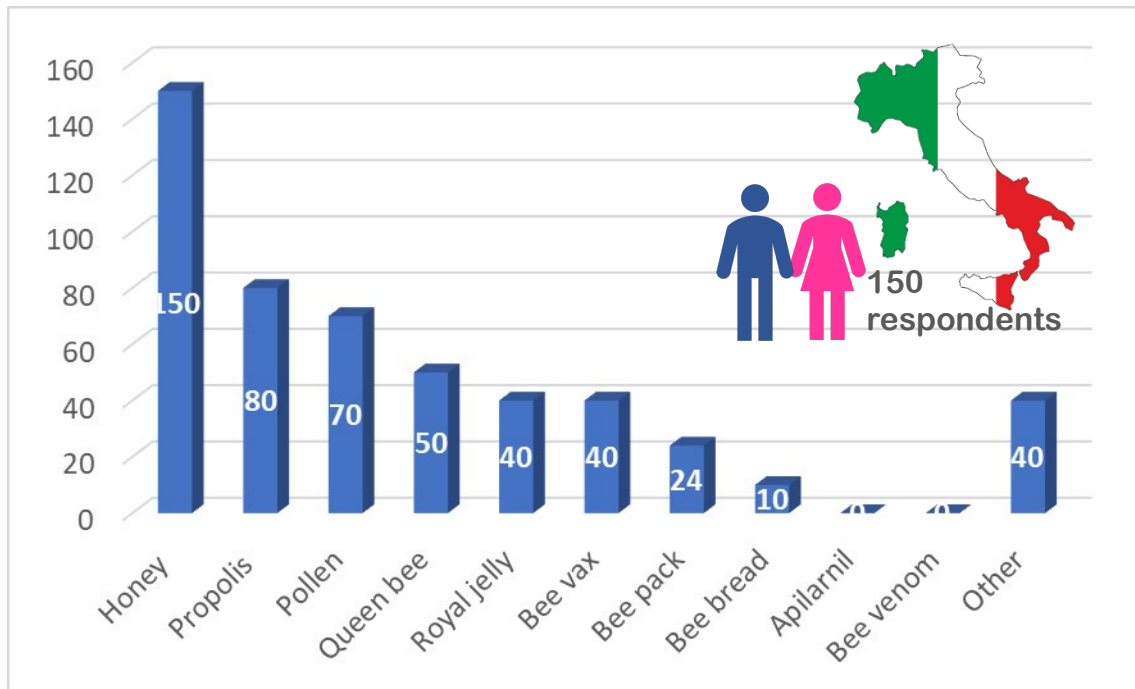
Figure 8. Start with beekeeping of responders in Italy



Question No. 9. Which bee products do you produce?

150 Honey (100%) - 80 Propolis (53.3) - 70 Pollen (21.4) - 40 Royal jelly (26.6) - 0 Apilarnil - 0 Bee poison - 50 Queen bee (33.3) - 30 Pack bee (20%) - 0 Bee air - 10 Bee bread (6.7%) – 40 Other* (26.6%) - respondents produce bee wax.

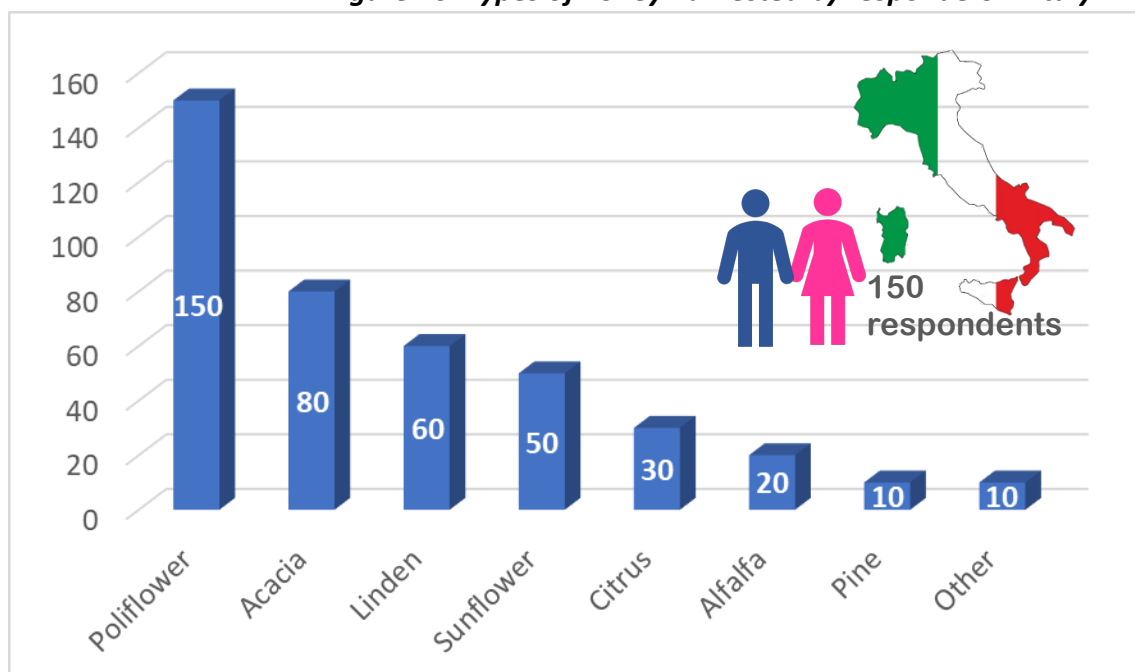
Figure 9. Bee products produced by responders in Italy



Question No. 10. Which honey types do you harvest?

150 All flowers (100%) - 80 Acacia (53.3%) - 60 Linden (40%) - 50 Sunflower (33.3%) 30 Citrus (20%) - 40 Other* (26.6%) – respondents answered 10 with other non-bee products ingredients (nuts, almonds, saffron, truffle, etc.) (6.7%)-

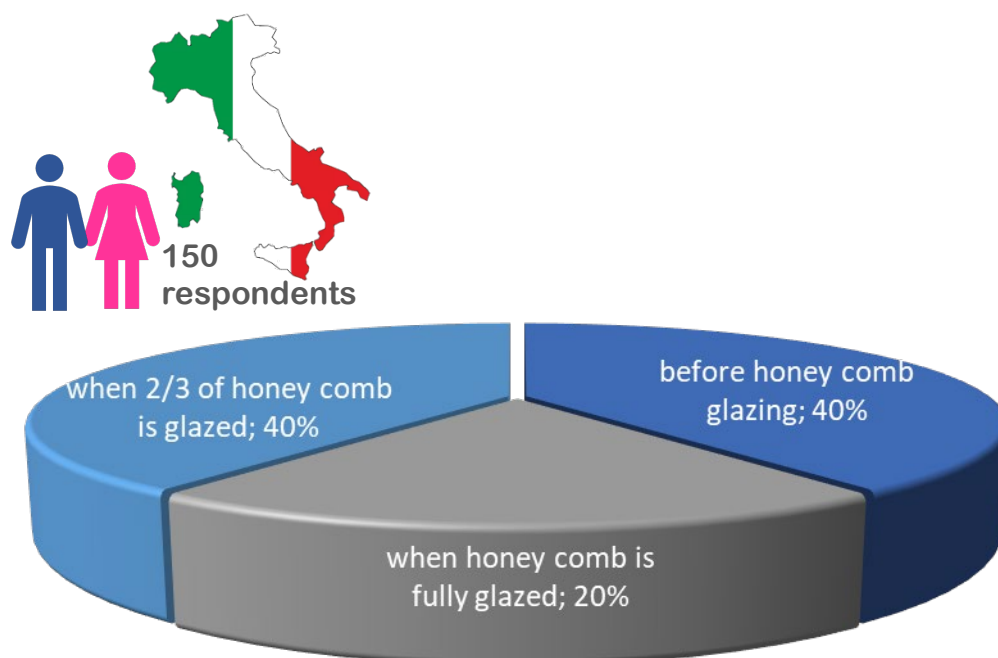
Figure 10. Types of honey harvested by responders in Italy



Question No. 11. During which period do you harvest flower honey?

