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European
Beekeeping
Association

Since February 2024

NO **BEEES**
LIFE

EBA MAGAZINE

I WANT TO HELP BEES, BEEKEEPERS AND CONSUMERS

BEES
LIFE

THE WORD
IMPOSSIBLE
IS NOT IN MY
DICTIONARY!

The establishment of the European Beekeeping Association (EBA) has long been the wish of many beekeepers who felt that not enough was being done to protect bees and the interests of European beekeepers. It is true that a good number of organisations are active in this field, and I thank them all for the work they are doing. The EBA wants to cooperate with everyone, therefore we are joining Apimondia immediately, and we want to connect the entire European continent (not just the EU) and all beekeepers, regardless of their country of origin and the size of their beekeeping practice. We always put the bees and their protection first, but unfortunately, since the bee cannot survive without the beekeeper, helping beekeepers will come second, so that we can market bee products and carry out our business in a dignified way. Our



third task will be to protect the consumer from the consumption of counterfeit products. We want to see real honey and real bee products back on consumers' tables and for Europeans to start eating authentic bee products from their local areas. Europeans should choose local, that is bee products from their own country, or at least from Europe!

The Slovenian Beekeepers' Association (ČZS) was the initiator of World Bee Day, where the importance of bees and beekeeping and the need for increased financial support were promoted at all levels, especially in the European Parliament, during the presentation of the resolution for adoption at the United Nations. **This is the main reason why Europe has almost doubled its funding for beekeeping**, because EU realised, mostly thanks to our efforts in the European Parliament, that greater financial support for beekeeping is necessary and justified. For me personally, this is the first concrete result of World Bee Day!

As President of the ČZS, together with Dr Andreja Kandolf Borovšak, I put forward the idea back in 2018 that **uniform labelling of honey according to the exact country of origin is a must**. The company Medex was among the first to co-sign the initiative in August 2018. At that time, as Dr Andrea Kandolf Borovšak and I were presenting our proposal, we were met with ridicule and even cynicism in many quarters, with people saying that we will not succeed. At Apimondia in Canada, representatives of ČZS collected many signatures of support among Apimondia members, which gave us even more energy and momentum. **The letter of support was signed by beekeeping organisations** from Finland, Slovakia, Germany, the Netherlands, the Czech Republic, Hungary, Poland, France, Croatia, Montenegro, Sweden, Romania, Ukraine, North Macedonia, Bosnia and Herzegovina, Republika Srpska and Serbia (the documents with the signatures are in the ČZS archives). Slovenia spearheaded the campaign and presented the idea behind it to the competent authorities in Brussels, managing to convince Portugal, which, together with Slovenia, formally submitted the initiative. **The result is well known: the Slovenian beekeepers' initiative has been implemented.**

This is a great victory, above all for the protection of European consumers, who have the right to know where the honey they buy comes from! I would like to point out that many beekeeping associations in Europe subsequently joined in support of the initiative, each of them in their own way helping to ensure that the proposal was approved by MEPs with **603 votes in favour and nine against**, for which we are very grateful!

I would also like to draw attention to another landmark decision taken by Slovenia in 2011, when, on the initiative of Slovenian beekeepers, **we were the first in Europe to ban the use of neonicotinoids, which were killing bees on a massive scale**. Even then, our decision seemed unrealistic and even controversial to many. It also seemed unrealistic to many to introduce it to the whole of Europe. However, this is exactly what happened within a few years – the European Commission severely restricted the use of neonicotinoids.

This year, we are working with the relevant government ministry to make a strong case that **financial support per bee colony from European funds** will finally be made possible. The aim is to regulate the legal basis for all European beekeepers, namely **to obtain funds from environmental and not agricultural measures**. Bees are primarily important for the preservation of biodiversity in the environment. We have a vision; we know the way and nothing can stop us from reaching our goals!

It is because of the above that I believe that the EBA will achieve its goals, because as a long-standing President of the ČZS, I have ample experience in how to achieve the seemingly impossible.

Once again, let me list the EBA's main objectives:

- To "drive" counterfeit honey off the market, which should not be labelled as honey at all, and to demand that the European Commission immediately deliver on its promise to provide a uniform method for detecting counterfeit honey and to set up a reference laboratory.

- To change the legal basis in Brussels so that all European beekeepers can get funding per bee colony to compensate for the bees' pollination service, not from agricultural measures but from environmental ones.

- To reduce the use of pesticides harmful to bees.

Since day one of my leadership of the EBA, I have left professional decisions to the experts. We have appointed Dr Urška Ratajc as the head of the EBA Scientific Committee, who will lead all expert groups. The Commission for the Quality and Safety of Bee Products has already been appointed. It includes researchers and experts from different countries in Europe, including those whose beekeeping organisations are not yet members of the EBA, demonstrating that with us, expertise always comes first, regardless of the country.

90% of EBA's operations will be covered by sponsors. **We will not waste money**; we will spend it exclusively to achieve the main goals of the EBA!

In 17 years at ČZS, I learned that nothing is impossible! With a clear goal, with the professional support of colleagues and with people who care about bees, even the most impossible goal is achievable. Ridicule, cynicism and backbiting are always an extra motivation for me to work **hard and ultimately succeed! I invite all European beekeeping organisations to join the EBA team, with the right people and the right goals that we can and will deliver.**

Boštjan Noč

*President of the Slovenian Beekeepers' Association and
President of the European Beekeeping Association*



THERE WILL BE NO EBA MEMBERSHIP FEES in 2024 and 2025!

“EBA wants to become the union of all European beekeepers, and the membership fee must not be a barrier to joining. This year and next, we will prove that EBA works hard and responsibly for bees, beekeepers and consumers, and that it is worth being a member! Best of all, EBA is an organization that unites all European beekeepers to help bees, beekeepers and consumers together. We will find donors and sponsors for EBA's work, and use the funds very rationally. As President of the EBA, I will work completely free of charge for the next two years, with only material costs covered for travel expenses related to EBA activities. If European beekeeping organizations invite



me to visit, the organizer will bear the costs. The goal is to achieve our main objectives within the next two years. If we don't meet these goals, then we don't need EBA! Let's be proud to be members of EBA. EBA is the only beekeeping organization that will work diligently for the first two years without a membership fee, an organization that prioritizes results first. If we are successful together, then it will be time for the membership fee and for new successes in the development of beekeeping”.

Boštjan Noč
*President of the
European Beekeeping Association*

CONDITIONS FOR FREE MEMBERSHIP IN 2024 AND 2025

- all those who have already joined the EBA by June 17, 2024.
- **all national beekeeping associations or other beekeeping associations that are among the two largest in the country in terms of the number of beekeepers and will join the EBA by October 1. 2024.**
- possible withdrawal from the EBA is free of charge.

All additional information at eba@ebaeurope.eu



WHAT JEFF PETTIS SAYS ABOUT EBA

President of the Apimondia

We asked Mr. Jeff Pettis, President of Apimondia:

How do you view the establishment of the European Beekeeping Association and its goals?

I think the more we can work together the better. I know that the issues you deem important

are in line with what we as Apimondia think important. Thus we work together to fight honey fraud and more.

The conversation was led by **Boštjan Noč**,
President of the European Beekeeping Association (EBA)

PRESIDENT OF APIMONDIA SUPPORTS THE EBA'S EFFORTS AGAINST FAKE HONEY!

On May 23, 2024, the head office of EBA was visited by the president of the world beekeeping organization Apimondia, Mr. Jeff Pettis from the USA.

As President of the European Beekeeping Association (EBA), I informed him that the EBA will join Apimondia as a full member and that I believe in fostering strong cooperation. Above all, we aim to be active in the European sector of Apimondia. The global goal of all beekeepers should be to eliminate fake bee products from the market. Mr. Pettis supports the goals of the EBA, he promised support and cooperation in the realization of the goals, he especially supports the efforts in the fight against fake bee products on the market!



INTERVIEW WITH ROBERT CHLEBO

President of the Commission for European beekeepers at Apimondia

Robert Chlebo from Slovakia is Apimondia's first man for Europe, as he has been the president of the Commission for European beekeepers at Apimondia for several years.



We asked him three questions:

1. Robert, you are the long-term president of Apimondia for Europe. What are the main goals of Apimondia in Europe and what activities does your group do for European beekeepers?

Apimondia main objective is to facilitate the exchange of information and discussions where beekeepers, scientists, honey-traders, agents for development, technicians and legislators meet to listen, discuss and learn from each other. Alongside scientific commissions, continental regional commissions exist, and working groups are created to focus to address issues and challenges related to the beekeeping sector. All of us who work in Apimondia's structures at the professional or regional levels are volunteers, so cooperation with all those involved in beekeeping issues is absolutely essential, and this also applies to the Regional Commission for Europe. We try to co-

ordinate our activities with regional and political structures, such as European beekeepers' federations, FAO, the European Commission etc. Among the latest activities I can mention our participation in EU Pollinator Week, at the Technical round table of the HarmHoney project organised by JRC (European Commission's Joint Research Centre) to detect new types of sugar-based adulterants used in honey, our position papers on honey fraud, promoting World Bee Day activities or organisation of well attended Apimondia webinar on invasive species in Europe in March.

2. During his visit to Slovenia, President of Apimondia supported the goals of the EBA. How do you view the goals of the EBA?

All the objectives of the EBA are fully compatible with the priorities of Apimondia and other beekeeping federations. It is essential that the individual national beekeeping associations coordinate their activities, since almost all problems that the beekeeping sector face today have a cross-border dimension. We perceive the successes that Slovenia has achieved, e.g. when initiating World Bee Day, promoting clear labelling of honey, honey breakfast, apitourism or young beekeepers' involvement. These activities have also been successfully incorporated in other European countries. At Apimondia, we are ready to support all initiatives from the EBA that improve

the conditions of bees and beekeepers, and we look forward to closer cooperation.

3. There are several beekeeping associations in Europe, how do you view the cooperation of all these associations?

There are several formal and informal European platforms for coordinating activities and initiatives related to beekeeping sector. Some of them are based on the regional principle (Nordic-Baltic Bee Council, Visegrad beekeeping group, Balkan Federation of Apicultural Associations), some are focused to cover wide parts of European territory (European Professional Beekeepers Association EPBA, BeeLife, Apislavia and yours EBA).

There is a necessity for closer cooperation and probably even specialisation, as majority of persons actively working in these federations are volunteering and are limited in time to cover all problems from ecological topics (e.g. protection against pesticides) to legislative topics (proposals for legislative changes, lobbying, e.g. at the level

of the European Commission or the European Parliament). From my point of view, European beekeeping community need to speak with one voice, quickly share positions and make clear decisions when needed. I therefore offer the presidents of the most important European beekeeping federations, including EBA, the position of members of the Standing Committee of the Apimondia Regional Commission for Europe to create Central coordination / communication point to share ideas and initiatives. If necessary, we can quickly act, put together important memoranda and positions with the support of most national beekeeping associations. Members of EBA, EPBA, BeeLife and Apimondia represents closely all countries / regions of Europe, let's use this power and speak unitedly on important issues of improving the lives of bees and beekeepers. I wish the EBA a lot of energy, great initiatives, membership growth and the activation of beekeeping unions, which are not yet involved in pan-European initiatives. We are here to listen to you and spread messages to all European members of Apimondia.

The conversation was led by **Boštjan Noč**,
President of the European Beekeeping Association (EBA)



MEETING WITH DR. ROBERT CHLEBO, THE PRESIDENT OF THE APIMONDIA RC EUROPE

EBA wants to cooperate with all organizations in Europe and around the world. On June 11, 2024, the EBA president Mr. Boštjan Noč and the Head of the EBA Scientific Committee Dr. Urška Ratajc met with Dr. Robert Chlebo, the president of the Apimondia RC Europe. President Mr. Boštjan Noč presented the main activities

EBA to Mr. Chlebo and emphasized that EBA will fight for bees and all beekeepers of the whole of Europe.

The main conclusion of the meeting was to schedule a meeting EBA, EPBA, BEE LIFE and find a solution way of cooperation and necessary joint activities.

DATE WHEN THE IDEA OF FOUNDING EBA WAS BORN

On September 18, 2021, the Conference of Presidents of Beekeeping Associations of the Region was held in Slovenia. The goal of the conference was to support the fight for the amendment of EU regulations regarding the labeling of the origin of honey, as well as to present the problem of the appearance of counterfeit honey in the countries of the region.

The conference was attended by Boštjan Noč, president of the Beekeeping Association of Slovenia, Željko Vrbos, president of the Croatian Beekeepers' Association, Damir Barašin, president of the Union of Beekeepers Association of Republic Srpska, Hajrudin Sabić, president of the

Association of Beekeepers of the Una-Sana Canton of BiH, MD. Rodoljub Živadinović, president of the Serbian Federation of Beekeeping Organizations (SPOS), assistant. Dr. Mojca Korošec, Faculty of Biotechnology and Dražen Lušić, Faculty of Medicine Rijeka.

The discussion was about the experiences with adulterated honey in all the mentioned countries, but the emphasis was placed on the main topic of the meeting, which is the request to the European Union to change the regulations and oblige honey packers to state the countries of origin on the packaged honey, and then let the consumers choose what they want to buy. The current situation has been going on for decades, where you only have to write on the jar that it is a mixture of EU and non-EU honey, without specifying the details, so you have honey on the market that is 1% from the EU, and 99%, say, from China, Moldova and the like, and the consumer has NO WAY to find out, although according to all regulations he must know everything about the product he is buying, which he is now denied.

A Declaration was signed that was sent to the authorities in the EU with a request to change that situation. If there is a change in the regulations, it will automatically be applied in Serbia, which is on the way to the EU and will adopt its regulations, and this would also solve our problem of imported honey of dubious origin and quality, which started last year with the initiation of the import of pressure-conditioned honey competent inspections on honey counterfeiters in Serbia.

The President of SPOS presented the situation in Serbia, after an excellent introduction



was given by Professor Norberto Garcia, President of the Commission for Beekeeping Economics of the World Beekeeping Federation APIMONDIJA, and President of the Beekeeping Association of Slovenia Boštjan Noč.

The president of SPOS especially supported not only this Declaration, which was signed at the end of the conference, but also the idea of the president of the Beekeeping Association of Slovenia that it is necessary for Europe to have its own BEEKEEPING ASSOCIATION that would advocate for the interests of beekeeping in the European Parliament and other bodies. There would not be such freakish regulations in the EU if there was someone to stand up for the interests of beekeepers, but above all the interests of consumers, who are threatened by such regulations at least as much as beekeepers. As it is, there was only a lobby of honey importers, and of course it lobbied what suits it decades ago, because there was no one to oppose it.

This is another one of the more than high-quality ideas of the president of the Beekeeping Association of Slovenia, behind whom there are works that will make the history not only of Slovenian, but also of world beekeeping. We are sure that only he can push this idea to the benefit of the beekeepers of the whole of Europe, because



in Apimondia you also have members who are large exporters of honey, and it is difficult to achieve a strong enough influence through Apimondia, but it should deal with other affairs, and we in Europe must to fight for our own better status.

Finally, congratulations to the Beekeeping Association of Slovenia for their hospitality and advanced ideas that represent the beacon of beekeeping today, around which all honest beekeepers gather.

Source:

<https://spos.info/konferencija-predsednika-pcelarskih-saveza-regiona>



THE EUROPEAN BEEKEEPING ASSOCIATION **FOUNDED** IN BELGRADE

On Saturday, February 10, 2024, during the jubilee XV State Beekeeping Fair, the European Beekeeping Association was founded in Belgrade.

By the day of the Founding Assembly session, 26 European beekeeping associations had joined the European Beekeeping Association (EBA).

18 of them were able to physically attend the founding Assembly, and we also had 2 observers from Germany and Ukraine.

The following representatives of their associations attended:

Boštjan Noč, Beekeeping Association of Slovenia

Peter Bross, Hungarian Beekeeping Association

Jorge Spiteri, Malta Beekeepers Association

Paul Boyle, Federation of Irish Beekeepers Association

Stephen Barnes, British Beekeepers Association

Valentine Hodges, Ulster Beekeepers Association, United Kingdom

Urška Intihar, Expert Association of Professional Beekeepers of Slovenia

Radule Miljanić, Union of Beekeeping Organizations of Montenegro

Jurgen Binder, New Beekeeping Association of Germany

Mihail Vasilev Mihajlov, United Bulgarian Beekeeping Association

Juozas Olekas, Lithuanian Beekeepers Association

Mende Trajkovski, Union of Beekeepers Associations of North Macedonia

Damir Barašin, Union of Beekeepers Associations of the Republic of Srpska

Razvan Coman, Romanian Beekeeping Association



Tetyana Vasylykivska, Non-Governmental Brotherhood of Ukrainian Beekeepers
Plamen Ivanov, National Bee Branch Association of Bulgaria

Viros Kyriakos, Association of Greek Bioapiarists

Rodoljub Živadinović, Serbian Federation of Beekeeping Organizations

Observers who are allowed full participation in the Assembly but without the right to vote:

Ellmann Torsten, Deutscher Imkerbund e.V.

Andrii Bazhyn, Union of Beekeepers of Ukraine

The Assembly was led by Biljana Tomić, technical secretary of the EBA from the initiative committee for the establishment of the EBA.



The Founding Assembly was attended by Mrs. Karin Rau (GIZ project manager, Support for Diversification of Economic Activities in Rural Areas of Southeast Europe SEDRA II) and Irena Džimrevska, both from the Macedonian GIZ, without whose support we would not have been able to organize the Founding Assembly at such a high level.



