

2017 APIMONDIA NEWSLETTER

N° 5



INDEX

Page 2
Editorial
Philip McCabe (Ireland)

Page 4
Apimondia Regional Commission for Asia.
By Dr. Cleofas Rodriguez Cervancia (Philippines)

Page 8
Apimondia Scientific Commission on Apitherapy.
By Dr. Cristina Mateescu (Romania)

Page 11
Apimondia Regional Commission for Oceania.
By Jodie Goldsworthy (Australia)

Page 14
STATEMENT BY THE FEDERAL COUNCIL OF THE
ARGENTINE BEEKEEPING SOCIETY

Page 16
Summary of the first results of the International online
survey on honey bee toxicity events [2014 - 2016]

PH: Visit of the EC of APIMONDIA to the headquarters of Balparmak.



APIMONDIA NEWSLETTER

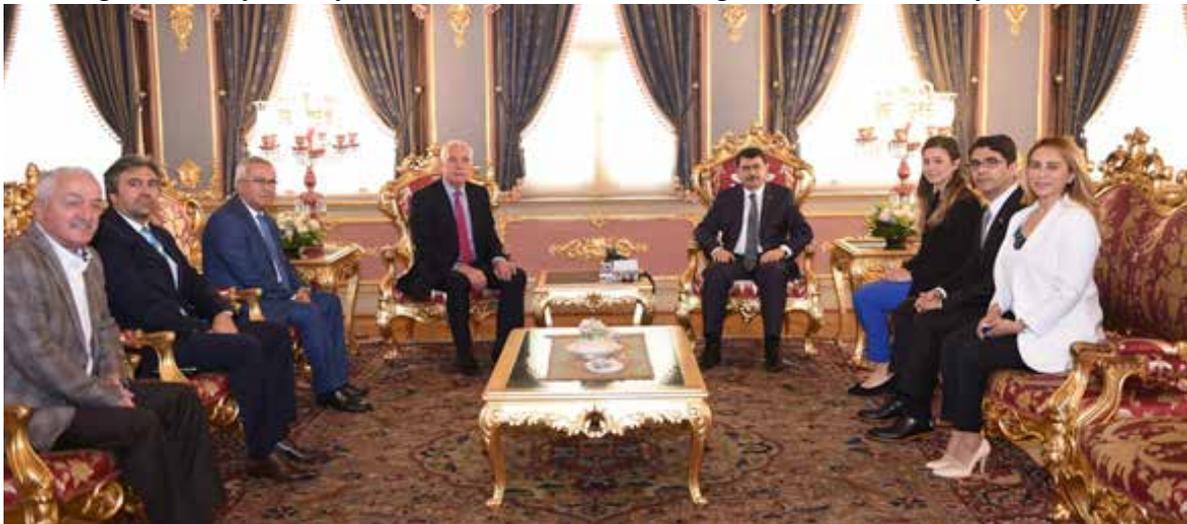
EDITORIAL

I would like to start this Newsletter with some very good news – on the June 14 in the European Parliament votes were taken to continue with the ban on certain pesticides. This is a big win for many people but we owe a great deal of thanks to Dr Fani Hatjina, coordinator of Apimondia Working Group 9, “Adverse effects of Agrochemicals and Bee medicines on bees”; for all her efforts on our behalf. I also want to thank all those who wrote to the Members of the Parliament (MEP’s) informing them of the importance of keeping the ban in place.

45th Apimondia Congress, Istanbul, Turkey 2017

Over the weekend of Friday 2nd to Sunday 4th June the Executive Council of Apimondia held their annual meeting in the conference centre for the next congress. Istanbul, a wonderful city and a wonderful people, will be a fantastic venue for the meeting of the world’s beekeepers, scientists and trade exhibitors. The location of the hosting venue is rather unique, within a 10 to 15 minutes walking distance of so many fine hotels from 2* to 5*. Our colleagues in the Turkish Beekeepers Association and the conference organisers Teamcon have really excelled themselves in their planning for this Congress. At our meeting on the Sunday our Scientific Commissioners met with their counterparts in the local scientific committee to plan for and evaluate the extensive list of abstracts already submitted. A series of ‘Round-Tables’ are also being planned and these will come under the remit of our Regional Commissioners.

