



INTERNATIONAL HONEY MARKET

by **RON PHIPPS**

President, CPNA International Ltd.¹

Co-Chairman,

Committee for the Promotion of Honey and Health

“Having reached a Point of Inflection in late 2014, the International Honey Market must reach a Point of Stability balancing and integrating the needs of consumption and production.”

They seek him here

They seek him there.

Those soldiers seek him everywhere.

Is he in heaven

Or is he in hell?

That damned, elusive Pimpernel!

From The Scarlett Pimpernel

Introduction

In October 2015, U.S. imports of honey were nearly 140,000 metric tons (329,291,933 pounds), continuing a steady increase that began in 2009. Supply and demand relations have become unbalanced.

These increases occur within an overall

context where the phenomena of circumvention and adulteration have not ceased but adopted new forms of collusion and disguise. During the past decade there have been more than 30 countries that have been associated with circumvention, through various schemes including ultra-filtration, blending and resin technology. It is believed by many in the international market that types of circumvention are causing both a precipitous plunge in prices and threaten the re-emergence of a two-tiered market. True Source issued an alert on honey from Thailand and Taiwan in September, 2015.

During recent years, despite many many difficulties in maintaining vigorous bee colonies, the market has witnessed the emergence of several new suppliers of honey, especially for export to the U.S. Imports from Thailand, Taiwan, India, Ukraine and Myanmar (Group A) have grown while traditional exporters such as Argentina, Brazil, Uruguay, Chile (Group B) have declined. Imports from A and B are contrasted in the charts included below, showing an increase from emerging exporters and a decrease from exporters in the Americas since 2010. Honey sold at low prices from Group A have been imported in increasing quantities, with the result that prices have fallen from traditional exporting countries (Group B) and decreasing demand and falling prices from

B are beginning to put price pressure on American beekeepers.

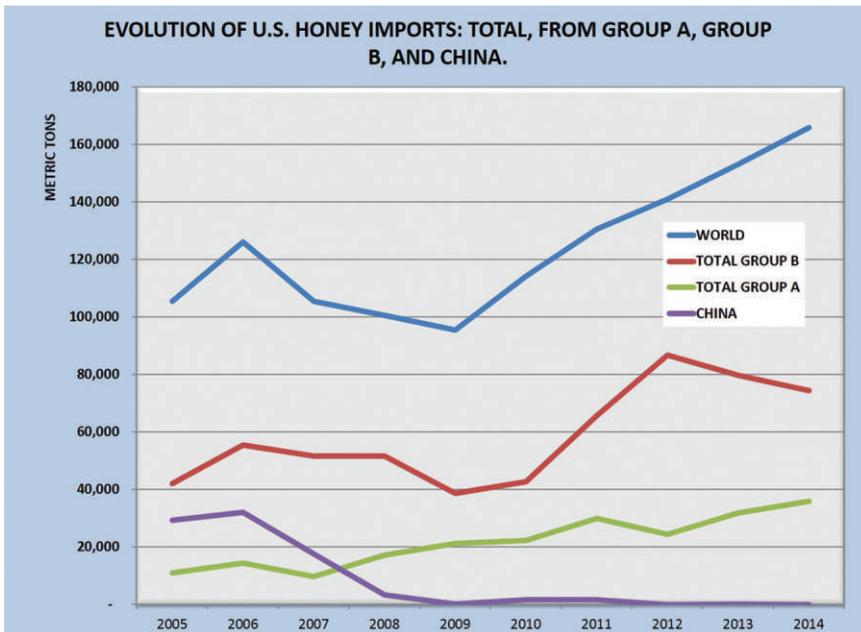
With prices still declining for conventional honey, as this report is written, there is an air of passivity. Buyers are fearful that prices will be lower in the next week or month. It is worth noting that the precipitous decline in prices was not evoked by a decline in consumption, during the steady rise in honey prices which occurred over the past decade, but by an unexpected increase in supply from certain countries.

