# APIMONDIA NEWSLETTERS



N°10



# PHILIP MCCABE

(1945 - 2018)

# Index

#### 03 EDITOR'S NOTES

About PHILIP MCCABE By Mr. Peter Kozmus. President of APIMIONDIA

#### 04 PHILIP MCCABE

By Mr. Riccardo Jannoni-Sebastianini. SECRETARY-GENERAL

06 APIMONDIA STATEMENT ON HONEY FRAUD

10 DECLARATION OF MONTEVIDEO LATINOAMERICAN APICULTURAL CONGRESS FILAPI 2018

14. SCIENTIFIC COMMISSION ON POLLINATION AND BEE FLORA (SCPBF)- BY LUCAS LANDI. 16. SCIENTIFIC COMMISSION ON BEE HEALTH. BY DR JEFF PETTIS. 19. REGIONAL COMMISSION FOR AMERICAS BY MISAEL EDMUNDO CUEVAS BRAVO. 20. REGIONAL COMMISSION FOR AFRICA BY DAVID MUKOMANA. 24. REGIONAL COMMISSION FOR OCEANIA BY JODIE GOLDSWORTHY. 27. 46TH INTERNATIONAL APICULTURAL CONGRESS



Philip McCabe was simply a great man. I met him in 2003, when we organized the APIMONDIA Congress in Slovenia. Already at the first meeting, he made an extraordinary impression. It was full of the energy and in his words was the power to change. Since then, we have met at various APIMONDIA events and he has always shown incredible energy.

Among other things, he was extremely interested in visiting Slovenia. Among other things, he attended:

- Congress of APIMONDIA 2003 in Ljubljana.
- Conferences of beekeeping organizations in 2008 in Laško.
- APIMEDICA 2010 Symposium in Ljubljana.
- APISLOVENIA in 2017 in Celje.

Also in May 2018 he was in Slovenia and attended all events that were connected with the celebration of the 1st World Bee Day

- World Beekeeping Conference on Beekeeping in Žirovnica
- Ministerial conference at Brdo near Kranj

- Unveiling the statute of the Carniolan bee in Višnja Gora
- 1st celebration of the World Bee Day in Žirovnica.

In this way, Slovenia and the Slovenian beekeepers were well acquainted and loved them in their own way. This was clearly demonstrated by a statement he made on May 20 in the celebration of the World Bee Day in Žirovnica when he said that his Beekeeper's heart is in Slovenia.

It is also important his immediately support the idea that May 20 be declared a world bee day. That is why I am pleased that his desire to be present at the first celebration in Slovenia, one of his last visits to the rest of the world as Apimondi's president, was realized.

We will remember him as cheerful, propulsive and very kind.

#### Let them rest in peace!

\*According to the statutes the vice-president, Peter Kozmus is taking over the responsibilities of the late president until the next general assembly.



# PHILIP MCCABE

## By Mr. Riccardo Jannoni-Sebastianini. SECRETARY-GENERAL

On 20 October 2018 Apimondia and the international beekeeping community came to grief for the loss of its charismatic President, Philip McCabe.

The news came through as a shock to all of us since we were not prepared to such sad outcome.

Philip has played several important roles in Apimondia.

In 2003 he was President of the Apimondia International Apicultural Congress held in Dublin, Ireland.

From 2009 to 2015 he served as President of the Apimondia Regional Commission for Europe.

In September 2015 he was elected President of Apimondia at the congress held in South Korea.

Throughout these assignments he has always been an excellent team leader and had a special skill for creating a conducive atmosphere for all those involved in working with and for him.

Personally, we in the head office in Rome, enjoyed the last three years of intensive and rewarding collaboration with him.



He has been always attentive to the specific challenges that we were confronted with and found a viable solution to them.

In particular, his proactivity and ability to establish fruitful and open relationships within and outside Apimondia helped the Federation to gain more visibility at several level. Even though physically a few thousands miles apart it was like having him next to us for the constant presence and attention that he devoted to us and our work.

He had the unique talent of being able to speak to the highest authorities as well as communicate to children. It has always impressed us how he was able to establish rapport with whomever he met, be it for professional activities or on other less formal instances. The pictures herebelow are evidence of his human touch.

His witty attitude and humour were able to defuse critical and difficult situations. We will never forget his gregarious singing "Molly Malone" and lively performances in Irish dancing.

If occasionally some conflict occurred in meetings or negotiations he was able to address it in a gentle way and practically dissipated the cause of contention. It has been a real privilege and joy to have got to know him and also work with him in all these years.

His example, ideas and encouragement will remain etched in our hearts and minds for the future and at the next congress he will be commemorated because we will be truely missing a good friend and his energetic presence.

Thank you Philip for all that you taught, showed and did for us!



**CONDENSED VERSION - NOVEMBER 2018** 

# APIMONDIA STATEMENT ON HONEY FRAUD

APIMONDIA, and more particularly its
Working Group on Adulteration of Bee
Products, has recently published a
Statement which addresses the essential
elements of the increasing problem of honey
fraud. The document revises the definition
and properties of honey, and makes
proposals to combat the fraud. This
Condensed Version summarizes the main
aspects of the Statement, which is available
in its full version at www.apimondia.com.