Over these past months there has been so much talk and indeed rightly held concerns about travelling to Turkey. Sadly for all of us terrorism is global, unfortunately nowhere in the



Governor of Istanbul meeting delegation from left Cafer Kaba (TBA); Unal Bilgin, (Teamcon); Ziya Sahin, (President TBA); Philip McCabe, (President Apimondia); Vasip Sahin (Governor); Translator ; Ismail Gultekin (Deputy Governor); Hicran Ozbek (General Manager of ICVB)



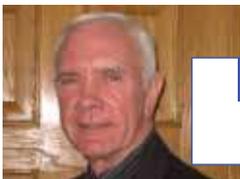
APIMONDIA NEWSLETTER

world is completely safe. In Istanbul authorities have every possible security measure in place. There is a great professionalism in the Events sector in Istanbul, they constantly adapt and get the best out of situations. The area that we are going to hold our Apimondia Congress, named Congress Valley is the most secure place in Istanbul. Teamcon, the Professional Organizers for our Congress have organized large events like the World Humanitarian Summit, the 40th UNESCO Congress and the



World Energy Congress in the last few months and many other international events in Istanbul Congress Center, which is the same building that we are going to hold Apimondia Congress. Many Country Presidents, Government Ministers and some celebrities has participated in these events. Beside these Istanbul won the right to organize Euro-league Basketball Final Four in May 2017 and will play host to European National Basketball Championship just before Apimondia 2017.

Life goes on in Istanbul; residents are out shopping, dining, attending entertainment events and enjoying the fantastic night life the city has to offer. At the moment there is a great interest in the congress, nearly 80% of the booths of the Api-Expo are already reserved. Teamcon believe they will organize the most crowded congress in the history of Apimondia. Our colleagues in the Turkish Beekeeping Association and Teamcon as well as the Executive Council of Apimondia are looking forward to welcoming you to lovely Istanbul. I had the pleasure of meeting the Governor as well as the Deputy Governor and their commitment on behalf of the City of Istanbul to the Apimondia Congress was most heartening. During our meeting tributes were paid to Bahri Yilmaz for all his efforts in winning the bid to host the congress in Istanbul, sadly he will not be with us but we know he will be with us in spirit. May this gentle soul have rest and our greatest tribute to Bahri will be to have the best congress ever.



Philip McCabe

Philip McCabe

President of APIMONDIA
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APIMONDIA 2017

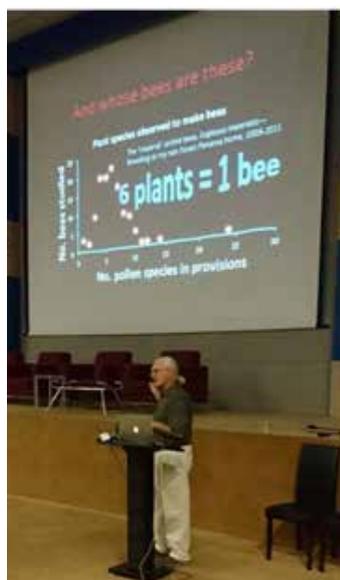


By **Dr. Cleofas Cervancia**
President of the Regional Commission
on Asia (PHI)

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Apimondia Regional Commission for Asia

The International Meliponine Scientific Conference, Convention and Carnival 2017 (IMS3C2017) was successfully held in Selangor, Malaysia on 16-18 May 2017. The event was organized by Akademi Kelulut Malaysia, Institut Genom Malaysia (Malaysia Genome Institute), Institute Kajian Dasar UPM (Fakulti Pertanian) and Universiti Kebangsaan Malaysia. The centre for Insect Systematics (CIS), UKM.



Plenary speakers Dr. David Roubik, Prof Dr. Deborah Smith, Prof Dr

Meliponine industry, Prof Dr. Deborah Smith (What Melioniculture culture can learn from Apiculture) and Prof Dr. Cleofas Cervancia (Proposed Standard for Tropical Honey). A distinguished retired bee scientist, Dr. Mercedes Delfinado- Baker was present during the conference.

A Forum was held after the opening ceremony aptly titled “World of Meliponines” Chaired by Prof Emeritus Datuk Dr. Makhdzir Mardan, with Prof Dr. Mohd Mansor Ismail as Moderator and forum delegates being Dr. David Roubik, Prof Dr. Deborah Smith and Prof Dr. Cleofas Cervancia.

