



INTERNATIONAL HONEY MARKET

by **RON PHIPPS**

*“Point to a deer and call it a horse”
– ancient Chinese saying.*

INTRODUCTION

Strategically the current honey market is in a very fluid and dynamic situation. But tactically it is frozen, characterized by uncertainty regarding the resolution of multiple variables and impending developments. In essence, it is a firm and rising market which has the potential for even steeper rises. Because of this, potential force majeure conditions have been reported as older contracts for forward shipments may become impossible to fulfill.

THE HONEY ANTIDUMPING FILING

On April 21, 2021, the U.S. Department of Commerce received a petition from the American Honey Producers Association and Sioux Honey Association alleging dumping by five honey exporting countries, Argentina, Brazil, India, Ukraine and Vietnam. The International Trade Commission permitted the antidumping case to proceed, indicating potential damage to petitioners exists. Two major honey exporters from each of the five countries were chosen for investigation, since to investigate all exporting companies would be too burdensome, and delay a process which American beekeepers feel requires an urgent solution.

Extensive data is being provided by the chosen exporters, and a Preliminary Determination of the tariff rate for each country is expected in late November, 2021. After the Preliminary Determination is published, then cash duties will be collected by U.S. Customs upon entry of honey cargo from the 5 countries.

Import volumes reported by Customs and Border Protection Automated Commercial Environment indicate that

the threat of the imposition of critical circumstances is substantial. Under U.S. antidumping law, once a petition is filed with Commerce and the ITC confirms the case, then the issues of critical circumstances are put in play. Under the law, surges in import volume from a country under investigation for antidumping in the three months after the filing can be subject to retroactive duties if the surge exceeds by 15% the volume imported in the three months prior to the filing. As Chart 1 indicates, there may be surges up to 82%, which creates a danger for those who rushed cargo in to avoid cash duties. The first, but not the final analysis, will concern the two exporters being investigated for each country. It is the importers, who cooperated with the exporters to increase volumes, who will bear the financial responsibility for payment of increased duties. In some cases the retroactive duties could be very high.

Prices from major honey exporting countries during the past 1-1/2 years, 2020 to 2021, are shown in Chart 2.

We may note that prices reported by U.S. beekeepers often reflect specialty honey and small lots of honey sold at farmers markets.

It is clear that the public discussion of a threat of an antidumping suit has already had a significant impact on the market. Now that the case is in process, the threat is much higher and the imminence of increased duties has frozen the market. Packers have concern to sell as a confluence

Chart 1 U.S. Honey Imports 2021 in Kilograms

US Honey Imports 2021 in Kilograms			
Country	Feb-March-April	May-June-July	% Change
India	9,567,602	17,484,919	82%
Argentina	10,659,302	13,744,938	29%
Vietnam	8,779,338	10,394,998	18%
Brazil	9,634,290	11,190,646	16%
Ukraine	1,096,646	938,780	-14%