# HONEY, A NATURAL PRODUCT.

Since ancient times, honey has been a highly appreciated food by humans. This product, entirely made by bees from nectar and/or honeydew, has many important properties that consumers have enjoyed for generations.

These intrinsic characteristics of honey come from a perfect combination and interaction of both plant and animal kingdoms. The botanical origin of honey mainly determines its color, its aromas, and its major chemical components. Bees contribute with many biologically active elements.

Honey maturation starts with the uptake of nectar and/or honey dew in the bee honey stomach, it is inseparable from the drying process, and involves the addition of enzymes and other bee-own substances. The transformation of nectar then continues inside the hive when nonforaging bees ripen nectar both, by manipulating it many times with their mouthparts, and by reallocation. Both passive and active mechanisms of nectar dehydration occur inside the hive (Eyer et al., 2016). Active dehydration occurs during 'tongue lashing' behavior, when worker bees concentrate droplets of regurgitated nectar with movements of their mouthparts. By contrast, passive concentration of nectar occurs through direct evaporation of nectar stored in cells (Park, 1928).

APIMONDIA fully adheres to the Codex Alimentarius' definition of honey (1981; CA):

"Honey is the natural sweet substance produced by honey bees from the nectar of plants or from secretions of living parts of plants or excretions of plant sucking insects on the living parts of plants, which the bees collect, transform by combining with specific substances of their own, deposit, dehydrate, store and leave in the honey comb to ripen and mature."

APIMONDIA also adheres to the essential composition and quality factors of honey defined in CA through Section 3: "No pollen or constituent particular to honey may be removed except where this is unavoidable in the removal of foreign inorganic or organic matter". Besides pollen, all sugars, proteins, organic acids, microelements, and water are considered constituents particular to honey.

The definition of CA further rules out any additions to, nor any treatment intended to change honey's essential composition or impair its quality, for example: the use or ion-exchange resins for removing residues and lightening the color of honey, and the active removal of water from extracted honey with vacuum chambers or other devices.

If, under certain climatic conditions, honey even contained in capped combs has a moisture content over the requirement of CA in Section 3.4, APIMONDIA considers acceptable to store those frames with a little extra excess humidity in a dry room in order to adjust honey moisture in the frames to the required limits. No water reduction is allowed after honey has been extracted from frames.

APIMONDIA supports honey production methods that allow bees to fully do their job in order to maintain the integrity and quality of the product for the satisfaction of consumers, and rejects the developing of methods intended to artificially speed up the natural process of honey production, through an undue intervention of man and technology that may lead to a violation of CA standard (Table 1).

#### **Honey fraud**

The APIMONDIA Executive Council has recently defined honey fraud as one of the two major challenges to the viability of beekeeping globally.

According to the U.S. Pharmacopeia's Food Fraud Database, honey ranks as the third "favorite" food target for adulteration, only behind milk and olive oil (United States Pharmacopeia, 2018).

Table 1: Honey production methods that do not comply with the CA standard.

MODE OF PRODUCTION	WHAT IS VIOLATED?
One-box Langstroth-type beehive during honey crop.	- No adequate space/surface for the complete natural
	dehumidification and transformation of nectar into honey.
	- Higher levels of chemical residues, substances un-
	typical to honey, or substances in uncommon concentrations
	in honey.
Harvesting of immature honey by the beekeeper	- Bees have insufficient time to dehydrate and add
	specific substances of their own by multiple manipulations.
	- The transformation of nectar into honey is only par-
	tially made by bees, and human intervention completes the
	process in an illicit manner.
Honey dehydration with technical devices, such as vacuum	- Water is a constituent particular to honey, which
dryers, etc.	cannot be removed by some technical devices replacing the
	natural work of bees.
Use of Ion-Exchange Resins to remove residues and lighten	- Honey shall not be processed to such an extent
the color of honey.	that its essential composition is changed and/or its quality is
	impaired. No pollen or constituents particular to honey may
	be removed.
Feeding bees during a nectar flow.	- Honey can only be produced by honey bees from
	the nectar of plants or from secretions of living parts of plants
	or excretions of plant-sucking insects on the living parts of
	plants.

The European Commission (2018) considers that four essential elements must be present in a case of food fraud:

- i) Intentionality,
- ii) Violation of law (in this case, the CA definition of honey),
- iii) Purpose of economic gain, and
- iv) Consumer's disappointment.

Different types of honey fraud can be achieved through:

- i) Dilution with different types of syrups produced, e.g., from corn, cane sugar, beet sugar, rice, wheat etc.
- ii) Harvesting of immature honey, which is further actively dehydrated by the use of different technologies.
- iii) Using Ion Exchange Resins to remove residues and lighten honey color.
- iv) Masking and/or mislabeling the geographical and/or botanical origin of honey.
- v) Artificial feeding of bees during a nectar flow.

The product which results from any of the above described fraudulent methods shall not be called "honey", neither the blends containing it.

The APIMONDIA Working Group on Adulteration of Bee Products evaluated the different strategies to be followed in order to combat the problem of honey fraud. A multi-pronged approach strategy to combat the fraud is recommended through a broad awareness of the beekeeping community, of consumers, of packers and retailers, and a fluid collaboration with national authorities in order to update their official methods of fraud detection.

Honey should be able to be traced through all the chain back to the beekeeper, to the botanical floral source of the product, and to the geographic location of the apiary.

