

2017 APIMONDIA NEWSLETTER

N°6



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APIMONDIA NEWSLETTER

EDITORIAL

Count down is now underway for our next Congress in Istanbul. It seems such a short time since we met in Daejong, South Korea. One thing that has happened and continues to be of major interest is that of the decline of our beloved honeybee, although we now have some countries stating that the losses are not as great as had been reported in the past. Is it possible that we are now seeing a change and that there is an increase in honeybee numbers? I have to say I'm not so sure that this is the case – on my travels I hear of extensive losses of bee families in many countries and it seems the jury is still out on what the major contributing factors are but varroa is probably top of the list followed by the over, or incorrect, use of certain chemicals but in particular the neonicotinoids.

Much debate and discussions take place on a regular basis in the European Parliament and recently I was reading with great interest an Explanatory Statement from Mr. Norbert Erdős, MEP from Hungary. I should first of all clarify that there are many of our MEP's who are working extremely hard in the interest of Beekeeping but I must mention two in particular, Mr. Erdős and Ms Mairead McGuinness, MEP from Ireland. On the 23rd of June I had the honour of hosting HSH Prince Albert of Monaco in my home town of Drogheda here in Ireland and this was due to hard work by Ms McGuinness for all of us in the EU Parliament.



HSH Prince Albert with pupils and teachers from Aston Educate Together school and their project.

Now back to the Explanatory Note mentioned above, Mr Erdős was submitting a report to the Committee on Agriculture and Rural Development which took place on Wednesday 6th September 2017 where his main headings were; The significance of beekeeping; EU support for beekeeping; Bee health issues; Combating honey counterfeiting effectively; Promoting honey as a healthy foodstuff in public education; Encouraging honey consumption and promoting honey;

His Explanatory Statement was as follows;

The beekeeping sector is an integral part of European agriculture, providing over 500 000 EU citizens with their main income or additional earnings. The importance of the sector is much greater than we might judge from the amount of its contribution to the gross production value of the economy, as 84% of plant species and 76% of Europe's food production depend on pollination by bees, so that the economic value thus produced – estimated at EUR 14.2 billion annually in the EU – exceeds the value of the honey produced by a long way.

The significance of honey in maintaining the ecological balance and biological diversity is also plain to see. I think the importance of pollination is insufficiently appreciated and taken for granted in the EU, whereas EUR 2 billion is spent annually in the US on artificial pollination. Beekeeping and beekeepers must therefore be at the heart of the common agricultural policy. Future agricultural policy must raise the profile and financing of beekeeping above its current level. The situation of beekeepers active in the EU today is far from easy, with many factors making their lives difficult.

1. The biggest problem by far is the spread of fake honey in the internal market, which is responsible for the purchase price of honey falling to half its 2014 value by the end of 2016, primarily in the major honey-producing countries such as Romania, Bulgaria, Spain, Portugal, France, Croatia and Hungary. This is putting Europe's beekeepers in a hopeless position. Honey is the third most counterfeited product in the world, meaning that we must fight not only to protect the EU's beekeepers but also for reasons of consumer protection and people's health. Counterfeiting affects almost all the honey imported into the EU and particularly products originating in China. According to the statistics, China produces 450 000 tonnes of honey annually, which is more than the world's largest producers – the EU, Argentina, Mexico, the US and Canada – combined. Experts say that such a quantity simply cannot be the result of beekeeping activity. Pursuant to an initiative formulated at Hungary's request at the December 2015 meeting of the Agriculture and Fisheries Council, the Commission ordered the centralised testing of honey.

This was done by the Joint Research Centre, which found, among other things, that 20% of the samples taken at the EU's external border and at importers' premises were fake honey.

From a health point of view, it is particularly worrying that, in the view of the experts, China's honey-producers resolved the 2002 chloramphenicol problem not by complying with the rules but by using resin filters; since such 'honey', however, contains nothing whatsoever of biological value, it should be called not honey but a kind of syrup. Some fraudulent honey packagers and traders improve these substances by mixing them with high-quality European honey, applying the 'blend of EU and non-EU honeys' label to the result, as permitted by Directive 2001/110/EC; this is about as informative for consumers as would be a label reading 'honey which does not originate from Mars' – in other words, not at all. In order satisfactorily to resolve this unsustainable situation, I expect the Member States and the Commission to force honey-producers in non-EU countries who use dishonest methods



HSH Prince Albert being introduced to Ms Mairead McGuinness MEP.

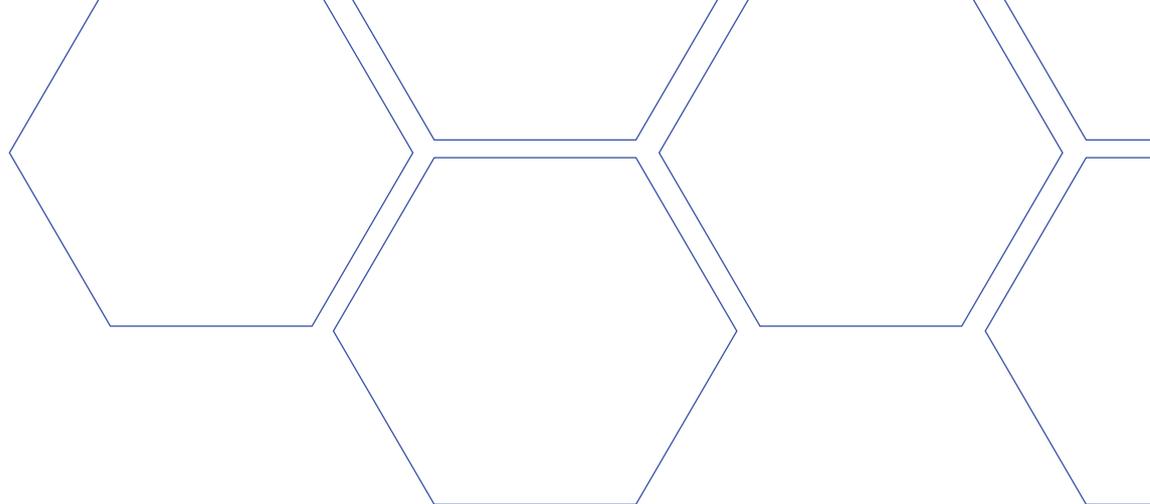
(primarily certain Chinese producers) and EU packagers and traders who wilfully mix adulterated, imported honey with high-quality European honey to comply with the law; I would particularly recommend developing analytical laboratory methods which can filter out the more sophisticated forgeries (e.g. nuclear magnetic resonance testing), making honey packaging plants which also process imported honey subject to EU food safety monitoring (853/2004/EC) and ensuring that honey is identifiable from the moment it leaves the hive and to be classifiable according to its plant origin. I would also like to see the characteristics of monofloral honeys to be determined at EU level, honey which is clearly fake to be placed on the RASFF list, resin filtering technology to be banned and honey arriving at the EU's external border from non-EU countries to be officially batch-sampled and the samples to be tested. Crucial to resolving the situation would be for the vague and meaningless 'blend of EC and non-EC honeys' to be replaced by an indication on the label of exactly which country or countries the honeys used in the final products come from and for these to be listed in the order which corresponds to the proportions used in the final product.

2. In addition, a number of animal diseases cause serious problems for beekeepers. Invasive alien species such as the Varroa destructor, the small hive beetle (*Aethina tumida*), the Asian hornet and the American foulbrood are causing widespread destruction to the European bee population and serious harm to beekeepers, a situation which has led to many producers going bankrupt. The Varroa destructor has not yet been overcome, as there are no drugs which will effectively destroy the parasite and research and development in this area is inadequate. In addition, the results of the Member State / regional monitoring tests assessing the health situation of bees conceal a lot of important information from the other Member States, the Commission and the relevant EU agencies, such as the European Food Safety Authority. I would therefore suggest that the Member States share the results of monitoring tests with each other and with the Commission. As a way of boosting drug research and development, I call on the Commission to involve in the research all relevant drug producers and to set up a common IT platform to share best solutions and drugs with interested parties.



Finally, beekeepers, agricultural producers and environmentalists also expect there to be a clear scientific consensus in the EU on all substances and other factors which are a danger to bees' health. I therefore propose that the European Food Safety Authority be asked to carry out research, according to a clearly-determined schedule and together with the other EU agencies concerned (e.g. the European Chemicals Agency), into all substances and other factors which endanger bee health.

Prince Albert meets Philip's Grandsons



3. EU support for beekeepers must also be revised. While the bee population in the EU increased by 47.8% between 2004 and 2016, the budget of the national beekeeping programmes rose by just 12%, from EUR 32 to 36 million a year. This is a grand total of 3 thousandths of the CAP budget! The EU budget for these programme must therefore be increased by 47.8%, which translates as EUR 47 million annually. This can easily be accommodated. Thought should also be given to integrating a new, direct beekeeping subsidy, based on colony numbers, into agricultural policy post-2020. In addition, research and development in beekeeping, education and further training for beekeepers and fiscal policy incentives (e.g. tax exemption for beekeeping activities) would help beekeepers to thrive.