Source: CBP-ACE

Chart 2 Honey import prices 2020-2021 Jan-July

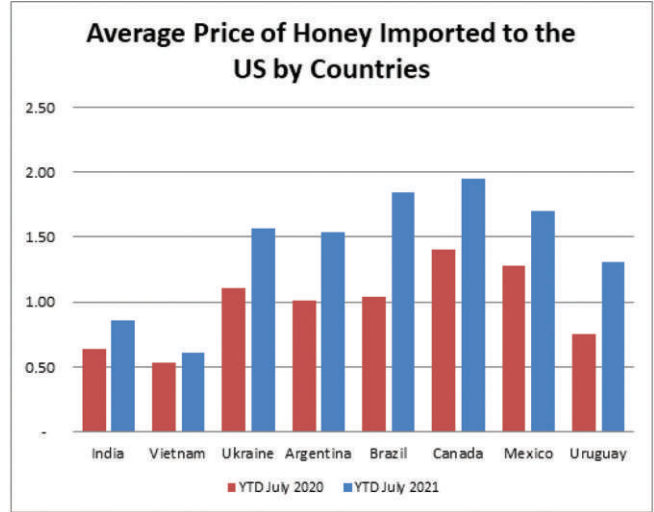
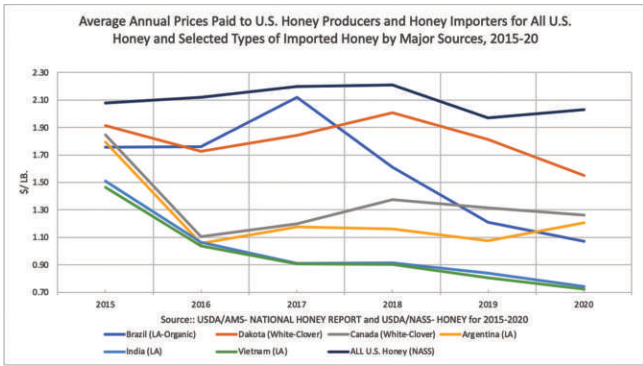


Chart 3 Prices Paid to U.S. Beekeepers and Importers 2016-2021 (Daberkow)



of several impending developments may increase prices, and beekeepers who have suffered from a depressed and manipulated market do not want to sell when higher prices may be around the bend.

Other developments, to be discussed below, have greatly contributed to the potential for a more dramatic surge in honey prices.

U.S. PHARMACOPEIA HONEY IDENTITY STANDARD

On September 1, 2021, the U.S. Pharmacopeia officially published the Honey Identity Standard, after almost 2 years of careful work by various experts, under the lead of Director Gina Clapper and Chairman Norberto Garcia. This was released following an extended period for the consideration of comments that were made by the industry after the release of the draft of the Standard in June, 2020.

“Honey is the natural sweet substance produced by species within the *Apis* genus from the nectar of plants ... which the bees collect ... and leave in the honeycomb to ripen.” The production of authentic honey is described in detail, including the statement, “Nectar or honeydew collected by bees must undergo a series of complicated processes in order for it to be transformed into honey. This transformation occurs in the beehive ... and the process is referred to as ripening. ... [S]ufficient time in the hive and multiple manipulations by bees are considered necessary for the transformation of nectar into honey.”

It is important to note that the U.S. Pharmacopeia Standard is very consistent with the Apimondia Statement on Honey Fraud published in 2019. A most important element of the USP statement is that it recognizes those modes of adulteration which have created a flood of low-priced pseudo honey into the U.S. market. It states, “The use of ion-exchange resins to remove undesired residues, remove HMF, lighten the color of honey, or to perform other manipulations is not allowed because such practice also removes natural constituents of honey ...”

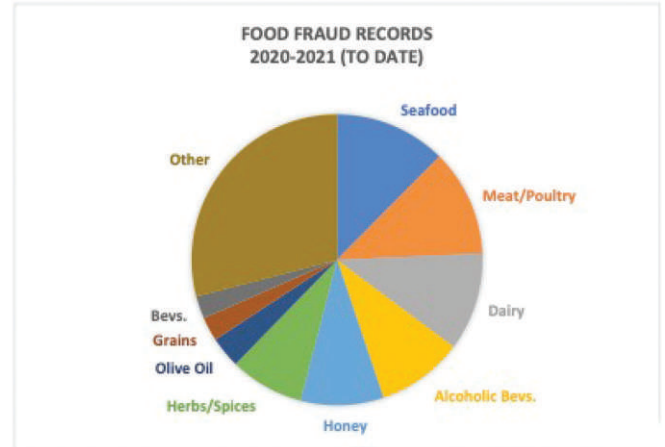
As has been pointed out before, the modes of adulteration of honey, including unripened honey, honey that has been laundered by resin technology, and honey into which extraneous sweeteners involving C3/C4 sugars have been added, create a distorted market with no ceilings to quantities and no floors to prices. European beekeepers reported to Apiservices that Chinese honey exporters ridiculed French beekeepers’ complaints about low prices, indicating that in Asia they used “modern modes of production” involving rapid extraction of immature honey, which the bees had not transformed from nectar into honey through the complex interactions needed for mature honey.