Mrs. Karin Rau addressed the delegates at the Founding Assembly and encouraged them in their joint struggle for the proclaimed goals. She



spoke very inspired and responsible, for which we especially thank her. She emphasized counterfeit honey as our biggest problem and expressed hope that we will succeed in our fight to regulate the market.

The second keynote speaker at the Founding Assembly was Boštjan Noč, president of the Beekeeping Association of Slovenia and the initiator of the establishment of the EBA, who spoke about the motives for this idea, and mostly about counterfeit honey as a dominant problem.

The third keynote speaker was the president of SPOS, who welcomed the guests from numerous countries, and emphasized the importance of achieving the proclaimed goals for the future of global beekeeping, which is seriously threatened.

Then the Chairman of the Founding Assembly, SPOS President Rodoljub Živadinović from Serbia, was elected, who led the session according to the predetermined agenda.



a decision was made that the beekeeping associations have 30 days to confirm it at their statutorily competent bodies and to inform the EBA about it. As soon as the last alliance confirms the final version of the Statute, whenever that may be, the elections for the leadership of the alliance are announced on the same day.



Although the goals were long established, they were once again discussed, and some changes were added to the draft Statute. In the end, the statute was adopted in its final form, and



Namely, at the Founding Assembly, the temporary leadership (which would work until the election of the leadership) was not elected, because there were not enough candidates.

Boštjan Noč from Slovenia was nominated for president with 7 candidacies, but he explicitly refused the candidacy. For 5 members of the Executive Board, only three candidacies arrived: Tetyana Vasytkivska from Ukraine (1 candidacy), Peter Bross from Hungary (2 candidacies), Rodoljub Živadinović from Serbia (3 candidacies). Biljana Tomić from Serbia was nominated for EBA secretary general (4 candidacies). Spaso Popović from Montenegro (1 candidacy) and Mende Trajkovski from North Macedonia (1 candidacy) were candidates for the Supervisory Board.



After the discussion, it was decided to form a working body with all the powers of the president and the Executive Board of 5 members, which will manage the European Beekeeping Association for the next month or two, until the election of the leadership. All delegates have undertaken to find candidates who want to work, that is, give their heart to the activities that follow us, and soon we will get leadership.

The selected temporary five-member working body included:

Boštjan Noč from Slovenia

Juozas Olekas from Lithuania

Plamen Ivanov from Bulgaria

Biljana Tomic from Serbia

Rodoljub Živadinović from Serbia

Slovenia was unanimously chosen as the seat of the EBA.

The layout of the EBA logo and flag has been determined.

The amount of the annual membership fee for beekeeping organizations has been determined according to the number of member beekeepers who have:

Up to 500 members: 350 euros

Up to 1000 members: 500 euros

Over 1000 members: 1000 euros

Most of the discussion was about the membership fee, and the least about the upcoming ways of working. This confirmed once again that all the beekeepers of the world are similar and that they have the same problems, i.e. that they have no money.

In the Statute, you will find the main objectives of the EBA in Article 6:

6.1. Implementation of continuous activities in the fight against counterfeit honey in Europe, through the protection and strengthening of the

European consumer, in order to prevent consumer fraud and threats to producers – beekeepers from European countries. Work towards the establishment of a uniform procedure for the detection of forgeries throughout Europe. Work on establishing a reference European laboratory for honey. Work on the promotion of all bee products;

6.2. Establishment of a unique agro-ecological program of measures on the territory of Europe aimed at agro-ecological payments – incentives per beehive as compensation for the pollinating role of bees in maintaining ecological balance, biological diversity and food production in Europe;

6.3. Undertaking strategies to protect the health and repopulation of bee colonies in Europe, through agro-ecological measures, all with the aim of reducing the mortality of bee colonies through cooperation between beekeepers, farmers, veterinarians and interested persons from the sphere of agriculture and science, through the exchange of experiences and knowledge, mutually learning about spraying periods and other applications of insecticides and pesticides, disease prevention and control, proper handling of medicines for bees;

At the end of the Founding Assembly, we symbolically celebrated the establishment of EBA with guests from abroad with honey champagne produced by the family of Dejan and Nemanja Milošević from Požarevac, and we thank them for this opportunity.

We also express our gratitude to all beekeeping organizations who, with their good will, were able to send their representatives to the EBA Founding Assembly! Let's hope that our efforts will bear fruit as soon as possible.



EUROPEANS CHOOSE EUROPEAN HONEY

The expert team of the European Beekeeping Association (Rodoljub Živadinović, Boštjan Noč, Biljana Tomić, Urška Ratajč), in consultation with honey quality experts, prepared an important text for all honey consumers throughout Europe, on why it is important to choose honey from the territory of geographical Europe for consumption.

The text is not directed against anyone, we just wanted to highlight the advantages of European honey for the European consumer. Also, with this text, we call on all the countries of Europe to urgently meet the demands of the European Beekeeping Association, and to solve the problem of counterfeit honey, because beekeeping in Europe is endangered. Due to increasingly strong unfair competition and the market pressure of falsified or fake honey that flooded Europe, beekeepers are massively losing interest in raising bees. If this trend continues in the coming months, Europe will be without bees, because

bees cannot survive without beekeepers. Honey can be imported, but pollination of agricultural crops cannot be imported. This would lead to a dramatic increase in food prices, further growth of inflation and the destruction of the healthy diet of our population. The text will be sent to all members of the European Parliament, to the EU leadership, and we invite the national beekeeping associations of all countries in geographical Europe to send it to the authorities in their countries as a matter of urgency. The situation is alarming, there is no more time to wait. We also invite all the remaining beekeeping associations of Europe to join the EBA by April 10 this year, and to create an even stronger front for the fight for the survival of bees and beekeeping.

European Beekeeping Association

eba@ebaeurope.eu

www.ebaeurope.eu



European
Beekeeping
Association

EUROPEANS CHOOSE EUROPEAN HONEY

By choosing European honey, you help beekeepers to maintain the interest in beekeeping and thus contribute to the survival of bees. Wild pollinators have been decimated by intensive agriculture, and the honey bee can survive for as long as beekeepers have a symbolic interest in raising bees. Without beekeepers there are no bees. Without beekeepers they would disappear in less than two years due to unmanaged bee parasites.

Europeans know that European beekeepers respect the rules of traditional production, take care of bees, and deliver safe honey of the highest quality to consumers.

European regulations ensure high hygienic standards of honey production. European bees are not treated with antibiotics and other agents banned in Europe, so the possibility of honey contamination is excluded.

European honey contains antioxidants, minerals and probiotic bacteria that are more adapted to our body than expected.

The territory of geographical Europe produces honey of incomparably better quality and aroma than imported honeys, due to its clean nature and waters.

By choosing European honey, you improve the quality of all domestic agricultural products that require pollination, because pollination cannot be imported like honey.

By choosing European honey, you help preserve nature and European biodiversity, because bees, in addition to cultivated bees, also pollinate a huge number of wild plants that are a crucial part of the food chain in nature.

By choosing European honey, you support the cultural heritage and centuries-old culinary experiences that contribute to our health and connect us to nature. It has been proven that adding honey to culinary dishes contrib-

utes to a better absorption of nutrients from those dishes in our body.

By choosing European honey, you reduce the environmental pollution associated with long-distance transport, as well as the use of energy sources in the honey adulteration process. In contrast, beekeeping improves the environment and uses and relies only on local natural resources.

By choosing European honey, you support local beekeepers, reduce inflation and the outflow of capital from Europe.

By choosing European honey, you are eating real bee honey. The European Commission has announced that almost 50% of imported honey is fake. You have the greatest guarantee of quality when you purchase honey directly from beekeepers in your area, and if you purchase it in a store, pay attention to the country of origin, because the safest honey is from the territory of geographical Europe. Most counterfeits contain sugar syrups with additives. Such adulterated ("fake") honey had mostly no contact with bees and only serves to deceive consumers and profit counterfeiters.

Counterfeit honey can contain even sodium hydroxide (caustic soda), artificial enzymes (which are also added to the so-called vegan "honey", which does not actually exist, because there is no honey without bees), artificial flavors, artificial colors and low-grade sugars, which are added during counterfeiting and can present risks for human health. In such fake honey, there is not even the slightest biological value that bee honey provides to the human body. Authentic bee products are increasingly successfully used in apitherapy (a branch of complementary medicine based on science and rich tradition).

EBA SENT A LETTER TO THE EUROPEAN PARLIAMENTARY MEMBERS

In our effort to promote European honey, the EBA has provided comprehensive information to 648 EU parliamentarians, highlighting its nutritional value, economic importance, and role in preserving our natural heritage.

“Dear esteemed Member of the European Parliament,

I hope this message finds you well.

It is my pleasure to introduce you to the European Beekeeping Association, a newly-formed unique organisation in Europe that advocates for the welfare of bees and in favour of environmental sustainability and biodiversity, on behalf of European beekeepers.

The European Beekeeping Association (EBA) was founded on February 10th, 2024, and is headquartered in Slovenia, close to the capital city of Ljubljana.

The main objectives of the European Beekeeping Association are:

1. Fighting against counterfeit honey in Europe by raising awareness on topics like product fraud, public health risks and threats to the activity of the authentic producers of honey – the beekeepers from European countries. In this sense, we are working towards the establishment of a common EU procedure for the detection of counterfeit honey and on establishing a reference European laboratory for honey. We will continuously promote all bee-products in the process.

2. Promoting the implementation of a unique set of EU financial measures aimed at enhancing the ecological balance, biological diversity and food production in Europe. One example could be incentives per beehive for European beekeepers, as support for the pollinating role of bees in the environment.

3. Developing strategies to protect the health and repopulation of bee colonies in Europe, through agro-ecological measures, all with the aim of reducing the mortality of bee colonies. Focused cooperation between beekeepers, farmers, veterinarians, lawmakers and other specialists will be based on the exchange of experiences and knowledge on topics related to spraying periods and other applications of insecticides and pesticides, disease prevention and control, and proper handling of medicines for bees, among others.

In the following article, you will discover the significance of honey production not only as a culinary delight but also as a key contributor to ecological balance and agricultural prosperity. Additionally, you will find out about the crucial mission and objectives of the newly formed European Beekeeping Association, aimed at safeguarding bee populations, promoting sustainable beekeeping practices, and fostering collaboration among stakeholders.

Your future support and constructive engagement with our initiatives will be invaluable to us, as we strive to protect our natural environment and ensure the continued health and vitality of bee populations. Together we can work to improve, in the end, European citizens' overall quality of life.

Please find the article attached and feel free to reach out if you have any questions or would like to know more about the European Beekeeping Association and our planned goals and activities.

Thank you for your attention and dedication to preserving our planet's biodiversity.”

Boštjan Noč

President of the EBA

MISSION IMPOSSIBLE IS ACHIEVED!

In 2019, the initiative of the Beekeeping Association of Slovenia was for many an impossible mission, but with the support of the Slovenian state and numerous beekeeping organizations throughout Europe, an important victory was achieved for consumers and beekeepers from all over Europe!

In 2019, the Beekeeping Association of Slovenia submitted an initiative to the Ministry of Agriculture, Forestry and Food, asking it to submit an initiative to the European Union (EU) that all honey on the market be marked with the country of origin, and not, as before, “a mixture of honey from the EU and outside the EU”, which was the best way to hide the country of origin and pour only a minimal amount of domestic honey into the jar, with the absolute dominance of imported honey of dubious origin and quality.

During 2020, together with Portugal, Slovenia presented the initiative at the meeting of the EU Council for Agriculture and Fisheries.

The initiative was given by Mr. Boštjan Noč, the president of the Beekeeping Association of Slovenia, who is also the initiator of the establishment of the European Beekeeping Association – EBA.

The first support for this fantastic initiative was provided by the beekeeping associations who later supported the establishment of the European Beekeeping Association and were part of the initiative committee for its establishment, because those two steps are a logical sequence of events, since nothing has changed in Euro-

pean honey regulations for years, no one he did not give any ideas, and the reality exceeded all outdated regulations, and it was simply necessary to act, or European beekeeping would fail, i.e. right now it is on the edge of the abyss, and the harmony between the beekeeping associations of Europe must be greater than ever, as we would fight to the end with all the problems we currently have, which are included in the first 3 main goals of the establishment of the European Beekeeping Association - EBA! That's why we once again invite all European beekeeping associations to immediately join the European Beekeeping Association - EBA, because we need urgent results!

By the way, the European Parliament adopted yesterday new rules for marking the origin of honey! Consumers will be able to make a decision about buying honey on store shelves, based on true data on the origin, because instead of the words “honey from the EU and honey from outside the EU”, the honey packer will have to list all the countries of origin of the honey in the central visual field of the product in descending order according to the amount of honey from that country in the jar.

In addition, the European Commission will establish a working group of experts that will deal with identifying adulterated honey and improving traceability. For this purpose, an EU reference laboratory for honey will be established and harmonized methods for detecting adulterated honey will be developed.



Now the voted change must be accepted by the Council of the EU and published in the Official Gazette of the EU, and it will enter into force 20 days after that. Member states will then have a two-year transition period to implement the changes.

This is a great victory in the fight for authentic and quality honey for the European consumer and beekeeper!

The president of the Beekeeping Association of Slovenia, Mr. Boštjan Noč, said: "This is one of the biggest victories, a victory for the protection of consumers and beekeepers of all of Europe." In 2019, when Mr. Dr. Andreja Kandolf Borovšak presented the idea of mandatory labeling of honey with an exact indication of the country of origin, many laughed, because they did not believe that Slovenia could succeed with this initiative. Expert arguments, which were excellently presented in the EU by the Ministry of Agriculture, Forestry and Food of Slovenia, convinced many countries throughout the EU, and the almost unanimous support (only 9 against) of MEPs is new proof that Slovenia achieves a lot when it sticks together. Even as the initiator of the establishment of the European Beekeeping Association, based in Slovenia,

I will continue to work to improve the preservation of bees and beekeeping in Europe together. It is necessary to "banish" counterfeit honey from the European market, we must start

with the promotional campaign "Europeans choose domestic honey", i.e. honey from their own country or at least originating from the territory of Europe. The first step has been taken, from now on honey will be marked with the exact country of origin and the consumer will be able to choose



honey by country of origin. I would like to thank the ministers during that period Ms. Dr. Aleksandra Pivec, Mr. Dr. Jože Podgoršek, Ms. Irena Šinko and Mr. Mateja Čalušić for their excellent work, I thank the members of the European Parliament for their support and I thank all the professional services."

The European Beekeeping Association – EBA is proud to have in its ranks such a man as Mr. Boštjan Noč, whose persistence knows no obstacles and for whom nothing is impossible.

Encourage your beekeeping association to join the European Beekeeping Association – EBA, be in the company of the best and our common successful future is assured!



EU COMMISSIONER FOR AGRICULTURE SUPPORTED ALL PROPOSALS OF EBA

As we previously announced, the European Beekeeping Association - EBA addressed a reasoned letter to the Commissioner for Agriculture of the European Union, His Excellency Janusz Wojciechowski, and requested a meeting regarding the pan-European problem with counterfeit honey. Courtesy of the commissioner, the meeting was held online on April 18. 2024.

In addition to the commissioner, the meeting was attended by his chief of staff Andreas Schneider, deputy chief of staff Kamil Ochmanski, representatives of DG AGRI Carlos Martin Ovilo and Marina Hadjiyanni, as well as representative of the European Commission administration Diane Spiteri.

On behalf of the European Beekeeping Association (EBA), the meeting was attended by the President of the Beekeeping Association of Slovenia, Boštjan Noč (as a representative of EBA members from the EU) and the President of the Serbian Federation of Beekeeping Organizations, Rodoljub Živadinović (as a representative of EBA members outside the EU).

The President of Serbian Federation of Beekeeping Organizations first thanked the Commissioner for organizing the meeting and gave the floor to the President of the Beekeeping Association of Slovenia, who explained the main goals of the EBA and particularly emphasized our proposals that counterfeit honey must be stopped in Europe, as well as that our proposal is to establish a unique methodology for determining the authenticity of honey in the entire territory of Europe.

The commissioner first said that the European Commission in 2021/2022. conducted an

examination of the quality of honey on the market and found that 46% was not correct, that is, there was an indication that foreign sugars were added to that honey. Immediately after that, they gave instructions to the EU member states to strengthen controls on the quality and authenticity of honey. Although, all beekeepers are aware that hardly any country has seriously implemented such an order, as soon as we have an infestation of falsified honey on the market.

The Commissioner supported the proposal to establish a unified single methodology for determining the authenticity of honey and especially praised it as an excellent idea, promising to work on it even though it is not within his competence, because the competence for analyzes belongs to the commissioner for food safety on the market, with whom he will discuss what can be done as soon as possible, because a unique methodology would improve the quality of honey controls. He emphasized that he takes the proposal extremely seriously and that he will act quickly on the matter and immediately discuss it with his colleague. He said that from September 15th, it will be possible to import into the EU only honey from accredited producers with a clearly indicated origin, where it is possible to follow the trail, that is, the origin of the honey to its real producers.

He also said that work is already underway to consider the introduction of quotas for the import of honey into the EU.

He said that the EU is absolutely aware of the importance of beekeeping, not only for honey, but also for pollination by bees, and they recently increased the dedicated budget for beekeeping from 40 to 60 million euros by the EU, plus the

member states add as much, and currently the total budget for 120 million euros for this purpose.