4. Honey should also be promoted among children as a healthy foodstuff in their public education. An excellent example of this is the 'European Honey Breakfast' initiative organised by Slovenia and subsequently introduced by several other Member States; this might usefully be made a feature throughout the EU. School programmes are also a perfect forum for including honey in developing children's outlook. I therefore support increasing the EU budget for school programmes.

5. Promoting honey in the EU is also important, as annual consumption is unsatisfactory: the average of 2.5-2.7 kg per person per year in West European Member States is more or less acceptable, but the figure for Hungary, for example, is just 0.7 kg per year, which is low. The Commission should be called on to draw up a report on the amount of honey consumed and consumption patterns in the EU. I would also encourage the Member States to use every available means, in particular the intensive assistance for short supply chains in rural development programmes, to promote the local and regional sale of honey and particularly bio-honey. Finally, the beekeeping sector deserves particular attention to be paid by the EU to its protection in negotiations on free trade agreements and honey and other bee products to be classified as 'sensitive products'.

First of all I want to thank Mr Erdós for his wonderful contribution and also Ms McGuinness for her interventions at the meeting. Now many of you may wonder why I refer to this presentation in the EU Parliament but in my opinion what is stated here affects all beekeepers across the world.

I have to say I'm looking forward to meeting our members at the upcoming Apimondia congress in Istanbul.

Apimondia Welcomes Fiji



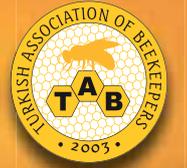
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45th APIMONDIA

International Apicultural Congress

İstanbul - TURKEY / September 29th-October 4th, 2017



General Information

WEATHER

Istanbul has a climate combining Mediterranean and Black Sea climate, with a hot dry summer and pleasantly warm spring and fall. Winters are cold but snow is rare. The vegetation is predominantly of the Mediterranean type. Average temperature is 19 – 22 degrees Celcius in the period of our Congress.

ELECTRICITY

The electric current is 220V AC with a frequency of 50 Hertz. European standard plugs with two round pins are used. Most hotels have a receptacle with 110 volts.

CURRENCY, BANKS, EXCHANGE

In Turkey, the currency is the Turkish Lira (TL). Foreign currency can be exchanged at the airport, at banks which are open from 08:30 to 12:00 and from 13:00 to 17:00 at private exchange offices which can be found throughout the city and open from 09:00 to 20:00 hrs. The exchange rate is set on a daily basis but generally private exchange offices give better exchange rates for cash than banks. Some of the exchange rates as of 31 August 2017 are as follows;

1 EUR = 4,15.-TL

1 USD = 3,45.-TL

1 EUR = 4,50.-TL

TIME

Turkey is two hours ahead of GMT.

COMMUNICATION

All hotels have direct dial telephone systems in the rooms. Turkey has 3 GSM operators (Turkcell, Vodafone, Turk Telecom). Please consult your local GSM operator to find out if they have roaming agreement with Turkish Operators. Post offices are open for general business from 09:00 to 17:00, Monday to Saturday.

AIRPORT TRANSPORTATION

There are two international airports in Istanbul but International Flights mostly lands to Ataturk Airport which is on the European Side.

Havatas (Airport Shuttle Service)

Havatas is a municipality owned reliable airport shuttle service. You can find them outside the airport terminal, in the second lane. Every half hour, between 04:00 and 01:00, one of their buses heads for Taksim which is very close to the Congress Venue and the Hotels. The current pick-up and drop-off point is in front of the Point Hotel, just past Taksim Square. The ride from Ataturk Airport to Taksim costs 12 TL per person (luggage included) and takes approximately 40 minutes depending on traffic.

Taxi- The Airport Taxi Stations is just outside the terminal area. It costs between 50-60 TL from Ataturk Airport to Taksim and takes around 40 minutes.

Metro- There are two ways to use the metro. These are standart token and Istanbul Card which is in essence an all-round public transportation boarding pass. Istanbul Kart is a prepaid and rechargeable card and uploading more credits can be done at designated machines.

Operating hours of Metro are 6 am and midnight. Keep in mind that every transfer between lines requires a new token or use your Istanbul Card. Token price is 5 TL, one pass with Istanbul Card is 2,6 TL per person and per line. From airport to city, first you have to take metro M1a in the airport in the direction of Yenikapi. If your hotel is located in Taksim area, get off in Yenikapi, the very last stop. There transfer to the M2 metro line in the direction of Haciosman and get off in Taksim stop.

If your hotel is located in Fatih, Sultanahmet, Sirkeci, Eminönü, Galata, Karaköy or Tophane, get off in Zeytinburnu and hop onto the T1 tram in the direction of Kabatas. Get off at the respective stop for your location.

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PUBLIC TRANSPORTATION

Istanbul offers an extensive mass transportation network including metro, ferries, marmaray, light-rail, buses that go between two continents, under and over the sea. Five-in-one bus tickets and smart ticket devices used in almost all transportation vehicles and can be purchased from ticket booths all around the city.

PROGRAM

28 Sept 2017 Thursday	29 Sept 2017 Friday	30 Sept 2017 Saturday	01 Oct 2017 Sunday	02 Oct 2017 Monday	03 Oct 2017 Tuesday	04 Oct 2017 Wednesday	
	Exhibition Opening	Exhibition					
	Opening Ceremony				Closing Ceremony		
		Scientific Program					
	Registration						
		General Assembly			General Assembly		
Pre Tours	Optional Daily Tours					Technical Tours	

VENUE

ISTANBUL CONGRESS CENTER

Darulbedai Cad. No:3 34367

Sisli-Macka-Istanbul

Phone: +90 (212) 373 99 00

Exhibition Opening : September 29th / 12:00

Opening Ceremony : September 29th / 16:30 – 19:00

Closing Ceremony : October 3rd / 17:30

REGISTRATION

Please note that on-line registration will be closed on September 22nd, 2017. Onsite registration will be available during the congress.

Registration Desks will be in service as below;

28 September 2017 10:00 – 20:00

29 September 2017 08:30 – 19:00

30 September 2017 08:30 – 19:00

01 October 2017 08:30 – 19:00

02 October 2017 08:30 – 19:00

03 October 2017 08:30 – 19:00

NAME BADGE

All participants and accompanying persons are kindly requested to wear their name badges throughout the Congress to be able to participate in the scientific sessions, exhibition and all other scheduled activities.

Beside the registration desks, participants who completed all registration procedures will be able to pick up their name badges from the kiosks by showing the Barcode which is on the confirmation form that they've received.

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EXHIBITION

Exhibition will take place in the B5 floor of the Istanbul Congress Center on below dates:

29 September 2017 12:00 – 19:00

30 September 2017 09:00 – 19:00

01 October 2017 09:00 – 19:00

02 October 2017 09:00 – 19:00

03 October 2017 09:00 – 19:00

TOURS

Tour desk is located in the Entrance Floor of the Congress Center.

For Daily Istanbul Tours reservation has to be made until 14.00 on the day before the departure date.

For the Official Technical Tour reservations will be accepted until 13.00 on September 3rd. Participants registered in advance for the technical tour has to receive their vouchers from the Tour Desk until 15.00 on September 3rd.

INTERNET SERVICE

Free Wi-Fi service is available in the Congress Venue. Beside the wi, an internet corner is located in the B2 Floor where all scientific sessions will be organized.

LANGUAGE

Congress Language is English. Simultaneous translation in English, Spanish, French, German and Turkish will be available in the Opening & Closing Ceremonies of the Congress. Simultaneous translation in English, Spanish, French, German and Turkish will be available in the Uskudar Hall which is the main scientific session room where all the Plenary Sessions will be organized.

CERTIFICATE

Participants may receive their Certificate of Attendance by showing their name badge to the assigned computers in the registration area.

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CONTACT

Congress Web Page : www.apimondia2017.org

Congress Secretariat : secretariat@apimondia2017.org

ApiExpo Team : apiexpo@apimondia2017.org

Registration Team : registration@apimondia2017.org

WBA 2017 : wba@apimondia2017.org

Events & Touristic Services : mice@apimondia2017.org

Scientific Committee : scientific@apimondia2017.org

Phone : +90 212 343 80 03

Fax : +90 212 343 80 23

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

jodie@beechworthoney.com.au

Apimondia Regional Commission of Oceania

Apimondia Welcomes Fiji as a New Member of the Oceania Region

Fiji is a small Pacific island nation with a population of 890,000 (2015). It is made up of 300 islands, 100 of which are inhabited. It experiences tropical wet and dry seasons and has a developing economy. Fiji is a former British colony.