Among the main topics were on **pollination, biophysics, chemistry, meliponitherapy, genomics, economics and engineering in meliponiculture.**



World of Meliponine Forum Delegates.

APIMONDIA 2017

The workshops consisted of *“Identification of Stingless bees using simple keys”*, *“Digital Reconstruction of Meliponine Anatomical Parts”*, *“Methods of Processing Bee-Bread and Propolis”*, *“Preparation of honey samples for NMR analysis”*, *“Application of Meliponitherapy”*, *“Innovations in Wooden BoxHiveconstruction”*, *“Innovations in Honey suction pumps”*, *“Bee products developed for cosmeceuticals and pharmaceuticals”* and *“Use of Coconut Shells as Hives of stingless Bees”*

There was also the launching of three books

1. ***“Handbook Of Meliponiculture – Indo-Malayan Stingless Bees”*** a compendium of articles from more than 40 contributors from more than 10 different countries (Edited by Dr. David Roubik and Abu Hassan Jalil) with its translated Malay language version in three volumes.

2. ***“World Meliponine Etymology of Taxonomic Nomenclature”*** and 3. ***“Meliponine Identifier Pictorial guide – Indo-Malayan Stingless Bees”***

Participants besides local Malaysians included from the Philippines, United States, Panama, Singapore, Australia, India, Indonesia, Taiwan, China, Nepal, and Thailand. A congregation of representatives 12 countries in all.

The carnival portion included an exhibiton and sales expo with competitions of *“Commercial Bee Products”*, *“Box hive design”* & the highlight a *“Meliponine Honey Ranking”* contest. The Honey sample submissions were from 3 countries. The top ranked honey was a *Lepidotrigonaterminata*

sample and second was a *Tetragonulatestaceitarsis* sample, both from Thailand. The honey submissions were ranked according to taste, smell, colour, an NMR analysis of its constituents and overall packaged appearance.

15 posters were submitted and the winning best poster went to *“Floral Calendar for Stingless Bee, Tetragonula Iridipennis Smith (Apidae, Meliponinae) in Peninsula India”* Shweta BV, Kuberappa GC,



Some of the oral presentors and workshop facilitators.



Official launching of Meliponine Books

APIMONDIA 2017

Thakur RK and Reddy MS.

Ascientific excursion was organised visiting the Meliponine Repository in the Malaysian Genome Institute and the National Apiary Center in Batu Pahat, Johor on the 18th May 2017.

The conference and convention ended on the 18th after a series of Public talks from different Malaysian government agencies standard, restrictions and regulatory acts. Among these were the Honey standards being prepared by MARDI, the good beekeeping standards (MYGAP) by Dept of Agriculture of Malaysia, Labelling laws for packaging of Honey, Halal certification by JAKIM and the wild-life conservation act by the Malaysian Wild Life Dept. to elaborate of conservation of wild life predators to Meliponines.



Excursion started at the Meliponine Repository in MGI

APIMONDIA 2017



Arrival at the National Apiary Center, Batu Pahat, Johor.

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By Dr. Cristina Mateescu
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Apimondia Scientific Commission on Apitherapy

The 10th edition of the Honey Festival in Blaj, Romania–24-26 March

The organizer – APIDAVA Company belongs to The Federation of Romanian Beekeepers – ROMAPIS - which is member of Apimondia. These are wonderful people working for the bee and for the beekeepers. This event became one of the very special ones in Blaj, in Transylvania and for all Romanian beekeepers as well as for international associations or companies working in the beekeeping field.

Here is a short presentation of the event: - 1. Scientific sessions (mainly for beekeepers)-**Special guest: President of Apimondia – MR. Philip McCabe**, the president of Apimondia Scientific Commission on Apitherapy, a representative of Vice-president of Ukrainian apitherapy association Victor Papp, Vice main chairman of company “Doctor Bee” S. Geveliuk (Apitourism in Ukraine), apitherapist-professor D.Senyshyn.

2.Round table “ **B2B CONFERENCE**”- honey companies’ representatives

Special guest: a representative of the organizing committee of **Apimondia 2017 - Turkey, presenting the 2017 event from Istanbul –**

3.Press conference - organizers and guests on the situation of world beekeeping.