At the end, the president of the Serbian Federation of Beekeeping Organizations thanked for the support of our proposals, and emphasized



that it is very important not only to determine the methodology for determining the authenticity (naturalness...) of honey, but also to operationally define it, i.e. that honey sampling must be done at the EU border itself, and that this honey must not be processed or packaged until the authenticity analysis arrives, as we are aware that there are currently many abuses in this matter. He also said that some countries are used for the re-export of mostly defective honey from third countries to the EU, but this is not stated on the declarations. The commissioner said that he will take this proposal into consideration.

The Commissioner was very satisfied that meet with the EBA representatives, he said that he supports us in our efforts, and that he is very pleased to have received excellent concrete proposals from us.

In the end, the Commissioner approved that the report on the topics discussed, the EBA publish publicly and present to the media.

The EBA thanks the EU Commissioner for Agriculture for a cordial meeting where he showed not only his excellent knowledge of beekeeping, but also gave his full support to the essential proposals of the EBA to finally solve the problem of counterfeit honey that has flooded the market and persisted for a long time, promising swift action to solve them.

JOIN THE EBA **VIBER** AND **WHATSAPP** GROUPS FOR FREE

Anyone interested can join the EBA Viber or WhatsApp groups free of charge to inform beekeepers about EBA activities, regardless of whether you are an EBA member or not, so that you can be timely and properly informed about

everything important in EBA and European beekeeping.

If you have the Viber or WhatsApp application installed, in order to join the EBA groups, you just need to click on the following link:

For Viber: <https://ebaeurope.eu/join-the-eba-viber-group-for-free>

For WhatsApp: <https://ebaeurope.eu/join-the-eba-whatsapp-group-for-free>

Electoral Assembly of the European Beekeeping Association

BOŠTJAN NOČ

THE FIRST PRESIDENT OF THE EUROPEAN BEEKEEPING ASSOCIATION

The Electoral Assembly of the European Beekeeping Association (EBA), which is headquartered in Slovenia, was held on April 18, 2024. By the day of the Assembly, 18 beekeeping organizations from 15 European countries had joined the EBA, with 234,461 beekeepers of the EBA.

Two candidates were proposed for EBA president, Dr. Plamen Ivanov from Bulgaria and Boštjan Noč from Slovenia. **Boštjan Noč** was elected with 100% of the votes of the delegates present.

The following were elected to the EBA Executive Board: **Rodoljub Živadinović** (Serbia), **Jorge Spiteri** (Malta), **Stefan Spiegl** (Germany) and **Tetyana Vasilkivska** (Ukraine).

Mende Trajkovski (North Macedonia), **Ellmann Torsten** (Germany) and **Juozas Olekas** (Lithuania) were elected to the EBA Supervisory Board, who will elect the president themselves.

Biljana Tomić (Serbia) was elected as the General Secretary of the EBA.

Boštjan Noč said after the election: *"Thank you for the trust you showed me in the elections for the president of the EBA. If we want to go one step further for bees, beekeepers and consumers, active and unified ac-*

tion across Europe is absolutely necessary. I will perform my work at EBA with full responsibility, it will be based on connecting everyone who is engaged in beekeeping in the European area. I believe that with a wider team we will contribute to the preservation and development of beekeeping throughout Europe. I think it is most important that we immediately form a scientific (expert) committee for the area of quality and safety of bee products, which will have to include experts from different fields and different areas of Europe. We will start working immediately!"



APPOINTMENT OF THE HEAD OF THE **EBA SCIENTIFIC COMMITTEE** **DR. URŠKA RATAJC**

There is report of the first meeting of the EBA Executive Board held in written form on April 25, 2024.

Members of the EBA Executive Board: Mr. Boštjan Noč, Mr. Jorge Spiteri, Mr. Stefan Spiegl, Mrs. Tetyana Vasytkivska, Mr. Rodoljub Živadinović.

The Executive Board of the EBA appointed Dr. Urška Ratajc as head of the scientific committee of the EBA.

EBA will act on the principles of professionalism. Therefore, at the written session of the Executive Board of the EBA, dr. Urška Ratajc, who is employed at the ČZS (Beekeeping Association of Slovenia), has been appointed head of the EBA scientific committees.

Since the EBA's first task is to take care of the quality and safety of bee products, the EBA will immediately establish a Scientific Committee for this area. The EBA Scientific Committee will include experts from different professional areas and from different areas of Europe (EBA members will be asked to propose experts from their country).

The EBA Scientific Committee will prepare professional content for publication, reports, materials for various meetings, etc. at the initiative of the assembly or the executive committee. It will also be an important advisory body for professional questions.

Dr. Ratajc Urška will be in charge of coordinating these contents, communication between



the board of directors and the scientific committee, the final preparation of documents and the representation of harmonized opinions at meetings with other organizations.

They will monitor all professional content and, if necessary, supplement it in cooperation with the scientific committee.



IMPORTANT DECISIONS OF THE EBA EXECUTIVE BOARD

On May 17, 2024, in Višnja Gora, Slovenia, in the Carniolan Bee House was held a meeting of the EBA Executive Board which adopted numerous important decisions.

The meeting was attended by all members of the Executive Board.

First of all, it was decided that EBA, immediately after the formal registration, which will follow in the next days, join the World Beekeeping Federation Apimondia, as a full member.

The decision was made to submit a proposal for a Memorandum of Cooperation with the EPBA, for joint work on solving three priorities

from the EBA Statute: the fight against honey counterfeiting, the fight for introducing subsidies per hive based on the pollination of cultivated and uncultivated plants, as well as the fight against bee poisoning.

It was decided that all members of the EBA Executive Board will receive a new assignment for the promotion of the EBA and the improvement of international cooperation, as Vice-Presidents of the EBA for promotion and international cooperation. The General Secretary of the EBA will contact all national associations that have not yet joined the EBA, and schedule video meetings attended by one of the EBA Vice Presidents for promotion and international cooperation.



A decision was made on the text of the EBA press release on the occasion of World Bee Day, which, together with a promotional video, will be sent to the media across Europe on May 19th., 2024. EBA members who have subtitled the promotional film in their own language are invited to send it to EBA in full quality, so that we can place it on the EBA website for download by the media.

The decision was made that in the following period the EBA will publish the Information Magazine of the European Beekeeping Association once a month, if necessary and more often. The magazine will be published on Sundays. The magazine will contain the activities of the EBA, but also the activities of national and other associations that are members of the EBA. All beekeeping associations that are members of the EBA are invited to send their activities that they consider the most important, on no more than half of an A4 page, by the 20th of each month at the latest, in order to be added to the magazine. Such texts of EBA members must be signed by the author of the text, in order to know who is responsible for the accuracy of the submitted data.

It was decided to invite the media and other organizations that want to regularly receive these press releases to send their email to the EBA.

It was decided not to establish new scientific committees for the time being. All attention will be paid to the activities of the existing scientific committee (<https://ebaeurope.eu/appointment-of-the-head-of-the-eba-scientific-committee-dr-urska-ratajczak-2/>). The executive board once again invites its members to send proposals for candidates for this scientific board by May 20, 2024.

It was decided that the EBA would organize a scientific conference, preferably in Brussels, that is, in the European Parliament. The conference will not only define the problems, but also offer their solutions. Since the EU elections are taking place this year, it is likely that the earliest possible date for this conference will be in January. The Executive Board of the EBA authorized the Scientific Board of the EBA to prepare a proposal for the conference program with the right topics and proposed solutions by October 15th. at the latest.

Višnja Gora, Slovenia



It was decided that the creator of the EBA logo will create a transparent version of the logo, after which all types of logos will be forwarded to EBA members. The goal is to use and promote the EBA logo as much as possible.

The Hellenic Organic Beekeeping Association proposed a good survey that would bring new data on the issue of EBA beekeeping. It was decided to send the survey to the EBA Scientific Committee, which will complete it. After completion, the survey will be sent to all EBA members.



MODIFIED DIRECTIVE 2001/110/EC ON HONEY

WHAT'S NEW AND WHAT PITFALLS IT HIDES

SUMMARY

The new Directive (EU) 2024/1438 mandates the inclusion of the countries of harvest on honey labels, listing the percentage of contribution from each country in descending order. It also abolishes filtered honey but allows significant pollen removal in baker honey, essentially retaining filtered honey under a different name. The directive leaves several gaps regarding the legislation of analytical methods, the definition of pure honeys, the minimum allowable pollen content, the traceability system, and the natural deviations of Greek pure honeys. It also contains numerous provisions for implementing acts to fill these gaps within five years from its enforcement. The directive establishes a platform of experts from the government, citizens, suppliers, traders, and scientists to provide information on methods of analysis and detection of honey adulteration, the traceability system, product composition, and the creation of a Union standard laboratory. However, beekeepers-producers are notably absent from this platform, which is a significant oversight.

OVERVIEW

On May 14, 2024, the new directive for honey (EU) 2024/1438, which amends Directive 2001/110/EC, was issued. The new directive essentially includes two amendments and many future provisions:

a) Mandatory Indication of Honey Production Countries

It is now mandatory to indicate on the label the country or countries of origin of honey mixtures in descending order, along with the percentage of each origin, with a tolerance of 5%. Member states may, by national decision, request that for honey mixtures from more than four different countries, only the percentages of the four largest contributions are indicated when they exceed 50% of the total. If there are additional countries of origin, they should be listed in descending order. For honey portions up to 30g, the countries of harvest are to be indicated using letter codes.

Comments: In the introductory section of the new directive, the Commission acknowledges in point 3 that since the 2001 directive was in effect, the indications of the geographical origin of honey in mixtures have been misleading for consumers and have hindered the functioning of the internal market. The EU essentially corrects one of the errors that have cost not only consumers but also beekeepers dearly and significantly contributed to the spread of adulteration in the EU market. The preparatory discussion included an obligation for countries of origin to be in the same visual field. This obligation was removed from the final text. Thus, according to Regulation 1169/2011, only the indications concerning the food name and net weight must be in the same visual field (Article 13, paragraph 6). The indication of the countries of honey harvest, with the percentages they participate, will help distinguish imported honey from domestic honey and is beneficial for consumer information, who, according to Regulation 1169/2022, have the right to know the geographical origin of all foods. The indication of honey harvest countries, according to Regulation 1169/2011, article 13, "It shall not in any way be hidden, obscured, detracted from or interrupted by any other written or pictorial matter or any other intervening material".

This obligation of the regulation is violated by all imported honeys, and despite complaints, the enforcement body does not intervene. If the same situation continues with the simple addition of a percentage in parentheses, there will be no improvement, and consumer deception will continue as it has for the past 23 years. The regulation on the minimum required letter size, which is only 1.2 mm, must also be changed.

The new directive not only does not alleviate but also raises intense concerns that adulteration and false origin declarations will not only not be limited but will increase in the coming years for the following reasons:

1. There is no laboratory method to verify the percentage of honey origins mentioned on the label, and only strict administrative control can provide some solution. To implement a proper administrative control, a traceability system is needed to verify how much honey was imported from each country mentioned on the label, what

quantity was used in each batch, and the total quantity of each batch.

2. At the EU borders, no control is applied as defined in Directive 90/675/EEC, and as found in the coordinated research conducted by the Commission in 2020-2021 (From the Hives), imported honey enters the EU unchecked.

3. In Greece, an official sufficient honey balance to control the income and outcome of honey is not applied, nor is there traceability of imported honey. The Commission is to issue an implementing act for a unified traceability system by 2029.

4. Domestic market control is minimal and unable to detect blends, adulterations, and false origin declarations.

5. To date, there has been no political will to address legislative gaps, control imported honeys administratively, and establish laboratory methods.

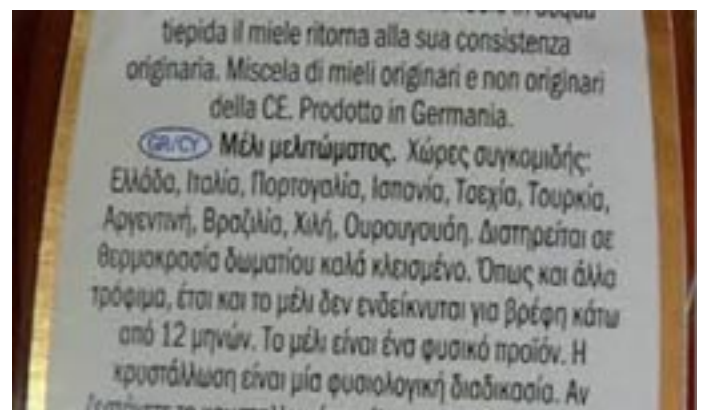


Figure 1. Misleading label of imported honey where the indication of the honey harvest countries is listed among other information, contrary to Regulation 1169/2011.

b) Abolition of Filtered Honey and its Replacement by Confectionery Honey

The category of filtered honey is abolished, which according to Directive 2001/110/EC is obtained "by removing foreign inorganic or organic substances so that a significant part of the pollen is removed" (Article 1, point b). At the same time, it adds to baker's honey the phrase, "obtained after overheating or removal of foreign inorganic or organic substances so that a significant part of

the pollen is removed" (Annex I, point b). Also, in Article 4, point d, it is mentioned that baker honey may have a minimum pollen content after the removal of foreign inorganic or organic matter.

Comments: On the one hand, it abolishes filtered honey, and on the other, it allows the significant removal of pollen from baker honey, presumably by filtration. Essentially, filtered honey remains under another name.

THE NEW DIRECTIVE CONTAINS MANY FUTURE PROVISIONS

According to Article 4, the Commission may issue the following implementing acts:

a) The Commission may determine by June 14, 2028, the methods of analysis for detecting adulterated honey.

Comments: In the coordinated research conducted by the EU in 2015-2017 and 2020-2022, a large number of adulterated honeys were identified, often exceeding 50%. These adulterated honeys were detected with specific analytical methods that exist. Why does it not legislate these methods immediately and later incorporate new more advanced ones as they are developed? Why leave a huge gap until 2028? Officially, adulteration was detected by the Commission in 2015, and it proposes that it may issue the methods of analysis by 2028!

b) The Commission may issue an implementing act for the criterion of "primarily" in relation to the botanical origin of honey. No timeframe for issuing the implementing act is mentioned.

Comments: The term "may" is optional, and in previous cases where it was used, at least for honey, it was not implemented. A characteristic case is Article 4, paragraphs a and b of Directive 2014/63, which also amended Directive 2001/110/EC and states that "the Commission is empowered to adopt delegated acts concerning the determination of quantitative parameters related to the criterion of 'primarily' in relation to the botanical origin of honey." Ten years have passed, and the Commission not only did not address the issue but in its amending decision re-

peats essentially the future provisions of the previous decade or even two decades because the gap existed since the issuance of Directive 2001/110/EC.

c) The Commission may issue by June 14, 2029, an implementing act to ensure that honey has not been heated or processed, considering the invertase index.

Comments: The invertase index is not provided, nor is any modification mentioned in the compositional characteristics of honey in Annex II. Thus, the issue of invertase remains unresolved.

d) The Commission may issue by June 14, 2029, an implementing act to ensure that pollen is not removed from honey and will determine the minimum pollen content of baker's honey "after the removal of foreign inorganic or organic matter."

Comments: The problem of the minimum pollen content was identified in filtered honey by Directive 2014/63, which amended Directive 2001/110/EC. Then, it was again assigned to the Commission to adopt delegated acts concerning the minimum pollen content in filtered honey. Ten years later, not only did it not determine it, but it abolished filtered honey and transferred the problem to baker honey until June 2029!

e) The Commission may issue by June 14, 2029, an implementing act for the methods and criteria for determining the place of harvest of honey and the traceability requirements at the Union level for honey from the producer of harvest or importer to the consumer. It will also conduct feasibility studies on the application of a traceability system.

Comments: In the preparatory phase, it was stated that the Commission would issue the implementing act no later than 12 months after the directive's entry into force. However, in the final directive, one year became five. Thus, until June 2029, there will be no traceability system for imported adulterated honeys with all the implications for the EU honey market. The need for a

reliable traceability system was mentioned by the Commission in the first coordinated research conducted in 2015-2017. We have reached 2024, and a gap extension is given until 2029! That is, the Commission needs 14 years to propose a traceability system and, if it does propose it.

ESTABLISHMENT OF A PLATFORM

Article 4, point b1, refers to the creation of a platform composed of: a) Representatives of member states, competent authorities, and designated laboratories; b) Experts representing relevant stakeholders in the honey supply chain, including:

- Citizens' organizations;
- Honey suppliers and traders;
- Producers and processors of other products containing honey;
- Scientific and technical experts.

Comments: The absence of honey producers' organizations, i.e., beekeepers, from the platform is glaring, which is one of the most significant shortcomings of the new directive.

CONCLUSIONS

The new directive essentially corrects one of the major flaws of the previous directive, namely the requirement for the indication of the country or countries of origin on the label. This is positive and necessary for the proper functioning of the market and consumer information. However, the new directive is not without its shortcomings.

The extensive future provisions leave significant gaps in legislation and control mechanisms, which may allow adulteration and false declarations of origin to continue. The absence of beekeepers from the platform of experts is a major oversight, as their input is crucial for a comprehensive understanding and regulation of the honey market. The directive's reliance on future implementing acts, some of which have been pending for decades, raises concerns about the effective and timely implementation of the necessary controls and standards. The establishment of a unified traceability system is critical and must be prioritized to ensure the integrity of the honey market.



Thrasyvoulou Andreas

Emeritus Professor of Aristotle University of Thessaloniki

IS THERE A FINAL SOLUTION FOR COUNTERFEITED HONEY IN FRONT OF US?