On beekeeping in Fiji:

There are between 800 and 1000 beekeepers in Fiji. Mostly small-scale, with approximately 20 beekeepers with 100+ hives. Almost all are keeping bees for financial gain - almost no 'hobby' beekeepers. Field work is undertaken 80% by men and 20% by women. Post-harvesting work is undertaken 50% by men and 50% by women. There are between 10,000 and 13,000 hives in Fiji which are almost exclusively Langstroth hives. All deep or full depth hive bodies - no shallow supers. There are a few top-bar hives. Fiji is producing most boxes, covers and bottoms, but still importing 50%-60% of frames and 90% of wax foundation from overseas (mostly from China and New Zealand).

Bees in Fiji are a cross-bred between the 'black bee' of northwest Europe and the Italian. It is estimated that maybe 50% are Italian genetics at this point. Until thirty five years ago, most genetics were the black bee - very defensive, and bees run on the comb. Importation of Italian bees in the 1980's and 90's improved the genetics.



Bure hive

There has been no import of bees into Fiji since NZ found varroa mites in 2001. We have a permit to import queens from Western Australia, but to date none have been imported. Fiji has AFB, but no EFB, varroa or hive beetles. No beekeeper treats bees with any medication of any kind. AFB is the only serious disease, and no serious parasites.

The major challenges to beekeeping development is access to training and access to capital.

Inadequate training results in:

a) starving bees during the rainy season;

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- b) damaged comb due to wax moth from lack of hive inspections;
- c) Spread of AFB;
- d) Poor honey quality - high moisture honey and burnt sugar cane molasses taste are the most common quality problems.

Fiji Beekeepers Association has a training program, but now that Fiji has an elected government almost all development funding flows to government instead of directly to NGOs, so not much training is available now to new beekeepers. Many people express interest in starting beekeeping. Markets are good. Beekeepers can make good money if they know what they are doing.



Feeding sugar

There is a high failure rate of new beekeepers due to poorly-designed development projects and people who underestimate the work and skill involved. Failure rate of new beekeepers is estimated at 80%. Many beekeeping development projects are poorly designed, delivering fully-assembled hives to recipients, stocked with bees, and insufficient training. Most new beekeepers don't learn to split colonies or assemble equipment so slowly fail. Also, villages as a whole are often given hives with no clear ownership or business training.

There is an active national beekeeping association (Fiji Beekeepers Association) with a mentor program, training program and a honey quality program. The Association has received funding assistance in recent years from the EU, New Zealand High Commission and Australian aid. There are several local beekeeping associations and cooperatives. Bees are kept primarily for honey. Most honey would qualify as 'organic' by the Pacific Organic Standard, but not typically marketed as organic. Wax is commonly a secondary product. There is currently no pollination work due to small-tract farms and no significant pollen or propolis harvesting.

Honey Marketing

The retail price of bottled honey is \$20-\$25 FJ per kilogram (\$10-12 USD). Beekeepers receive \$10-\$15 FJ per kilogram (\$5-\$7 USD) for bulk honey at the farm gate.

Honey imports into Fiji are prohibited due to biosecurity threats and inability of Fiji's government to protect consumers from adulterated and contaminated cheap overseas 'honey'. All Fiji honey is sold

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as polyfloral honey, there are no specialty honeys.

Fiji is 90% self-sufficient in honey production. There are no imports, but supermarket shelves sometimes don't sell honey due to lack of supply.

Typical honey yields are 20-25 kg per hive annually. The dryer sides of the main islands have the highest yields and produce most of Fiji's honey.

Threats

Cyclones are a major threat, with approximately one-third of Fiji's colonies lost in Cyclone Winston February 2016. Wooden hive boxes, covers and bottoms typically last 5-10 years due to rot. Frames last 20+ years.

The Future

Fiji looks forward to being a part of the Apimondia network and to meeting other beekeepers from other parts of the world. At the 2017 Congress they will be represented by the New Zealand representative Maureen Conquer, Vice- President Apimondia Oceania Region. Beekeepers from Fiji plan to attend the 2019 Congress in Montreal, Canada. Information supplied by the Fiji Beekeepers Association and edited by Jodie Goldsworthy - President Oceania Region, Apimondia.



EU-Funded harvesting eq for Naqoro Womens Group

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

cleocervancia@yahoo.com

Apimondia Regional Commission for Asia

POLLINATOR RESTORATION IN BANTAYAN ISLAND CEBU CITY

Rationale:

In the Asian region, natural calamities like typhoon, flood and earthquake devastate the ecosystem, including the pollinator population. In 2013, Typhoon Haiyan, known as Super Typhoon Yolanda in the Philippines, was one of the most intense tropical cyclones on record. On making landfall, Haiyan damaged portions of Southeast Asia, particularly the Philippines. Our bee team is currently working on the pollinator restoration in two towns in the Visayas- Maliwaliw Island, Eastern Samar and Tarong, CarlesIloilo. In our initial visit in 2015, the plants have recovered; however, the pollinators have not come back. We surveyed the area and pollinators were indeed absent.

The coconut and other fruit bearing trees have abundant flowers, but no fruit setting. In both towns, we restored the pollinator by introducing native bees, (stingless bees and honeybees in Maliwaliw and stingless bees in Tarong). In 2016, we conducted a survey in Maliwaliw Island and we observed that the bees have established in the wild, especially *Apis cerana*. The population of stingless bees are sustained. Our research in Maliwaliw is more intensive than in Tarong, because monitoring and assessment is easier to conduct in an island. In both municipalities, farmers are now harvesting fruits and vegetables, with the restoration of pollinators.

In damaged ecosystem, it is necessary to bring back the pollinators in order to restore biodiversity and increase food production.

Methodology

Site validation:

Initial visit to Bantayan Island will be conducted to determine the existing vegetation and pollinators. Assessment of the population of pollinators will be done using standard protocol. This will be a good ecological data to determine the dynamics of pollinator behavior in relation to the plants and environment.

Introducing bee colonies

Native species, such as *Apis cerana* and *stingless bees*, *Tetragonulabiroi* will be introduced to the island. The community will be given training on how to manage the bees for pollination, and eventually production of products that can augment their income from fishing.

Monitoring by the project staff will be done.

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Expenses	Unit cost (Php)	Total
TRANSPORTATION		
Validation (first engagement) 7		
Van rental from UP Los Banos to the Manila Airport and back	3500 x 2 trips	7,000
Plane fare from Manila to Cebu	8,000x3 persons	24,000
Bus from Cebu to Hagnaya port	160 x3 and back	960
Ferry from Hagnaya to Bantayan	160x3 and back	960
Transport within Bantayan	1,000	1,000
Accommodation/food	4,000	4,000
Second visit (transport of colonies, training)		
Van rental from UP Los Banos to the Manila Airport and back	3500 x 2 trips	7,000
Plane fare from Manila to Cebu	8,000x3 persons	24,000
Bus from Cebu to Hagnaya port	160 x3 and back	960
Ferry from Hagnaya to Bantayan	160 x3 and back	960
Accommodation/food	4,00x2 days	8,000
Third Visit		
Van rental from UP Los Banos to the Manila Airport and back	3500 x 2 trips	7,000
Plane fare from Manila to Cebu	8,000x3 persons	24,000
Bus from Cebu to Hagnaya port	160 x3 and back	960
Ferry from Hagnaya to Bantayan	160 x3 and back	960
Accommodation/food	4,000	4,000
SUPPLIES		
Bee colonies, stingless bees, double chamber, with complete set of broods and health certificate	100 colonies x 6,000	600,000
Hives	100x 500	50,000
Bee veil	500x10	5,000

Activities:

1. Site Validation
2. Training of the community (when the bees will be shipped)
3. Monitoring (2 times; one during colony expansion and one during colony divide)

Team: -Cleofas R. Cervancia, Anna Locsin, Elmer Polintan.

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Chronicle from South America. Argentine Society of Beekeepers¹

The number of beekeepers has fallen in Argentina in an alarming way during the last 10 years. This situation must be understood within the framework of the intensification of the agro industrial model, which is essentially based on the devastation of land produced by transgenic soybean, maize and cotton and tons of agrochemicals. This has contaminated the land, air and water and destroyed the productive warp of the ecoregions of our country.

We have affirmed that this model must be considered illegal and in violation of human rights, and directly responsible for the loss of plant genetic diversity, as well as honey bees and other pollinating insects. And as a consequence, responsible for the deterioration and disappearance of the beekeeping and beekeepers in vast areas of the region. The loss of biological diversity is neither a marginal effect nor a negative externality of the agro industrial model, but a precise objective of its strategy of market conquest. This problematic may be considered as a global problem². However, both in Argentina and in neighboring countries, unlike Europe, the political fragility of local governments, control agencies colonized by company officials -who should be controlled- and weak judicial structures permeable to corporate interests, make the impact of transnational corporations -responsible for the model-, to be bigger than in central countries. As a consequence the loss of sovereignty over our natural and economic patrimony is even more evident.