It should be noted that Prof. Michael Roberts, in his ex-

cellent first White Paper on Honey Fraud, recommended that American beekeepers should solicit the U.S. Pharmacopeia to create a Honey Identity Standard. Director of the Resnick Center for Food Law at UCLA, Prof. Roberts is the principal author of the United Nations Food and Agricultural Organization manuscript regarding food fraud in the global arena. This manuscript indicates the scope of global concern with the growing phenomena of food fraud.

The U.S. Pharmacopeia has consistently found in their analysis of food fraud that honey ranges from the 3rd to the 5th most commonly adulterated food product (see Chart 4).

Chart 4 USP Food Fraud (Decernis Food Fraud Database)



In their article, “Why is Honey Fraud Such a Problem?” published at <https://foodsafetytech.com/> on September 7, 2021, Dr. Karen Everstine, Director Gina Clapper and Prof. Norberto Garcia describe the USP’s projects related to honey. A food fraud mitigation guidance document is being developed for 2022 by the USP. The article states, “Unlike sugars from other sources, honey contains a variety of vitamins, minerals, amino acids, enzymes and other micro-nutrients, which make it uniquely valuable. ... Honey is much more expensive to produce than other sugar syrups, such as corn, rice, sugarcane and sugar beets.” They add, “Honeybees are a critical resource for agriculture and ecological health.”

APIMONDIA CONFERENCE 2021

Due to the global pandemic, the Apimondia Conference which was originally scheduled to be held in Ufa, Russia, in 2021, was converted to a virtual conference held September 20-21. Apimondia President Jeff Pettis opened and closed the conference, and Gina Clapper, Director of the U.S. Pharmacopeia, also spoke. An in-person Apimondia Conference is scheduled for 2022 in Ufa.

CLASS ACTION LAWSUIT

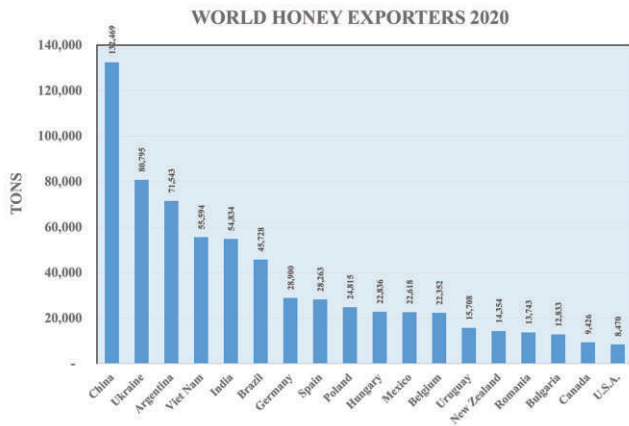
A class action lawsuit was filed before the California U.S. Federal Court in June 2021 by prominent beekeepers on behalf of American beekeepers who have been injured. Allegations against certain large honey packers, importers and certifiers include violations of unfair competition law, economically motivated adulteration, intentional sale of fake honey, and harm to the market and to domestic and commercial beekeepers. This lawsuit claims violations of both the Racketeer and Corrupt Organization Act and the Sherman Antitrust Act.

History demonstrates that industries with a known history of adulteration, fraud and circumvention of the law are not qualified to police themselves.

GLOBAL HONEY MARKETS

The global honey markets have been deeply affected by both the COVID-19 pandemic originating in Wuhan, China, which has quickly spread throughout the world, and by extreme weather events. Too little water in the west, and too much rain in the east, have been widely reported for the U.S. in the summer of 2021. July 2021 was the hottest month on record. By mid-September 755 recorded fires have burned more than 2,318,593 acres in the U.S.