EIM-IRMS – NEW FRONTIERS IN HONEY AUTHENTICITY TESTING

Honey is a natural product that is widely consumed, not only for its taste and nutritional value, but also for its health benefits. Thanks to the characteristics that are essentially or exclusively related to a certain region or a particular local environment and flora, honey can be classified as a premium product that is generally perceived as a high-quality and valued product due to its desired flavor and taste.

Consequently, honey is often the target of counterfeiting, improper/fraudulent production practices, and mislabeling of origin. Essentially, determining the authenticity of honey includes 2 main aspects: production, with the main issues related to the addition of sugar syrup, filtration, heat treatment and water content; designated origin (geographical and/or botanical), as well as "organic" origin.

Due to the complex nature of honey and its various types of adulteration, its authenticity testing has been challenging and has prompted the development of several advanced analytical approaches.

Due to the very broad topic, in this text we will discuss an updated, critical and comprehensive review on current and advanced analytical methods targeting counterfeit / authenticity markers, including an untargeted fingerprint approach.

The latest developments in molecular, chromatographic and spectroscopic methodologies will be described, highlighting their advantages

and disadvantages for identification of botanical and geographical origin.

However, the latest isotopic approach EIM-IRMS (Ethanol Isotope Measurement – Isotope Ratio Mass Spectrometry), which is based on the measurement of non-exchangeable stable isotopes of hydrogen in ethanol (δD_n values) created by the fermentation of honey samples, currently shows very reliable results in determining the presence of C3 sugar syrups in honey, and currently in Serbia this type of analysis is performed only by an accredited laboratory ANA LAB from Pančevo, Republic of Serbia.

An Overview Of The Analytical Methods Currently Used To Determine The Authenticity Of Honey

According to serbian regulations, the basic quality of honey is determined based on the following parameters:

1. Amounts of sugar,
2. Amounts of water,
3. Amounts of substances insoluble in water,
4. Content of free acids,
5. Electrical conductivity,
6. Diastasis activities,
7. Amounts of HMF (hydroxymethylfurfural)

In addition to these parameters, the health suitability of the product is also required, which includes testing for the content of heavy metals

and contaminants (pesticides), as well as the presence of antibiotics.

All these quality parameters do not determine the authenticity of the honey, but only confirm that no one will get poisoned or have any health problems if they consume such verified products. Economic fraud is a completely different matter. Honey can be adulterated in different ways. By directly mixing honey with sugar syrups from industrial plants such as sugar beet, wheat, potatoes, rice, barley and other grains, corn, sugar cane, sorghum, etc.

Also, honey can be adulterated indirectly by feeding the bees during the nectar period, where the bees do not go out to graze, but use sugar syrup as a source of sugar and make "honey" out of it.

This second method of forgery is much more difficult to detect.

Until now, different methods have been used to determine the botanical origin of sugar in honey. Isotopic methods have shown great potential in that direction, but science has "stuck" on examining stable isotopes of carbon, the so-called $\delta^{13}\text{C}$ values in honey.

It is true that by examining the $\delta^{13}\text{C}$ value in honey and honey protein, it is possible to detect the presence of sugars originating from corn or sugar cane as the main representatives of C4 plants, but this parameter cannot determine the presence of sugars originating from industrial C3 plants such as sugar beet, wheat, potatoes, rice, barley, etc. The reason for this is that 95 % of the plants on our planet are C3 plants and they all have the same range of $\delta^{13}\text{C}$ values i.e. from -23 to -30 ‰ compared to VPDB.

This means that by adding invert syrup (50/50) glucose/fructose obtained by the inversion of sucrose from sugar beet, it is impossible to determine this addition in honey by testing the $\delta^{13}\text{C}$ value in the honey, because there is simply no change in $\delta^{13}\text{C}$.

Scientists also tried other approaches, so the NMR Profiling method and LC-HRMS (Liquid Chromatography-High Resolution Mass Spectrometry) were introduced.

These very expensive methods belong to the new direction of developing non-targeting methods, because they do not detect the source, but only notice the difference between the data-

bases of authentic honey and those that are suspicious.

NMR Profiling very quickly proved to be unusable in most cases (yet it is still used, offered and charged for), due to its inability to detect honey mixtures with "tailor-made" syrups, and was sent back "to the drawing table". LC-HRMS as a high-resolution mass spectrometry, does not analyze the botanical origin of the sugar in honey itself, but looks for the presence of specific markers in honey that can generally be found in syrups (concentrations of these markers are usually in traces, ppm and ppb units).

If they are detected, then it is indirectly concluded that the honey has been adulterated with the addition of sugar syrup.

The problem that arose is related to the question - what if the syrup was added as a supplement during the winter period, when the supplement as such is legal, and the traces of those markers remained in the combs that were later filled with nectar by the bee and thus they turned into honey, and later detected by LC-HRMS method?

Testing the authenticity of honey, in addition to these 3 methods, includes another isotopic method - HPLC-IRMS, and it is based on the detection of higher sugars, oligosaccharides in honey. As a natural invert, honey does not contain linear oligosaccharides. Their presence may indicate presence of sugar syrup from starchy raw materials (corn, wheat, potatoes, rice, wheat, barley, etc.).

The industrial production of sugar syrups from starchy raw materials requires the hydrolysis of starch to simple sugars. Namely, hydrolysis, which can be performed with acids or enzymatically, or a combination of the two, never goes to the end and always leaves a small amount of higher sugars that do not stain with iodine – dextrins, oligosaccharides and higher sugars with 3, 4, 5 or more glucose units.

HPLC-IRMS is based on the chromatographic separation of sugar components, and then determining their $\delta^{13}\text{C}$ values. If oligosaccharides are present, they will appear on the chromatogram separated from glucose, fructose and sucrose, which can naturally be present in a very small percentage in honey, thus detecting fake honey.

However, thanks to the development of industrial chromatography, today sugar syrups are made in such a manner that they are cleared from oligosaccharides which are separated, precisely so that they could not be detected by this method. An example of such a industrial chromatography system for purification of sugar syrups is presented in picture 1:



Picture 1: Industrial scale chromatographic system for sugar syrup purifications

In addition to isotopic methods, other methods can be used to confirm the presence of industrial enzymes that are not naturally present in honey. Hydrolases - Invertases and amylases. Industrial enzymes obtained by genetic engineering are made so that they have a wider temperature range of activity and can be active at very high temperatures, even up to 90°C (some amylases). In starch processing industry they are used for the hydrolysis of starch syrups and the production of glucose syrups that are sold commercially with different degrees of hydrolysis, i.e. with different dextrose equivalents (DE).

Unlike industrial enzymes, diastase, an enzyme naturally found in honey, is not thermally resistant and is active in a narrower temperature range. By heating the honey and subsequent analysis for the presence of hydrolase, it can be determined whether the activity of the enzyme decreases or remains constant, and therefore the presence of industrial enzymes in the honey can be detected.

In addition to these analyses, pollen analysis of honey is also used, on the basis of which the

botanical origin of monofloral honeys, such as e.g. acacia, linden, sunflower, sage, etc.

This can be cheated though, because pollen can be collected at the entrance to the hive and dried, and then sold separately, so counterfeiters use such pollen to "salt" fake honey to pass analysis as multifloral honey.

All in all, the authenticity of honey requires a whole series of different tests in order to cover as much of the range as possible and determine the authenticity of the honey.

Mentioned methods, EA-IRMS ($\delta^{13}C$), HPLC-IRMS, NMR Profiling, LC-HRMS are the most expensive and the analysis of a set of these methods can cost in the range of € 600 to € 800, if testing for basic quality, presence of industrial enzymes, contaminants in honey, heavy metals, antibiotics, pollen analysis, then the cost of testing in European laboratories can cost over €1000 per sample.

EIM-IRMS – New Frontier In Honey Authenticity Testing

The EIM-IRMS (Ethanol Isotope Measurement – Isotope Ratio Mass Spectrometry) method is an alternative to the whole set of very expensive isotopic methods that are being done in Europe, and because European laboratories use 4 methods, we only need EA-IRMS and the EIM-IRMS method to determine the presence of exo-sugars. Also, EIM-IRMS is the only method in the world that can quantitatively detect the presence of invert sugar syrup originating from sugar beet.

EIM-IRMS is based on determining the relative ratio of non-exchangeable stable hydrogen isotopes in ethanol, because ethanol proved to be the best marker for determining the botanical origin of raw material used for the production.

Since the EIM-IRMS method is based on the same scientific platform established by Prof. Dr. Gerard Martin 30 years ago, then it is clear why EIM-IRMS is currently the only method that can detect the presence of both C4 and C3 industrial sugars in honey.

In his scientific work Prof. Dr. Gerard Martin concluded that relative ratio of deuterium and hydrogen atoms at methyl site of ethanol (D/H)

will give certain information from which botanical source raw material originated – C3 (beet, potato, rice, wheat, grains, etc) or C4 (Corn, Sugar Cane, Sorghum). The development of his SNIF-NMR method which was established as an official OIV method for wine production made a pathway for future development of EIM-IRMS method.

EIM-IRMS has introduced a new analytical parameter (δD_n ethanol value – which corresponds to non-exchangeable hydrogen stable isotopes in ethanol from methyl and methylene sites). EIM-IRMS has shown a better differentiation between ethanol from different botanical sources as the scale is in ‰ in comparison to scale in ppm, which is in the case for SNIF-NMR.

By overcoming information from methylene site of ethanol (D/H)II with EIM-IRMS it is possible to see the difference which comes only from methyl site of ethanol, thus getting information on botanical origin of analyzed sample. In case of honey vs. different industrial sugar syrups, this would mean to detect the presence of various industrial sugars in honey.

During the last 4 years of the “SuchAQuality” HORIZON Project of the European Commission, over 1600 honey samples from different parts of the world were analyzed, as well as hundreds of sugar syrups of different botanical origin from C3

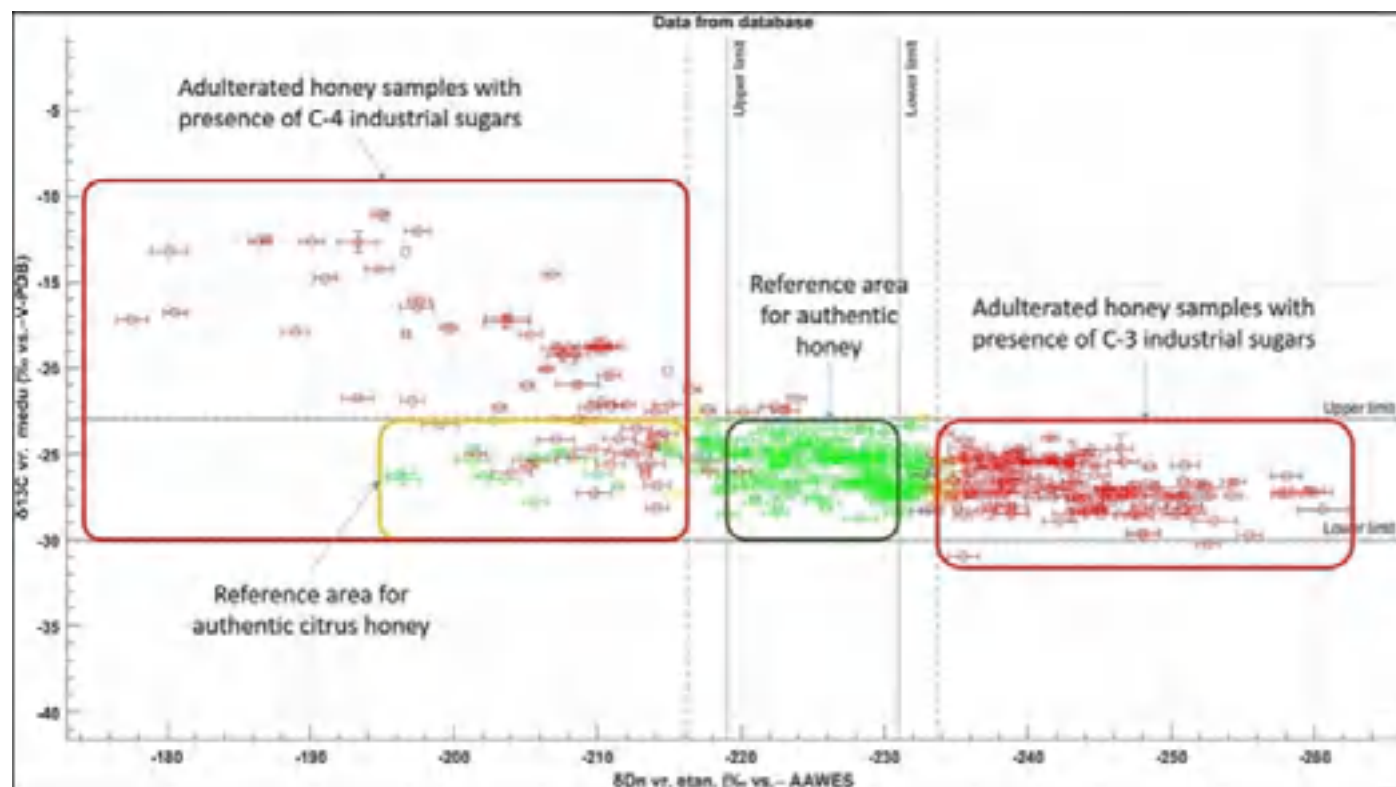
and C4 plants from different parts of the world (from Australia, through Pakistan, Europe to Mexico and Chile) and established reference ranges for δD_n values of ethanol from fermented honey samples in which authentic honeys will be found.

Complete validations were performed, which included determination of precision (repeatability and reproducibility), accuracy (comparative studies with other methods), linearity, expanded measurement uncertainty, etc. Correlated ethanol δD_n values with ethanol $\delta^{13}C$ values from fermented honey looks as it follows in picture 2:

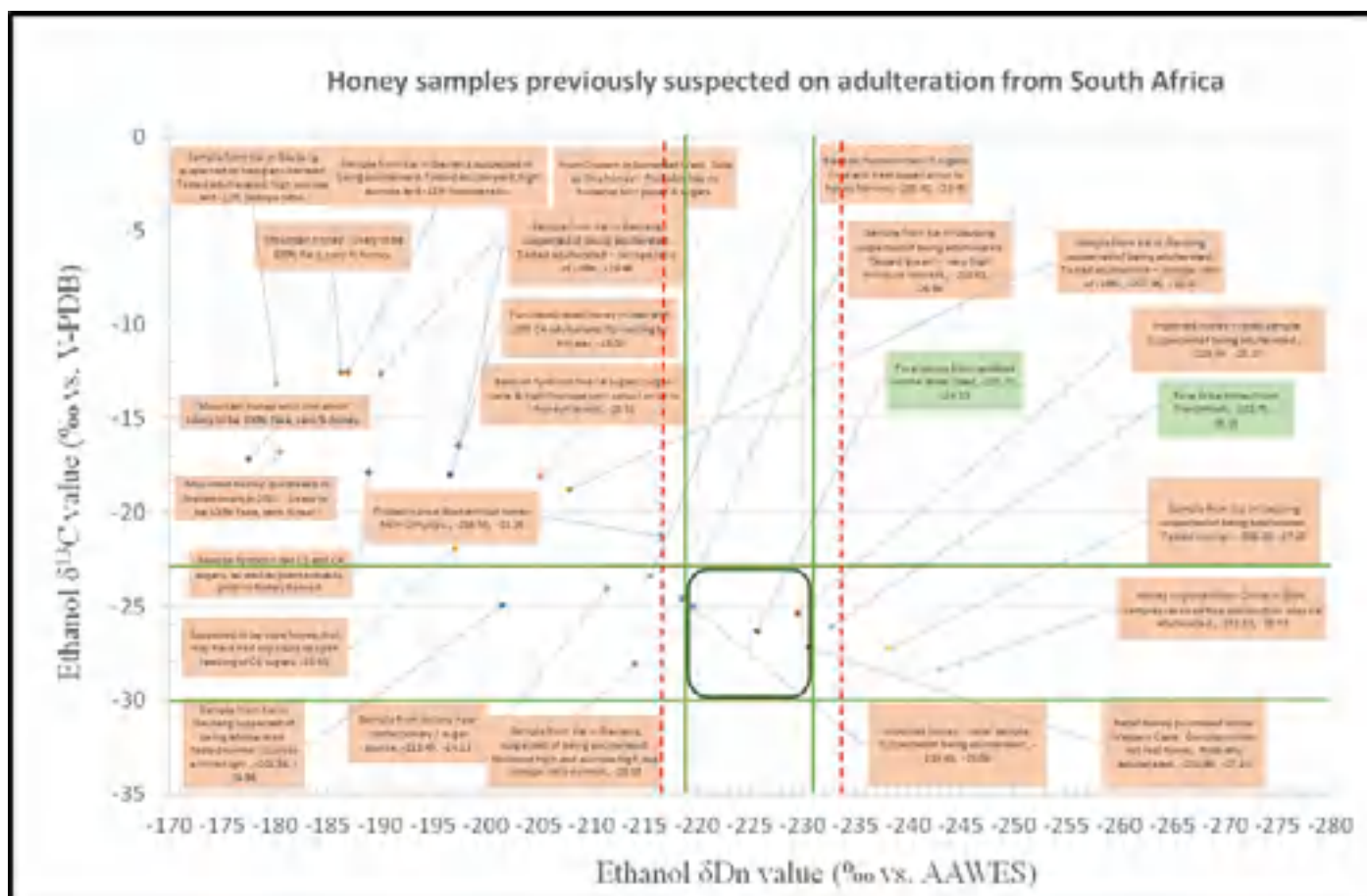
Furthermore, during our previous scientific work and in cooperation with Stellenbosch University from Western Cape (South Africa) a set of 25 samples from South Africa, which were previously suspected and in which fraud had previously been detected based on some other analytical parameters ($\delta^{13}C$ in honey, HMF, diastasis, increased moisture in honey, LC-HRMS, presence of industrial enzymes, etc.) were analyzed using EIM-IRMS.