This can be noticed going through the central areas of Argentina. Where 25 years ago there were natural pastures, forests and mountains, today the brown desert of glyphosate or the monotonous green of soy makes up the chromatic framework of the degradation of the environment. Our Society actively works to show and communicate this alarming factual situation.³ It promotes the meeting of scientists, technicians, students and beekeepers so that our young generations do not naturalize this new scenery. It works intensely communicating what happens to all citizenship. The research for strategic alliances to these ends allows showing positive results in the organizing work to change this reality. Scientists from our Public Universities such as Lucas Garibaldi⁴ and Walter Farina⁵ have focused on the effects of pesticides and their impact on pollinators from different perspectives, contributing to the conceptual development of the responses that our Society must give to this model that ravages the environment, food sovereignty and our beekeeping.

- 1 Federal SADA Council July 2017. July 2017 Declaration. <http://www.sada.org.ar/2-declaracion-del-consejo-federal-de-sada/>
- 2 Pedro Kaufmann. "The agroindustrial model is illegal". <http://www.obrerasdemiel.com/p/derecho-un-ambiente.html>
- 3 SADA. Beehive Protection Campaign.. <http://www.sada.org.ar/protegeunacolmena/>
- 4 Lucas Garibaldi. <https://scholar.google.com.ar/citations?user=byvTbFYAAAAJ&hl=es>
- 5 Walter Farina. <https://scholar.google.com.ar/citations?user=Jitzx1wAAAAJ&hl=es>

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We face a conflict that exceeds the capacity of our governments to stop the devastation that this model is producing. However, our Argentine Society of Beekeepers, gathers and enervates the position of a large group of organizations of beekeepers throughout the country, in a concrete claim. Beekeeping must be considered an essential productive activity of the State, in direct relation to the constitutional principle of guaranteeing biodiversity.

Bees are guarantors of biodiversity, as they are the most efficient pollinators of wild plants and crops for human and animal feeding. This implies raising the rank of beekeeping as a social good of the State, and in this way allows the design of plans and programs for real promotion of the activity, guaranteeing the development of beekeepers and striving for the balance of agricultural and livestock production processes, within parameters that respect the environment, biodiversity and economic and social sustainability. This was the statement presented and defended by our President Mr. Lucas Martinez to the National Beekeeping Board in the framework of the debate for the elaboration of a National Beekeeping Law, and based on the explicit support of the Federal Beekeepers Council of SADA.⁶

At the same time, within the framework of the responsibility that generates the political and historical representation of our entity, we understand that our tradition of training and learning of beekeepers technically solvent and ethically committed to the development of sustainable beekeeping, forces us to multiply our efforts in beekeeping education.⁷ And so courses of introduction to beekeeping or specialization have been made effective in most of the country, with official support and certification. Argentina has a long history in high quality honey production, and a technological development that accompanies this process properly. Argentina still in this context continues generating products of excellent quality both for the inside market, which continues growing in a sensible way, and for the external market. Our commitment to train beekeepers allows us today to achieve graduates of our school who have an integral vision of beekeeping, the benefits of pollination and the development of subproducts that generate a multiplicity of productive variables. Developing technical and ethical capacity is our strategic pedagogical mission. It is essential that our beekeepers defend the environment as a world heritage site and bee products as part of the process of food sovereignty of our communities. The damaged social warp must be rebuilt. We advocate for traceable and safe processes. We expressly fight any hint of adulteration or falsification of our honey, because we consider them part of our cultural and historical heritage.

In this scenery, the Argentine Beekeepers Society is constituted as the most important tool of trade organization and sectorial policy in Argentina and contributes decisively to the development of regional organizations such as the Latin American Beekeeping Federation.

This message does not speak of defeats, but of processes of construction of consciousness and action, which must be stimulated in the global context. The information we have built in each of our countries must be at the service of all beekeeping organizations, and in this scenery, the Argentine Beekeepers Society can not only offer testimony, but also put its experience, at the service of every beekeepers.

6 Lucas Martinez. https://www.youtube.com/watch?v=Vz8Yqo_7etE

<http://www.lanacion.com.ar/1765929-disminuyen-las-abejas-en-el-pais-y-eso-pone-en-peligro-a-todos>

7 School and training <http://www.sada.org.ar/cursos/>



The Ethiopian Apiculture Board (EAB)

The Potential and the Need to Push Beekeeping Sector Development in Africa

“There is no agriculture without a healthy bee population. This is why it’s important to create, an economic incentive to take care of bees” (The African Honey Magazine, Issue 021, Sept 2015)

1 - INTRODUCTION

1.1- General

Bees and beekeeping contribute to peoples’ livelihood in almost every country on earth. Honey and the other products obtained from bees have long been known by every society. The diversity in bee species, their uses in beekeeping practice varies greatly between regions. In many parts of the world, significant volumes of honey are still obtained by plundering wild colonies of bees, while elsewhere beekeeping is practiced by highly skilled people. Honey hunting of wild bee colonies still remains an important part of the livelihoods of forest dependent people in many developing countries. Diversity of geographical features particularly in the tropics and subtropics plays a key role in determining the topography, climate, and plant species of the region. Such regions provide abundant opportunities for both migratory and non-migratory beekeeping.

Bee swarming and natural forest in West Ethiopia



1.2 - Beekeeping in Africa

In almost all African countries, beekeeping has been a longstanding practice. Some tribes in Africa developed a tradition of beekeeping and harvesting honey from wild colonies, and to these people the production and sale of honey and beeswax has been an accepted form of livelihood like the Mejenjer in Ethiopia and Singida in Tanzania. Traditional beekeeping is also one of the oldest practices carried out by tribes in Kenya such as the Kamba, Maasai, Samburu, Dorobo, Tugen and Mbeere. Beekeeping has been an important cultural and economic activity in sub-Saharan Africa (Muli E. and Frazier M., 2011). Honey production has always been a major industry in the economy of African life. Honey was and still is a vital factor in African culture and was used in many ways as an article of trade. However, in Africa, where a rich nectar flow is found, relatively small quantities of honey are produced

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Traditional forest beekeeping in Ethiopia

by African honey bees (Hussein MH., 2001), which is commonly attributed to traditional practices.

1.3 - Beekeeping Sector in Ethiopia

Apiculture is a long standing practice in the country and Ethiopia is the leading producer of honey and beeswax in Africa. About two million rural households keep honeybees and the activity makes a substantial contribution to rural income generation. The honey and beeswax annual production potential is estimated at 500,000 and 50,000 tons, respectively. Currently, the country produces over

64,000 tons of honey and 6,000 tons of beeswax that accounts for more than 25% of production in Africa.

The country's different agro-ecology and rich botanical diversity made it favorable for beekeeping activity that has been culturally practiced for centuries. Evidences show the existence of about 7000 flowering plant species of which are mostly used as bee forages. The country is known for having large honey bee colonies in Africa estimated at about 10 million.

1.4 - Apiculture Sector Development Efforts in Ethiopian - As a High Potential African Country

In developing countries such as Ethiopia, apart from global benefits of beekeeping in relation to pollination services, ecosystem development and api - therapeutic activities, beekeeping is a tool for employment generation, income and food security. Currently the government of Ethiopia and all other development actors recognized the potential of the country and role of beekeeping in relation to poverty alleviation, export item diversification and environment friendliness so that launched different interventions, including designing legal frameworks, to ensure rapid improvement of the sector.

The Ethiopian Apiculture Board (EAB) is one of the three api-sector organizations established and operating in Ethiopia as part of this development effort to coordinate beekeeping value chain actors and implement development interventions in the sector.



Traditional backyard and modern beekeeping in Ethiopia

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Sales of Ethiopian Honey wine (Tej)

Coordinated development efforts for the sector development resulted in multi-stakeholder platforms (MSPs) to discuss issues and opportunities, publication of the Api-Business Directory of Ethiopia for easy connection of the sector actors, quarterly publication of the Api-News for sector update, quality infrastructures to ensure quality production, extended and improved extension services, extended research activities, sector related curricula for higher level education,

Third Country Listing for export to EU member countries, and the biggest development projects like ASPIRE (Apiculture Scaling up Program for Income Rural Employment). A number of important policy frame works have been designed and endorsed by the government for the advantage of the growing beekeeping sector.

Africa has a huge potential to produce organic honey. The world started looking towards Africa for its quality and organic honey sources. This is a good opportunity for African countries. Nowadays many African countries started to exploit the employment generation potential of the sector. The Ethiopian government is working intensively to exploit this potential of the beekeeping sector for youth employment to reduce youth migration.



Honey comb and Honey product display at ApiETHIOPIA EXPO 2014

The African Union (AU-IBAR) has also recognized the potential of Africa in this sector and its role for economic development in the continent. Therefore, it has been implementing a Bee Project, funded by EU for about five years, to stimulate beekeeping sector development in various ways including initiating policy development in its member countries, establishing the Africa

Apiculture Platform (AAP) for experience sharing and policy dialogue, support of bee health research and infrastructural activities, capacity development activities for bee experts of member countries, enhancing market linkage activities and more.

This is good opportunity for the development of beekeeping sector in Africa to boost production and

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quality of production. It is also good opportunity for the consumers across the globe who are interested in quality and organic hive produce of Africa.