60 Before honeycombs glazing (40%), 60 when 2/3 of the honeycombs are glazed (40%), 30 when the honeycomb is fully glazed (20%).

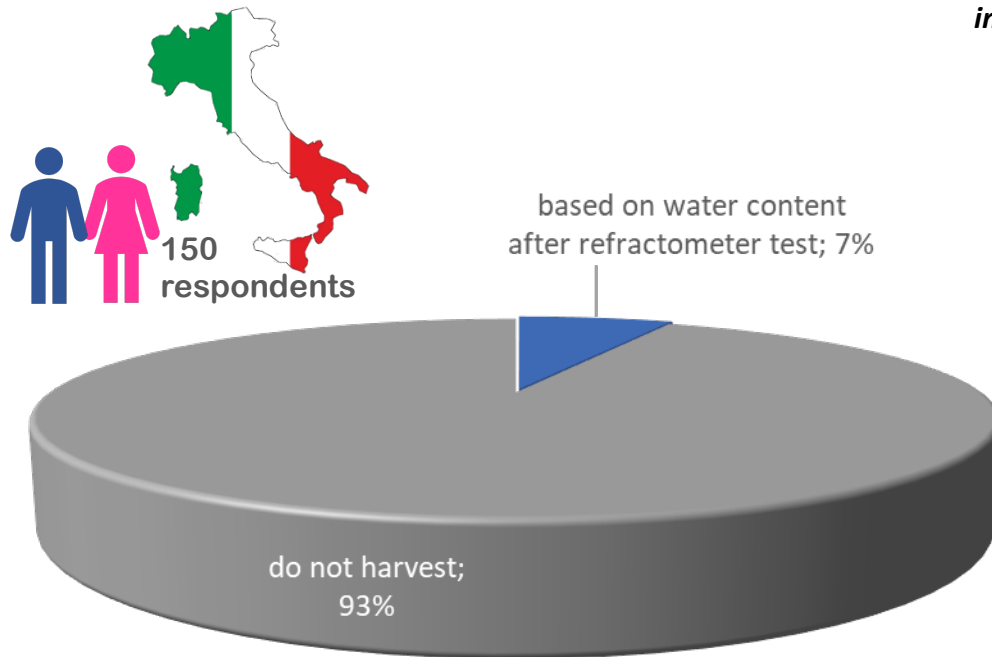
Figure 11. Period of floral honey harvesting by responders in Italy



Question No. 12. During which period do you harvest secretion (e.g. pine, honeydew) honey

140 We don't have this case (93.3%) - 10 based on water content, after refractometer test (6.7%).

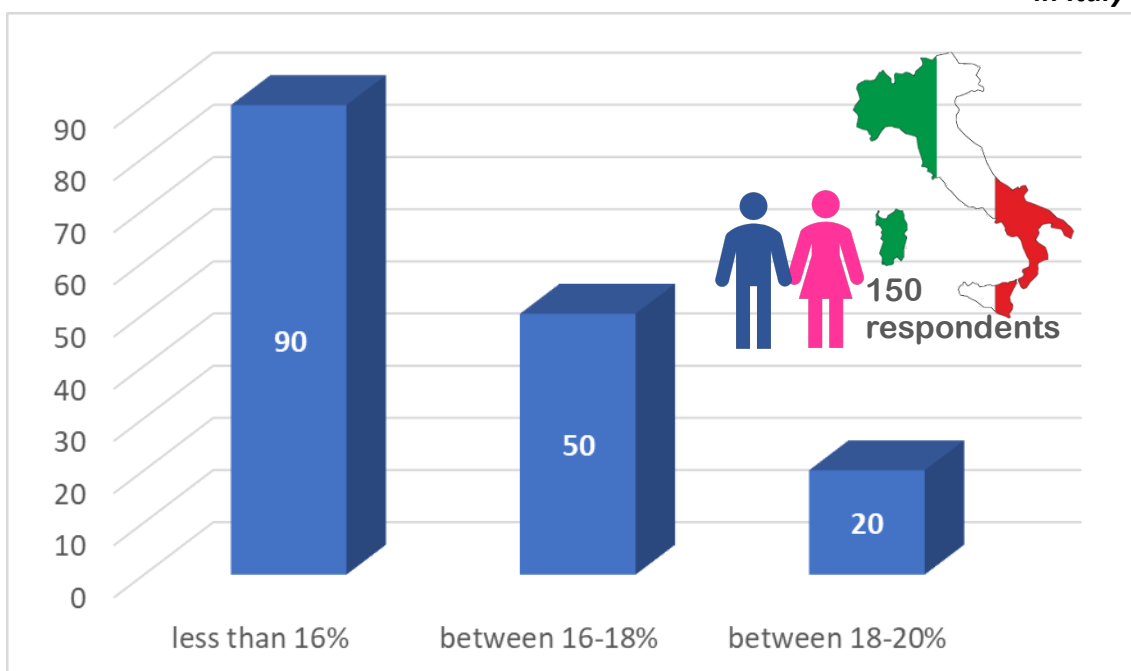
Figure 12. Period of secretion (e.g. pine, honeydew) honey harvesting by responders in Italy



Question No. 13. What must the water ratio be in the honey harvested?

90 Less than 16% (60%) - 50 Between 16% and 18% (33.3%) - 20 Between 18% and 20% (13.3%)

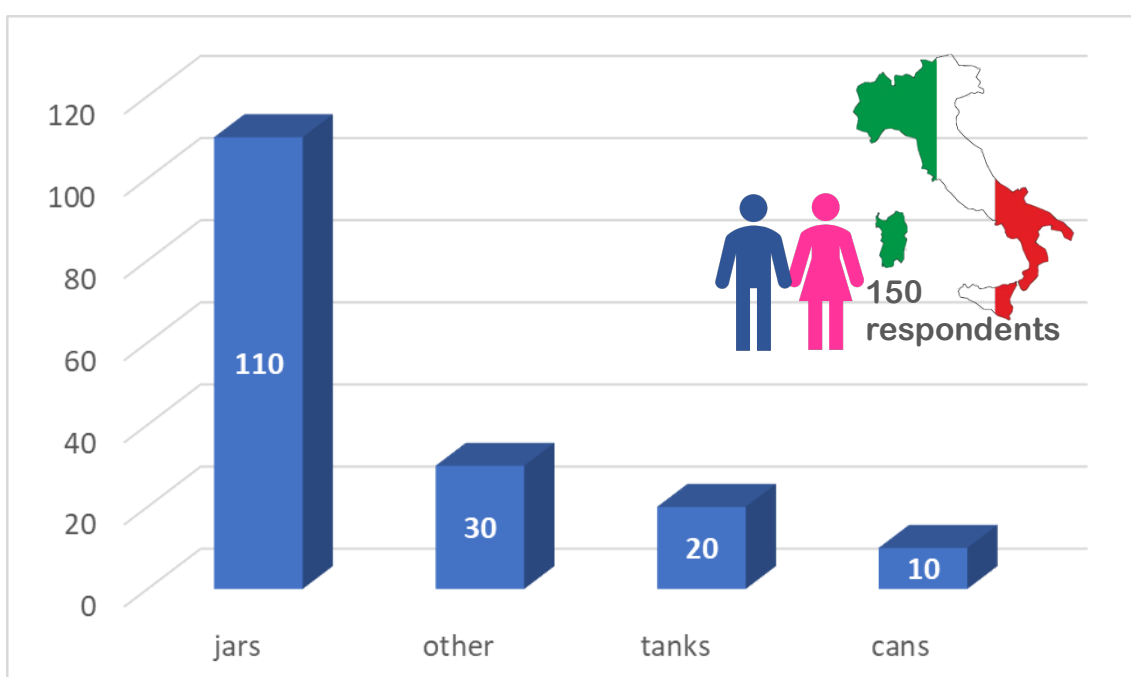
Figure 13. Required water content in harvested honey according to responders in Italy