The techniques used for fraud detection are constantly evolving and it is therefore almost impossible to have a single and sustainable method capable of detecting all types of honey fraud. In addition, since fraud involves a criminal intent, it is to be expected that fraudulent practices will constantly evolve and change. Therefore, the choice of the best method(s) of analysis to be used should be based on a detailed assessment of the risks related to the origin of the product. Aspects to be considered are: the history of falsification of honeys, the statistics on trade movements, the modes of honey production, and the falsification methods used in the country of origin of honey. Of course, the relevance of the method(s) chosen should be periodically monitored in the light of new scientific knowledge.

Today, we are far from this optimum. The current official method recognized by many national authorities, the AOAC method 998.12 "Internal Standard Stable Carbon Isotope Ratio" can only detect reliably and sensitively additions of syrups derived from C4-plants (corn and sugar cane), but fails to detect syrups produced from C3 plants (rice, sugar beet, etc.).

APIMONDIA highly recommends a choice of method/s tailored to each specific situation. In most cases, a proper honey fraud detection strategy should include a powerful screening method like Nuclear Magnetic Resonance (NMR).

NMR is currently the best available method to detect the different modes of honey fraud. In case non-conformances were found by NMR, other targeted tests may be useful in compliment to better clarify the origin of deviations. Pollen and organoleptic testing, along with other honey components, are considered good complementary parameters to determine the geographic and botanical authenticity of honey.

Due to the nature of honey fraud, it is not infrequent that the results of a method may need to be clarified by the use of other alternative tests.

Apimondia recommends that all operators who produce, import, export or process over 20 tons/year of honey should have a documented and periodically reviewed food fraud vulnerability assessment procedure in place in order to prevent honey fraud.

The problem of honey fraud is highly complex. Its solution will require the investment of significant human and economic resources, and will involve all the actors of the honey chain.

#### References:

- Codex Alimentarius Standard 12-1982 for Honey. Retrieved from: http://www.codexalimentarius.org/download/standards/310/cxs\_012e.pdf.
- European Commission, 2018. Retrieved from: https://ec.europa.eu/food/safety/food-fraud en.
- Eyer, M, P. Neumann, and V. Dietemann, 2016. A Look into the Cell: Honey Storage in Honey Bees, Apis mellifera. PLOS ONE | DOI:10.1371/journal.pone.0161059. p. 1-20.
- Park, O., 1928. Further studies on the evaporation of nectar. J. Econ. Entomol. 21: 882–887.
- United States Pharmacopeia, (2018). Food Fraud Database. Retrieved from: http://www.foodfraud.org/.

# DECLARATION OF MONTEVIDEO LATINOAMERICAN APICULTURAL CONGRESS FILAPI 2018

Latin America means, not only diversity and multiculturalism, but also integrity. It synthethyzes the history of our people and is also the place where regional economies cultivate the healthy and organic crops that has fed the world for centuries. We represent all the beekeeper's organizations which reside in this vibrant and colorful Latin America which needs to be heard and claims the right of its people to decide, to choose and to build their present and future. We practice the art of apiculture, an art that helps us learn from the bees, which are part of our everyday lives.

HONEY BEE COLONY

Unfortunately, bees are disappearing from our continent. In order to obtain more land to sustain the agro-industrial model, massive deforestations are taking place on a daily basis; the bee's habitats are in danger; their flowers, forests and fields are disappearing systematically.

Traditional crops have been set aside by transgenic designed seeds which, combined with agrochemicals and the financial power of private corporations, have created the illusion that this type of food will end with the world's hunger.

While the media distorts the facts and helps creating this false hope, transnational companies fill their pockets with the money that should be earned by local communities.

No food is harvested, just oilseeds which our countries do not consume. It is used by distant nations from other continents either to fatten livestock or as agrofuel. These transgenic seeds have damaged 11.000 years of wisdom and hard work by contaminating natural seeds and affecting peasant's crops. The world's hunger is not going to end with this fantasy created by the agro-industrial model but with an adequate distribution of food and wealth.



### FEDERACIÓN INTERNACIONAL LATINOAMERICANA DE APICULTURA

Our land is left poisoned without its nutrients, completely useless. Billions of liters of herbicides, insecticides and fungicides remain in our food, land, water and air. Millions of hectares, with entire communities evicted from their homes, left without their crops and animals, thrown into misery.

Our bees contribute in the production of 75% of the food that each family bring to their home every day. Our bees do not only make honey, pollen, wax or propoli but also pollinate. They play an important role in the environment by safeguarding biodiversity and also in our society, by contributing to the human right of an adequate and healthy diet, right that the government should provide.

Sadly, bees are disappearing in a serious and systematic way. With them, conducted and wild pollination will disappear. And with this, an inevitable and unprecedented food crisis will occur.

We believe that this problem should be given the importance it deserves, Latin Americans should be aware of the negative consequences that the decrease in the bee's population will bring in the present and the future. As Latin Americans, we should demand our governments to put an end to this unrestricted use of agrochemicals that are harmful to pollinating insects and allow us to produce organic food in a sustainable way.