Chart 5 Honey exporters 2020

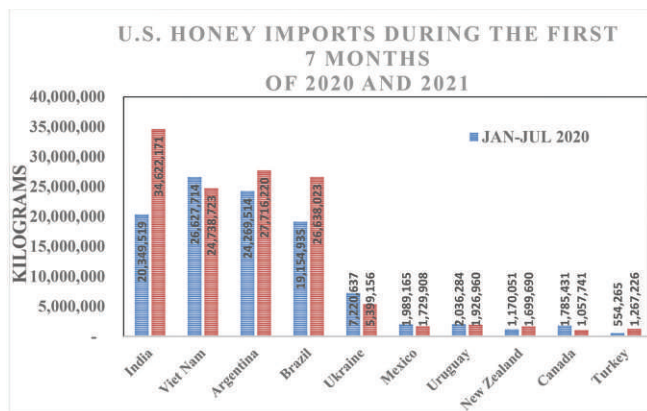


It should be recognized that the major modes of contemporary adulteration, originated in China. In the case of resin technology, Chinese companies have brazenly advertised this as a mode of eluding government detection of fraud, including by the U.S. FDA and Customs.

In mid-August, world food prices were reported by CNN news to have increased 31% due to extreme weather events, high transportation costs and worker shortages.

The antidumping case in the U.S. raises the concern regarding the amount of duties to be imposed, and whether imposition of antidumping duties would be based on value or on weight, as happened in the China antidumping case.

Chart 6 U.S. Honey Import Volumes Jan.-July 2020 and 2021



Argentina

Annual honey crops are generally between 55,000 and 70,000 tons. Productivity per hive over the past decade has declined and crops of 100,000 metric tons are historic footnotes. Export volumes to the world have been stable for many years. Forage areas are changing as prairie lands formerly for dairy and meat production have been switched to production of soybeans for export to China and India.

The Argentine domestic honey market is firm and prices are stable. Due to the uncertainty of the decision on anti-

dumping duties in the U.S., demand from the U.S. is spotty but prices are high. Demand from other markets is stable. Drought was a concern in early September, but recent rains gave relief. The high prices encouraged beekeepers to put more beehives into production.

After the antidumping petition was filed, there were reports of some honey companies filing for protection from creditors. This reflects the stress faced by beekeepers throughout South America during recent years. That stress has been greatly exacerbated by competing with adulterated honey. Argentina has been a leading and consistent voice in the struggle for honey authenticity.

Brazil

By the end of August, stocks of organic honey were mostly depleted, as shipments were rushed out in advance of potential imposition of duties. Brazil's export data reflects increased export quantities to the U.S. in 2020 compared to 2019. Brazil retains its position as the major supplier of organic honey to the U.S. and global markets.

Chart 7 Honey Exports from Brazil to the U.S.

2019: FOB USD54212909 // 24176322 KG.
2020: FOB USD71265220 // 34128218 KG
2021 (Jan-Jul): FOB USD89439762 // 26200574 KG

Parts of Brazil suffered environmental stress in 2021 because a major river was at the lowest water level in 50 years. Coffee and orange were among the crops threatened with lack of water. Research released by scientists at the University of Leeds on World Rainforest Day, April 21, 2021, reported that "The Amazon is at risk from the twin threats of deforestation and climate change."

Canada

Beekeepers are forecasting decreased quantities in 2021, partly due to hit-and-miss rains, for regions in Alberta (down 35-50%) and Saskatchewan (down 15-35%). Manitoba could be down by 10-20%. Honey yields per hive were also low in some areas in Saskatchewan.

The prices are higher than last year, and the antidumping case has increased demand but sales are limited so far in anticipation of increased demand and price escalation.

Heat records were broken in the summertime when the temperature in a small town in British Columbia reached 116 degrees F, part of an overall warming trend in the last seven years.