The phenomenon of adulteration continues to haunt the market. One of the chief forms of adulteration of honey is through the use of resin technology which was applied to honey in China in recent years. Chinese manufacturers of resin technology were actively offering and exporting the technology to many countries. In 2015 the export destinations of resin technology have been suddenly shrouded in mystery.

Resin technology introduces and removes water in order to remove pollen and antibiotic residues, thus disguising country of origin and enabling transshipment to avoid U.S. anti-dumping duties. By introducing and removing water, the application of resin technology results in the adulteration of honey according to prevailing international definitions of honey. Resin technology also removes color components, as does ultra-filtration, thereby enhancing the value and price of honey. As

¹ CPNA International, Ltd.
1043 Oyster Bay Road
East Norwich, NY 11732
Tel: (516) 935-3880
Fax: (516) 628-3959
e-mail: info@cpnaglobal.com
Report distributed December, 2015

Mr. Phipps is president and founder of CPNA International, Ltd. and is currently on the National Honey Board. He is an importer of honey, natural foods and tea from various international producers. Ron is also the former personal research assistant to the president of the American Philosophy Association. He is a recipient of the National Science Foundation fellowship for philosophy of theoretical physics. Mr. Phipps is a founding member of the Tea & Health Committee, which organized three major scientific symposiums on tea and health and the role of antioxidants in the prevention of disease. He has worked with FDA to develop a research protocol for the global diversity of honey. Currently, Mr. Phipps is president of the Chamber Players International.



Source: ITC calculations based on UN COMTRADE statistics, prepared by Prof. N. Garcia

a result, some tropical and semi-tropical countries are exporting “white honey” at below market prices. In Hungary, beekeepers are seeing their high quality acacia honey being replaced in their domestic market by imported honey whose authenticity and purity are in question.

Nuclear Magnetic Resonance technology (NMR) tests can detect the use of resin technology. Through unprecedented cooperation and collaboration laboratories are establishing the most comprehensive data base for the global supply of honey produced from a wide range of floral and honeydew sources, geographic areas and climatic conditions. Independent audits are being conducted in Germany in late 2015 and the auditors have indicated that they are very satisfied with the NMR approach.

It is anticipated that this test will soon be fully accredited.

Even if beginning in 2017 China’s anti-dumping orders are calculated using their own country data, there may be formidable objections from 1) the legacy of 15 years of systemic circumvention and 2) the fact that per the Chinese government’s own assessment, China will not have a market economy without major subsidies until at the earliest 2020.

Geo-political conditions

The world economy is in a state of stagnation and vulnerability. Despite the mammoth printing of money and a global environment of zero or near zero interest rates for the past 7 years, global GDP growth is minimal. For China that GDP

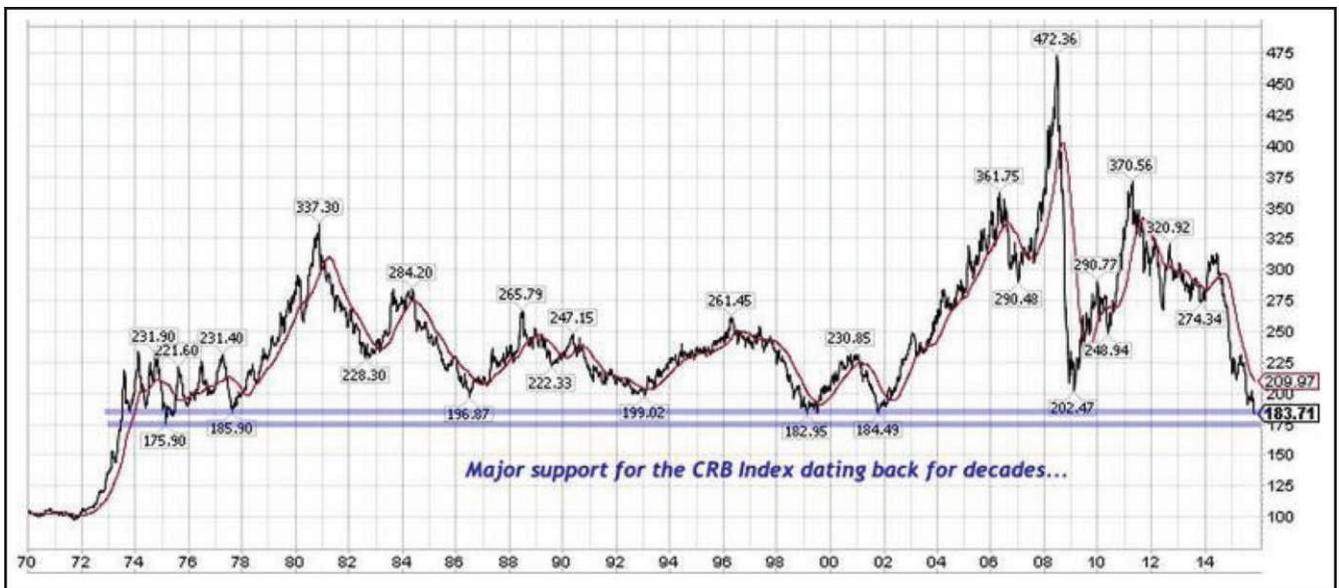
growth has precipitously declined from over 10% to 6.9%, which some economists assess to be 5%.