APIMONDIA 2017

The goal of this event was the exchange of know-how and information between beekeepers and specialists involved in the beekeeping field from Romania and other countries and also to present an important exhibition with honey / apiary products and beekeeping equipment, with participation of exhibitors from different countries: individual beekeepers, Romanian companies from this field and also companies from Hungary, Bulgaria, Slovakia, Serbia, Poland, Slovenia, Turkey, Greece, China, etc.

Special thanks and congratulations to Prof. Victor Mates – President and CEO of Apidava Company – the organizer of the event, his daughter Alina Mates Ochis and all the family as well as to the local beekeepers and authorities.



1. A newly published research on the antimicrobial activity of *Nigella sativa* honey

In *Complement TherClinPract*. 2017 May;27:57-60. doi: 10.1016/j.ctcp.2017.04.003. Epub 2017 Apr 6.

In-vitro susceptibility of methicillin-resistant *Staphylococcus aureus* to honey. Authors: Hussain MB1, Hannan A2, Absar M3, Butt N4. – The researchers are from prestigious Universities of Medicine and Health Sciences from Saudi Arabia and Pakistan, respectively.

Abstract: Wound infections caused by methicillin-resistant *Staphylococcus aureus* (MRSA) is becoming much complicated and costly to treat as antimicrobial resistance is quite common. Twenty five MRSA strains isolated from infected wounds and three ATCC reference strains were evaluated for their susceptibility to locally produced black seed (*Nigella sativa*), beri (*Ziziphus Jujuba*) and shain honey (*Plectranthus rugosus* wall) by agar incorporation assay. Medically graded manuka honey (UMF 21+) was included as control. Locally produced black seed honey inhibited all clinical isolates at mean MIC of 5.5% (v/v), whereas manuka honey at mean MIC of 4.4% (v/v). The other two locally produced honey; beri and shain honey inhibited these isolates at 6.4% and 10.4% (v/v) respectively. The result of the study has demonstrated that indigenous black seed honey has comparable antibacterial activity to manuka honey and thus offers a good new addition to the existing honey resource for the treatment of wound infections.

APIMONDIA 2017

2. As we are still need reliable **clinical studies on the effects of bee products on human health**, here is a randomized double-blind, placebo controlled study on the effects of propolis on radiomucositis induced by head and neck cancer chemotherapy

- Thus, in *Asian Pac J Cancer Prev.* 2016;17(7):3611-4., the authors,

Mohammad Hasan AkhavanKarbassi; Mohammad ForatYazdi; HakimehAhadian; Maryam JaliliadrAbad from the Department of Oral and Maxillofacial Diseases Diagnosis, ShahidSadoghi University of Medical Sciences, Yazd, Iran, carried out a: **“Randomized Double-Blind Placebo Controlled Trial of Propolis for Oral Mucositis in Patients Receiving Chemotherapy for Head and Neck Cancer”**

Abstract

Background: Propolis based preparations have a wide range of applications in various specialties of dentistry. The aim of this clinical trial was to test the efficacy of propolis as a mouthwash in the reduction of chemotherapy induced oral mucositis (OM) in a single center.

Materials and Methods: In this randomised, controlled study patients undergoing chemotherapy were included consecutively and randomised to an experimental group receiving propolis mouthwash (n 20) and a control group receiving diluted water (n20). Oral mucositis, erythema and eating and drink ability were assessed at baseline and after 3 and 7 days using the World Health Organization (WHO) scale and the oral mucositis assessment scale (OMAS). Results: There were significant differences in OM, wound and erythema in propolis group compared to placebo, but no significant difference in eating and drink ability. However, it was interesting that 65% of the patients in the propolis group were completely healed at day 7 of the trial. No significant adverse events were reported by the patients. Conclusions: This study found that oral care with propolis as mouthwash for patients undergoing chemotherapy is an effective intervention to improve oral health. Our findings should encourage health practitioners to apply propolis mouth rinse for the oral care of patients under chemotherapy.

The Apitherapy Scientific Commission would like **to invite the local organisations of apitherapy worldwide** to nominate a Correspondent Member for the Commission. In this way we hope to build the necessary connections so as our work in apitherapy to offer results and credibility. Please send the name of your representative person – contacts details – to the President of the Commission. cristina.mateescu@apicola.eu

Many thanks in advance for your support!

A scientific database for apitherapy - with the help and full support of Dr. Janos KormendyRatz, from Hungary, the Commission will start to work in building its scientific database. It is in our view to gather all the scientific data and to build a strong and reliable library of data especially focusing on the clinical studies and the pharmacological characterisation of the bee products. Thank you for your valuable contribution and support!