India

It seems that some exporters have toyed with critical circumstances, as overall export volumes to the U.S. increased dramatically in 2021. Some exporters expect Indian honey prices in the future to decline to levels so low that high antidumping duties will not affect their sales to the U.S.

Large honey packers and processors have formed the India Honey Alliance (IHA) to create consumer awareness and address industry issues after reports of adulterated honey, based on independent testing, targeted major Indian companies in 2020.

Prices of Indian honey are rising in response to the critical global shortage of honey. It has been reported that there is no carryover of stocks from the prior year 2020.

A critical shortage of authentic honey is not a license for food fraud. By the laws of economics, it is a cause for high and rising prices.

There have been numerous articles in the Indian press about adulteration of honey within the Indian retail sector. Indian beekeepers have vehemently and vigorously criticized the presence of adulterated honey as it drives them into a state which Prof. Roberts poignantly described as “an endangered species.”

Mexico

The 2021 crop decreased by 28.5% compared to 2020, yielding 25,000 metric tons. Demand from Japan, Europe, the Middle East and the USA is strong, and prices are expected to rise. The antidumping petition in the U.S. has greatly raised price expectations.

Crops in the western range of Mexico have good prospects, and Highland Yellow Creamy is attracting interest from Japan and the U.S. Wet weather has caused some to forecast a lower than expected crop. An early frost in the Highlands reduced last year’s crop by 10%.

Ukraine

Hive numbers were down in 2020 as a result of the very low prices being offered beekeepers. They continued to decline through the winter of 2020-2021, and in the spring when the fruit trees were blooming, the daytime temperatures were too cold for the bees to fly and winds tore the blossoms off the trees. This affected a large area known as the “Bread Basket of Ukraine.” A very poor 2021 crop is projected for authentic honey and a likely main buyer will be the European market.

Uruguay

Stocks of honey in Uruguay were very low in September, especially since shipments of honey under old contracts were accelerated after the filing of the antidumping case.

Prices have increased significantly and sellers are looking to the rising prices in Argentina, next door. The market is uncertain, nervous and firm.

The next honey crops will be harvested around the end of September and in October. Rapeseed planting areas are expected to dramatically increase by 50%, so more rapeseed honey is expected. Eucalyptus will be harvested in April and May next year. The honey industry in Uruguay will need to be very careful to prevent circumvention of honey from Brazil and Argentina, which may have new duties, through Uruguay.

Vietnam

Beekeepers, and other agricultural producers such as the coffee and cashew sectors, have been financed since the end of the Vietnam war by the World Bank and other institutions. The current antidumping suit has aroused opposition, as Vietnam sees that it threatens to thwart international and domestic efforts to support Vietnamese farmers.

Some exporters in Vietnam have acknowledged that much of their honey is extracted immaturely, following a version of the Chinese model. There are also reports that some areas in Vietnam are using resin technology to remove the fungicide carbendazim residues that result from agricultural production. Low prices demanded by U.S. importers and packers cannot support production of mature, authentic honey. It is noted that Vietnam has wonderful floral sources such as lichee, longan, coffee, cashew and rubber. It also has problematic sources, such as *Acacia mangium*, which darkens quickly, and in recent years became Vietnam’s major floral source.

The U.S. remains the predominant export market for Vietnamese honey. Efforts to open the European market have not been successful. Modes of production in most cases do not meet European standards.