The global debt burden is unprecedented. In the USA it grew from \$5 trillion to \$10 trillion in 2000-2008 and from 2009-2015 from \$10 trillion to \$19 trillion. Geopolitical conflicts, refugee surges, internal and external military conflicts intensify bringing the world to a period of great geo-political instability and tension. Global commodity prices have plummeted as the world economy hovers over the threat of new recessions, if not depressions. (See the Commodity Price Index history chart.) The prices of petroleum, copper, soybeans, gold, steel et al, have sharply dropped; honey is not alone.

Instability of currency rates reduces predictability. As demand slackens and competition increases, nations enter currency wars to gain and maintain market share in a world economy which seeks external demand as internal demand weakens. This is true of the darlings of economic growth of recent years, i.e. the BRIC countries of Brazil, Russia, India and China. International debt levels since 2008 have increased by \$50 trillion and now exceed \$200 trillion. This level of global debt is over 250% of global GDP. A significant portion of this debt is entangled with non-performing loans, including a large portfolio of non-performing loans in China where many sectors suffer redundancy and overproductive capacity and a construction freeze which has dotted that nation with uninhabited, modern “ghost cities.”

Hovering over the world economy is the threat of devastating climate change. Global warming creates greater volatility, severity and frequency of extreme weather events. We have witnessed 4 consecutive years of the worst drought in California in 10,000 years, and Australia is already facing extreme heat, drought and fires. Scientists studying the glaciers in the

COMMODITY PRICE INDEX HISTORY



French Alps and satellite data announced in November 2015, that emissions of the heat trapping gas CO2 are the highest in 3 million years. Nations are coming together in recognition that we must be more responsible stewards of Creation. The world economy, ecosystems and humanity depend upon a healthy and sustainable global environment. With knowledge there is hope. Climate change concerns also hover over global beekeeping and the international honey market.

The El Nino phenomenon has reasserted itself in 2015, creating the strongest El Nino and the warmest temperatures ever recorded in the Pacific Ocean. This has already affected Brazil's honey crop, and produced the strongest hurricane ever recorded to strike the west coast of North America.

There are studies of "International Land Grabs of Dwindling Farmlands" in a context of growing international food insecurity and concerns with food safety. Changes keep emerging as we survey the international political arena. As we look at these macro-phenomena, we may reflect on an ancient Chinese saying: "The tree may prefer calm, but the wind will not cease blowing."

United States

The 2015 U.S. honey crop is estimated at 155-160,000,000 pounds, down from a preceding crop of about 178,000,000 pounds. Domestic NHB assessments for January-October 2015 were 97,000,000 pounds, about 10% behind the 107,000,000 pounds for the same period in 2014. While there is a large percentage of white honey, it is not water white, nor is there an abundance of sweet clover as was found in the exceptional quality 2014 crop. The crop is under increasing price pressure from the lower and declining prices from India, Ukraine, Thailand and, in response to those dropping prices, the falling prices from Argentina whose crop was bottled up for reasons that are cited in this report.