APIMONDIA 2017



By Jodie Goldsworthy (AUT)
President of the Regional Commission
on Oceania

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Apimondia Regional Commission of Oceania

Apimondia has had a busy past year with much of the work culminating in the Apimondia Congress soon to be held in Istanbul Turkey from 29th September to 4th October.

The Executive Committee have just concluded a visit to Istanbul and held their most recent meeting there. This was attended by the Oceania Vice President Maureen Maxwell who reports “the local hosts were excellent and the convention centre is fabulous. The Local PCO (Teamcon) are excellent and along with the local committee appear to be on top of everything and willing and gracious hosts.

Security wise I would not hesitate to recommend Istanbul. Many security measures are in place with some hotels as close as 50m from the venue with great gardens, jogging track, pools and health centre, very convenient. There are a number of good hotels in walking distance - food and hospitality excellent - taxis all clean, tidy and metered. Istanbul is a fabulous exotic destination, so much history and is clean and well organised. The beekeeping industry is thriving which again has lots of interesting history. There are over 150,000 Turkish families engaged in beekeeping and 6.8 million bee colonies. All beekeepers are registered and they have good systems and Government support. 75% engaged in migratory beekeeping. I am looking forward to going back in September and would highly recommend. I am not unduly concerned about security. Just take the usual travellers cautions”. Thank you Maureen for attending this meeting.

From the Oceania region we are pleased to have received application from Fiji for membership to Apimondia. We welcome our island cousins to the Apimondia network and look forward to building strong ties with this country and supporting where we can to help develop apiculture in Fiji.

Much Apimondia effort has been undertaken promoting bees with work focusing on having World Bee Day on 20th May endorsed globally. The President Mr Phillip McCabe from Ireland has attended many countries supporting beekeeping globally and participated in Brussels Bee Week in May which showcased a magnificent beekeeping display in front of Parliament. Phillip has also spent considerable effort supporting the development of beekeeping in the Middle East amongst many other areas of the world. It is impossible to cover all global activities but in South America Honey Week was celebrated from 14th - 20th May with a campaign organised by the Ministry of Agro Industry of Argentina. More information at <http://www.agroindustria.gob.ar/sumalemielatuvida/>

The Latin American Beekeeping Federation (FILAP) held a demonstration of beekeepers in their cities to show the presence of beekeeping in the region.

More information at: <http://www.sada.org.ar/asi-se-celebro-el-dia-mundia-de-la-abeja/>

On May 15th the Argentinian Beekeepers Society (SADA) launched its “Beehive Protectors” campaign aimed at the general public with the objective of raising awareness about the problems that bees are experiencing and their impact on biodiversity and our lifetime.

More information at <http://www.sada.org.ar/protegeunacolmena/>

In the past year Apimondia has introduced its newsletter put together by a small volunteer group of the

APIMONDIA 2017

Executive Committee. It has been difficult to gain reports from all regions and Scientific Presidents and a small group of us have worked on the development of reporting templates to try to improve the quality of information shared amongst Apimondia members.

A highlight of the past year was attending the ApiQuality Symposium in Rome in May 2017 where I spent three fabulous days delving very deeply into the quality aspects of honey and other hive products such as pollen, propolis, bee bread, and bee venom. It was fascinating to hear speakers using these products for health benefits both in human and veterinary medicine. In Asia work has commenced on the development of a Tropical Honey standard but we are yet to receive a draft of the standard.

Apimondia has received three requests for Symposium Status for Pollination Symposiums for 2018. It appears the issue of pollination is topical globally. I presented background and relevant information from Australia for Apimondia consideration of support for the Australian Bee Congress with its pollination focus to be endorsed as a Pollination Symposium along with requests from Mexico and Ethiopia. We expect to have decisions shortly on the outcomes of these requests.

The topic of neonicotinoid bans is currently being reconsidered by the European Parliament on 14th June so we can expect further discussion around this topic in relation to its impact on bee health.

Planning is underway for Apimondia 2019 in Montreal Canada and the Executive Committee have received bids from Denmark, Russia, Serbia and Slovenia to host Apimondia 2021. The bids are reviewed and then voted on in Istanbul.