Chart 8 Retail and Wholesale Honey Prices Compared to Prices Paid to Beekeepers

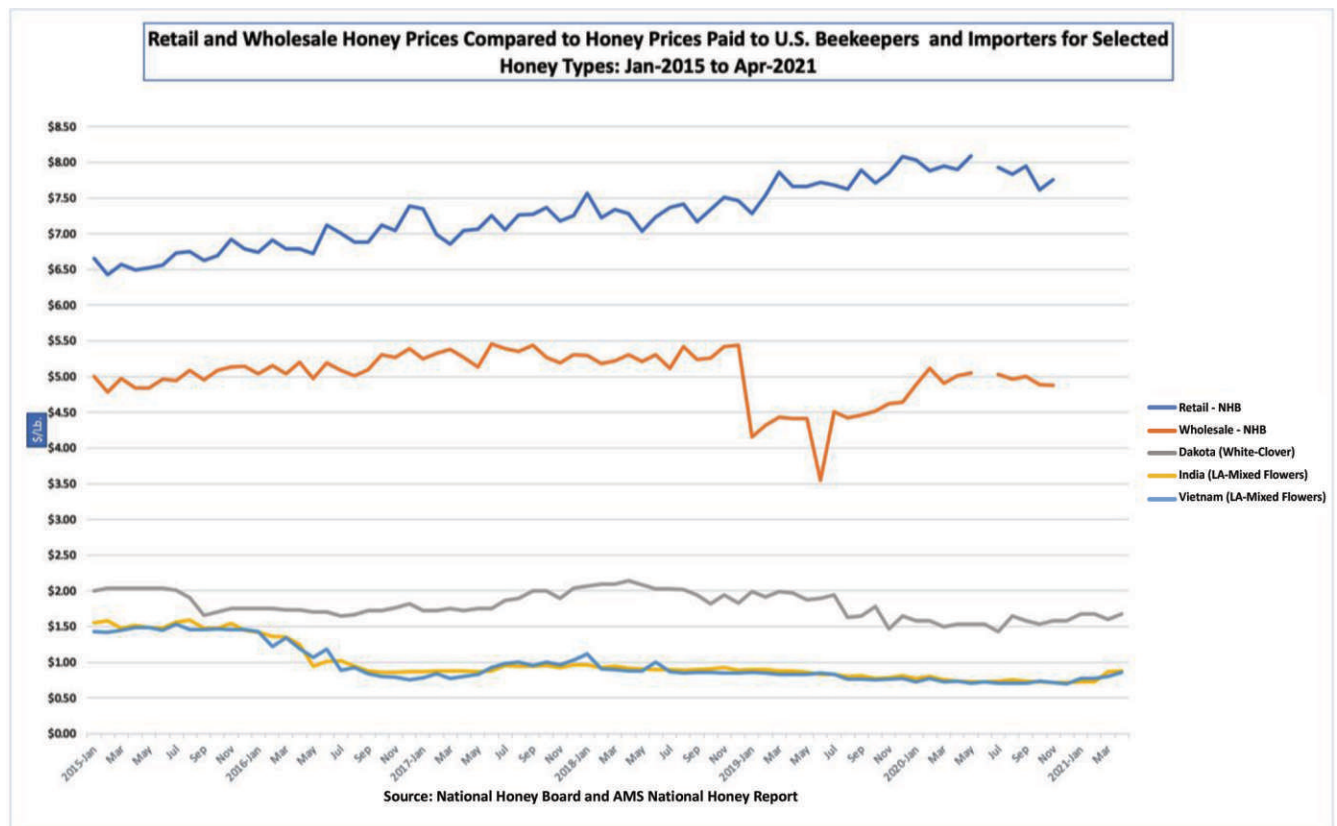
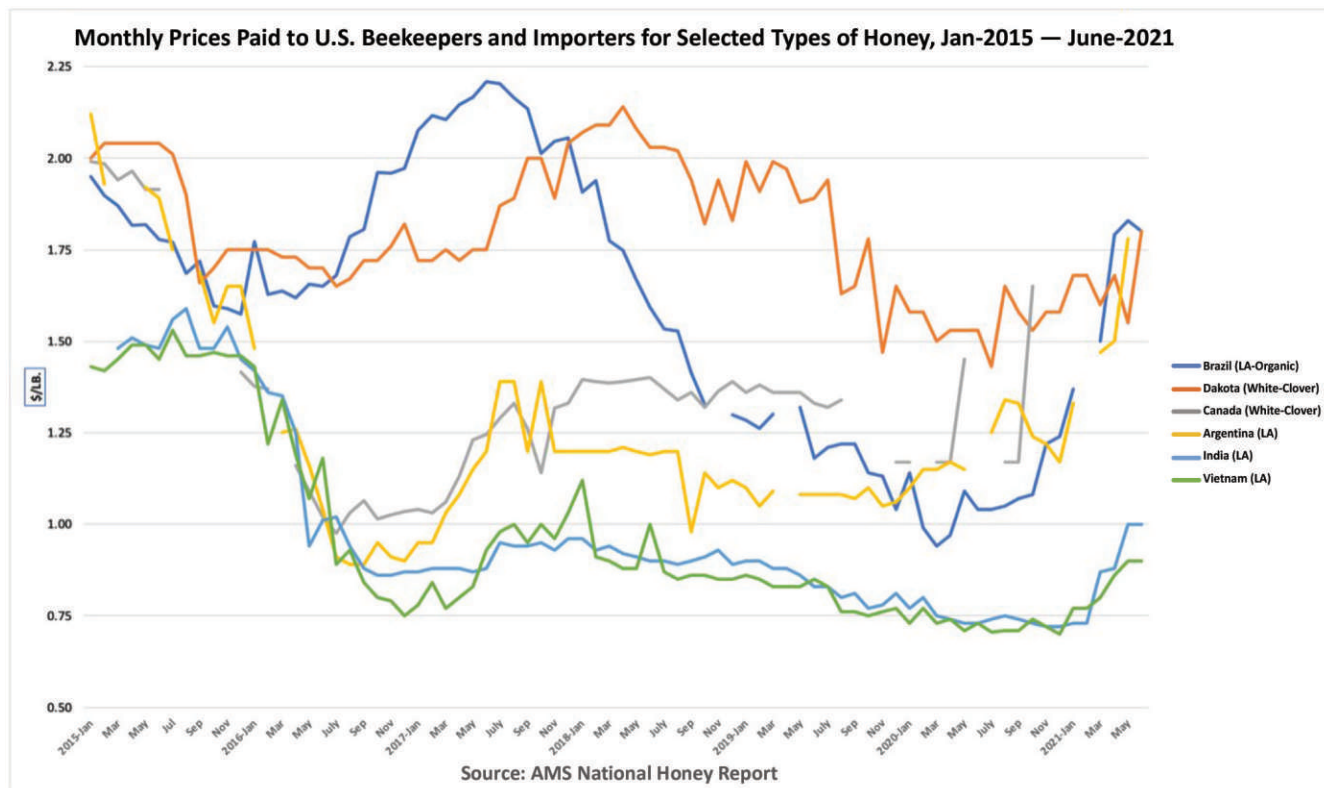