Question No. 14. How do you store honey?

10 In tin (6.7%) - 110 in jar (73.3%) - 20 in tank (13.3) 30 Other* (20%)

Figure 14. Methods of honey storage according to responders in Italy



Question No. 15. How do you market the honey?

80 To dealers (53.3%) - 60 Directly to consumers (40%) 40 Online (26.6%) 40 Via social media (26.6%) 50 Through personal relationships (33.3%) – 20 Other * (13.3%)

Question No. 16. How do you produce propolis?

80 I do not produce it (53.3%) - 20 By honeycomb (13.3%) - 20 By hive scraping (13.3%) – 20 By propolis trap (13.3%) - 10 Other* (6.7%).

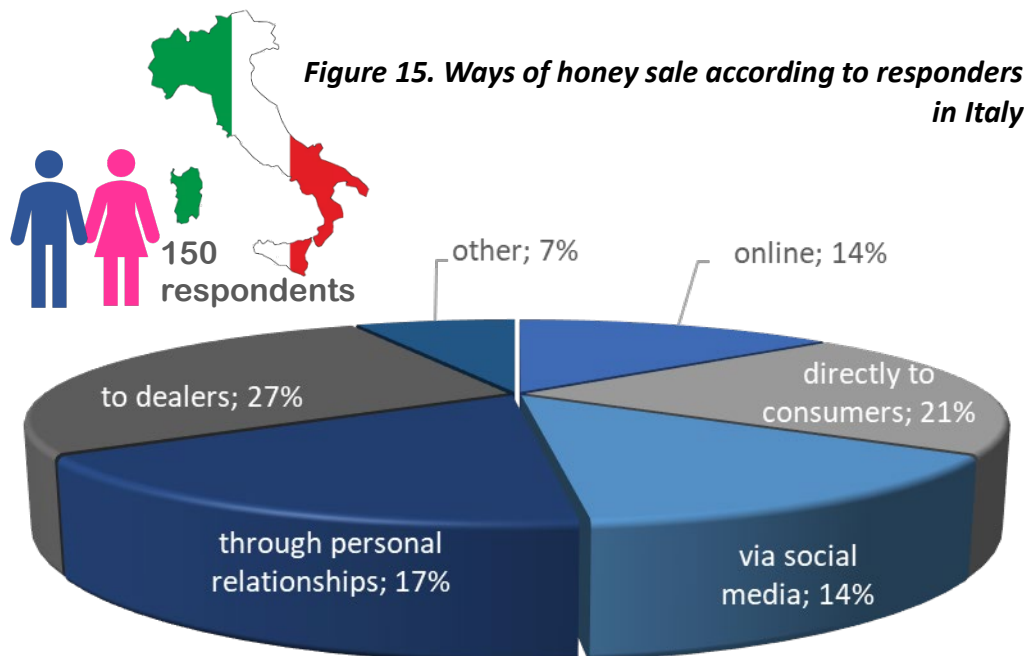
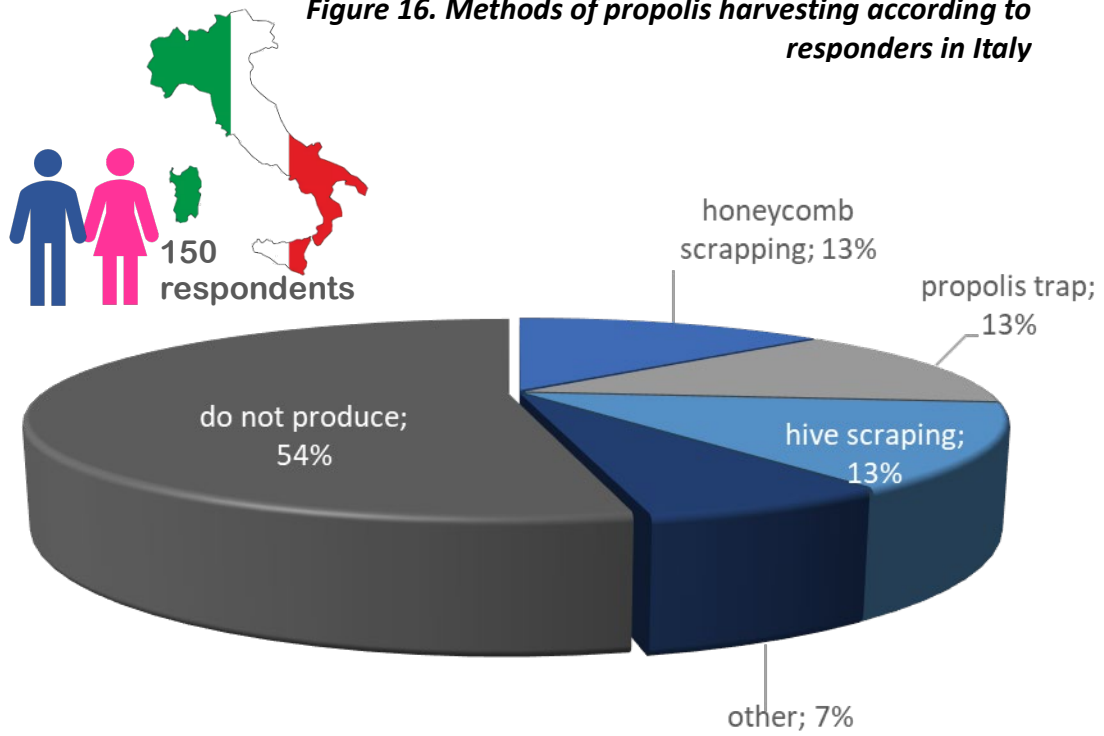


Figure 16. Methods of propolis harvesting according to responders in Italy



Question No. 17. How do you market propolis?

80 I don't sell it (53.3%) – 30 As raw without processing (20%)- 20 As solution in bottle (13.3%) – 20 Other* (13.3%) - respondents: as ingredient for cosmetics (cream, milk).