The Apimondia Working Group on Honey Adulteration have prepared a report on the topic of Honey Adulteration. This document is designed to progress the objectives of the working group which are to break the silence around honey adulteration globally and raise awareness of the problem of honey adulteration. The document is being used in Europe and can be used elsewhere to assist improve understanding of the complexity of the issue globally.

The working group continues to work slowly on the topic but anyone expecting the issue to be solved quickly is naive. The solutions lie in strong traceability systems that work alongside honey testing and the education of consumers to ask and understand the supply chain from which their honey is derived. Sadly the work of this working group is likely to always be relevant as we see global food fraud rewards for fraudsters outstripping that of rewards from the global trade in illegal weapons and heroin. A PricewaterhouseCoopers report 'estimates food fraud is worth \$52 billion globally each year. The illegal trade in firearms is worth an estimated \$8.5billion a year and heroin \$30billion. No wonder food fraud is now among the high rollers of crime' (Weekly Times Decision Ag, May 2017) The food industry have responded with the development of TACCP(Threat Assessment at Critical Control Points) and VACCP (Vulnerability Assessment at Critical Control Points) being introduced into global food safety programs. In addition to this European supermarkets are beginning to include MNR honey testing as part of their verification expectations from honey suppliers. Combined, all efforts make the traders of low priced or adulterated honey more nervous which can only be a good thing for the future of beekeeping globally.

On the topic of Manuka honey produced both in New Zealand and Australia I believe that there would be benefit from joint discussion and a more collaborative approach to work more together to protect

APIMONDIA 2017

and develop the image of Manuka globally. Both countries have much to be gained from jointly meeting the challenges of an increasingly demanding market and a clever approach to protecting the interests of both producers. There are points of difference and strengths of products from both countries and ample opportunity for differentiation, accurate labelling and clever collaboration. Australia and New Zealand have a long history and many examples of being stronger through working closely together. Our combined strengths can surely be leveraged for improved outcomes for beekeepers in both countries. I hope to be able to open dialogue and explore opportunities for both countries.

I look forward to attending the ApiNZ conference coming up from 9th – 11th July and to seeing you in Istanbul in September.

Jodie Goldsworthy.

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Sociedad Argentina de Apicultores (Argentine Society of Beekeepers)



STATEMENT BY THE FEDERAL COUNCIL OF THE ARGENTINE SOCIETY OF BEEKEEPERS



World Bee Day in Pontevedra, City of Buenos Aires, Argentina.

APIMONDIA 2017

The bees are disappearing, because the mountains are disappearing along with the forests and the flowers. Beekeepers are disappearing and fewer young people are interested in working with bees and due to the extensive use of certain chemicals the chakras, the flowers, and the fields are disappearing. Phytosanitary products, the varieties of seeds that make the identity of the land, and the strength of their ecosystems, disappear into the hands of genetic engineering and chemicals, which eliminate those that the market cannot visualize as profit - this is called loss of biodiversity. The bees do not have healthy food, there is little and no variety and in most the cases contaminated with "Phytosanitary". With the bees the rest of the wild pollinators disappear, and with it a good part of the fruits and vegetables that we eat, as well as those that fed our animals. With their disappearance, the social and productive warp of our communities are affected as well as the economic circuit in which beekeeping survives. That is why we believe that as a Society we must demand from the authorities of Government that honeybees, and by extension beekeeping - which is the art of their being becomes an essential and strategic activity of the State as the main guarantors of biodiversity and food that comes to our homes.

The current agro-industrial model that uses Argentina as a test bench is illegal because it is based on the genetic modification of seeds, and the utilization of millions of litres of insecticidal chemicals, herbicides, fungicides, which destroy flowers, ecosystems, and the rest of the varieties of fruits and vegetables, wild flora and fauna. This model is illegal because it explicitly eliminates biological diversity, support of life on the planet, with the only certain purpose of increasing the wealth of a handful of transnational corporations. Guarantee the Biodiversity is a duty of the State inscribed in the National Constitution, as an obligation towards its citizens and with the rest of the States of the world. The current agro-industrial model is unethical because it destroys the latticework, social, productive and economic aspects of our communities, condemning misery to its citizens. The current agro-industrial model is echoed because it irreparably damages the earth, water and air, poisons our food, kills our bees and deteriorates the health of our inhabitants.