If such efforts are sustained and guided strategically, one can expect rapid improvement in the continent's beekeeping sector to the satisfaction of interests of African countries and the importers away from Africa. The development efforts launched in the continent in general and in Ethiopia in particular, we believe, need unreserved support from the most experienced actors in the developed world in relation to technical, material and financial backups to keep and fuel up the sector development initiatives for the desired goals.

2. Intended events: APIMONDIA Symposium 2018, APIMONDIA Congress 2023-both at Addis Ababa, Ethiopia

Food security is not only a matter of producing grains but also refers to financial power to purchase grains. Since products obtained from honeybees are of high value products, the income generated through sales of honey and beeswax is significant and sufficiently high to purchase grains for family consumption. It has been noticed that during falling of coffee prices in predominantly coffee-growing areas and tsetse fly problems in lowlands, only beekeepers were able to purchase grains to feed their families and withstand such a hard period, through the sales of honey.

Bees are vital. On top of their direct benefits with regard to food security, they provide environmental services by pollinating grasses, herbs, shrubs and trees-which is vital for their multiplication and for environmental health. Man and animals can only thrive in a healthy environment - no tree - no bee - and only four years to go until mankind is extinct, according to a quote of Albert Einstein. Having said this, we need to change the detrimental pathway which has led to the eradication of millions of bee colonies worldwide. We need to sensitize actors in the beekeeping sector and beyond-such as lawmakers and law enforcement agencies-to take the protection of bees seriously.

We are planning two events in order to address this context: an APIMONDIA Symposium here in Addis Ababa in 2018 – it will directly address the role of insects specifically bees in the context of pollination, and food security in a wider sense. We will also bid for the execution of the 2023 APIMONDIA Congress in Ethiopia: showing best practices, alerting the actors, changing the course of events that have put bees, our environment and food security at risk.

All the WORLD BEEKEEPING community members are cordially invited to be part of the next APIMONDIA symposium that will be held in the 'natural home of bees', at Addis Ababa, Ethiopia, from November 30 to December 4, 2018.

Thanks for working with bees and for the bee!

**To participate the symposium and/or to be engaged in apiculture business in Ethiopia contact us:
ETHIOPIAN APICULTURE BOARD (EAB)**

Legedar, Churchill Avenue-Teklu Desta Building, 2nd Floor- P.O. Box: 2307, Addis Ababa, Ethiopia
E-mail: ethioapic2012@gmail.com. Website: www.ethioapiboard.org. Tell: +251911879963, +251921785839

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The International Honey Market: still searching for a new balance

By Prof. Norberto García

Departamento de Agronomía. UNIVERSIDAD NACIONAL DEL SUR. Bahía Blanca. ARGENTINA.

By Dr. Ron Phipps

President, CPNA International Ltd. U.S.A. Co-Chairman, Committee for the Promotion of Honey and Health

Some recent history

Two events of international reach were the starting point of changes in the international honey market, with consequences that still persist:

- 1) The financial crisis of 2007–2008, and the crisis in the banking system of the European countries using the euro. This crisis started a weakening of the Euro and an abrupt shift of European Union honey import, and importers and packers started focusing their imports on cheaper Chinese honey compared to more scarce and expensive honeys from other traditionally exporting countries.
- 2) After the imposition of antidumping duties on imports of Chinese honey by the U.S. in 2001, dishonest actors started to collude to develop fraudulent schemes to evade them. By 2007, large volumes of low-priced Chinese honey were being illegally imported through evasion schemes and drove U.S. honey prices to below-cost levels. In 2008, agents from U.S. Immigrations and Customs Enforcement launched what became known as “Honeygate.” In 2010, the U.S. authorities indicted a German-based firm for fraudulent schemes of honey circumvention to the U.S.

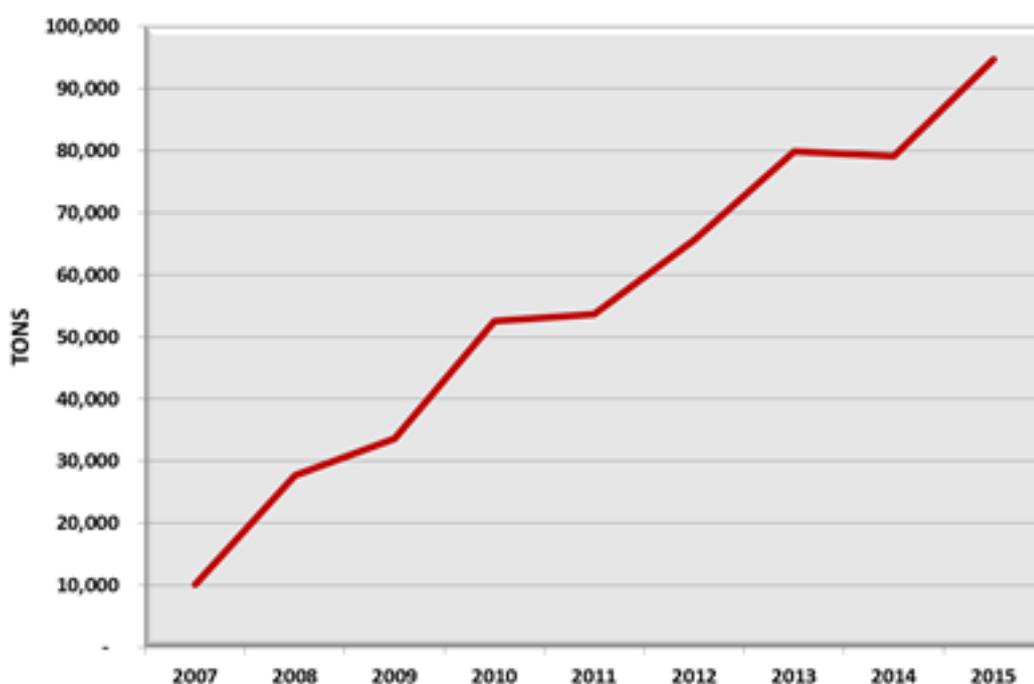


Figure 1: Evolution of Chinese honey exports to the European Union

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Both the weakening of the Euro and the Honey Gate provoked a clear change of destination of Chinese honeys to the European market (Figure 1), which also meant a clear change of the honey purchasing policy by the old continent, now prioritizing price above their historical demands of quality. This means from 2007 to 2015, European Union imports of Chinese honey grew from 4.6 % to 28.7 % of total European Union honey imports.

That general European trend had an exception: Germany, which maintained its high quality standards. New honey export countries appeared in Europe taking advantage of the heterogeneity of honey prices according to their geographic origin, which created a financial incentive for some European countries to import cheap honey from China and then re-export it as locally produced (García, 2016).

U.S. honey imports have shown a changing pattern during the last years. After 2010 there was an initial increase of imports from the main honey producing countries of the Americas. But, starting in 2013, a gradual increase of imports from several Asian countries replaced the imports of the more traditional honey producing countries of the Americas. Currently, the volumes imported from both groups of countries are about equal.