The struggles to maintain bee populations were described in a PBS television segment on Nov. 24, 2015. Brett Adee described how winter bee losses have routinely reached 50%. The role of neonicotinoids was persuasively documented.

In 2014 there were early purchases of American honey once the crop was completed, followed by purchases from "Group A" which constrained honey exports from "Group B" which has led to severely collapsing prices from exporters in South America. That price decline and burdensome unsold inventories, are now putting pressure on North American producers. The results of this dynamic asserted itself after the 2015 crop was harvested.

The National Honey Board (NHB) is embarked upon a vigorous marketing campaign which will integrate a number of themes which have not been fully utilized. The industry has been blessed with the award for honey as "Flavor of the Year." We would like to see this transformed into

"Flavor of the Decade." The NHB fee will increase in 2016 to \$0.015/lb., which will provide greater financial resources to pursue the Creative Marketing of Honey.

The U.S. government will begin to implement the Food Safety Modernization Act in 2016. This is scheduled for full implementation in the 1st year by large companies, the 2nd year by medium-sized companies, and the 3rd year by small companies. Traceability and safety are important ideals, but the rigorous enforcement is difficult as auditors come and go and foreign auditors must rely upon many factors beyond their control. Despite these difficulties, this is a very important and positive step which will require the international harmonization of standards and testing methodologies.

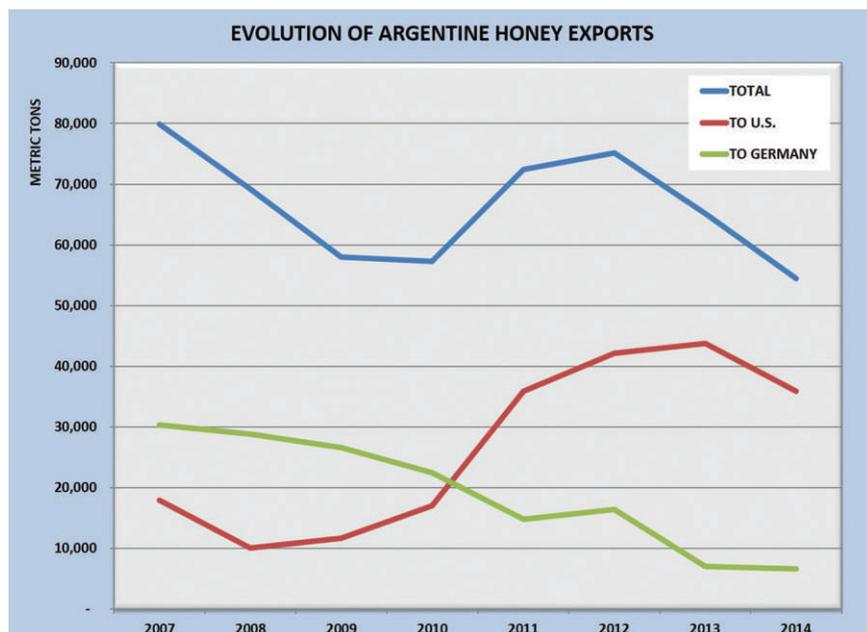
Argentina

After a decade of political conflict, including conflict with the international financial institutions and hedge funds, Argentina has had a major, but incomplete, political changing of the guard. A more business friendly government is expected under President Macri, elected on November 22, 2015. Nonetheless, the balance of political power between the two major parties is comparatively equal and this will likely create a degree of stalemate, as exists in the U.S., between the two major political parties controlling the executive and congressional wings of Government.

It is, however, already clear that Argentina will likely: 1) significantly devalue its peso; 2) reduce or eliminate export taxes; and 3) terminate the system by which the importers of high technology, computers, machinery, and cars are required to export Argentine products. This third feature led to a great deal of speculation, market distortion and the entry of new, inexperienced honey exporters.

Argentina in 2013 and 2014 has had 1 official exchange rate and 9 black market rates (NY Times, Nov. 23, 2015 "In rebuke to Kirchner, Argentina elects opposition leader as President"). The final impact upon the honey market of a single and devalued currency remains to be seen. Devaluation has always battled inflation in Argentina. If the currency goes down x%, inflation rises x%.