Out of 25 samples, 2 samples were authentic. EIM-IRMS confirmed 19 fakes and 2 authentic honey samples, which represents 84 % confirmation on a total number of samples tested.

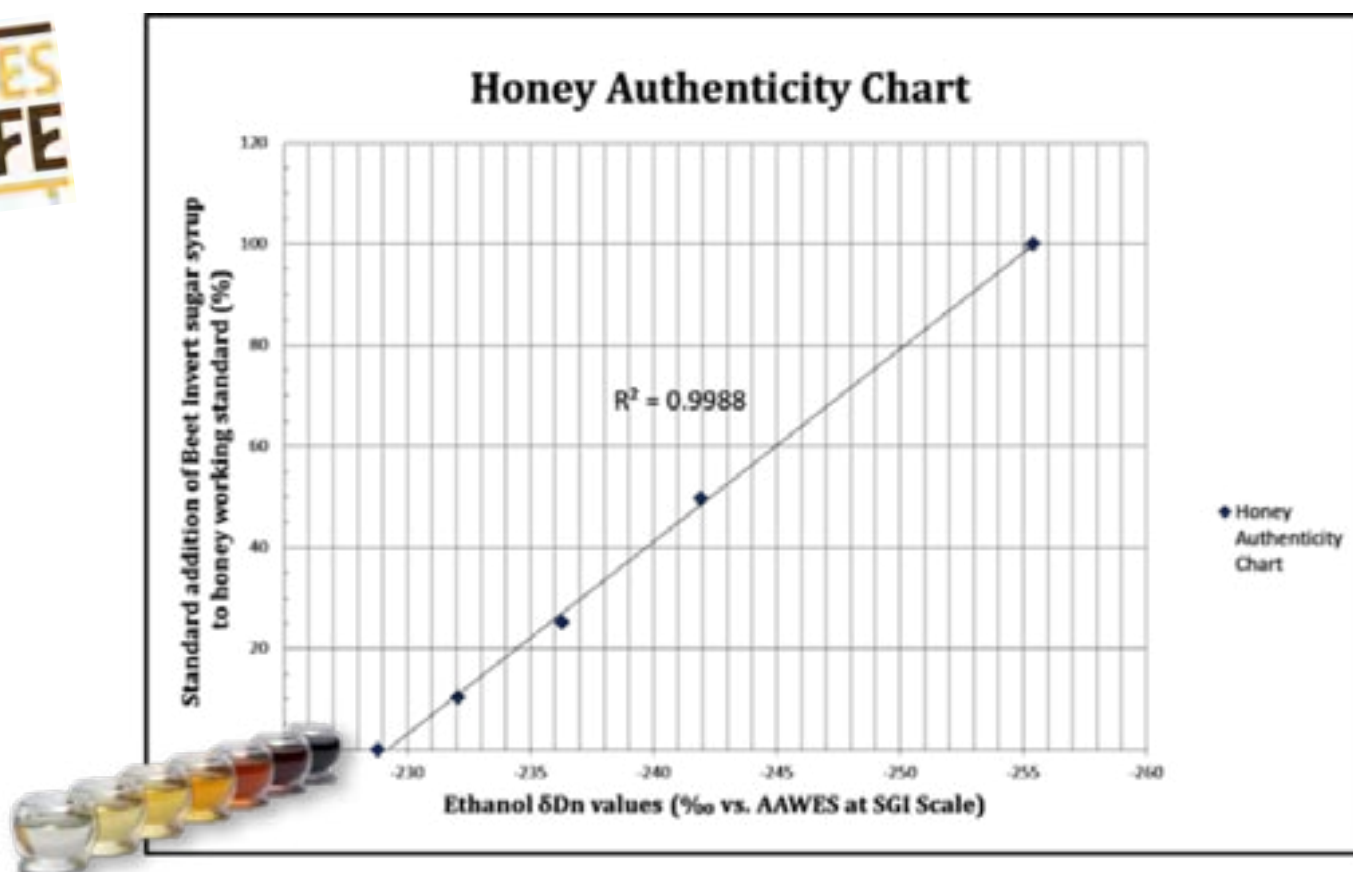
For 4 samples that were suspected of being counterfeit, the reasons are given:



Picture 2: EIM-IRMS - Honey authenticity chart



Picture 3: Samples of false honey – Republic of South Africa



Picture 4: Standard addition of invert sugar syrup from sugar beet to honey

1. Retail honey purchased in Western Cape. Complaint that not real honey, probably adulterated;

2. & 3. Imported honey - retail sample - suspected to be adulterated;

4. Suspected to be adulterated. Tested "green" - very high moisture content (Picture 3).

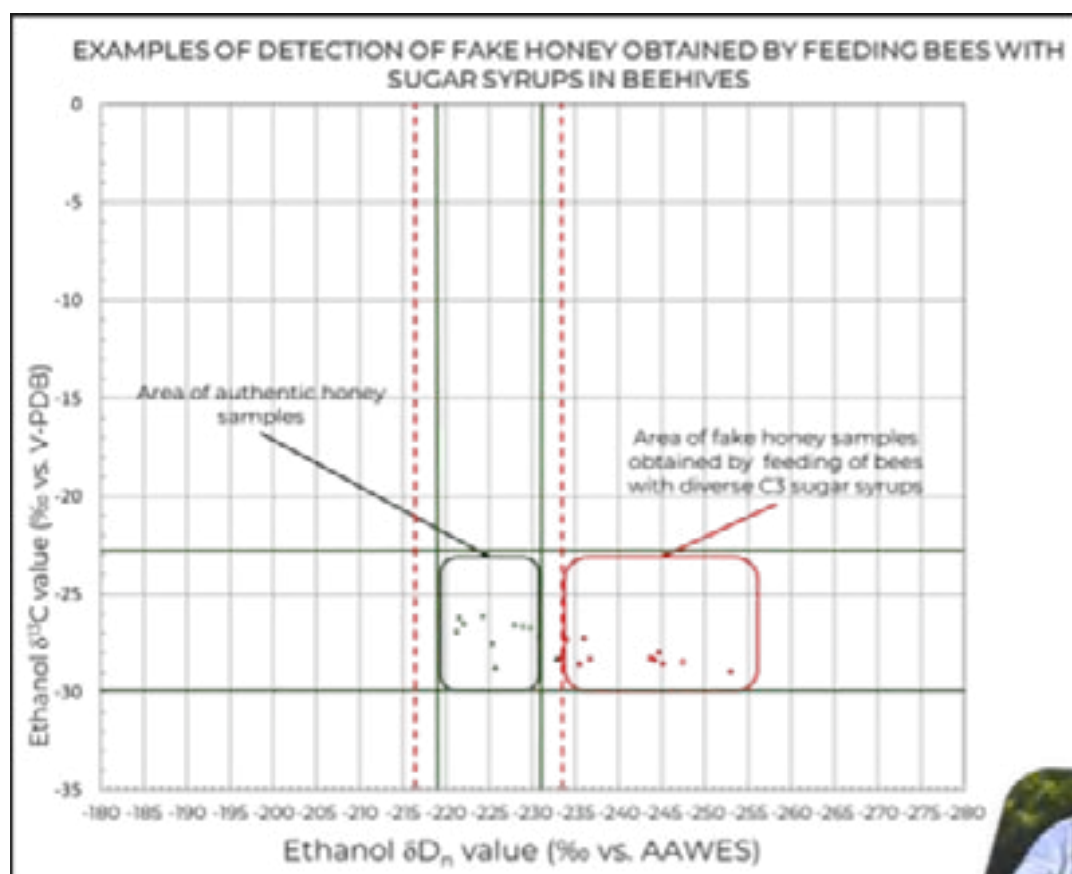
The EIM-IRMSTM method showed incredible linearity to the standard addition of invert sugar syrup from sugar beet and thus became the only method in the world, which has the possibility of detecting this sugar syrup in honey (Picture 4).

As part of the "SuchAQuality" HORIZON project, an experimental study with bee feeding and detection of bee feeding in South Africa was also

hives were arranged in the same location, the honey collected from a group of different types of plants (small bushes) that bloom and produce honey throughout the season under the group name Fynbos (Picture 5).

One more study of bee feeding was also carried out as part of the TUBITAK project, which involved the Turkish BALMER Apiculture Research Institute from the city of ORDU and Middle East Technical University (METU) from Ankara, Turkey.

Supplementation was done with different types of C3 and C4 sugar syrups such as low, medium and high adulteration. EIM-IRMS in correlation with $\delta^{13}\text{C}$ values from honey and honey



Picture 5:
Detection of bee feeding - Republic of South Africa

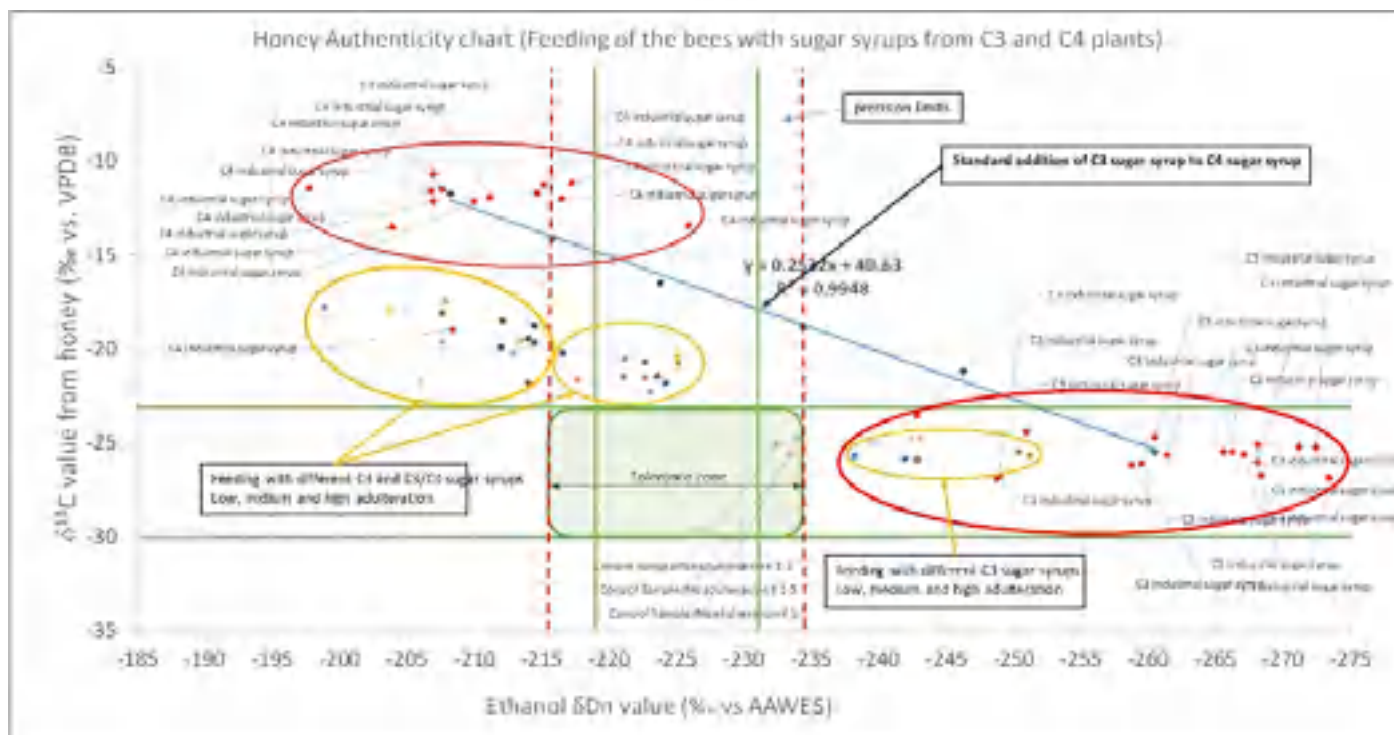
**BEES
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done. Supplementation was added to the bees in the hives at the beginning of the season, while in the second part of the season, after the previous extraction and towards the end of the season (August), collected honey was again extracted, but this time without supplementation. The bee-

proteins detected all adulterated honey samples – yellow clusters in the next graphs (picture 6).

The EIM-IRMS method is also able to determine the presence of foreign linear oligosaccharides that are not naturally present in honey. Linear oligosaccharides are formed as by-prod-



Picture 6: Differentiation of ethanol with different botanical origin – honey, C4 industrial sugar syrups, C3 industrial sugar syrups, fake honey made with bee feeding with various sugar syrups

ucts of hydrolysis in the process of producing sugar syrups from starchy raw materials such as corn, wheat, potatoes, barley, rice, grain, etc.

As such, and unlike the natural cyclic oligosaccharides that are naturally present in honey, they are hydrolyzed by enzymes to the final fermentable sugars – glucose and fructose. By utilizing enzymatic analytical kit before the beginning of alcoholic fermentation during the preparation of the honey sample, and before alcoholic fermentation, if these higher sugars and end-dextrins are present, they will be hydrolyzed and then converted into ethanol.

A difference of more than 2,5 % (expanded measurement uncertainty) in the δD_n value be-

tween an untreated and an enzyme-treated sample will indicate the presence of extraneous linear oligosaccharides in the honey (picture 7).

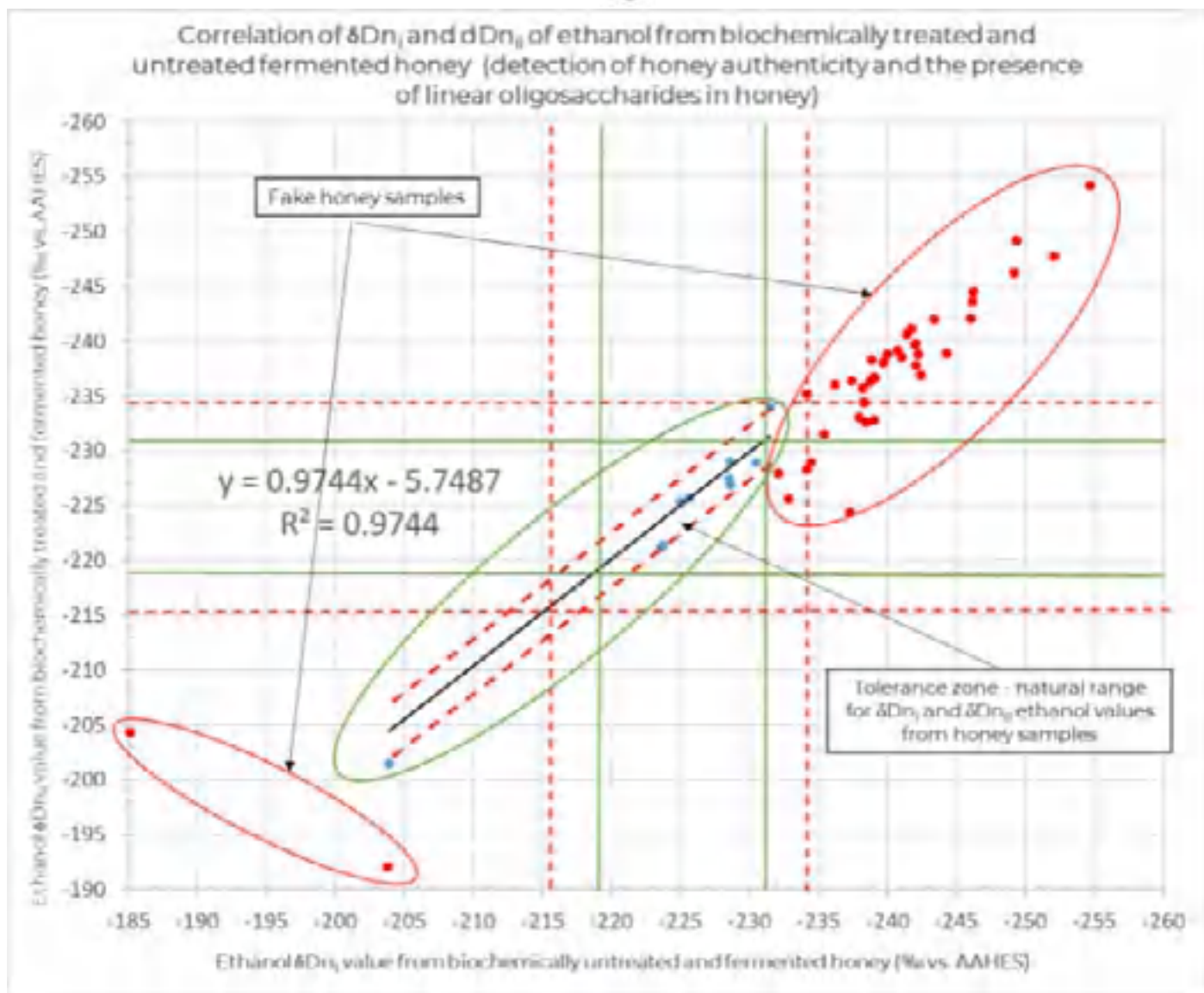
In addition, a comparative study was performed on 14 honey samples between the following sets of methods in table 1.