### FEDERACIÓN INTERNACIONAL LATINOAMERICANA DE APICULTURA

Latin America produces an immense variety of honeys that should be praised for their origins and their virtues for human health. Honey consumption should be encouraged in our communities, prioritizing commercialization between our countries. Besides, our governments should be aware of the fraud involved in the commercialization of certain products that emulate honey, these are industrially forged, causing strong disruptions in the international honey trade.

In addition to the aforementioned statements, it is essential that young generations understand the value of bees and their key role in the production of healthy and safe food. We believe that specific content related to the art of beekeeping should be included in the study programs of elementary schools in order to educate and create consciousness about the importance of bees in both, environment and dairy products.

Moreover, education will allow the people to mindfully choose which product to consume.

Beekeeping and bees are transversal to all our productive warps, consequently our governments must give them special consideration and we, as Latin American citizens, must acknowledge their importance as biodiversity keepers and their unquestionable contribution in our right to an adequate diet.

Montevideo, august 2018

#### Federación Latinoamericana de Apicultura

Federación Red Nacional apícola de Chile- Sociedad Apícola Uruguaya- Federación Bolivariana de Apicultores de Venezuela Federación Peruana de Apicultores - Confederação Brasileira de Apicultura - Sociedad Argentina de Apicultores

# SCIENTIFIC COMMISSION ON POLLINATION AND BEE FLORA (SCPBF)

#### DEAR BEEKEEPER FRIENDS AND BEE LOVERS

Greetings from the SCPBF. It is a sad time for the beekeeping world. Although our dearest companion Phillip is no longer between us, our friendship with him does not end, it is eternal. We would like to express our condolences to his family and let them know that our thoughts are with them during these moments of sorrow. Phillip was enormously active and represented a role model. To honor his commitment, we will definitely continue working hard.

If you what to discover what we are doing around the World, look at the recent news about us here.

I was invited to the 6th International Mugla Beekeeping and Pine Honey Congress in Turkey. There, I made a presentation about our Apimondia commission activities and also gave a talk about pollination, livelihood and sustainable agriculture. In the latter, I provided a general framework to understand the contribution of some agroecological principles to sustainable production. I gave a brief summary on the subject, focusing mainly on pollinator-friendly practices. To discuss these principles, I used recent research in crop pollination as an example. The event lasted 5 days and was extremely professional and well-organized, and it was attended by many beekeepers, students, professors and also local authorities. Besides, it was a unique opportunity of having 6 Apimondia scientific commissions simultaneously on the same place. You can see pictures about it below! On behalf of the SCPBF and myself, I would like to thank Mr. Ziya Sahin, President of the Turkish Beekeeping Association. We are always willing to collaborate with our Turkish beekeepers friends!





Ing. Agr. Lucas Landi giving a talk at the 6th International Mugla Beekeeping and Pine Honey Congress (Turkey).



Dr. Lucas Garibaldi giving a talk at the IX National Congress of Beekeeping in Santa Cruz de Tenerife (Spain).

Furthermore, our president Dr. Lucas Garibaldi was invited to the IX National Congress of Beekeeping in Santa Cruz de Tenerife (Spain). There, he made a presentation and also participated in a round table about pollination, regulations and social image. Look at the photo! In addition, Lucas was part of the XII Encontro Sobre Abelhas (Uberlandia, Brasil), where he made a presentation entitled "Biodiversity, Ecosystem Services, and Agricultural Production". Also, he was invited to the XXVII Congresso Brasileiro (Gramado, Brasil), where he exposed about Pollinators and their importance to small and large scale agriculture during the Pollinators Symposium.

Currently, the Apimondia International Symposium 2018 is taking place at Addis Ababa (Ethiopia) under the motto "Significance of Bees' Pollination for Improved Food Production". In the next issue of the newsletter we will let you know about our participation there!

Finally, regarding Apimondia Montréal 2019, we are very enthusiastic about the proposals made by the local committee. Specially, we would like to mention Shelley Hoover, Valérie Fournier and Nigel Raine, who interact constantly with us in order to organize symposiums, ask for comments and make suggestions.

We are looking forward to meeting you again on our next newsletter!

The SCPBF, by Lucas Landi.

#### By Dr Jeff Pettis.

# President of Scientific Commissions on Bee Health

Apimondia up dates: The passing of our Apimondia President, Philip Mc Cabe has left a sadness in our hearts for all who knew him and a void which we are working to fill as Philip worked tirelessly for Apimondia on many fronts. We continue to move ahead and look forward to celebrating the legacy of Philip in Montreal in 2019. Registration is open for the Montreal Apimondia meeting in September of 2019, make plans to attend. Dr. Steve Pernal and the local team have put together a great program to include all aspects of bee health along with an exciting array of topics for all beekeepers. This will be a great meeting to attend.

### DO BEES NEEDS US?

Honey bee health is always an issue as we try to manage bees for honey production or pollination. Even in areas of the world where Apis species are indigenous (Apis cerana in Asia and Apis mellifera in Africa and Europe) bees will suffer from diseases and pest.

We do know that we cause even more problems in bee health as we move pollinators to new non-indigenous areas (e.g. Apis mellifera to the Americas) but that is the way humans have expanded agriculture by moving favored species of plants and animals to other areas as crop plants or livestock. Honey bees are part of this agricultural expansion and we can only look forward and try to manage the pest and disease with have but at the same time, learn from how bees live in nature without human interference. Africa and Asia offer great opportunities to learn from indigenous people as the hunt and gather Apis dorsata in Asia or harvest honey from Apis mellifera kept in traditional or rustic hives in Africa. In both of these cases the bees are basically wild and the beekeepers work with the wild bees and make a living from them.