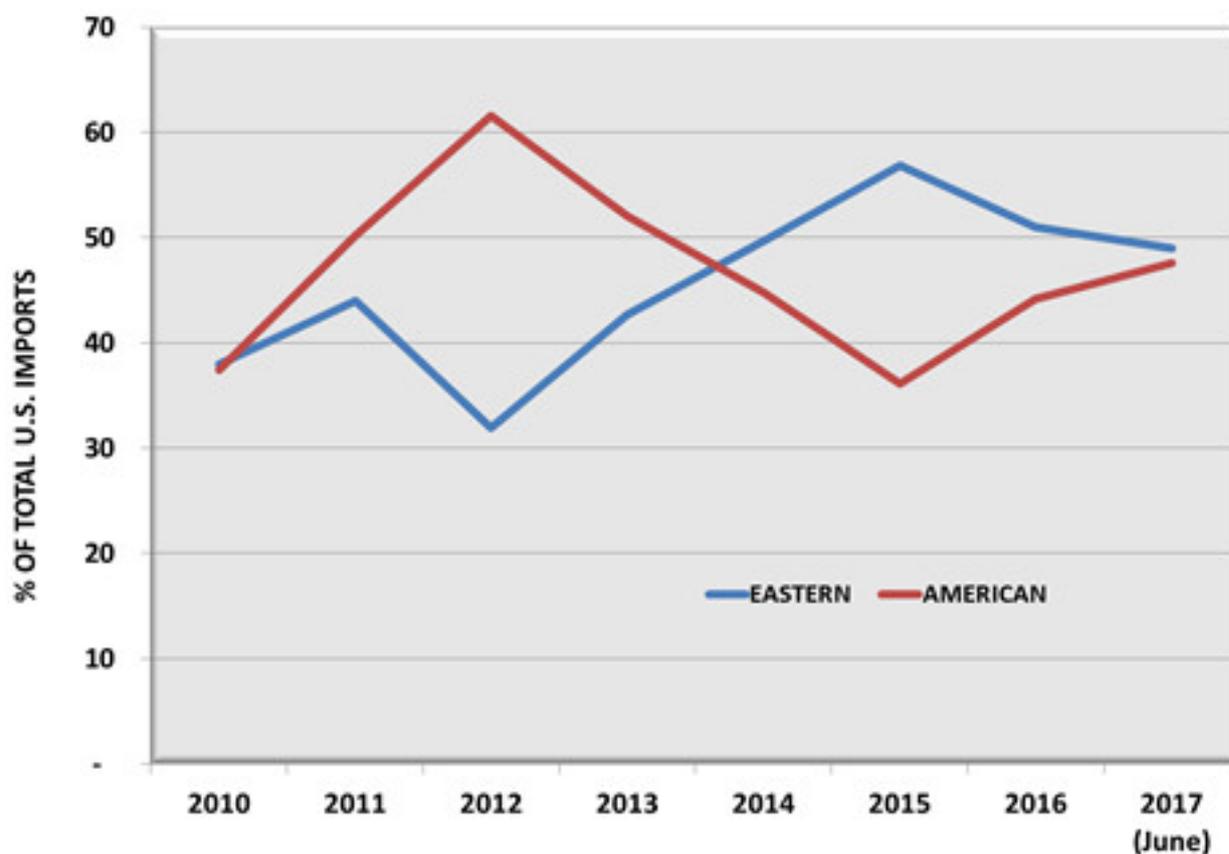


Figure 2: U.S. honey imports from the 5 main eastern (India, Viet Nam, Ukraine, Thailand and Taiwan) and the 5 main American (Argentina, Brazil, Canada, Mexico and Uruguay) honey export countries.

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In 2016 U.S. domestic honey production only represented around 31 % of total U.S. needs (consumption + exports), the rest was covered by imports (Figure 3). A two-tiered market has re-emerged in the American honey market. These tiers are those of domestic honey and international honey.

The majority of Eastern export countries that currently export honey to the U.S. are generally regarded as “high risk” countries. Excepting Ukraine, the other Asian countries cannot export significant quantities to Europe. Aberrational historic trends of exports to the U.S. continue. Most notably India and Vietnam have established pre-eminence not seen historically in the USA market before 2001. The two tiered market between U.S. domestic and imported honey which has emerged in the summer of 2017 follows public mention in 2017 of the possibility of an antidumping suit against a global group of honey exporting countries.

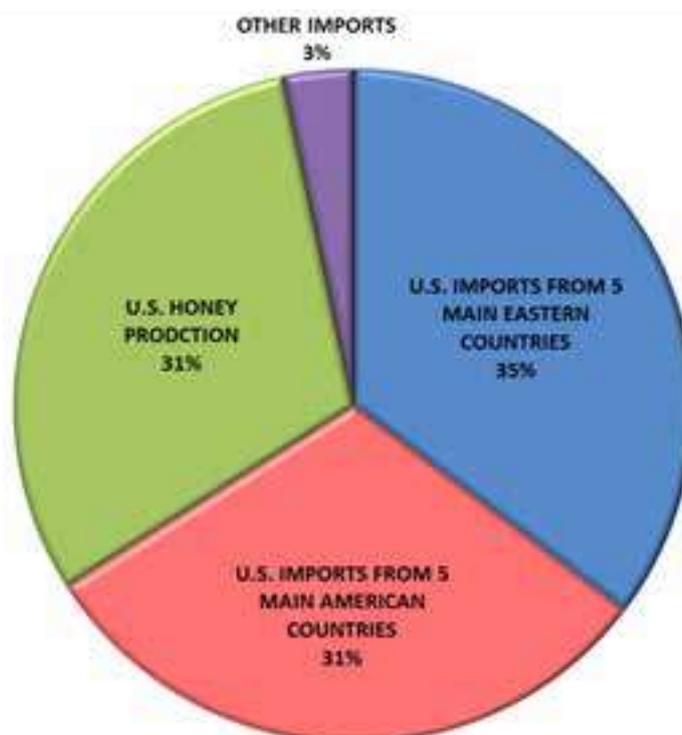


Figure 3: 2016 U.S. honey needs coverage by different origins

The global picture of honey offers also changed around 2010. While the total exports of the main five honey exporters from the Americas remained stable throughout the period 2001-2016 at an average of ca. 146,000 tons/year, the total exports of the main honey export countries of the Eastern Hemisphere showed a very different evolution. From 2001 to 2009 the total honey exports of those eastern honey exporters remained quite stable with an average of around 108,000 tons/year, but starting in 2010, the total export of those countries sharply increased at a rate of 22,000 tons/year. While Ukraine has a strong market in the E.U, Asian countries such as India and Vietnam do not.

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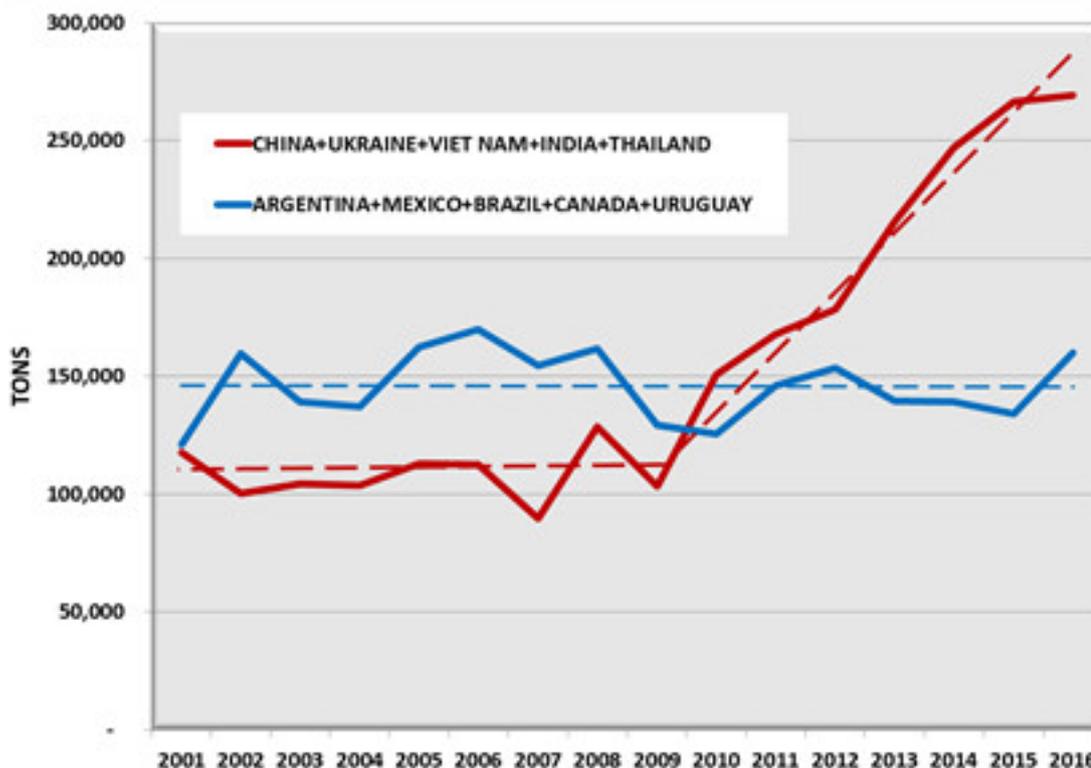


Figure 3: Evolution of honey exports of the main five honey export countries of the Americas vs. the main five honey export countries of the Eastern Hemisphere.

In search of a balance fair price

The advance of agriculture, the destruction of natural environments, the contamination of bee forage lands with pesticides, in conjunction with the appearance of new bee diseases, make honey an increasingly scarce, difficult and expensive-to-produce, natural food.

Another worrying factor is the increasing average age of beekeepers around the world, with new generations preferring less difficult and more profitable activities. The number of beekeepers seems to be growing, especially in some developed countries, most of them been hobby producers. However, the number of professional beekeepers that mainly depend on the production of honey is severely challenged by non-remunerative and non-sustainable prices of honey.

Production costs constantly increase and honey yields per hive decrease, making professional beekeeping an unattractive activity, at least economically speaking. With no doubt, cunning schemes of honey adulteration are the main cause of the current apparent excess of pure honeys from some traditionally producing countries.

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But, what would be a fair price for honey that covers production costs and leaves a reasonable earning for the producer? Of course, fair prices are not homogeneous because production costs and living standards widely differ from one country to another. Taking that into consideration, let's try to find an average balance price through the use of linear regression applied to historical prices of honey.

As we all know, adulteration of honey has a long history. Pure and adulterated honeys always co-existed but, in recent years the increase of international trade and the development of new methods and products used to adulterate honey have reached a magnitude that severely depresses prices and challenges the survival of a great number of beekeeping operations around the world.