Figure 17. Propolis marketing according to responders in Italy

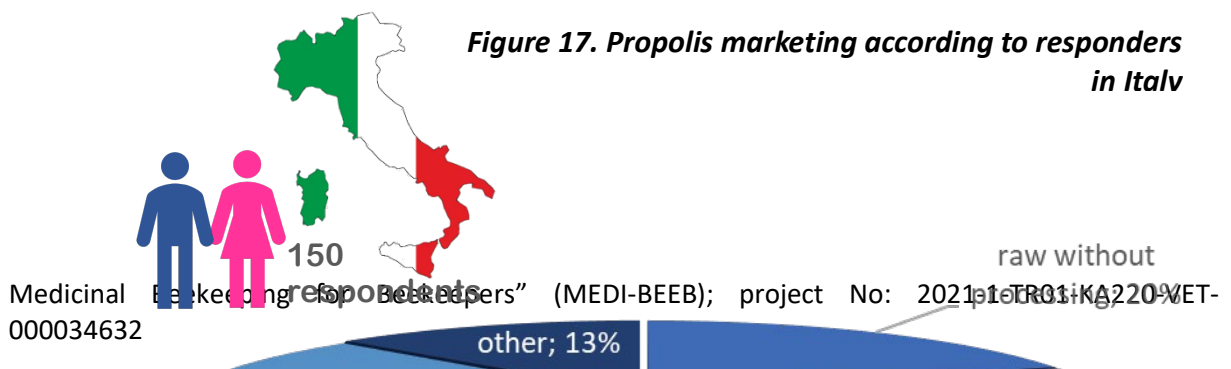
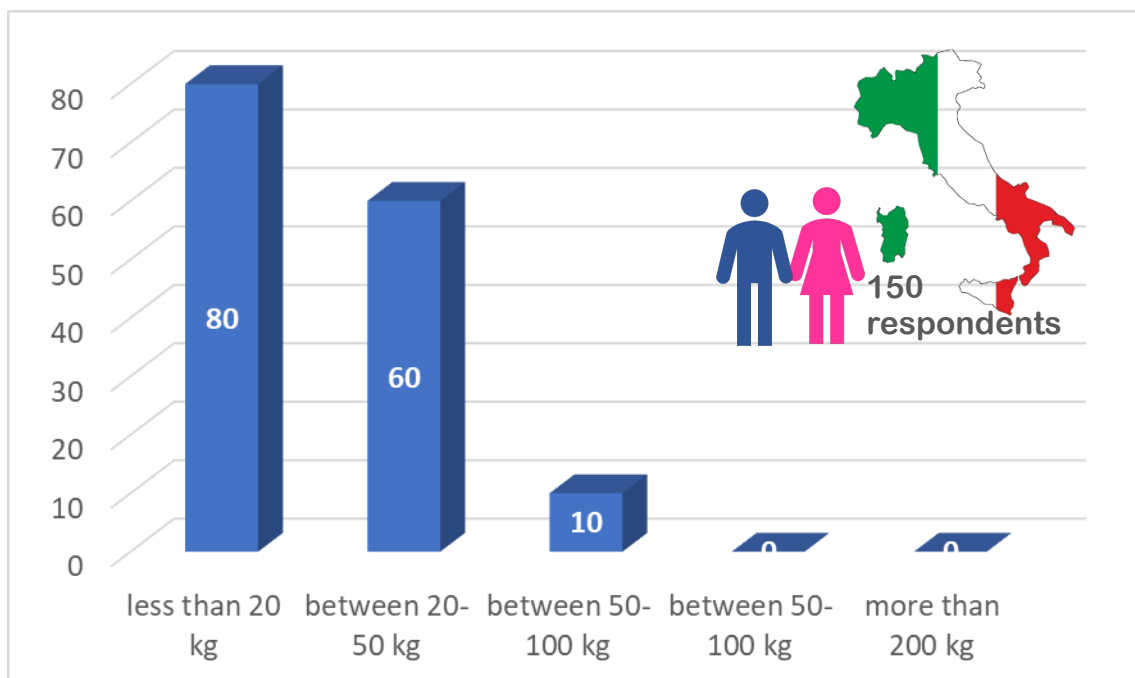


Figure 18. Annual production of pollen by responders in Italy



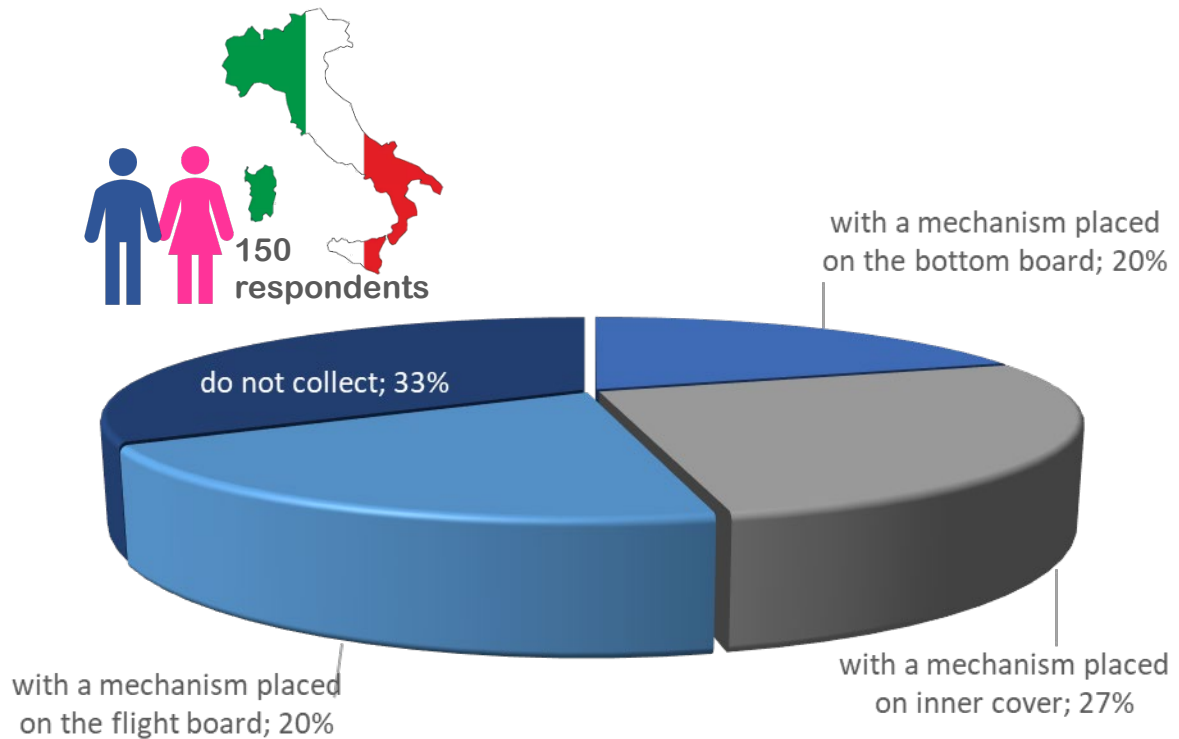
Question No. 18. How much is your annual pollen production?

80 Less than 20 Kg (53.3%) - 60 Between 20 and 30 Kg (26.7%) - 10 Between 30 and 50 Kg (13.3%) 10 Between 50 and 100 Kg (6.7%)

Question No. 19. How do you collect pollen?

50 I don't collect pollen (33.3%) - 30 with a mechanism placed on the flight board (20%) - 40 with a mechanism placed on the inner cover (26.7%) - 30 with a mechanism placed on the bottom board (20%).