Because of the shift in U.S. honey import patterns from traditional to new exporting countries, Argentina's honey exports were stifled. The situation was compounded for Argentina because of some exporters' failures to ship on time to the U.S. at contracted prices in recent years. American honey packers bought early from American beekeepers after the 2014 crop was harvested. By January 2015, India, Ukraine, Thailand, Vietnam and Myanmar were selling large amounts of honey at prices far below Argentine offers. If Argentina's total 2014/2015 crop was about 70,000 MT, almost 40,000MT were still in Argentina's hands by July, 2015. Even as the end of 2015 approaches at least 20,000MT (44 million lbs.) remain in the hands of beekeepers and honey exporters. Additionally, there are large inventories of unsold Argentine honey in the U.S. This is a heavy weight upon the Argentine honey industry which is being felt as the 2015/2016 crop commenced and has developed under favorable weather conditions. Argentine export data over the past 10 years and exports for 2015 to the U.S. and Germany are shown in the charts presented here, compiled by Professor Norberto Garcia. We can see that total Argentine exports declined from 2012-2014 by about 20,000 metric tons, and that in 2010-2013 exports to the U.S. increased dramatically by about 20,000 metric tons, while exports to Germany declined (Evolution of Argentine Honey Exports).



Source: ITC calculations based on UN COMTRADE statistics, prepared by Prof. N. Garcia

By August, 2015, prices for Argentine White and ELA declined compared to prices in the first half. By October, U.S. imports from Argentina reached 48,000,000 pounds.

Brazil

Brazil remains the dominant source of certified organic honey. The market for organic foods, including honey, continues to grow. U.S. imports as of October 2015 topped 27,000,000 pounds.

The dominant factor in Brazil's current honey market is the effect of the strongest El Niño on record. Southeast and South Brazil suffered intense and protracted rains, floods, and hail storms. Ports were closed, reservoirs burst, and a major mine was engulfed in a huge mud slide. Steady rains fell as nectar flows were in process, reducing the spring crop by an estimated 80-90%, leading the honey industry to describe the first and traditionally large southern crop to be "catastrophic." Drought conditions, in contrast, are predicted for Central and Northeast Brazil during Brazil's summer and autumn.

Prices of organic honey in Brazil were declining and the market was paralyzed until mid-November, 2015, when the devastating impact of El Niño became clear. Offers disappeared, prices rose and anxiety about getting adequate honey to meet the demand increased. If prices for conventional honey continue to fall and prices for organic honey continue to rise, increasing the price gap between high quality, conventional white bottled honey and organic honey, the demand for organic honey in the U.S. will likely be affected.

Brazil's economy is in a serious downturn which has created political tension and conflicts with demands for "impeachment" and other extreme measures. The Brazil Real was and remains under pressure.

Brazil's total exports for January to October 2015 were approximately:

US	13,000 metric tons
EU	4,000 metric tons
Canada	1,185 metric tons

Ukraine

US imports from Ukraine were 26,713,937 pounds from January to October 2015. Total Ukrainian honey exports to the world as of October 2015 were down 25% relative to 2014, due to reduced purchases from the U.S. Germany and Poland are the main buyers.

Vietnam

During the past two decades the Vietnamese agricultural sector has greatly expanded, making Vietnam a world leader in the production of honey, coffee and cashew nuts. As of October 2015, U.S. imports were 70,877,186 pounds (32,149 metric tons) and Vietnam was the largest exporter to the U.S. The stocks remaining

in Vietnam (about 25,000 metric tons) are primarily amber in color, as the 2016 crop begins.

During the past 3 years the Vietnamese honey industry has been under stress for quality problems associated with their development of the honey source *Acacia mangium*. As has become well known, the color of acacia is unstable and rapidly darkens. Honey which is harvested as light amber arrives in packers hands as amber and even dark amber. This has resulted in many claims. Since acacia has grown to account for about 40% of the Vietnamese honey crop this is a serious problem.