Out of the 14 comparatively tested honey samples, EIM-IRMS confirmed the authenticity of 11 samples (authentic/not authentic), while the presence of industrial invertase was detected in 3 samples, which was also confirmed by testing the invertase number.

In the end as a conclusion EIM-IRMS is accredited method in accordance with ISO/IEC 17025:2017 and it is performed in ANA LAB DOO

1.	NMR profiling	EIM-IRMS
2.	LC-Orbitrap-HRMS	
3.	Oligosaccharides in Honey (HPLC-ECD)	
4.	¹³ C-LC-IRMS (C4/C3-sugars), Honey	EA-IRMS (AOAC 998.12)
5.	EA-IRMS (AOAC 998.12)	
6.	β -Fructofuranosidase (honey-foreign invertase) Activity (honey-foreign invertase), HPLC-RI	Invertase number

Table 1



Picture 7: Detection of the presence of foreign linear oligosaccharides originating from starchy raw materials in honey

PANČEVO, Republic of Serbia. It represents a new frontier in honey authenticity and a missing link in isotopic analysis on honey. It is direct and targeting method for detection of presence of cheaper industrial C4 and C3 sugar syrups in honey. It is used in testing the authenticity of honey in accordance with international regulations on honey.



Ivan Smajlović

Director of ANA LAB from Pančevo, Serbia
 office@ana-lab.rs



STORY TO TELL

WITH EMOTIONS, COLOR BUT NEEDED ACTIONS AS MAIN GOALS

When humans are sick, they consult doctors, and the same approach should be applied to honey bees. Their doctors in this case are qualified veterinarians that were educated through a hard curriculum in their faculties. They are not just short-term courses, but persons that understand their professions, long and difficult studies. All the others that do disease management on the level of prevention, diagnostic, control and eradication are just uneducated enthusiasts.

Just like that. Paramedics with global rules to save bees not knowing why, how, what and when.

Beekeeping in Europe has some unique marks. Some countries recognize veterinarians

in the field, not just in research and diagnostic institutes. Vets are knowers that understand and can change policies with knowing that they are good for all.

Yes, there are not many veterinary people that deal with bee diseases. But also, in other animal food producing sectors, the picture can be similar.

How many veterinary experts in aquaculture we have? Not many but those that are doing that responsible task managing a big and sensitive flock, knowing the real value of their interventions in any phase of production rounds.

Facing the structure of the problem we can say that usually no one likes to pay for veterinary



knowledge on the field or diagnostic work. That cost is less recognized than the need for painting hives in fancy colors. There is no planned money from beekeepers devoted to paid veterinary services. Some governmental subventions to the beekeeping sector have an impact but not frequently for bee health meaningful protection. It is more complicated than just regulating some anti varroa drugs. More than that. Just two examples of infectious disease on bee yards as AFB and viral disease complex showing that we are already late to keep track with science and predicaments.

Things have changed. Biological pressures are present and pest and pathogens in the beehive and around it is a reasonable concern. To those that are not involved in global data hierarchy, we have WOA, World Organization for Animal Health that through Manual and Code regulates bee health issues and trade rules.

Quite well. But that work is not under global awareness and acceptance because there are not many countries in the world that officially recognize veterinarians, doctors of veterinary medicine as meaningful tools to protect national stock as equally as they serve poultry, cattle or pig production. What is that? Why health technologies are not applicable on beekeeping. As I see the challenges, let say that is because we do not have engaged veterinary services to guide knowledge translation processes.

Convenient Global Disease Data about bee health not existing and problems also do not exist, other word say, problems are neglected. And we all live in peace. We do research, pay

enormous money to publish research data but practices are not transformed to the field. From the other side cacophony about bees and bees saving methods is enormous on web platforms.

Complicated Environmental Connections, nature and bees have unique bonds, and managed honey bees just make the situation worse. Because by managing them we take leading rules to organize their lives in an “organized” environment and with that we make a high level of entropy in that network.

If newly organized beekeeping initiatives in Europe, will stand up for the veterinary sector, healthy bees and products, sustainable and dynamic beekeeping for future, will for sure reach need to integrate best veterinary practices from their experience and bring some novelty to benefit those that like to see change.

Otherwise, forget the story telling connected with a good preview on what is going on.

For those of all that think that this is an impossible mission I recommend reading the best beekeeping book ever, my opinion, sorry, written by Nobel prize winner, 1901 Maurice Maeterlinck, “La vie des abeilles”, to see how far away we are from beekeeping now in 2024. By the way, the author Maurice, made that statement on bee pollinator losses and civilization's end, which later, were not nicely quoted to Albert Einstein.

Diverse circumstances have brought us in beekeeping that is less sustainable and hardly manageable because “bee diseases are no one's land” in many countries. Some public institution control harvested honey as excuse to not care on bee as animals, but even then, they are not able



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to recognize area contamination and risk that is wrapped in perfect row food that we call honey historically. In this days Honey means Money and that interconnection is not always based on best beekeeping practices.

Honey is a kind of food, and food production chains must be harmonized with knowledge that we have from “hive to jar”. Here I like to point that an veterinarian dealing in area of toxicology also.

Along with pervious part, here is part of my communication on same topic made to Apimondia. I still waiting for meeting with relevant persons to see is that needed or not.

My letter to Apimondia

My letter to Apimondia advocating a need that I just explained before in short communication:

“When humans are sick, they consult doctors. No homeopaths, spa workers, or voodoo magicians — just professional health care when needed. In 2024, we must utilize the tools and knowledge available to ensure bees are treated as any food-producing species should be.

Animal health, public health, and animal welfare are pillars of veterinary medicine, and this in-

cludes honey bees. Research, projects, and papers are supporting tools to practice responsible and nature-aligned beekeeping. WE should be aware that in the USA, some key agencies do not recognize honey bees as food-producing species and that can be good point to start to thinking “Way is that “?

This is a red flag and underscores the importance of integrating veterinary expertise under Apimondia’s umbrella. Project groups are valuable, and many veterinarians are contributing positively, but these efforts are not addressing Apimondia’s broader systemic challenges. How many researchers have the time to consult FDA, WOA, WHO documents? It’s time to strengthen the veterinary role in bee health services and revise educational curricula to reflect this need.

Working with beekeepers is challenging and often underpaid or unpaid for vets, which is why agronomists and biologists have taken prominent roles in bee health with not adequate knowledge for that task.

Apimondia is not merely a tourist organization; it is a social tool with immense potential. I am not a careerist; my primary interest is to serve the profession that has shaped my life and career.

I will respect your final decision but request an official note of acceptance or refusal. This will guide my future involvement in the honey bee sector.

Thank you for considering my proposal: GOOD VETERINARY PRACTICE AND APICULTURE

One more WG, whether active or passive, will contribute in its own way.”

I am not sure how clear was my text or idea, but for any additional communication, I am for.

Violeta Santrač D.V.M. M.Sc. Ph.D

Member of Apimondia, Eurbee, SUPRS

<https://virs-vb.com/pcelarstvo>

PI Veterinary Institute of the Republic of Srpska

„Dr. Vaso Butozan“

Republic of Srpska

Bosnia and Herzegovina





BEEES ARE DOING IT BETTER

The whole beekeeping world and whole Europe is fascinated by the idea of giving bees the inverted sugar syrup instead regular sugar syrup. It is believed that inverted syrup is saving the energy that is spent on inverting sucrose and converting it into glucose and fructose.

A little history for you

Maya civilization built incredible cities of great beauty and architectural value (Tikal, Chichen Ica) and formed developed written language of pre-Columbian America with about 800 pictograms. They developed art, mathematics, agriculture and astronomy of unexpected limits, a triple calendar (civil, religious, and long-term calendar), but even they used circular forms for various things, they didn't think about using the WHEEL as logical solution and problem resolve for many of their jobs.

Neither civilization (whose name we don't know) that built Teotihuacan, the city with over 200.000 citizen, that was the largest city in whole world in 5th century AD, didn't discovered WHEEL.

The Aztecs made beautiful cities, Tenochtylan (today's Mexico City) was one of the largest cities in the world of that time with 200,000 inhabitants (only Paris, Venice and Istanbul were bigger), but with the system of daily garbage disposal while Europe was dangling in the garbage, and all that without WHEEL. They even put wheels on various types of toys, but they never thought of putting the wheel in the function we know today.

The Incas were building magnificent cities without plaster, they had centralized economy, operated with a 5,300 km long territory spreading information by the messengers.

They kept messages in their minds because they didn't even have a written language. Do I have to tell you that they didn't discovered a WHEEL?

Could it be possible that these civilizations would rule the world if they had been discovered the WHEEL? It is possible. But today, we can only think about it, because they don't exist anymore. They are killed or assimilated.

Are we beekeepers obliged to pay for the every nonsense

I believe that you question yourself "Am I reading a historical article or beekeeping article?" But someone who didn't learn history, will have to live through it again. I am asking you, are we beekeepers obliged to live and pay for the every nonsense, or we will start to use previously acquired knowledge, and by combining it achieve useful conclusions.

Of course, I ask myself the same question. For years we know so much about bees. Topic that I will process is familiar to us long period of time, and the answer was in front of us all the time. Like the wheel was in front of the eyes of the old civilizations of Central and South America, we have remained blind to this day. ..

In December of 2017 I figured out it all. And I have realized how much we all together are making mistakes by thinking that giving inverted syrup to bees we will save them from hard work on inverting sucrose.

The whole beekeeping world and whole Europe is fascinated by the idea of giving bees the inverted sugar syrup instead regular sugar syrup. It is believed that inverted syrup is saving the energy that is spent on inverting sucrose and converting it into glucose and fructose.

Wrong postulate - bad beekeeping

But, the whole theory is established on wrong postulate. It is believed that bees have receptors that can determine the percentage of sucrose in the food that we're giving to them, so based on that, they put amount of enzymatic invertase that is

needed for sucrose invertase. I will disappoint you. Bees do not have such receptors. Bees have very precise receptors that will determine total sum of sweetness of the food that we're giving them. And that is why bees have possibility to decide is nectar sweet enough and worth of collecting. Before explaining the essential reason why is type of sugar in food irrelevant in relation to the amount of invertase that we added to food, we will explain how bees perceive nectar or food that we're giving to them. All the time you should have only one thought on your mind. Bees know only for the nectar. Through evolution they have never taste regular sugar, corn syrup or inverted syrup. Whatever we're giving to them, they all detect it as nectar and they treat it as nectar.

Processing and composition of nectar

Nectar is diluted sugar solution whose concentration can vary from 5% to 80% percent, although it is more usually around 35-45%. The disaccharide, sucrose is the predominant or sole sugar present in some nectars, but other nectars contain almost equal proportions of sucrose and the monosaccharides (glucose and fructose), while others contain mostly glucose and fructose. Nectar from Brassicaceae practically does not have sucrose, while nectar from oilseed rape has more glucose than fructose. In dandelions nectar dominate glucose. Acacia and red clover produce more fructose than glucose. Legumes have equal amount of all three types of sugar. In nectar, there may be small traces of other sugars present, for example, maltose, melibiose, raffinose and melezitose. In addition, there are very small quantities, in some cases mere traces, of nitrogenous

compounds, organic acids, lipids, minerals, vitamins, and aromatic compounds, but these substances together comprise less than 2% of the nectar.

Scientists through foraging test offered to bees 34 different types of sugar or substances closely related to sugar, 30 of which tasted sweet to man, the bees accepted only seven sugars. The seven sugars, in order of their apparent sweetness to the bee determined in this manner, were: sucrose = maltose > trehalose = glucose = fructose > L-methyl glucoside > melezitose. Five of these sugars are present in appreciable quantities in nectar and honeydew: sucrose, glucose, and fructose in nectar, and all three, together with trehalose and melezitose, in honeydew. Maltose and L-methyl glucoside are apparently sweet to the bee although they are not normally part of its diet. Nevertheless, bees are able to use all of these seven sugars in their metabolic processes. Based on behavioural studies, the sense of taste appears to be around 300 times less sensitive than the olfactory sense in both bees and man, but bees and other insects differ from man in their taste threshold can apparently vary according to the state of their nutrition, i.e. a starved insect will

have a lower threshold. Bees normally gather nectars containing between 10% and 70% sugar. When forage is good bees have been found to have a relatively high behavioural threshold for sugars, e.g. 34% for sucrose. It would be a waste of energy for bees to collect very dilute nectar which would require considerable concentration in the hive. Nectar is sampled by the mouthpart receptors before it is collected and, under good foraging conditions, only nectars with high sugar concentration are accepted. In times of sparse forage, the behavioural threshold for collecting nectar can fall to as low as 4% sucrose concentration. A feedback system between the foragers and the house bees allows a forager to monitor its nectars concentration in relation to that of other foragers. A group of bees specializing in receiving nectar unloads the foragers as they return. These bees will experience nectar from variety of forage patches and are in a position to compare the sweetness of the various nectar loads, and so can adjust their behavior towards the forager that they are unloading accordingly. Receiving bees solicit nectar from the forager, who regurgitates a drop between its mouthparts and the receiver extends its proboscis to sample

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LIFE**

time to learn



it. A forager with relatively concentrated nectar will be rapidly unloaded (in less than 40 seconds) and such foragers are stimulated to dance and recruit other bees to their forage source. Conversely, bees with relatively dilute nectar, in comparison to other nectars coming into the hive, will be unloaded slowly and may have to offer their nectar to several receivers. These bees are not stimulated to recruit other bees and may themselves be recruited to forage in other areas. If overheating occurs in the hive, then bees that cooling the brood area demand very dilute nectar or water. In that situation advantage have bees with dilute nectar than those with concentrated nectar.

Foragers will then be recruited into fetching water or watery nectar until the crisis passed. This flexibility of response requires both the ability to taste the nectar and signal information about its concentration to the central nervous system, as well as plasticity in the behavioural thresholds at which sugars are acceptable.

Receptors in bees do not inform bee central nervous system about which sugars are present in nectar or sugar syrup (because it doesn't mean anything to bee) they only inform about total sweetness in nectar, ie, they report, but the bee receives it as a collection of information. This is also logical because the bee is collecting nectars with different types of sugar. And evolutionary it was not important to her what all the sugars were and in which relationship, because nectars from various plants would very quickly mix in the hive. The only thing that was important to her is total

sweetness of nectar, ie, is it nectar worth of collecting or not.

The presence of different receptors for the detection of several different types of sugar has one task, and that is when information about the sweetness of all individual sugars are processed, central nervous system is bombarded by the large number of impulses and they inform bee how much is the total sweetness of syrup.

The role of the tarsal and antennal taste receptors in feeding are not well understood in bee. Stimulation of the tarsi or the antennae with a sugar solution results in extension of the proboscis, as it does in many insects. However, in bees, the tongue in most cases is extended before bee fly down to flower, which doesn't depend on bee's feet receptors. It is not clear what stimulate proboscis extension. Although the floral smells can also cause proboscis extension, it is assumed that colors can play a big role also.

Receptors at the bee's antennae or receptors at the tip of bee's feet can register 0,06% sugar concentration, but the role of such a subtle and unusually precise measurement of sugar concentration in the process of collecting nectar remains unknown, it may be related even with some other bee product (royal jelly, pollen).

What the inverted syrup is for?

The answer is nothing. Because bees install almost same amount of enzymes in the food that they are processing, regardless of the composition of the food. This was proven by Taranov long

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KNOWLEDGE IS **POWER**

time ago. At first he gave regular sugar syrup to the bees, that doesn't have general protein (protein, enzyme...) and when bees placed syrup in the hive it contained 0,08% regular protein (enzymes that bees embedded in honey). When they extracted sugar honey and again gave it to the bees, the amount of protein in the newly made sugar honey was 0,14% almost twice as high as the previous time, which means that bees no matter what they eat, they always install almost the same amount of enzymes in their food, even if they gave them a solution of pure honey. Because that sugar syrup was already processed enough for the first time. If the bees have possibility to add only amount of enzymes that is needed for their food processing, they would not add the same amount of enzymes when they re-processing the same food.

Dr. Robert Brodshneider, from the Institute of Zoology at the University of Karl-Franzens in Graz, Austria, was comparing different types of syrups that he gave to bees. Basically, he always got the best results with sucrose syrup in experiment that he provided in 'surviving bees in cages'. He also tested several different inverted syrups to see if there was anything better than classical sugar syrup. The only thing he concluded is that the distribution of sugar in syrup (fructose, glucose, sucrose) is not really important. Also, monitoring the wintering of the bees after consummation different types of syrup, it practically did not show a different effect of the consumption regular syrup and inverted syrup. This theme will be more discussed in detail at the seminar in Aleksinac (Serbia) on November 24, 2018.

According to Dr. Miroslava Lolin in the book "Diseases of the Bees", regular sugar syrup contains in small amounts fermented ribonuclease that destroys the paralysis virus and some other

viruses. Some experts are recommending sugar syrup as preventive effect. This is one more proof that regular sugar syrup is the best substitute for nectar, although it doesn't contain substances that nectar contains.