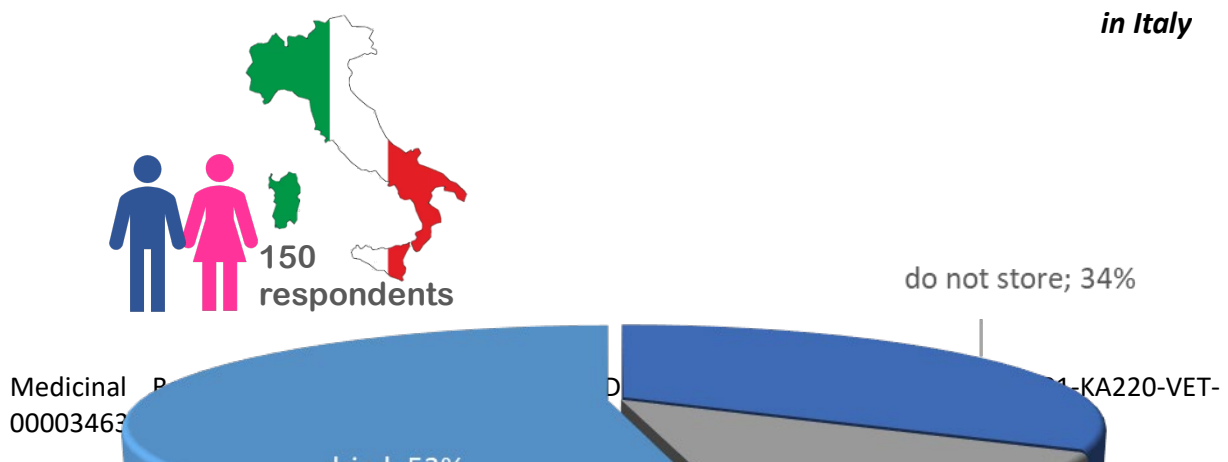
Figure 19. Methods of pollen collection according to responders in Italy



Question No. 20. How do you store pollen?

50 I do not store it (33.3%) – 80 By drying (53.3%) – 20 In a plastic bag in deep freeze (13.33).

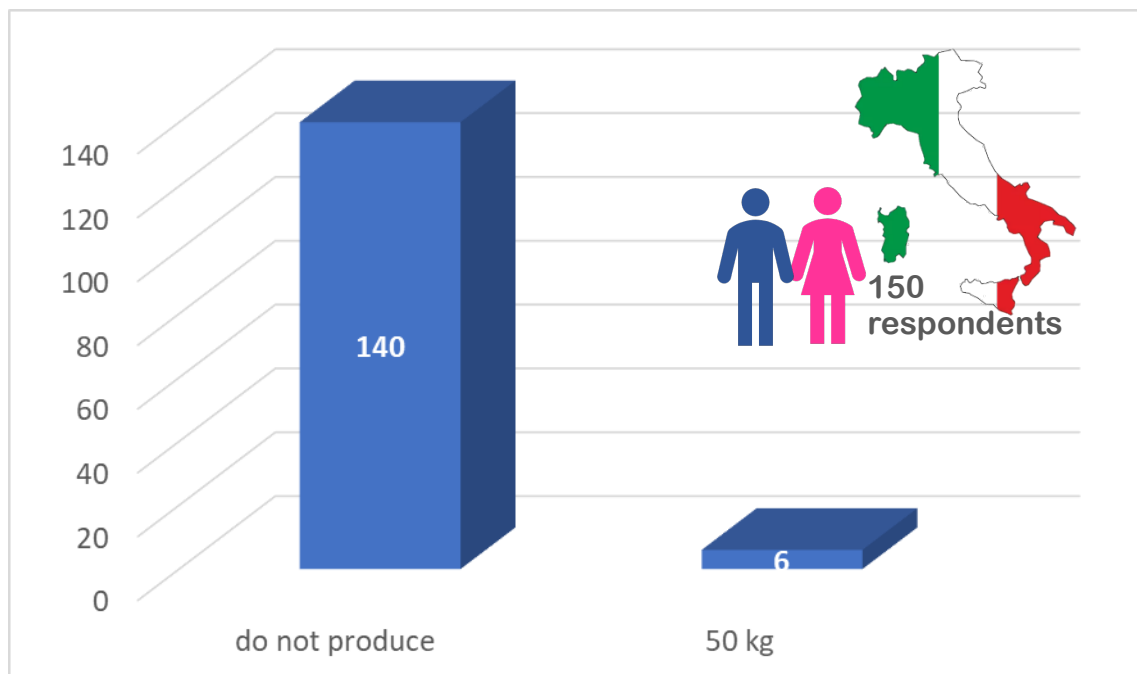
Figure 20. Methods of pollen storage according to responders in Italy



Question No. 21. If you produce bee bread, how much is your annual production?

140 I'm not producing bee bread (93.3%) – 10 I produce 20-50 kg (6.7%).

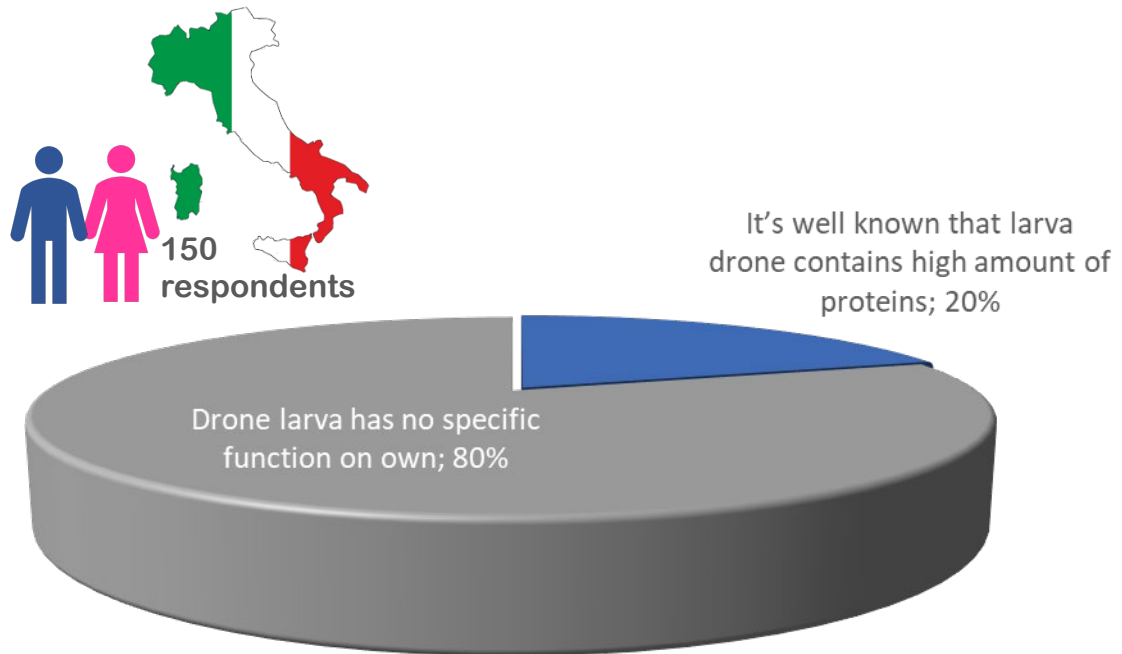
Figure 21. Annual bee bread production by responders in Italy



Question No. 22. What is drone larvae used for?