No chemical inputs or feeding of bees is required and no need for moveable frames and specialized equipment; just listen, learn and respect the bees. We could all learn from these examples of rustic or primitive beekeeping. Indeed, there is a resurgence in hands off beekeeping or beekeeping with minimal intervention.

One of the main reasons to not manage bees this way is the spread of disease, especially American foulbrood (AFB).

Yes AFB does spread easily from dead or dying colonies as honey is robbed out or bees drift to new colonies. Unmanaged hives or hives that cannot be

inspected do pose a threat for AFB spread in particular.

However, we should not ignore the benefits of this type of beekeeping and try and learn from the practices or traditional beekeeping and the new wave of beekeepers that are using a more hands-off approach to colony management.

I am not advocating for one style of beekeeping over the other and in some areas it is illegal to keep hives that cannot be inspected, so respect local laws. I am advocating for we as beekeepers to consider that there is more than one way to manage bees and that the bees themselves have done quite well at adapting to different climates from Africa to Scandinavia and South East Asia to the steppes of Mongolia such that they have adapted to live in diverse climates without humans. The bees don't need us, we need the bees!

As humans began to move from hunting and gathering of bees, to collecting bee trees and swarms into apiaries, we began to see diseases spread more often, AFB is the prime example. Socrates talked of a disease that produced a bad or foul odor in bees and so began our efforts to recognize and improve the health of bees. AFB continues to cost beekeepers in terms of lost productivity from weak hives and/or the loss of bee equipment to burning or expensive sanitation measures. AFB continues to be a disease that all beekeepers should learn to recognize and manage. However, I want to spend the rest of this article on European foulbrood because it is indeed making a resurgence in many areas of the world and we still do not understand the nature of this global resurgence in EFB. EFB differs from AFB in the color of the dying larvae and the twisted appearance of the young dying larvae (see photo). AFB by contrast is characterized by larvae that die after the brood cells are sealed and the bees will then uncap some of the diseased larvae.

Beekeepers can use the "ropy test" and or foul odor of AFB to help distinguish it from EFB. EFB is harder to detect than AFB, can be cryptic at low levels and often goes undetected and/or clears up over time. However, recently in Switzerland and Great Britain EFB has seen a resurgence and more aggressive detection and controls methods have been used to bring the EFB disease levels down.

In Switzerland burning of all colonies in an EFB positive apiary have replaced trying to burn only EFB positive colonies within an apiary and this more drastic apiary level burning of colonies has brought the levels of EFB down. Before, with only EFB-positive colonies being burned, the levels of EFB continued to increase each year. Do these two countries have a more virulent strain of EFB? Is there some other explanation for the increased levels of EFB? We don't fully know these answers yet but scientist around the globe are working to try and understand EFB and virulence.

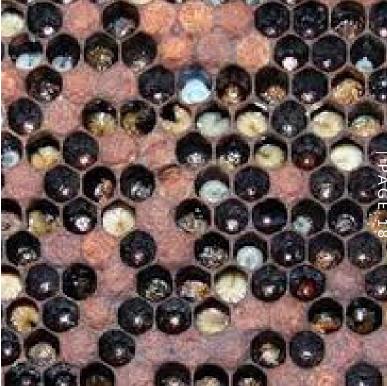
Additionally, EFB-like symptoms are often reported but not all are typical EFB and a report by vanEngeldorp et al. in 2013 attempted to describe a set of symptoms that mimicked EFB but where the causative bacteria were not present.

The scientist named this condition, IBDS but beekeepers tend to call it "crud" or "snot brood" as it mimics EFB but does not test positive for any of the EFB-associated bacteria.

To date no causes of IBDS have been identified but poor nutrition and or pesticide, especially fungicide exposure are suspected. Beekeepers in North America are seeing increased levels of EFB/snot brood when bees are used to pollinate blueberries, poor nutrition and fungicide exposure are the leading suspects for the EFB-like brood symptoms. This is very similar to "half moon" disorder reported from Australia some years ago and that was attributed to poor nutrition. We still have much to learn in bee diseases yet EFB and AFB are diagnostic in the field and can be managed by beekeepers.

Learn the signs and symptoms of AFB and EFB and you will be better prepared to control these two diseases with early detection. For further reading on EFB see the references below. Attend local or national workshops to learn the symptoms of brood diseases and better manage your bees. The bees themselves can tell you when they are sick. We need only to be able to read the information they tell us in a poor brood pattern or other field symptom to know what is affecting their health. Learn to listen, smell and observe the bees and brood and they will tell us their problems.





#### FOR FURTHER READING:

European foulbrood in honey bees.

E. Forsgren - Journal of invertebrate pathology, 2010

Idiopathic brood disease syndrome and queen events as precursors of colony mortality in migratory beekeeping operations in the eastern United States van Engelsdorp et al. - Preventive veterinary medicine, 2013

The occurrence of Melissococcus plutonius in healthy colonies of Apis mellifera and the efficacy of European foulbrood control measures.