There are many floral sources in the world which can produce honey. These include crops like almonds, prunes, etc. which are commercially pollinated. The colors and flavors of such honeys make them unsuitable for marketing. The Vietnamese honey industry should come to realize that a stable and robust market cannot be developed nor sustained by either quantity or price in abstraction from quality.

Because the Vietnamese honey industry was flourishing with a decade of escalating prices and expanding quantities, many Vietnamese were attracted to beekeeping. Industrial workers in Vietnam typically work 10-12 hours per day, 6 days a week for low wages. Beekeeping with rising prices and a romantic and natural life style drew many people. Declines in the coffee and cashew sectors drew other people. The current crash in honey prices and the quality (color) problems have discouraged Vietnamese beekeepers, many of whom are leaving beekeeping.

Vietnamese beekeepers said that the number of apiaries have been reduced by about 30%, due to the difficulties in selling the 2015 crop, whose main market (95%) is the U.S. Several new honey exporters have emerged in the last few years. In 2015 over 10% of the beekeepers have left the industry, and the remaining beekeepers are anxious. This is expected to have a negative effect on production in 2016. We note that other countries, such as Argentina, are in similar positions, with stressed and anxious beekeepers.

Inventories of unsold honey, including darkening amber and dark amber honeys, have burdened the industry. As alternative sources of genuinely color stable light amber honey have emerged, Vietnam's advantage within the industrial honey market has been weakened.

Vietnam is also engaged, as are other southeast Asian nations, in intense geopolitical disputes with China over territorial claims and rights to undersea resources in the South China Sea. These disputes have deepened Vietnam's ties with the U.S.

China

As 2016 commences it is vital to take a fresh, broad and deep look at China in relation to the U.S. as the Chinese honey industry clearly anticipates that the previous anti-dumping findings for honey will

be changed in a manner which will facilitate China's direct and competitive exports of honey to the large American market.

China undoubtedly hopes to directly re-enter the U.S. honey market in 2017 at which time the use in anti-dumping analysis of surrogate country analysis (SCA) is scheduled to cease 15 years after the bilateral agreement between the U.S. and Chinese governments was established as China joined the World Trade Organization (WTO). For numerous reasons, including economic, legal and strategic, it is unlikely that surrogate country analysis will not be changed as required by the legally binding agreement. With the termination of surrogate country analysis it is far more improbable that prohibitive anti-dumping duty rates will be imposed upon such products as honey, garlic, solar panels, various steel products, candles, tools, etc.

It is clear that China anticipates this change and is gearing up to re-enter the U.S. market for products that have been effectively barred due to Surrogate Country Analysis. The vexing and disruptive effects of circumvention, transshipment and fraud will be less tempting to those who have colluded to engage in such illegal practices if China exports honey directly as it had for decades. It will be interesting to observe how export patterns may change if, and when, China directly exports honey to the USA! Even if beginning in 2017 China's antidumping orders are calculated using their own country data, there may be formidable obstacles from 1) the legacy of 15 years of systemic circumvention which resulted in the largest food fraud in U.S. history, and 2) the fact that per the Chinese government's own assessment, China will not have a market economy without major subsidies until at the earliest 2020.

China's honey industry is holding various scientific meetings on honey testing, exchanging ideas and analytic methodologies. This is clearly an effort to restore a more positive and responsible image. Certainly international collaboration and cooperation among government laboratories, independent academic laboratories and private for profit laboratories is needed. Only through such cooperation can there be international harmonization of standards which are imperative in a globally integrated economy.

China remains a huge producer of honey. Given the tremendously wide range of botanical resources, diverse climatic and geological areas the range of honeys which China can produce is huge and attractive. Floral sources include orange, lychee, clover, acacia, chaste, linden, alfalfa, cotton, buckwheat. This range produces a great diversity of colors, flavors and chemical profiles.