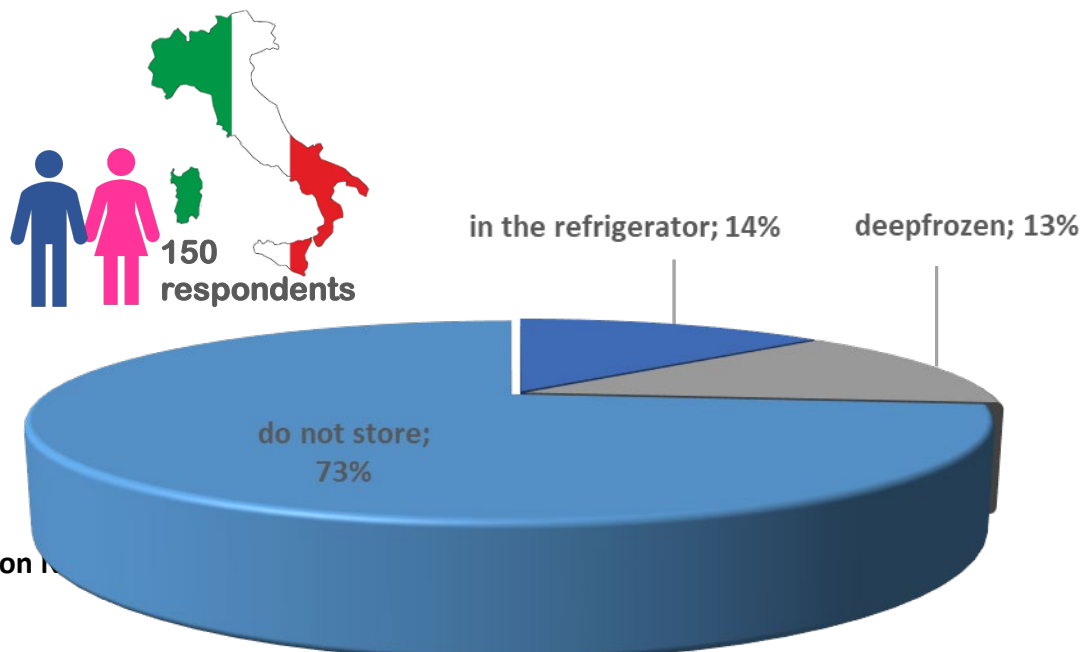
120 Drone larva has no specific function on own (80%) - 30 It's well known that larva drone contains high amount of proteins (20%).

Figure 22. Possibilities of using the larvae according to responders in Italy



Question No. 23. If you are producing royal jelly, how do you store it?

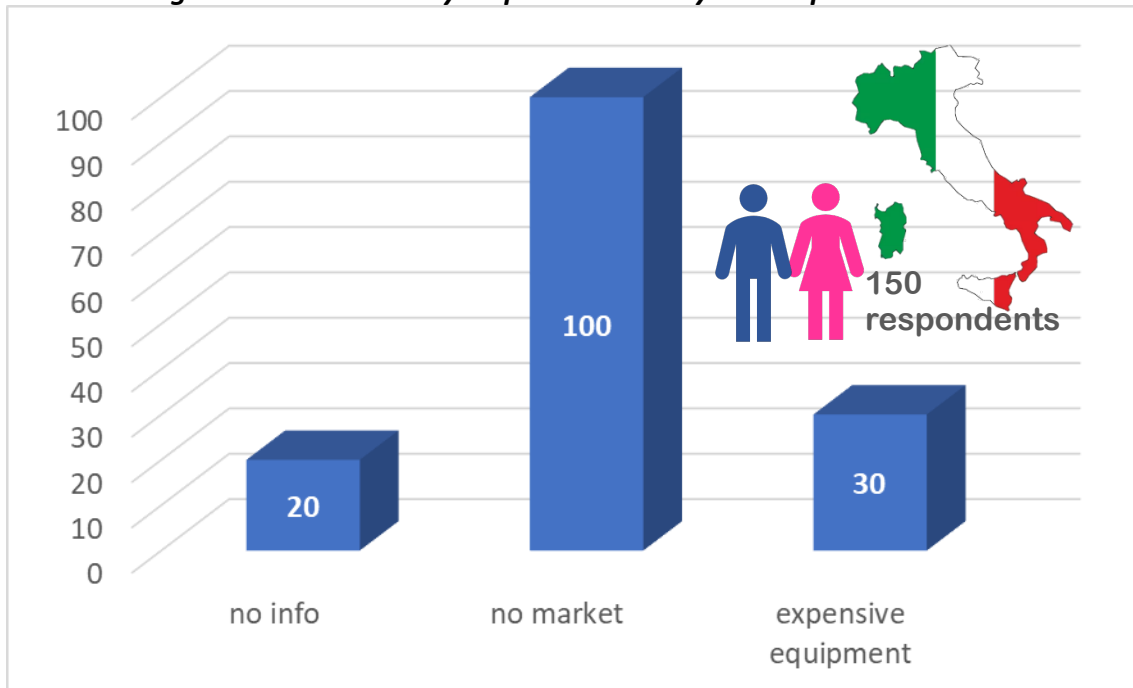
110 I do not store it (73.4%) – 20 In the refrigerator (13.3%) – 20 In the deep freeze (13.3%).



Question No.

20 I don't have information (13.3%) - 100 It doesn't have a market (66,7%) – 30 The

Figure 24. Reasons why responders in Italy do not produce bee venom

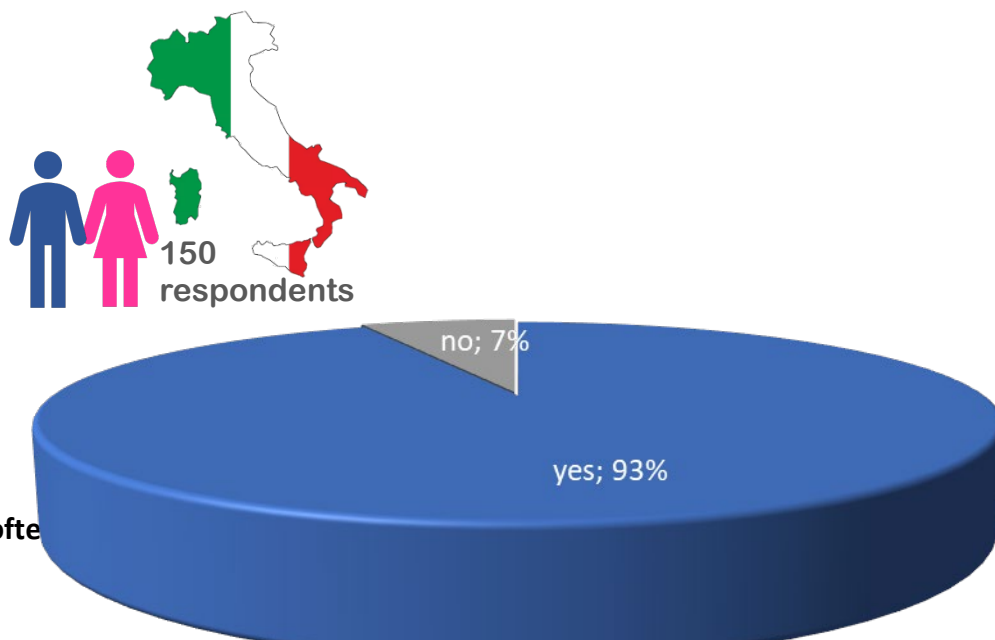


equipment is too expensive (20%).