Budge et al. - Journal of invertebrate biology 2010 -

# BEEKEEPING OF THE AMERICAS

The topics of greatest transverse interest in the beekeeping of the Americas that are expressed in the debate spaces in National or Regional Beekeeping Congresses are: i) the growing vulnerability to which bees are exposed in nutritional and health areas, a consequence of the models of agro-export development in rural areas with the growth of monocultures that apply sophisticated technological packages with intensive use of agro-toxins, increasing every year the mortality percentages in apiaries, low production levels and reduction of apicultural productive spaces, ii) the increase in the circulation of false honeys in local and international markets with low prices that cover a space in the consumers and hinder the commercialization of pure honey affecting the profitability and sustainability of the item, iii) the low support in promotion to advance in the professionalization and compliance with the standards required n food production and distribution.

In 2018, National Beekeeping Congresses were held in seven countries of the region and two multinational congresses, one corresponding to the "XV Central American and Caribbean Congress" held in Costa Rica in May, and the other to the "XIII Latin American Congress of Apiculture FILAPI 2018 "carried out in Uruguay in the month of August. From the FILAPI congress a public declaration was issued giving an account of the regional apicultural problems and a letter referring to the problem of the circulation of false honeys that national guilds addressed to their beekeeping ministers; As a result of the letter the Southern Agricultural Council (CAS) composed of six countries formed the Apiculture group with representatives of their ministries, the ministers also welcomed the request of FILAPI to request FAO to have a professional to attend the beekeeping issues in its offices in Rome.

PRESIDENT OF AMERICA'S REGIONAL COMMISSION

# Misael Cuevas Bravo

# REGIONAL COMMISSION FOR AFRICA REPORT

It is such a time we have been made to go through reflections and sadness with the loss of our visionary Apimondia President, Mr Philip McCabe. The African Region was indeed deeply affected as the continent had hoped to interact with him during the ApiExpo Africa 6th Edition in Abuja, Nigeria in September 2018. The African Beekeeping Community extends its deepest condolences to the family and the rest of the beekeeping world. We share the comfort that his soul is resting in eternal peace knowing he ran a good race and his legacy will live on.

This year has been full of so much activities that show a positive trajectory for the African beekeeping and honey industries. This gives enough energy for the sector leaders to work even harder.

The year 2018 was the 10th Anniversary for ApiTrade Africa and the 6th ApiExpo Africa Edition was in style! Nigeria is a land full of opportunities, the gateway to Africa and it was a perfect venue to celebrate such a milestone for Africa.

The presentations, the attendance, the discussions and the feedback provided during the closing ceremony by delegates who attended for the first time left a lasting impression about the expos.

The sessions that were meant for the delegates to be taken through some brief demonstrations were fully subscribed to the extent that repeat sessions had to be organised, an indication that the Expo managed to draw a huge number of new beekeepers and those who needed information to start beekeeping. It is from this level of grassroots mobilisation done by the Local Organising Committee and ApiTrade Africa that proves Nigeria is capable of increasing honey production to export levels in the shortest time possible. Africa is proud of the hard work put into the ApiExpo Africa initiative 10 years ago and the efforts, hard work and sacrifice are paying off. Job well done!

One of the major side meetings during the ApiExpo Africa in Abuja was the discussion with the Chairperson of Malawi Bee Products Association, Mrs Lestina Nhlema. This resulted in a quick follow up meeting in Lilongwe in October 2018 where I was invited to make a presentation to the Stakeholders.

And the meeting with the Permanent Secretary for Ministry of Agriculture provided a firm foundation for the formalisation and growth of the Apiculture Sector in Malawi. One case that caught my attention is a woman who had a swarm that invaded her kitchen and for weeks could not use it. Someone came and advised her not to kill the bees but transfer them into a hive for her to have honey. The swarm was transferred into a used car tyre "as a temporary hive" due to lack of money to buy a proper hive. And as she testified at the meeting, she is "a proud owner of 7 colonised tyre hives and that she came to get information on how she can take beekeeping as a business because the bees came to her...."This is a common situation in many communities I have visited where the desire to take up beekeeping is evident, the passion written all over and the potential being great, only if these communities can be properly trained and capacitated. South Africa is a great country that is endowed with so much resources and currently the largest economy in Africa.

Unfortunately, beekeeping and honey industry in South Africa is still having a number of challenges that need to be overcome. The Regional Commission had meetings with South African Bee Industry Organisation (SABIO) and Department of Agriculture, Forestry and Fisheries (DAFF) to share on how best the industry can be grown to levels that will see rural communities benefit. This is in supporting the government's vision to create jobs and empower households especially from the Historically Disadvantaged Individuals (HDIs). The country has a population of 18 million people dependent on social grants and these are mostly concentrated in the rural South Africa. These communities have natural resources capable of supporting beekeeping initiatives that can provide them with an alternative source of livelihood, thus DAFF called for the first ever National Beekeeping Workshop that was held on 13th to 14th November 2018.