If we consider the evolution of the price of bulk conventional honey from the major exporting countries, we can see a clear upward trend of prices, probably due to the increase of global demand and the increasing production difficulties (Figure 4). In a non-regulated market, offer and demand interact and finally reach fair and sustainable prices which maintain the incentive to produce without discouraging consumption.

When for any reason the market price is less than the fair price, production is then discouraged, and a lower volume is offered after some time, and a reverse cycle of increasing prices starts. But, when the price is higher than the balance price, consumption may be affected and prices go down again, although probably, there is good space for increasing honey prices since honey does not make an important contribution to the consumer's economy.

Dr. Stan Daberkow has reported that even when prices rose significantly there was not a decline in consumption, showing the elasticity of honey prices. The upward elasticity of honey prices increases as the creative marketing of honey and higher quality standards for honey develop. Creative marketing and stricter quality control are the key factors to establish fair, sustainable and balanced prices.

All that may be true as long as production factors and consumption are not seriously affected by any external factor; that is what we believe has prevailed for many past years. However, in recent years, the abusive and widespread use of adulteration acted as an external factor which unbalanced the market and if not stopped soon, the damage on honey production may be irreversible.

The dotted line shown in Figure 4, which illustrates the regression line of conventional bulk honey, would be a good estimate of the evolution of the balanced price for this type of honey.

According to this approach through linear regression, the balance market price for 2001 was around \$ 1,600/ton, while in 2017 the balance price would be approximately \$ 3,520/TON when in fact the average market price was \$ 2,770/ton. This deviation between a theoretical balance price and the actual market price has a magnitude not easily found in recent history and gives us a good estimation of the seriousness of the problem that the production of honey is currently facing. We must never forget that vitality of honey trade is a dominating factor for the number of managed colonies (Moritz and Erler, 2016). Beekeepers replace colony losses, or increase their colony counts only if prices are favorable. To achieve a level playing field and a stable, healthy market there must be use of more advanced technologies to assess honey purity, country of origin and authenticity (Phipps, 2016).

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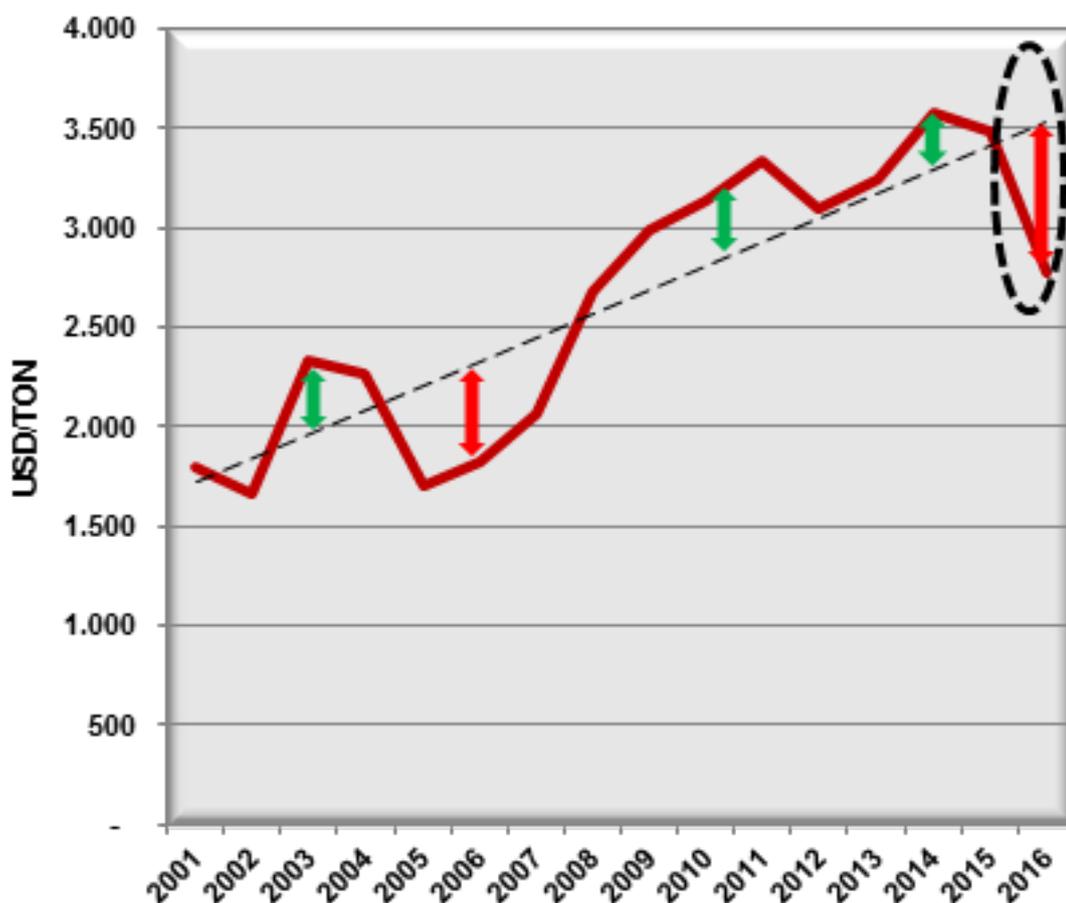


Figure 4: Evolution of the average bulk conventional honey prices of the main seventeen honey export countries.

Honey adulteration, the most disturbing factor of recent years.

The amazing increase in the volume of honey exports of the main honey export countries of the Eastern Hemisphere cannot be explained by a parallel increase in the number of beehives, which is a shocking abnormality that also goes completely against world trends of lower productivity per hive. It can be more easily explained by new honey adulteration schemes based on the use of C3 syrups (mainly from rice and undetectable by the official method C13-IRMS) and the use of resin technology (García, 2016).

Currently, honey ranks number 3 amongst the most adulterated foods, which poses an urgent need to restore integrity to the international honey trade (Luellmann, 2017). This concern is rising to broad public awareness, including the business community. The July 2016 issue of Forbes Magazine contained an article stating “honey is the 3rd most faked food.” Larry Olmsted writes in his new book

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Real Food, Faked Food, “from my new book, Real Food Fake Food explains how the golden honey in your kitchen cabinet may be deceiving you....countries like China use ultrafiltration to mask the origin of the honey which is then transshipped to disguise the real origin and sometimes with a mix of small amounts of pollinated honey to throw off testers.” Concern about adulteration is in the regulatory realm, the business realm and the realm of consumers.

The honey industry needs both more powerful scientific methodologies and greater integrity to overcome the adulteration and circumvention which have plagued and haunted the industry through the collusions of cunning and unscrupulous players.

The development of Nuclear Magnetic Resonance (NMR) for testing honey purity and its botanical-geographical origin, with a currently increasing number of European supermarkets already requiring the test for their purchases, is the most outstanding development to defend honey purity and integrity in recent years. That initiative from Europe should be implemented by U.S. supermarkets due to their corporate social responsibility and their commitment to preventing consumer fraud. They have a responsibility in maintaining honest honey producers that indirectly help to maintain the environment. NMR is a sophisticated tool to deal with different kinds of honey fraud: 1) dilution with C3 and C4 syrups, 2) the use of vacuum technology to reduce high moisture content of immature honeys, and 3) the use of ultrafiltration and resin technology to mask the botanical or the geographical origins of honey. NMR simultaneously measures 36 substances and their ratios, and it is sufficiently complex not to be easily cheated.