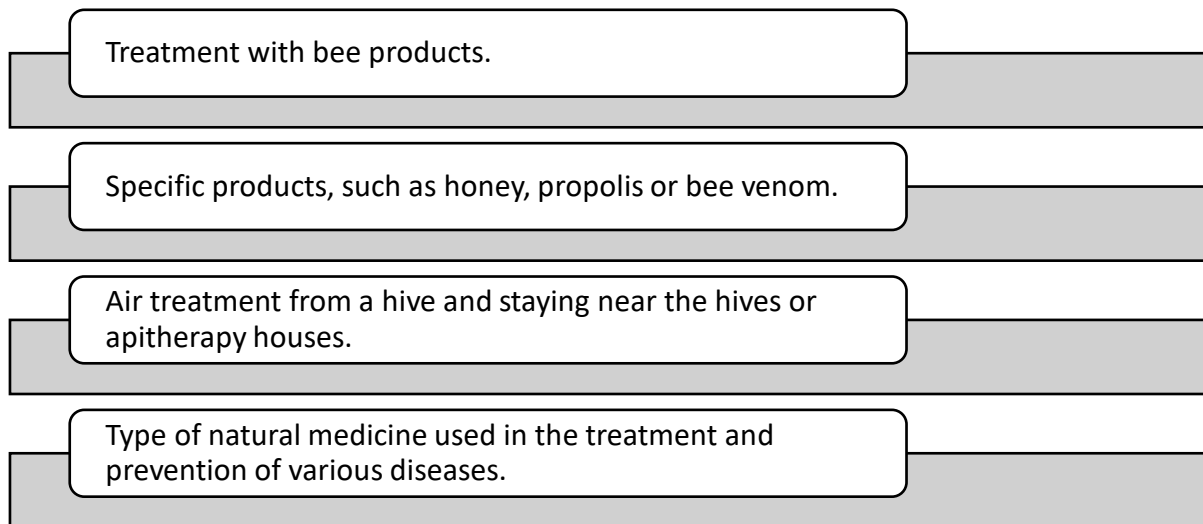
Question No. 25. Do you know what “apitherapy” is?

140 Yes, I know (93.3%) – 10 No, I don't know (6.7%).

Figure 25. Knowledge of responders in Italy on apitherapy



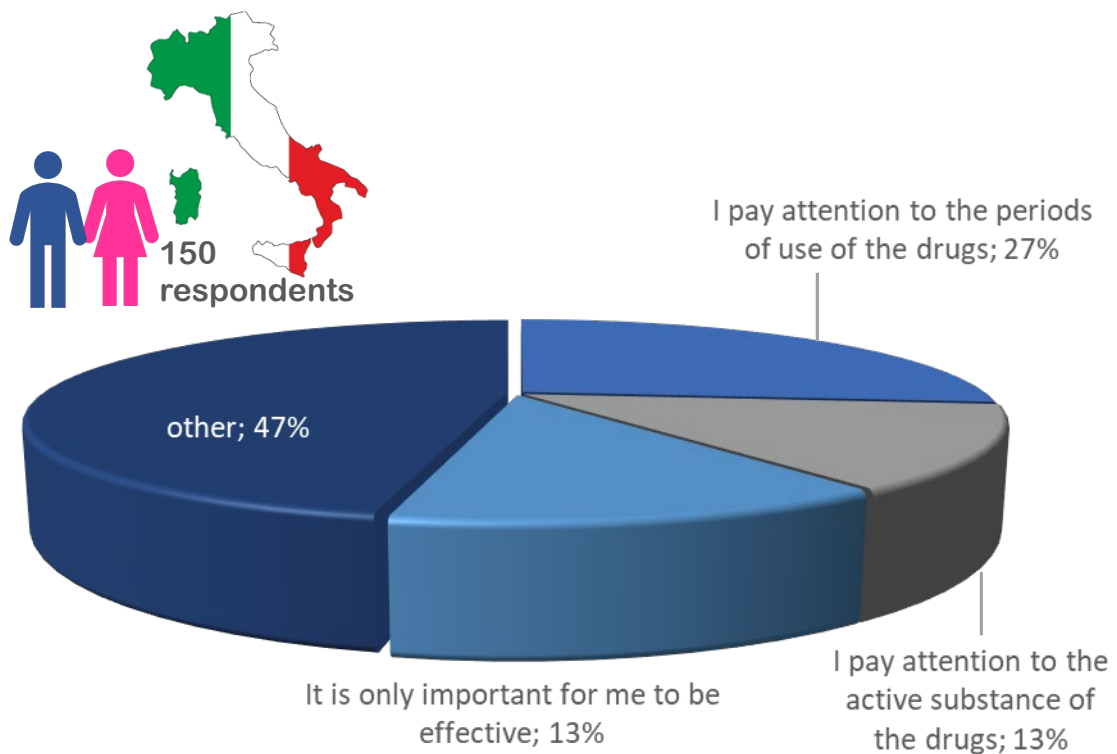
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Question No. 26. What are your thoughts on the use of drugs in the hive?

20 Active ingredients of drugs are important (13.3%) - 40 I pay attention to the usability periods of the drugs (26.7%) – 20 It is only important for me that the drug is effective or not (13.3%) – 70 Other* (60%) - respondents say: as an organic producer only natural medicines are accepted.

Figure 26. Attitude of responders in Italy to the use of drugs in the hive



Needs Analysis Report in Italy – Summary

General profile of respondents:

Most of the respondents were male (80%), while women were 22%, respectively 120 and 30 out of 150. Most of the respondents were more than 39 years old (60%) and nobody 18-24 years old. About the education, people with higher education are the majority (44.3%), nobody with just elementary school diploma, while there are represented vocational school and university degree. About the work identification 1/3 are farmers, as the most represented category, while 20% are identified as retired.

Activities related to beekeeping:

1. About the matter of making beekeeping the results were: 30 Amateurishly (20%) - 90 Professionally (60%) – 10 As a hobby (6.7%) - 20 As a part time job (13.3%)
2. About the matter stationary or wandering the responses were: 100 Stationary (66.6%) Wandering (33.4%), with 20% both of them
3. About the location of beehives: 0 Near asphalt road – 10 Close to city (6.6%) – 40 In forestry areas (26.6%) - 80 Close to fields (53.2) – 20 Other* (13.6%, near a village/small town)
4. About how they learnt: 90 With an expert beekeeper (60%) – 40 By attending courses (26.6%) - 20 Other (13.4%, with on my own reading and informing myself on the web)
5. About kinds of products: 150 Honey (100%) - 80 Propolis (53.3) - 70 Pollen (21.4) – 40 Royal jelly (26.6) - 0 Apilarnil - 0 Bee poison - 50 Queen bee (33.3) - 30 Pack bee (20%) - 0 Bee air - 10 Bee bread (6.7%) – 40 Other (26.6%, bee wax)
6. About kind of honey: 150 All flowers (100%) - 80 Acacia (53.3%) - 60 Linden (40%) - 50 Sunflower (33.3%) 30 Citrus (20%) - 40 Other (26.6%, 20 alfa-alfa (13.3%), 10 pine (6.7%), 10 with other non-bee products ingredients (nuts, almonds, saffron, truffle, etc.) (6.7%)
7. About the period of harvesting: 60 Before honeycombs glazing (40%), 60 when 2/3 of the honeycombs are glazed (40%), 30 when the honeycomb is fully glazed (20%)