Guest of Honour, Hon. Chief Audu Ogbeh (Minister of Agriculture & Rural Development) after the ApiExpo Africa 2018 . Official Opening Ceremony in Abuja, Nigeria



Regional Commission President with Dr Chinyere and Nigeria Youths in Apiculture Initiative after a meeting on possible opportunities youths can venture in Beekeeping after the Official Closing CeremonyApiExpo Africa 2018

A number of issues were raised during the workshop that ranges from lack of proper statistics about beekeeping and honey production; Bee diseases; Provincial and National Government involvement / support for the sector; Changes in legislation on the usage of pesticides; Registration and Licensing of Beekeepers; Importation of honey into South Africa; Honey Adulteration and Financial Support packages for Apiculture stakeholders from the AgriBEE Fund. I had the opportunity to make a presentation on Apimondia and the role of the Regional Commission, something that triggered interest from a number of stakeholders to participate at Apimondia events including the prospects of South Africa hosting Apimondia events in the near future.

Special thanks goes to the Department of Agriculture, Forestry and Fisheries for the initiative and South African Beekeeping sector is set to grow to levels that will see a drop in honey imports through full participation of rural communities in beekeeping.



A strong colony in one of the Apiaries in Mzuzu – Malawi owned by a female Beekeeper

Africa has gathered in Addis Ababa, Ethiopia, to attend its second Apimondia Symposium after the one hosted by Tanzania in November 2014. The Ethiopian Team has done tremendous work in putting up a great program that provide Africa with the opportunity to discuss in detail the role of beekeeping in food production. The theme was chosen in view of the potential threat to food security caused by global warming and environmental changes. These phenomena seriously threaten the natural habitat of the bees and thus directly affecting the most reliable pollinating insect – the honeybees.

Africa is proud of the role Ethiopia is playing in Apiculture and the support provided by the Ethiopia Apiculture Board and National Government is commendable. The number of delegates at the Opening Ceremony on the 30th November clearly shows the appetite for technical and scientific information on beekeeping and the only response from the Regional Commission and Apimondia Scientific Commissions is to organise more symposia on topical issues in Africa on a regular basis.

And Africa is expecting to learn so much in Montreal, Canada next year! The need to participate at Apimondia events has been shared with a number of African Delegates and the response is encouraging. A number of stakeholders are planning to participate both as delegates as well as exhibitors.. Hiking sometimes involves bushwhacking and is sometimes referred to as such. This specifically refers to difficult walking through dense forest, undergrowth, or bushes, where forward progress requires pushing vegetation aside. In extreme cases of bushwhacking, where the vegetation is so dense that human passage is impeded, a machete is used to clear a pathway.

#### WRITTEN BY

### David Mukomana

# PRESIDENT OF APIMONDIA REGIONAL COMMISSION FOR AFRICA

# REGIONAL COMMISSION FOR OCEANIA REPORT

The Oceania region has some of the world's most unique and diverse honey's and with this comes good opportunities to differentiate these honeys from other honeys produced in other parts of the world.

In a consumer lead environment where transparency and trust is expected by those willing to pay more for a unique and special honey, industry and government in both New Zealand and Australia are working to produce the science to satisfy customers and authenticate honey.

The New Zealand government is the first government in the world to invest in a robust science program to develop a scientific definition for any type of honey. New Zealand's Ministry for Primary Industries (MPI) commenced the scientific program in 2014 to develop the criteria to identify manuka honey from New Zealand. Full details of the work involved in the MPI program and the MPI report of the program which can be found at https://www.mpi.govt.nz/growing-and-harvesting/honey-and-bees/manuka-honey

To scope the project eighteen different data sets were used to analyse over 11,000 honey samples from MPI and industry funded work. The program involved 12 scientific organisations including local and international experts. Over 800 honey samples were collected from the past 7 production years from around 120 New Zealand beekeepers, honey producers and 16 other countries. The samples represented over 20 different New Zealand honey types. Nectar, leaf and pollen samples were also collected over two seasons from over 700 plants representing 29 species from 12 regions in New Zealand and 5 states of Australia.

Over 10,000 test results were produced and over 1000 statistical analyses were performed. A thorough investigation of 14 previously identified chemical attributes was undertaken. Markers in the manuka plant and honey were identified to help distinguish manuka honey from other honey types. A combination of 5 attributes (4 chemical and 1 DNA marker from manuka pollen) are required to authenticate monofloral and multifloral manuka honey. Only certain MPI recognised laboratories are allowed to test manuka honey and not all laboratories can do both types of tests.

PAGE 25

But the program does not rely on scientific testing alone. There are also new record keeping requirements for beekeepers and the New Zealand MPI is responsible for strict regulation of the system. Beekeepers must be listed with MPI and keep information about the site where their bees were kept including location, number of supers and volume of bee products harvested. Every honey box must have an identification number. Harvest declarations must be prepared for every delivery of bee products for extraction.

Documentation must be kept by businesses involved in extracting, processing or packing that provides transfer details for every consignment of bee products to another operator or an exporter. Beekeepers have until the end of 2018 to comply with the new requirements including assigning ID numbers to their honey boxes.

New Zealand is to be commended for its extensive work on honey quality and for providing an example that the rest of the world can look to.

Much can be learnt from the New Zealand MPI project and Australia is beginning its own work on some of its special honeys. In Western Australia early work is looking at Jarrah honey (just one of the more than 700 eucalypt species that Australia produces honey from) and a project is underway at the ChemCentre in Western Australia which are working with the Western Australian beekeeping industry on developing an accurate method of tracing the floral content of a honey by performing a combination of chemical analysis and testing the DNA of the pollen found within it.A current research program is focused on the development of commercial WA monofloral honeys - Jarrah, Marri, Yate and Powderbark names that may be new to other parts of the globe. The ChemCentre is leading the development of a certification process to ensure the integrity, traceability and quality of these WA mono-floral honeys.