The bee implements almost the same amount of enzymes in food they processed

Taranov has shown that feeding the bees with sugar syrup additionally exhausting the bees, because secretion of pharynx glands (that secreting invertase) is increasing. It is not weird because when more any type of food is eaten, it is normal that secretion of invertase will increase due to the increased amount of food. As things stand, the insertion of enzymes into the bee's food is pure mechanical thing, because enzymes enter the food when bee performs certain movements that normally perform only when entering food in organism. Because when receiving bee takes nectar from forager, in next 20 min she repeatedly partially unfolds and then refolds her proboscis with droplet adding to it secretions of her glands and exposing it to the air till part of water evaporates from it. Based on several separate experiments, communities that were constantly fed with smaller amounts of sugar syrup did not raise more broods than those from control group that wasn't fed with sugar syrup. On the other hand, communities that were fed with honey had 19,3% more broods than communities fed with sugar syrup. Although this statement has nothing to do with topic of this text, because we are in time of the year when bees are in development stage, I have to remind forgetful persons that it has been scientifically proven that best stimulation for spring development is actually unfolding of honey, not additional nutrition. Because



that honey is used by bees without spending energy on processing. Nevertheless, any supplemental feeding that is not honey leads to disorder of gut microbiota of the bee, which has long-term consequences.

However, the most interesting proof came from the Institute for Beekeeping in Ribnoj. Research carried out by A. S. Jakovljević and L. A. Shagun has shown that the processing of large amounts of sugar syrup has a negative impact not only on the bees that process it, but also on next generations of the bees. For example, bees community that in one month collected and placed in honeycomb 54,1 kg of food originating from sugar syrup, and at forage after gain 48,3 kg of honey did not survive such effort, regardless of the large number of raising bees. In autumn they already died. Obviously there is limit for food processing, either nectar, or syrup (where situation is worse) where bee's communities don't suffer the long-term physiological consequences that are passed on next generations. Because newly emerged bees, that were raised by workers have shown as poor quality bees only because they were raised by exhausted bees. The research has shown the staggering complexity of the bee community. Because, during evolution bees community never had to gather such enormously amounts of food, especially in the short period of time, as it does today by the influence of man. This is one more proof that if we don't respect nature, the punishment will come sooner or later.

Conclusion

Conclusion is simple. The only natural food for bees is nectar. If there is no nectar, beekeeper has obligation to feed the bees so they could not die from starving or stop developing. Since bee exhaustion with food processing is almost identical regardless of the food type, then we should give to the bees the most cheapest food and that is white sugar melted in water (0,43 EUR per kilogram on the day the text is written 2018). Feeding the bees with inverted sugar is much more expensive, and results are the same. You thought that inverted syrup is saving energy to bees, but as you see it doesn't. Only processed food from honeycomb (honey) is saving energy to the bees.

Because honey is nectar processed to the most simples ingredients that are directly from bee's gut transferred into bee's blood system. But, when she takes sources of food that are not from honeycombs like inverted syrup or white sugar she sees it as nectar and implement enzymes in it with her glands. And for that she needs additional nutrition with pollen. Today many beekeepers consider use of sugar cake as standard technique for bees supplemental feeding during winter. Even the reasonable article that Miljko Šljivić wrote for the Serbian magazine "Beekeeper" in June 2014 where he explained all bad effect of such work, disappears in a batch of falsehoods. Cake for bees is not only harmful for bees during winter it also has three times higher price than regular sugar nutrition. Sugar cake in winter requires from bees to raise the temperature in order to make the invertase work, and for this bees need to spent energy. Normally during the winter bees do not extract invertase, they only do that when we force them and interrupt their physiology, and that is why the bees go exhausted because they consume fat tissue on something they don't need. But naïve beekeepers rather believe in such stories than stick to science. Remember scientific work from Germany that was published in our magazine few years ago, where is proven that for bees is better to stay at mountain than valley during the winter. The reason looks banal, because bees are flying less in mountain than in the valley during the winter, so they are less exhausted because the flight is very energy-intensive (like man need to eat 7-14 kg of sugar for an hour because he is working something that request that amount of energy) But imagine what is happening to the bees when they need to activate its glands to secrete the enzymes in time when God enabled that they DON'T HAVE TO DO IT.

**MD Rodoljub
Živadinović**

Specialist of
epidemiology,
apitherapist

President of the
Serbian Federation of
Beekeeping Organizations
apikult@gmail.com





PROPOLIS

AN ALL-NATURAL FIGHTER

"If the bee disappeared off the face of the Earth, man would only have four years left to live." This quote, often attributed to the famous physicist Albert Einstein, has never been truer.

Did you know that honey isn't the only thing that bees make?

Apart from honey, bees collect and produce a variety of wonderful products, such as pollen, royal jelly, beeswax, bee venom, bee bread, and, naturally, the renowned propolis.

Propolis (a.k.a. bee glue) is a sticky, dark-colored substance that honeybees produce from living plants. In fact, it's a mixture of beeswax,

resins, sap, botanical compounds and their own saliva.

They use it to construct and adapt their hives, mainly to fill in cracks and protect the beehive from bacteria. Propolis also hardens the cell walls and contributes to an aseptic internal environment. It's even used to mummify intruders that the bees can't remove.

Its name comes from the Greek "pro", meaning "in defense of" and "polis", meaning "city" - making its literal meaning "in defense of the city" (or hive).

Essentially, it is vital to the survival of the hive and can benefit humans in many ways as well.



In case you're thinking that bee propolis is a new health craze, this marvelous bee product is a multi-purpose remedy that has been around for a long time. It has been used in folk medicine since ancient times and is now known to be a natural medicine with numerous applications in treating various diseases due to its antiseptic, anti-inflammatory, antioxidant, antibacterial, antimycotic, antifungal, antiulcer, anticancer, immunomodulatory and many other beneficial properties.

Historians have documented the use of propolis as far back as the time of Aristotle, circa 350 B.C. Thousands of years ago, ancient civilizations used propolis for its medicinal properties, that is, for its wound-, tumor- and skin ulcer-healing properties, to name a few. Ancient Greeks used it to treat abscesses and Egyptians used it to treat various health problems and in their mummification rituals (just as bees use it to mummify hive intruders and protect the hive from bacteria when the intruder decomposes).

"The bees have been declared the most important living beings on this planet," the Earthwatch Institute concluded in the last meeting of the Royal Geographical Society of London (<https://www.sciencetimes.com/articles/23245/20190709/bees-are-the-most-important-living-being-on-earth.htm>).

A natural ally

"Nature is an ally of people's health. Propolis is a natural antibiotic, rich in biologically active substances, such as polyphenols, essential and aromatic oils that strengthens the organism's defense."

(<https://beenaturalles.com/en/products/healing/organic-propolis-tincture>)



The health benefits of propolis are impressive. Scientists are still amazed at the results they obtain from the research of this dark, sticky substance.

Researchers have identified more than 300 compounds in propolis, including antioxidants,



vitamins, minerals, amino acids, coumarins, phenolic aldehydes, natural steroids, polyphenols and flavonoids, sesquiterpene quinines and so on. It also contains about 10 percent essential oils, 5 percent bee pollen, and other various organic compounds.

The most prominent health benefits are as follows:

- Due to its proven anti-inflammatory, antiviral, and antibacterial properties, propolis can prevent and shorten the duration of common respiratory diseases, such as flu or the common cold.
- Propolis helps maintain strong immune system also since it is notable for its antioxidant properties.
- It is also important to emphasize the fact that propolis contains an “intelligent” antibiotic, which means that unlike synthetic antibiotics, which kill all bacteria, propolis actually destroys only the bad ones, leaving the beneficial probiotic bacteria untouched.
- “It is evident that propolis extracts can be extremely useful in cancer treatment.”

(<https://www.healthaid.co.uk/healthaid-blog/propolis-health-benefits>)

- There are hundreds of articles based on medical research dealing with the abilities of propolis not only to kill cancer cells but also inhibit DNA synthesis in cancer cells and inducing apoptosis (programmed death of abnormal cells). Two propolis polyphenols in particular (caffeic acid and artemillin C) seem to have most potent anti-cancer properties.
- Medical research showed propolis was able to fight pathogenic yeasts called *Candida albicans*, effectively reducing their number and contributing to prevention and recovery from various problems and symptoms associated with candida overgrowth.
- Liver-protective activity is another benefit of the internal use of propolis.
- It has also been shown that propolis can be effective in fighting intestinal parasites; it proved to be effective against herpes simplex virus (HSV) infections (the cause of common cold sores); it improves fertility of females with endometriosis; it has demonstrated anti-diabetic



activity; it soothes and protects skin; it calms allergies and promotes dental health (due to its antibacterial properties).

"The antioxidants present in propolis play great role in its immunomodulatory properties. The flavonoids concentrated in propolis are powerful antioxidants."

(<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3872021/>)

Propolis: A gift from the honeybee and Mother Nature to humans and mammals, possessing a wide range of health benefits and pharmacological potential.

Georgios T. Athanasiadis

Organic Apiarist, Physicist, Tutor
MSc, MA

General Secretary of the Association 'Organic Beekeeping Community'
General Secretary of the Institute of Ecological Agriculture



**BEES
LIFE**



NO BEES, NO LIFE

SUMMARY

The honeybee *Apis mellifera carnica* today without humans, i.e. without a beekeeper, it can no longer survive. Humanity is involved in the world of bees through all areas of human activity and existence: the bee is an indicator of a healthy environment, an inspiration in spiritual, economic, and educational activities, a producer of superior food, a teacher of a sustainable way of life, an example for business systems and systems related to it, a connector of people in the role of a neutral common political point, an important element in biodiversity, etc.

Despite the fact that the honey bee can no longer survive without a beekeeper, it remains invincible with bee products. No other creature and no technology can recreate bee products in their complexity and nutritional and pharmacological effectiveness for health. There is no life without bees regardless of attempts to mislead consumers, but in the field of management policies it is important to adopt measures that will protect the rights of consumers in relation to honey appearing on the European market. Counterfeit honeys or honey substitutes create confusion and unfair competition on the market. Without adequate regulation in the field there is no protection and dignity of consumers, protection of bees, protection of biodiversity and protection of the environment.

Keywords: there is no life without bees, bees, apitherapy, apipedagogy.

HONEY

»Bee products are foods of animal origin with clinically proven pharmacological effects. They

act on a different level than chemical drugs, which means that they complement the treatment, and optimize it - and at the same time, in no case do they pose a risk of contraindications to chemical drugs. The advantage of bee products also lies in the fact that bees have been producing them for more than 20 million years, and pathogenic bacteria have not yet developed resistance to the antibiotic effect of bee products, as they have developed to chemical antibiotics in just a few decades« (Ilič, 2022).

The second article of the Honey Regulations (Official Gazette of the RS, no. 4/11, 26/14 – ZKme-1B and 9/15) states that honey is a natural sweet substance produced by the *Apis mellifera* bee from the nectar of flowers or secretions from living parts of plants or secretions of insects that suck plant sap on living parts of plants, which bees collect, process with certain substances of their own, store, dry and leave to mature in the honeycomb. The same regulation also defines the composition of honey. Honey is therefore a food produced exclusively by honeybees and cannot be the product of human technological processes outside the hive. Honey produced by bees contains various sugars, among which fructose and glucose predominate, as organic acids, enzymes, flavonoids, vitamins, minerals, and other substances. With its composition, it is a complementary support to official medicine in treatment processes, and it is also used as a nutrient or building block of the immune system. Apitherapy also knows the use of honey in other ways, e.g. massage with honey, nebulation, etc.

CONSUMER RIGHTS

Regardless of how much consumers know about the potential uses of honey, or how familiar

they are with honey's potential for health, well-being and trauma recovery, they have a right to know that there is only one type of honey - that which is produced by bees.

What is on the one hand the right of consumers is on the other hand a binding obligation of traders, who are consequently bound to fair business practices. "A practice is considered misleading if it contains false information and is untrue. In addition, it is considered misleading if it is likely to mislead the average consumer, even if the information is accurate in one or more of the listed elements. It is also a misleading practice if a company omits essential information that the average consumer needs to make a business decision or if it withholds information, provides it in a vague, unintelligible, ambiguous manner, or provides it at an inappropriate time" (Svetovanje potrošnikom in Evropski potrošniški center, URL: <https://www.gov.si teme/svetovanje-potrosnikom-in-evropski-potrosniski-center/>).

The European market needs to be cleansed of fake honey, as misleading statements and/or fakes can endanger people's health. Years ago, a young family stopped at a restaurant on their way home. The 3-year-old girl had a confirmed allergy to eggs, so they checked with the waiter during the lunch order what their practice was regarding oil. The parents mentioned their daughter's allergy and pointed out that they would order another dish instead of fries if the chef did not use new oil. The waiter was clearly not adept at knowing these types of health complications, he ensured safety and served them fries. Unfortunately, the oil in which they fried their French fries contained traces of eggs from the breaded steaks that had been fried in the same oil before. The girl went into anaphylactic shock on the spot.

Food and health are strongly correlated. Someone with an allergy to artificial colors or with diabetes could experience fake acacia honey in

a similarly severe way to how a three-year-old girl experienced French fries. When it comes to food or substances that affect the biochemical processes in the human body, deception and unfair business practices go far beyond just unfair treatment of customers and consumer rights.

COUNTERFEITS ARE DISPLACING MAN AND BEE

Unfair competition and the naming and/or promotion of artificial substances in a way that misleads the consumer that it is honey, in addition to the potential dangers mentioned above, can also have a negative effect on bees in the long term. Bees can no longer survive without beekeepers. Deceptive and cheaper products can discourage uninformed buyers from buying the real, but justifiably more expensive, honey. This phenomenon is especially likely to be expected from lower economic strata, which generally dominate society (so there are more such buyers).

In the worst case scenario, this can lead to a decline in the number of beekeepers and thus also the number of people who take responsible care of bees. In short, there are several reasons why beekeepers' demand for the abolition of misleading products is concretely justified, but they all lead to the fact: no bees, no life.



Nina Ilič, Slovenija
zavod.eneja@gmail.com

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QUEEN REARING IN SLOVENIA

Queen rearing in Slovenia is an important part of the beekeeping tradition that has been passed down from generation to generation. It combines a rich heritage with recognised scientific methods to produce high-quality queens. The breeders rear the native Carniolan bee, which is known for its calmness, hard work and exceptional adaptability to different climatic conditions. The Carniolan bee is valued worldwide, making it the second most widespread bee subspecies in the world.

Beekeeping is based on centuries of knowledge and experience, which beekeepers carefully preserve and build on. Modern methods and controlled mating enable the rearing of calm, productive and healthy queens, which is the key to successful beekeeping.

One of the key advantages of the Carniolan honey bee is its exceptional ability to adapt to different climatic conditions. Honey bee queens

from Slovenia are therefore suitable for different climatic zones, making successful beekeeping possible regardless of location. This adaptability is key to maintaining the stability of bee colonies in different environmental conditions.

Slovenian queen bees enjoy a good reputation worldwide for their quality and reliability. Buying queens from Slovenia means that you are getting tried and trusted quality, which is important for successful beekeeping. Slovenian beekeepers are known for their dedication and professionalism, which is reflected in the high standards of queen rearing.

More information is available here:
http://www.kranjska-cebela.si/En/kranjska_cebela.php



Dr. Peter Kozmus



SI SAPIS, SIS APIS

“If you desire wisdom, do like the honeybee”

As provided for in the Agriculture Act, the Beekeeping Academy of Slovenia was founded in 2018 as a unit of Slovenia's leading research institution in the field of agriculture, the Agricultural Institute of Slovenia. It was established in response to interest from many countries in the international transfer of the knowledge, skills and practices of the Slovenian beekeeping profession. The Beekeeping Academy of Slovenia strives to share knowledge about beekeeping in the form of non-formal educational courses to promote Slovenian educational institutions involved in the field of beekeeping and to spread new knowledge in a national and international context.

The Academy runs various educational programmes, and these are constantly updated according to the current situation in the field of beekeeping. It also monitors new topics and issues and incorporates them into existing educational modules or develops new ones. Topics cover a broad spectrum, including apitourism, beekeeping with AŽ hives, queen breeding and selection, guidelines for good hygiene habits in beekeeping, and honeybee nutrition in a chang-

ing climate. The educational programmes run by the Beekeeping Academy of Slovenia are conducted by beekeeping instructors who have the appropriate knowledge and experience. They are highly qualified practitioners who have a positive attitude and the ability to transfer knowledge and skills to anyone interested. In addition to educational webinars, lectures and train-the-trainer sessions, the Beekeeping Academy of Slovenia is also involved in innovative projects that often aim to improve food security and employment opportunities for vulnerable groups in society and to raise awareness of the importance of bees, biodiversity and pollination in general.

Since 2021, the ITF Enhancing Human Security organisation, the Organisation of Amputees UDAS of Republika Srpska, and the Beekeeping Academy of Slovenia – Agricultural Institute of Slovenia, have been working as partners in the project entitled "Beekeeping as an Empowerment Tool for Land Mine Victims in Bosnia and Herzegovina". The main donor of the project is the Republic of Slovenia, namely the Ministry of Foreign and European Affairs. The programme is making a tangible difference to the lives of numerous



mine victims, providing them with opportunities for self-sufficiency and independence. By harnessing the power of nature and teaching valuable skills, the beekeeping programme is helping to empower mine victims and promote their economic and emotional well-being.

The project represents a unique way of psychosocial rehabilitation, provides an additional source of income for land mine victims in Bosnia and Herzegovina, and, in addition to providing beekeeping equipment and training, establishes a widespread local support network.

The beekeeping group of the Department of Animal Breeding at the Agricultural Institute of Slovenia was tasked with developing and implementing a pilot project in Bangladesh to promote beekeeping. The beekeeping project initiative was officially presented in November 2016 at a meeting between the Slovenian state delegation and the BRAC leadership. BRAC was interested in the possibility of developing beekeeping as one of their agricultural activities, which, if the



BEEKEEPING ACADEMY OF SLOVENIA

We provide non-formal education and training in the field of beekeeping.