China is also a huge consumer of honey. It has been suggested that statistics of consumption in China significantly exceeds China's domestic production and imports of honey! The Chinese press is filled with reports of adulteration of honey sold in

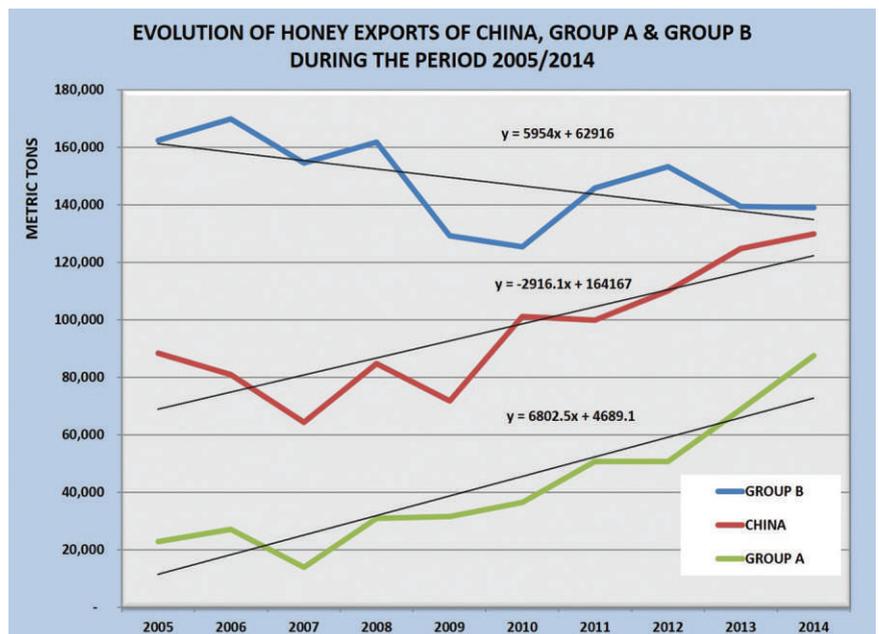
Chinese supermarkets. The levels of adulteration have been reported to reach 70% and more. Food fraud and food safety are growing issues in China. Foreign academic experts and consultants have been hired by the Chinese Government which is struggling to introduce food safety regimes. Supermarkets have in-store apps by which consumers can access information on production sites, techniques, etc. of the items on sale!

Because of these concerns Chinese consumers are buying foreign honey, including packed honeys from the U.S., Australia, etc. This trend and opportunity for the American beekeepers and American honey packers is not exclusively an issue of the purity and safety of honey. The romance of international honey whether Argentine thistle and clover, Montana clover, Florida orange, California sage, Brazilian organic white, French lavender, Swiss and Austrian alpine and pine honey exert a lure much as the international range of wines of various grapes and styles attract consumer interest within many countries. Indeed, China has become such a huge consumer of French red wines that the international price for French red wines is now set by the Chinese. As China's society has become increasingly economically polarized (China as of November, 2015, has more millionaires and billionaires than does the U.S.), China's economic elites have become major buyers and consumers of luxury and exotic products, including cars, jewelry, wines, honey, chocolates, fruits, seafood (French oysters), etc.

China's Direct Outside Investment continues to increase. Such investments include mines in Africa, petroleum fields in the Middle East, farms in Australia, Ukraine, Russia, the U.S., South America, etc. China's total investments in the U.S. are over \$50 billion including Smithfield (\$6 billion), Waldorf Astoria (\$1 billion), IBM's PC division, hotel chains, farmlands in California and the Midwest, honey companies in Australia, Italy, Brazil, etc.

Already there are many indications that China is seeking international, vertical and horizontal integration of all segments and levels of industries. This integration is through both surrogate and direct channels. To what extent this has occurred or will occur in the U.S. honey market is a question on the minds of many members of the industry.

The New York Times quotation of the day Nov. 18, 2015 was from a Chinese billionaire who had just purchased at auction a Modigliani nude for \$170 million, the second highest purchase of any painting. The quote: "We bought your buildings and your businesses and now we are buying your art." In Virginia Beach a large sports arena is being built to be financed and owned by a Chinese company on the condition that the construction materials are purchased from China. This is an example (which may be replicated in the honey industry) of China's aggressive policy of international vertical



Source: ITC calculations based on UN COMTRADE statistics, prepared by Prof. N. Garcia

and horizontal integration. It is equally interesting that the collusion to establish such integration is unraveling, as tensions, disputes, and lawsuits are being exposed.