After the recent media focus on honey adulteration of honey imported into Australia from China the Australian Government has acknowledged that the current methods to authenticate honey are inadequate in being able to prevent honey fraud and protect consumers and that current test methods do not satisfy the rigour required by courts.

Australian industry, scientists and government regulators recently met to discuss the steps that need to be taken to protect consumers and beekeepers.

Government recognises that the the only official AOAC method endorsed by Codex to detect for honey adulteration is not working because it tests for C4 sugar alone and much of the adulteration is with C3 sugars. The challenge for regulators globally is to come up with a more agile model than testing alone to prevent honey fraud.

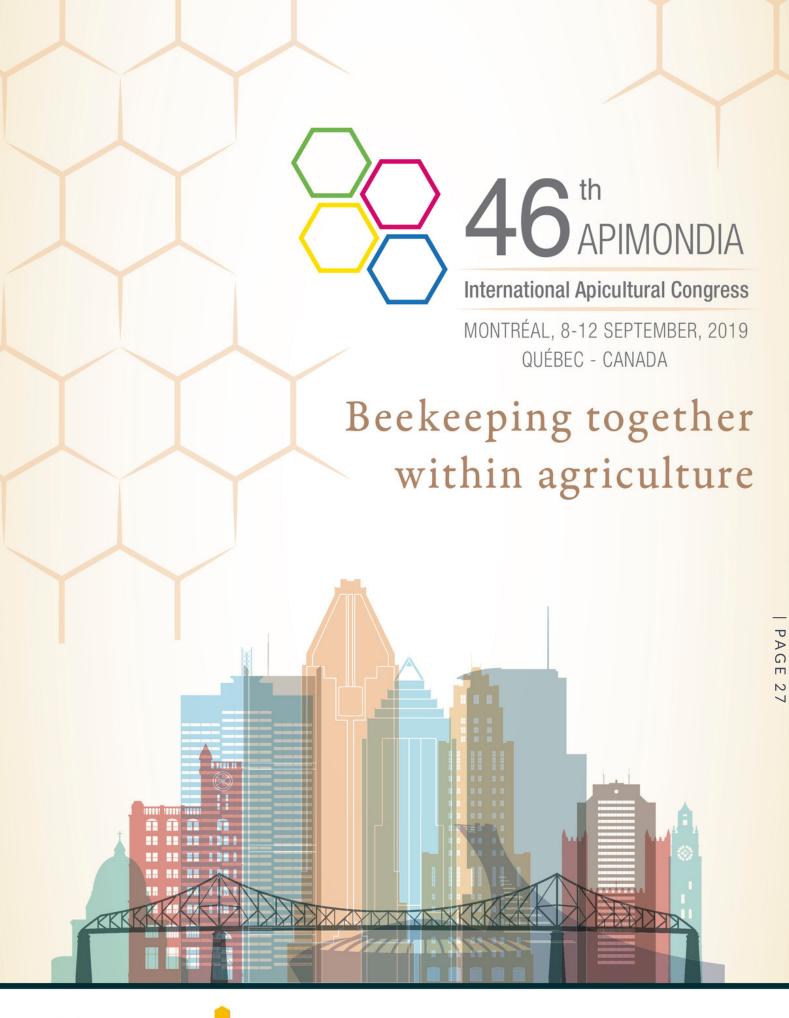
The challenge for laboratories and scientists is to develop methods that will stand up in court at a pace fast enough. An Australian first step on honey authenticity is the consideration of the need for a broad characterisation study of Australian honey.

With the diversity of Australia's vast eucalypt species and general collection of up to 50 different eucalypt honey's in any given season the task ahead is large and will undoubtedly take time but it's pleasing to see the discussions commence to take steps to provide the trust and transparency demanded by consumers. The other news from Oceania is on a biosecurity front. Australia maintains its varroa free status which gives it considerable advantage in producing strong honey yields per hive. Australia maintains its varroa free status which gives it considerable advantage in producing strong honey yields per hive. Sadly at the time of writing we have been notified that Fiji has recently detected varroa mite on the Island. Local beekeepers are working with authorities to determine what changes this will bring to the small but growing local beekeeping community. We wish Fiji well during this challenging and changing time.

#### WRITTEN BY

### Jodie Goldsworthy

PRESIDENT OF APIMONDIA REGIONAL COMMISSION FOR OCEANIA







### APIMONDIA NEWSLETTERS

www.apimondia.com



#### WRITTEN BY:

Peter Kozmus. Riccardo Jannoni-Sebastianini. Federación Latinoamericana de Apicultura. Lucas Landi. Jeff Pettis. Misael Cuevas Bravo. David Mukomana. Jodie Goldsworthy.

COMPILATION AND EDITION: ASGER SØGAARD JØRGENSEN.
APIMONDIA@MCLINK.IT

REVISION AND CORRECTION: LUCAS MARTÍNEZ PRESIDENTE@SADA.ORG.AR.

ART AND GRAPHIC DESING: ANA INÉS MARTÍNEZ MARTINEZ.ANA.INES@GMAIL.COM.