Current educational programmes

- Apitourism
- Beekeeping with A2 beehives
- Queen breeding and selection
- Guidelines for good hygiene habits in beekeeping
- Honeybee nutrition



E: scs@kiss.si | <http://scs.kiss.si>

project were to be successful, would be transferred to the level of farmers while creating an integrated value chain. They took a practical approach to planning. Mr Brane Kozinc, an instructor, experienced beekeeper and queen bee breeder, was assigned to the field in Bangladesh. The pilot project was successfully completed two years later. One of the most significant findings was among European qualities containing less than 17% moisture. No one could have predicted this outcome at the start of the project. The Bangladeshi side has received enough beekeeping knowledge to enable the BRAC team to carry out essential beekeeping tasks, such as the relocation of a mobile apiary. Another of the outcomes has been the realisation that beekeeping as we know it in Europe can be replicated in the developing world.



Hacquetova ulica 17, SI-1000 Ljubljana
Slovenija/Slovenia

T +386 (0)1 280 52 62 | F +386 (0)1 280 52 55 | E info@kis.si

www.kis.si

We are looking for the EUROPEAN CHAMPION

Which will be the best European honey 2024?

Participate in the European honey contest, which will be held for the first time in 2024 in Koper, Slovenia! An internationally recognized expert committee will declare the three best honeys in each category, which will be announced on the 7th of December 2024 at a professional and culinary event in sunny Koper, Slovenia. The best honeys will receive:

- The title of EUROPEAN CHAMPION 2024,
- unique plaques and awards,
- medal logos to mark the award-winning series of honey,

- special exposure in the European Parliament,
- analysis reports on high quality and safety,
- the right to use the flattering title for the next two years!

Rules and conditions of participation:



organizer	assessment category	sample collection	address to collect samples	registration fee/sample	information	day of evaluation	closing ceremony
Coastal beekeeping society Koper, Slovenian beekeeper's Association, Municipality Koper	European	up to and including 16.9.2024 In person or by mail.	Čebelarika zveza Slovenije, Brdo pri Lukovici 8, 1225 Lukovica, Slovenia	70 € Transfer: OBALNO ČEBELARSKO DRUŠTVO KOPER Bošamarin 30 6000 Koper TRR, Banka Koper: 101000035841107	Aljaž Debelak, aljaz.debelak@czs.si 01/729 61 29 Klavdijo Babič, klavdijo.babic@siol.net 041 825 680	26.9.2024	7.12.2024 in Koper, Slovenia



NEWS FROM **GERMAN** BEEKEEPERS ASSOCIATION

One of the main focuses of our work continues to be the EU Honey Directive and the European honey market.

Together with our colleagues from the Austrian umbrella organisation Biene Österreich, we have been able to carry out strong lobbying and provide important impetus in the discussion on the new Honey Directive, especially during the trialogue.

However, the work is far from over with the publication of the amendments of the Honey Directive. On the contrary, important issues are now being discussed on the honey platform that is yet to be set up.

We are working on this under the umbrella of the Honey Working Party of Copa-Cogeca, together with other associations. In addition, following a detailed analysis of the Honey Directive and the points under discussion, we have drawn up a

position paper together with the Austrian umbrella organisation and the French association SNA, in which we clearly set out our demands. We have also made the paper available to the EBA and other associations for discussion and as a possible basis for national work. All associations are also invited to add their logo to the position paper.

Contact: sebastian.spiewok@imkerbund.de.

We are also working with experts from the umbrella organisation BeeLife to write a report on the honey market.

This will include the results of the Honey Working Party's survey (Copa-Cogeca) on the situation of beekeepers in the EU. The report is expected to be published on the

EU Pollinator Hub platform in July. As soon as it is available, we will announce it again. We would like to contribute our experience and contacts to the work of our EBA.

Torsten Ellmann

President of the
Germany Beekeepers Association (DIB)



**DEUTSCHER
IMKERBUND E.V.**





NLB Agro

Financiranje, prilagojeno potrebam vaše kmetije.

S fleksibilnim kreditom se lahko prilagajate letnim časom in letinam ali se odločite za **individualno ponudbo financiranja**, ki jo oblikujemo glede na posebnosti vašega kmetijskega gospodarstva. Več na nlb.si/agro

NLB

ELLINGEN MEP MANFRED WEBER, CHAIRMAN OF THE EPP, VISITED MR. STEFAN SPIEGL, VICE PRESIDENT OF THE EUROPEAN BEEKEEPING ASSOCIATION (EBA)

Ellingen MEP Manfred Weber, Chairman of the EPP, visited Mr. Stefan Spiegl, Vice President of the European Beekeeping Association (EBA), at his apiary in Ellingen in central Franconia as part of his election campaign tour. Mr. Spiegl explained the processes in the bee colony to the MEP.

They then discussed the new so-called "Breakfast Directive". Another important topic was honey labeling and the need to set up reference laboratories at European level to detect counterfeit honey. This is a key concern of the EBA in order to protect the European honey market from price dumping and honey adulteration. At the end of the meeting, the possibility of discussing important EBA issues on site in Brussels was considered. Mr. Weber and Mr. Spiegl will remain in contact in this regard.

Stefan Spiegl



*Photo: Manfred Weber
(Left Stefan Spiegl, Middle Manfred Weber,
Right Dr. Konrad Körner)*

INTRODUCING **LITHUANIAN** BEEKEEPERS ASSOCIATION

Lithuanian Beekeepers Association gathers 43 associations with 3000 beekeepers.

Main goals of Lithuanian Beekeepers Association are:

- To coordinate the activities of beekeeping organizations.
- To give lectures on bee products quality, bee health.
- To represent the interests of the members of Association in the governing institutions of Lithuania, the European Union, and other international organizations.
- To share the most recent information regarding beekeeping in Lithuania and abroad with members of Association.

Lithuanian Beekeepers Association is a part of Nordic-Baltic Bee Council. In March 2024 Nordic-Baltic Apicultural Research Symposium was held in Vilnius (Lithuania).

Participants of symposium discussed the issues of bee diseases and treatment, honey quality, honey promoting, Honey directive changes etc.



Last summer ten Lithuanian beekeepers participated in the INSIGNIA-EU 2023 project that is aimed at monitoring environmental pollution by using honeybee colonies. We are waiting for the results of the project. Every year Lithuanian beekeepers take part in international COLOSS project Monitoring of honeybee colony losses.

Young beekeepers take part in international meeting of young beekeepers IMYB.



WORLD BEE DAY

AT ROMANIAN BEEKEEPERS ASSOCIATION

Declared as World Bee Day, in recognition of the special importance of bees in ensuring the biodiversity for a clean environment and especially because of the special contribution that bees have in pollination activity that provide food for humans, in a festive setting, this day was celebrated by the Romanian Beekeepers Association in the premises of its Research and Development Institute for Beekeeping, in Bucharest.



The event was attended by the Ambassador of the Republic of Austria, H.E. Mrs. Margit BRUCK-FRIEDRICH, the Deputy of the Diplomatic Mission of the Republic of Slovenia in Romania Mrs. Barbara BERIČIČ, the Executive Director of the Agricultural Directorate of Ilfov County Mrs. Georgiana Lola ENE, from the Veterinary and Food Safety Authority Mr. Silviu BEIA, from the County Office of Financing Rural Investments Ilfov, Mr. Cristian ȘLINCU, from the Embassy of the People's Republic of China in Romania Mr. Wu WENLONG and Mr. Ma YUN-FREI, as well as beekeepers and bee lovers.

We would like to mention that the management of the Research and Development Institute for Beekeeping, the management of the Veceslav Harnaj Beekeeping Complex and the manage-



ment of the Bucharest-Ilfov Branch, also contributed to the success of this event, along with a large number of beekeepers.

In his opening speech, the president of Romanian Beekeepers Association, Mr. Ioan FETEA, thanked the guests for their participation and underlined the importance of the bee for humanity, but also the challenges for the survival of this species, as well as the challenges for the production of beekeeping products.

These challenges are related to: the negative effects of climate change, phytosanitary treat-



ments, the destruction of the local gene pool, the lack of funds for research, uncontrolled imports and falsifications of honey and beekeeping products, increasing production costs, etc.

Romania, with millenary activity in this field, has managed to develop a professional beekeeping in the country, placing today this sector on the 1st – 2nd place in the European Union for the quantity of production obtained and the number of bee colonies.

At this moment, the special role played by Prof. Veceslav HARNAJ, considered to be the founder of modern beekeeping in Romania, could not be overlooked.

From the speakers' speeches, the same interest in protecting and preserving the bee was evident, as well as the recognition of the danger to which this small insect is subjected as a result of negative human interventions in the ecosystem.

A special moment in this activity was the inauguration of the newly authorized bee pathology laboratory of the Research and Development Institute for Beekeeping as well as a completely renovated store for presentation and sale of bee-

keeping products, that belongs to the same Institute.

From the discussions held at this event, it emerges the need for closer collaboration between the associations and local and central bodies of the Romanian State, as well as closer collaboration with European associations and the European Parliament officials responsible for promoting and supporting bees on their role as a factor of balance for agriculture and biodiversity.

Marius Marinescu
Technical Supervisor
Romanian Beekeepers Association





EBA will work for all beekeepers, regardless of which country in Europe they are from, or how many hives they have. At the beginning of the work, EBA directs all its focus exclusively on **3 MAIN OBJECTIVES**:

FIRST OBJECTIVE: The fight against counterfeit honey, in order to prevent consumer fraud and the endangerment of beekeepers in Europe. Work on the establishment of a uniform procedure for the detection of forgeries throughout Europe. Work on establishing a reference European laboratory for honey. Work on the promotion of all bee products.

SECOND OBJECTIVE: Introducing incentives per hive as compensation for the pollinating role of bees in maintaining ecological balance, biological diversity and food production in Europe.

THIRD OBJECTIVE: Suppression of bee poisoning and control of bee diseases by proper handling of bee medicines.

EBA ID CARD

- 1)** EBA was founded on February 10th, 2024, and registered on June 12th, 2024.
- 2)** EBA President Boštjan Noč is from Slovenia (he has been the president of the Beekeeping Association of Slovenia for more than 17 years), and the vice-presidents and members of the Executive Board EBA are from Germany (Stefan Spiegl), Serbia (Rodoljub Živadinović), Malta (Jorge Spiteri) and Ukraine (Tetyana Vasylykivska): <https://ebaeurope.eu/leadership/>
- 3)** EBA did not wait for registration to work, the following was done even before registration:
 - ▶ Launched his website www.ebaeurope.eu
 - ▶ Created the professional educational text "Europeans choose European honey" (<https://ebaeurope.eu/europeans-choose-european-honey/>)
 - ▶ Sent a letter to all members of the European Parliament with an appeal for support(<https://ebaeurope.eu/eba-sent-a-letter-to-the-european-parliamentary-members/>)
 - ▶ Held a meeting with the European Commissioner for Agriculture (<https://ebaeurope.eu/eu-commissioner-for-agriculture-supported-all-proposals-of-eba/>)
 - ▶ Established by the EBA Scientific Committee. The objectives and goals of the EBA will be achieved through professional support. The EBA Scientific Committee serves as a crucial bridge between expert knowledge and the needs of beekeepers and consumers. It unites professionals and researchers who provide scientific counsel, focusing primarily on the safety and quality of bee products, as well as other important topics (<https://ebaeurope.eu/appointment-of-the-head-of-the-eba-scientific-committee-dr-urska-ratajc-2/> and <https://ebaeurope.eu/invitation-to-join-the-eba-scientific-committee/>)
 - ▶ Sent an invitation for cooperation to EPBA (<https://ebaeurope.eu/eba-and-epba-have-the-same-main-goals/>)
 - ▶ Established the EBA magazine "NO BEES, NO LIFE", which will be published in electronic form on the first of every month

- ▶ Made a decision on the membership of EBA in APIMONDIA
- ▶ Decided to organize a Scientific Conference on the quality of bee products in Brussels, at the beginning of 2025
- ▶ Conducted a large promotional campaign on the consumption of European honey on the occasion of World Bee Day (<https://ebaeurope.eu/do-we-know-what-kind-of-honey-we-are-eating/>)
- ▶ Held a meeting with the president of APIMONDIA and got his support for EBA objectives (<https://ebaeurope.eu/president-of-apimondia-supports-the-ebas-efforts-against-fake-honey/>)
- ▶ The EBA president-elect, even before the establishment of the EBA, by implementing his advanced ideas, achieved great results for all European beekeepers in the matter of marking the country of origin of honey (<https://ebaeurope.eu/successes-of-eba-even-before-foundation/>)

**Insist your beekeeping organization to join the EBA.
ONLY TOGETHER we can achieve all objectives!**

The President of the EBA has already secured a donation of 25,000 euros for the work of the EBA for the next four years (100,000 euros in total), as well as 10,000 euros from the state of Slovenia, and this will be quite enough for the fast, efficient and successful work of the EBA on achieving the set objectives!

NO MEMBERSHIP FEES FOR 2024 & 2025

Conditions for free membership in the EBA 2024 and 2025:

- ▶ All those who have already joined the EBA by June 17, 2024.
- ▶ All national beekeeping associations or other beekeeping associations that are among the two largest in the country in terms of the number of beekeepers and will join the EBA by October 1, 2024.
- ▶ Possible withdrawal from the EBA is free of charge.



European
Beekeeping
Association

Head office: Brdo pri Lukovici 8, 1225 Lukovica, SLOVENIJA
eba@ebaeurope.eu
<https://ebaeurope.eu/>

LEADERSHIP OF THE EBA



PRESIDENT OF THE EBA

Boštjan Noč

President of the Slovenian Beekeepers' Association

Republic of Slovenia
bostjan.noc@czs.si



**EBA VICE PRESIDENT FOR PROMOTION AND INTERNATIONAL COOPERATION
MEMBER OF THE EXECUTIVE BOARD OF THE EBA
EDITOR IN CHIEF OF THE EBA MAGAZINE “NO BEES, NO LIFE”**

MD Rodoljub Živadinović, specialist of epidemiology, apitherapist

President of the Serbian Federation of Beekeeping Organizations

Dr Stojana Janićijevića St. 12
18210 Žitkovac

Republic of Serbia

+381 60 444 01 01 (Viber, WhatsApp, Signal, Telegram)

apikult@gmail.com

Available for video conferencing on Zoom and MS Teams platforms

LEADERSHIP OF THE EBA



**EBA VICE PRESIDENT FOR PROMOTION AND INTERNATIONAL COOPERATION
MEMBER OF THE EXECUTIVE BOARD OF THE EBA**

Jorge Spiteri

Malta Beekeepers Association
Republic of Malta
+356 79900684



**EBA VICE PRESIDENT FOR PROMOTION AND INTERNATIONAL COOPERATION
MEMBER OF THE EXECUTIVE BOARD OF THE EBA**

Stefan Spiegl

Vice president of the German Beekeepers Association (DIB)
President of the Bavaria Beekeepers Association

Hörlbach 29a
91792 Ellingen
Federal Republic of Germany
+491601676895
s.spiegl@lvbi.de

LEADERSHIP OF THE EBA



**EBA VICE PRESIDENT FOR PROMOTION AND INTERNATIONAL COOPERATION
MEMBER OF THE EXECUTIVE BOARD OF THE EBA**

Tetyana Vasylykivska

Chairman of the Board of the All-Ukrainian Non-Governmental Organization “Brotherhood of Ukrainian Beekeepers”

Ukraine

+38 050 371 53 82 (Viber, WhatsApp, Telegram)

tetyana@apimondia2013.org.ua



PRESIDENT OF THE SUPERVISORY BOARD OF THE EBA

Mende Trajkovski

President of Beekeepers Association of North Macedonia

Bitola

Republic of North Macedonia

+389 75 800 985

trajkovskimende.bitola@gmail.com

LEADERSHIP OF THE EBA



MEMBER OF THE SUPERVISORY BOARD OF THE EBA

Torsten Ellmann

President of the German Beekeepers Association (DIB)

Jägerstr. 1
17309 Pasewalk
Federal Republic of Germany
+49 228 93 29 20
torsten.ellmann@imkerbund.de



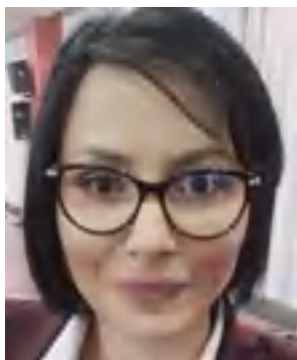
MEMBER OF THE SUPERVISORY BOARD OF THE EBA

MD Juozas Olekas

President of the Lithuanian Beekeepers Association

Republic of Lithuania
+370 698 42 658
juolek@gmail.com

LEADERSHIP OF THE EBA



GENERAL SECRETARY OF THE EBA

Biljana Tomić, LLB

Republic of Serbia
+381 69 2857 017
eba@ebaeurope.eu



HEAD OF THE EBA SCIENTIFIC COMMITTEE

Dr. Urška Ratajc

Food safety advisor in Public advisory service in beekeeping
Slovenian Beekeepers' Association

+386 01/7296-133
+386 40 436 514
urska.ratajc@czs.si

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eba@ebaeurope.eu

www.ebaeurope.eu

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Editor in chief of the electronic edition of the magazine:

MD Rodoljub Živadinović, Epidemiology Specialist, Apitherapist

apikult@gmail.com, +381 60 444 01 01 (Viber, WhatsApp, Signal. Telegram, WeChat)