8. About the period of harvesting secretary kinds of honey: 140 We don't have this case (93.3%) - 10 based on water content, after refractometer test (6.7%)
9. About the water ratio in honey harvested: 90 Less than 16% (60%) - 50 Between 16% and 18% (33.3%) - 20 Between 18% and 20% (13.3%)
10. About how to collect honey : 10 In tin (6.7%) - 110 in jar (73.3%) - 20 in tank (13.3) 3 Other (20%)
11. About how to market honey: 80 To dealers (53.3%) - 60 Directly to consumers (40%) 40 Online (26.6%) 40 Via social media (26.6%) 50 Through personal relationships (33.3%) – 20 Other (13.3%, Farmers' markets, Fairs and Exhibitions)
12. About how to produce: 80 I do not produce it (53.3%) - 20 By honeycomb (13.3%) - 20 By hive scraping (13.3%) – 20 By honey trap (13.3%) – 10 Other (6.7%, propolis frame
13. About marketing propolis: 80 I don't sell it (53.3%) – 30 As raw without processing (20%)- 20 As solution in bottle (13.3%) – 20 Other (13.3%, as ingredient for cosmetics such as cream, milk)
14. About how is pollen production: 80 Less than 20 Kg (53.3%) - 40 Between 20 and 30 Kg (26.7%) - 20 Between 30 and 50 Kg (13.3%) 10 Between 50 and 100 Kg (6.7%)
15. About how to collect pollen: 5 I don't collect pollen (33.3%) - 30 with a mechanism placed on the flight board (20%) - 40 with a mechanism placed on the inner cover (26.7%) - 30 with a mechanism placed on the bottom board (20%)
16. About how to store pollen: 50 I do not store it (33.3%) – 80 By drying (53.3%) – 20 In a plastic bag in deep freeze (13.33)
17. About bee bread production: 140 I'm not producing bee bread (93.3%) – 10 I produce 20-50 Kg (6.7%)
18. About drone larva: 120 Drone larva has no specific function on own (80%) - 30 It's well known that larva drone contains high amount of proteins (20%)
19. About how to store royal jelly: 110 I do not store it (73.4%) – 20 In the refrigerator (13.3%) – 20 In the deep freeze (13.3%)
20. About why not producing bee poison: 20 I don't have information (13.3%) - 100 It doesn't have a market (66,7%) – 30 The equipment is too expensive (20%)

21. About knowledge on what apitherapy is: 140 Yes, I know (93.3%) – No, I don't know (6.7%)
22. About use of drugs on hives: 20 Active ingredients of drugs are important (13.3%) - 40 I pay attention to the usability periods of the drugs (26.7%) – 20 It is only important for me that the drug is effective or not (13.3%) – 70 Other (60%, as an organic producer only natural medicines are accepted).

GENERAL NEEDS ANALYSIS REPORT GENERAL COMMENT AND EVALUATION

The results of the due diligence surveys conducted by the project partners in their own countries were evaluated.

When all countries are evaluated, it can be said that a small number of young people do beekeeping and beekeeping is an agricultural production branch made by individuals over the age of 40-45 and mostly by men. It has been determined that individuals with many different professions or retired are intermediaries, but the main occupation of many people is beekeeping.

Beekeeping is done in two ways. The first is amateur, hobby or for the purpose of providing additional income, and the second is mostly commercial beekeeping, especially by beekeepers with 50 or more hives. Especially in Turkey, it has been reported that most of the beekeepers are itinerant beekeepers, and they carry out beekeeping by transporting beehives from the plain to the highland or to different regions between provinces, according to the flowering periods throughout the country.

It has been observed that there are few beekeepers who took a course on beekeeping. In Lithuania, it is the highest rate of learning beekeeping by starting with an expert beekeeper. Some participants started on their own, based on information from books or mass media. Most beekeepers in Poland and Italy acquired their knowledge under the supervision of experienced beekeepers, while a smaller proportion of beekeepers acquired knowledge in various beekeeping courses. Some beekeepers have started beekeeping on their own with the knowledge they have obtained from books or the media.

Since courses on apitherapy were given in Çanakkale before, the beekeepers participating in the training activities are knowledgeable about apitherapy. However, in the province of Aydın, which is one of the wintering regions of Turkey and where beekeepers come from all over Turkey during the winter period, it has been observed that the beekeepers do not have sufficient knowledge about apitherapy. It has been reported that beekeepers in Europe and other countries have a general knowledge of apitherapy.

It has been observed that the main purpose of beekeeping in all partner countries is to produce honey and honey sales are given importance. Beekeepers engaged in beekeeping reported that they also produced other bee products besides honey. However, sufficient information has not been given regarding the use of other bee products and for apitherapy. All beekeepers do beekeeping to produce and sell honey. However, different information is given about the harvest and period of honey.

Apart from honey, pollen production takes the second place. However, in pollen collection, it has been reported that an appropriate method for the protection of the chemical and composition of the pollen is not applied, and the pollen is kept in jars by drying method. It has been reported that most of the beekeepers who participated in the survey do not use propolis traps and that propolis is collected for scraping and hive cleaning.

It has been observed that the majority of bee producers participating in the survey do not have sufficient knowledge about the production and use of bee bread, royal jelly, bee venom and bee larvae.

Although there are more correct practices in beekeeping, apitherapy, obtaining and storing bee products in European countries, Poland, Lithuania and Italy, compared to Turkish beekeepers, it has been observed that they do not have sufficient knowledge about apitherapy and obtaining and preserving bee products in these countries.

It has been observed that beekeepers generally focus on honey production. However, it was also concluded that beekeepers do not have enough knowledge about the duration of drug use, the properties of drug active ingredients, the use of natural or organic products in the hive, the ability to keep the beehives in suitable areas, the properties of other bee products and the production, storage and marketing of these products, especially for the use of health.

As a result, it can be said that beekeepers do not know exactly what apitherapy is and they need to receive serious training on the properties of bee products and their use in apitherapy. It has been reported that there is a lack of information and misapplications, especially about the acquisition and preservation of pollen, propolis, bee larvae and bee venom for apitherapy purposes.

In particular, the pesticides used in the hive against varoa and other bee diseases leave residues in honey and other bee products, causing more harm than good to human and animal health. In the surveys conducted in all partner countries, it has been reported that the effectiveness and duration of the drug are important in the hive.

This project has been prepared with the aim of informing beekeepers about the importance of apitherapy in the field of health and the correct and healthy production of bee products to be produced for apitherapy and educating them on this subject. As a result of this survey, it has been seen that the outputs of this project will be very important in terms of teaching apitherapy and the production of products to be used in apitherapy to beekeepers who focus only on honey production.

As a result, it can be said that:

- Beekeepers should be trained on what is apitherapy, on the properties of bee products to be used in apitherapy and on the correct production, storage and marketing of bee products to be used in the field of health.
- Consumers and especially doctors should be informed that the healthy production of bee products to be used in the health field and the provision of appropriate storage conditions are very important for apitherapy.
- Awareness should be raised about the rules and lawmakers, especially the relevant units of the Ministry of Agriculture in Turkey, to bring some standards and certification studies for beekeepers who will produce and market bee products for apitherapy.
- It is necessary to learn the existing standards for the production, storage and use of bee products in Turkey and in Europe and to identify the deficiencies on these issues.



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