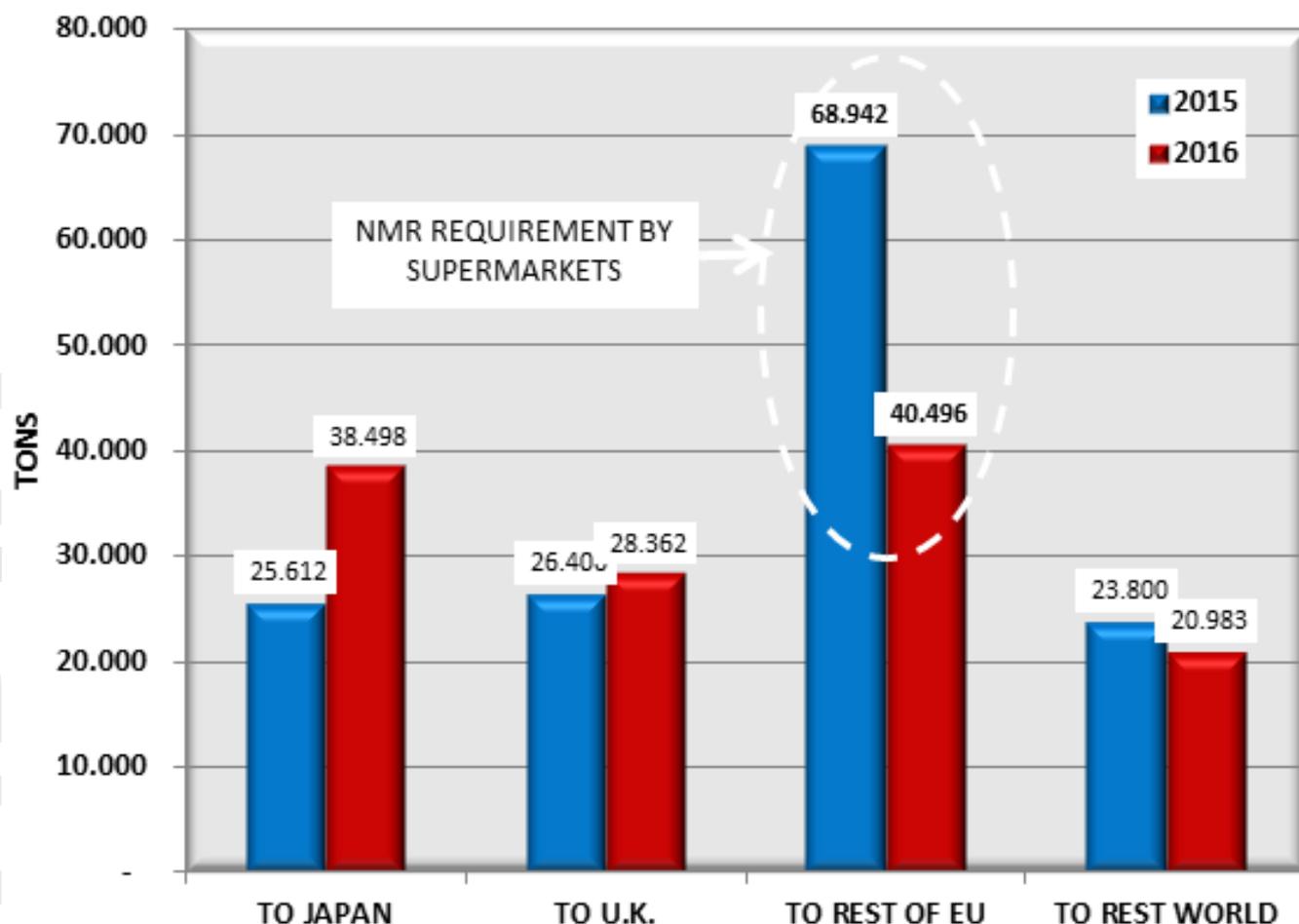
With the promise of NMR as one of the most powerful and sophisticated tools in the tool box for detecting economically motivated adulteration, a Great Wall has been built around China for the export of honey adulterated with extraneous sweeteners like rice and beet sugars, honey “washed” by resin technology and honey which is harvested immaturity and, thus, not authentic honey. NMR has also created an openly two tiered price structure for Chinese honey to Europe, i.e. honey which cannot pass the NMR test is offered in larger quantities and substantially lower prices than honey which passes the tests (Phipps, 2017).

There has been a river of water honey from China flowing South with tributaries flowing east and west. During the period of 2009-2016 there was a correlative flood of resin technology from China to numerous honey producing nations. The confluence of these two factors – the River and the Flood – is shaping the current honey market.

The effect of the requirement of NMR by some European supermarkets can be seen in the steep decline of European honey imports from China during 2015 (Figure 3). Packers and importers in the United Kingdom have a different policy regarding honey adulteration testing compared to the rest of Europe, and continued the upward trend of honey imports from China.

We are entering an Era of enhanced Traceability and more sophisticated scientific methodology.. While traceability is relevant, it is more important for more sophisticated scientific methodology to detect adulteration, transshipment and circumvention. Those engaged in collusion to circumvent and/or adulterate honey know it is easier to elude effective traceability regimes than it is to elude the most powerful scientific technologies like NMR applied to detection of adulteration of honey in each of its three modes.

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The role of national authorities

The issue of food fraud is a global concern. It is estimated in a recent report that at least \$8.5 billion will be spent globally and annually to detect food fraud.

Appropriate honey testing alone will not solve the problem of fraud, effective enforcement is needed. The role of national authorities becomes absolutely necessary to protect our beekeeping activity, which has an immense and not always recognized role in the preservation of biodiversity and in the production of many important crops which are sources of phyto-chemically vital foods, fruits, vegetables and nuts. In many honey import countries the industry is not united. Some stakeholders have no interest to change the current situation, which is giving them an excellent opportunity to obtain private economic gains. A unified industry would be more effective to put pressure to the authorities to have a stronger enforcement and combat honey fraud.

The E.U. and the U.S. authorities and institutions are increasingly aware of the tremendous negative impact that honey adulteration has on the future of beekeeping and the food security of their countries.

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In 2015, the European Commission started a coordinated monitoring plan to study the prevalence of adulterated honeys in the European market. In December 2016 results were published (European Commission, 2016). The first report showed that 15% of samples were non-compliant with the Honey Directive (110/2001). The samples recognized as compliant were then sent to the Commission's Research Center for further examinations with LC-IRMS. Test results showed that 14% of the samples had added sugars according to LC-IRMS, which only detects some types of adulteration. What we don't know is the part of the iceberg that remains immersed below the surface.

In April 2017, the E.U. Directorate-General for Health and Food Safety also sent an alert to stakeholders on the use of Ion-exchange Resins to Purify Honey and Beeswax. The European Commission alerted that “honey and beeswax products may not be sold as organic products after having been purified with the use of ion-exchange resins to adulterate the origin and to remove possible residues of antibiotics and pesticides. Moreover, the use of these ion-exchange resins could be harmful to consumers' health”, and invites ... «Should you or your members be aware of concrete cases and have samples, then please inform us as well as in that case, we will investigate whether further analysis is possible.”

On the other coast of the Atlantic Ocean, the FDA clarified that honey that has been treated with ion-exchange resins cannot be sold as “honey.” Additionally, the U.S. Department of Agriculture has initiated a Commercial Item Description (CID) for honey. Currently the proposed CID, which includes NMR testing for honey, is open for public comments by specialists of the industry. A CID for honey, although not a standard for honey, is a very important reference tool to start improving honey quality in the U.S.

The U.S. National Honey Board is also currently working in the honey purity testing issue by hiring the advisory service of a food fraud specialist.

Final words

As long as economically motivated adulteration, food fraud, customs fraud and the violation of international and national trade laws persist, the wellbeing and stability of world beekeepers remains in jeopardy. Although there is always space for being optimistic and continue being proactive...

A strong and effective technology to detect honey fraud is available. The world is becoming aware of problem of honey fraud and its impact on the sustainability of beekeeping. Many honey consumers recognize the importance of bees to maintain biodiversity and many important crops, and last but not least, the governments are becoming each day more proactive to prevent further food fraud.

The Chinese government has hired American scientists and academic experts to help establish a sophisticated regime for preventing the food fraud which plagues their own population. Like the extreme toxicity which plagues the soil, water systems and air, in China and India, food fraud and food safety issues have aroused popular demands for progressive change to protect both the environment and the safety of the food supply. It is estimated that the extreme pollution and toxicity of the environment

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in China and India are already causing annually millions of premature deaths, including of children. For a decade we have been asserting the principle, “Science First, Standards Second.” We now have greatly enhanced the integration of scientific research among private, academic and government laboratories on the chemistry of honey.

In fact, the most extensive and diverse data base of primary samples of honey from around the globe has been established. Beekeepers, apiculturists and responsible members of the international honey trade have contributed to this data base. American, Argentine, Canadian, Mexican, Brazilian and other international beekeepers have contributed to their database. The wheel does not need to be invented; it needs to be utilized along with other techniques of detection.

In the Era of Traceability, the enhanced demand for traceability in honey can be wedded to NMR. Both the complexity and the charm of honey derive from the immense chemical diversity of honey. We can utilize modern computing capacities and comprehensive data basis of the chemical and physical profile of the global supply of honey. These techniques are eminently possible and will provide the most powerful methods to present economically motivated adulteration of honey. Wedding traceability and advanced science with comprehensive data bases is the most compelling strategic opportunity. The 2017 Apimondia Congress in Istanbul, and the American Honey Producers Association Meeting that will take place in January 2018 will be outstanding and decisive forums to discuss the future of the honey industry.

References

Coursey, M., 2013. Honeygate II Highlights Supply Chain Risks For U.S. Buyers Of Imported Goods. <http://www.metrocorpconsult.com/articles/25516/honeygate-ii-highlights-supply-chain-risks-us-buyers-import>.

European Commission, 2016. https://ec.europa.eu/food/safety/official_controls/food_fraud/honey_en.

García N., 2016. A Study of the Causes of Falling Honey Prices in the International Market. American Bee Journal, August 2016 p. 877-882.

Luellmann, C., 2017. National Honey Packers and Dealers Association Meeting. Galveston, TX, USA.

Moritz, R. and S. Erler, 2016. Lost colonies found in a data mine: Global honey trade but not pests or pesticides as a major cause of regional honeybee colony declines. Agriculture, Ecosystems and Environments 216:44-50.

Phipps, R., 2016 b. International Market Report. American Bee Journal. July 2016.

Phipps, R., 2017. International Market Report. American Bee Journal. June 2017: 598-604.