That is why we reaffirm our conviction why it is necessary to modify this model and look for sustainable farming systems with respect to biodiversity and human and be able to achieve a balance that will enable the vital development of beekeeping and the rest of the agricultural productions, in harmony between them and the environment. We also have the deep conviction that the production of a country, with such a vast beekeeping tradition and a wealth of variety of honeys cannot only be reduced to obtaining drums of undifferentiated for its export. Not only must we be able to produce more, - and achieve the conditions for this, but we must also be able to give this production the treatment needed to offer a high added value product. It cannot be reduced to fractionating the honey, but also requires the research and development of new products that differentiate honey, pollen, propolis and the various products obtained through beekeeping activities.

We need more research to develop products and to grow in the production in hives we need adequate. Without funding, it is impossible to grow.

Argentine Society of Beekeepers; Rivadavia N° 717 Piso 8 TEL .: 011-4343-8171
E-mail: informes@sada.org.ar

APIMONDIA 2017

Summary of the first results of the International online survey on honey bee toxicity events [2014 - 2016]

In 2014, the APIMONDIA WG 'Adverse Effects of Agrochemicals and Bee medicines on bees' launched an International online survey for honey bee toxicity events honeybee colonies around the world are facing perturbing damages by a number of parameters and among them toxicants as plant protection or veterinary medicinal products, as well as their possible synergy. This survey it was not designed to draw statistical conclusions, rather to map the situation and to give a global idea of what and where is happening. Its aim was not to replace any detailed initiative taken by other organisations or countries. Therefore we present here some figures from the registered events. Most of the entries in the survey originate from Europe and much less from descriptive the other continents, probably due to the fact that the information for the survey reached more beekeepers in Europe than in other continents. However, what is really interesting to see is in which types of "land use", the toxicity events took place. we can observe that most of the events were recorded from arable and village areas. Furthermore the higher numbers of dead colonies were recorded in these same areas. In most recordings, the number of lost colonies was from several colonies to several hundred colonies and only a few cases reported more than 1000 dead colonies.

The reports from Italy, Brazil, Romania and Turkey referred to several incidents with many thousands of dead colonies. The number of lost colonies as well as the number of events reported seemed to occurred mainly between March and September.

In the question "Was the toxicity event due to a pesticide product?" the 50% of the people registering the event replied positively and they also accused specific crops, while the 47% of the people were not sure which was the reason for the observed toxicity.

Crops declared responsible for the toxicity events were: cherries, corn, water melon, oilseed rape, pistachio, olives, sunflower, maize, cocoa, citrus fruits, potato, grapes, sorghum, sugar cane, soy beans, cotton, peach, oranges, coffee, wheat, plum, longan, lychee, alfalfa, canola.

Many reports also accused palm trees and the treatments against the red palm weevil.

At the same time 26% of the all registered events confirmed that pesticides were the cause of the toxicity, after chemical analysis performed mainly on adult bees (and in some cases also in beebread and brood). Interestingly, the 3% of the reports declared that the cause of the toxicity due to other reasons such as a paint factory. Looking into the symptoms of the events, almost half of the reports (47%) declared that the colonies were found dead, while a large percentage (31%) mentioned loss of foragers. The repeated change of the queen (many times together with the loss of foragers) was mentioned in 11.4% of the reports while other effects were mentioned in very few of the reports.

APIMONDIA 2017

Report produced by APIMONDIA WG9 'Adverse Effects of Agrochemicals and Bee medicines on bees'

More than half of the reports (54%) declared that the same symptoms were observed also on other apiaries in the vicinity, while the 31% of them occurred only in one apiary and 14% in all apiaries of the same beekeeper. Apart from the events presented above, some extreme cases were reported: more than 20,000 colonies died in Italy in the vicinity of maize crops and fruit orchards (2014), several thousand colonies in Greece near palm trees and orange fruit orchards (2013, 2014), several thousand colonies in Romania near sunflower crops (2015), several hundred colonies in the US in arable crops (2014, 2015), hundreds of colonies near soya bean, sugar cane, orange orchards and cotton in Brazil and Turkey (2015).

- Toxicity events happened all around the world, mainly in arable crops, urban areas and around villages.
- Most of the events recorder in multiple apiaries, and the symptoms were mainly dead colonies or loss of foragers.
- Only 25% of the reporters had sent samples for chemical analysis to confirm the toxicity of pesticides