World Honey Exports

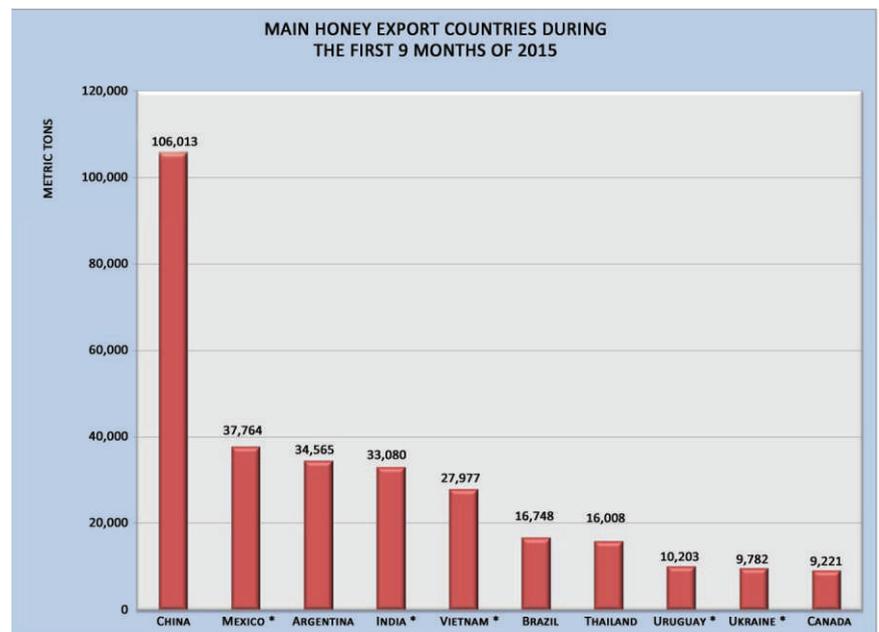
The pattern of world honey export volumes over the past 10 years, and the contrast between North and South American exporters, new emerging country exporters and China are shown in the chart presented above.

The general understanding, which is developing throughout the honey world, is if a point of stability in prices is not reached soon, prices will continue their

steep decline and concomitantly there will be a proportionate decline in beekeepers in North and South America. A short-term gain may be the progenitor of a medium-term shortage of pure, high quality honey. If there is such a decline in the beekeeper community, that could generate a long-term shortage, high prices and the dominance of honey production in Asia. Please see the top 10 world honey exporters for 2015 in the chart presented below.

Conclusion

We also want to mention that the new edition of the *Hive and the Honey Bee* has now been published. This includes a chap-



Source: ITC calculations based on UN COMTRADE statistics, prepared by Prof. N. Garcia

ter by Dr. Stan Daberkow and myself, with contributions from Prof. Vaughn Bryant, Prof. Norberto Garcia and Pam Phipps. The overview expressed in this market report is consistent with the broad themes that are in our chapter. Of course, *The Hive and the Honey Bee* has contributions from many research scientists from many universities. It is the updated "Bible of the Honey Industry."

Some are eager to drive down prices and manipulate markets for immediate benefits. But short-term gains may lead to long-term losses. If a Point of Stability is not reached sooner, rather than later, those losses will be in the intermediary future as North American and international beekeepers reduce honey production and the international honey industry surrenders to low cost, low quality producers in Asia.

The real potential for the market is found in increasing the creative marketing of honey, its health benefits, the vital value of bees to global ecological systems and agriculture and the beauty of its production. The image of honey is positive, but a makeover can enhance that image and give room for a broad range of producers at home and abroad.

In September, 2014, at the pan-South American conference in the majestic ecosystem of Iguazu Falls, I introduced the premise that honey prices had reached a Point of Inflection. Now we must all have the wisdom to realize that the international honey industry, including the American honey industry, must reach a Point of Stability integrating the incentives to produce and consume honey.