Chart 9 Monthly Prices Paid to U.S. Beekeepers and Importers



United States

A 2020 honey crop of about 150 million pounds was reported, and it is estimated that there will be a reduction in 2021, largely as a result of drought conditions in major honey producing areas like South Dakota and North Dakota, which have been the major producers of honey, including very high quality clover. In the springtime of 2021, the moisture content in the soil in the Dakotas was only 5% of normal. During the honey production season in July, there was some improvement but it was inadequate to make up for the significant reduction. Production was spotty as a function of thunderstorms that were here but not next door.

Extreme heat in the west caused crops to develop earlier in the season than usual. Grasshoppers in Montana, which are like swarms of locusts in Africa, add a new stress on the bee population.

Dr. Stan Daberkow has provided an update of his illuminating study of the trends among prices to beekeepers, packers, and retailers. This analysis may not be available in the future because the data on prices paid by retailers may become unavailable. It was pointed out that exposure of the widening price gaps has made some uncomfortable. Dr. Daberkow pointed out that the traditional source of information on the prices paid by retailers to packers has dried up. He is seeking alternative sources. This information is important because the gap between prices paid by retailers to packers and the gap between prices paid by packers to beekeepers reveals important trends which concern both the fairness among different segments of the honey industry and the important economic imperative to incentivize the beekeepers who produce the product upon which the honey industry and consumers depend.

INSPECTION OF IMPORTED HONEY

In late August many complaints were aired regarding an increase in inspections by the U.S. government. It should

be recognized that inspections were mandated by the 2020 Department of Homeland Security Appropriations Act which was passed by the U.S. Congress. The bill requires use of the best technology available to detect country of origin and adulteration of honey. This reflects the seriousness with which Congress views protecting American beekeepers, and thereby, American agriculture whose health depends on a vibrant beekeeping industry.

NMR TESTING DEVELOPMENTS

The database of honey samples from thousands of origins around the world, which forms the basis of NMR testing, continues to expand. Bruker announced an expanded database of 28,000 samples in July 2021.

A research project is underway to examine unripe and ripe honey from different botanical and geographical sources. The analysis of samples will be performed in compliance with ISO17025 requirements in order to provide a major demarcation between authentic and adulterated honey. Both the EU Directive and the U.S. Pharmacopeia Honey Identity Standard do not allow the product harvested as immature honey to be called honey.

We may note that there is ongoing scientific research regarding detecting the modes of adulteration, in their subtlety and diversity. Furthermore, as the quest for scientific understanding of the chemistry of honey deepens, that which is present, and that which is absent but should be present, play a part.

This research is also a basis for understanding the health benefits, diversity, flavor and charm of honey.

LEGAL DEMANDS FOR AUTHENTICITY

The American and international honey industry need to strengthen the legal framework within which adulteration is precluded and punished and authenticity is recognized and rewarded.

As the honey producers, consumer groups and retailers move to rigorously combat food fraud it has become increasingly clear that more robust and comprehensive forms for 1) contracts and 2) traceability systems are needed. We also need to ensure that the relevant parameters are tested. For example, if a country is using resin technology to remove antibiotics, and fungicides, but is not blending extraneous sweeteners, then the NMR test or any other appropriate technology, must be geared to the parameters of concern. To selectively test for parameters that are not relevant is to create deception. We need strict and science-based protocols which we can implement not to excuse but to expose adulteration. It is like the surgeon's or carpenter's toolbox, they must use the appropriate tool for the real problems.

GLOBAL MACROECONOMICS AND GEOPOLITICS

In an article about Afghanistan published on September 18 by the editors of "Oil Price," it states "China sees an opportunity to exploit lucrative oil, gas and mining projects ..." Afghanistan has a reported \$1 Trillion worth of mineral reserves, including copper, iron, lithium and rare earths essential for emerging high-tech industries. China's Belt and Road global project "allows China to lock in precious mineral reserves ... through debt trap diplomacy." The analysis summarizes the point by saying "... the mining industry experience of China locking up the world's mineral resources testifies to how far the Chinese will go to ensure their ever-growing demand for mineral commodities is met. ... State owned Chinese companies have scoured the globe for mineral deposits that will satisfy voracious demand, gaining either full or partial ownership of mines in Africa, South America, Australia, the United States and Canada." A similar endeavor is underway by China in respect to global agricultural resources.

The quest for resources is fueled by the fact that China has a population of 1.4 billion but per capita arable land of only one-25th that of America. Recent reports have revealed how much farmland in North America in general and in America in particular has been acquired by Chinese corporate interests, which often operate through surrogate financial entities. It is becoming clearer that China has also acquired honey companies on numerous continents, including South America, Oceania, Asia and North America. There have also been attempts to acquire beekeeping operations.

While when we look at the broad span of human history, we see increased integration and interdependence, but the forms of that integration have been distorted and have become dangerous. Historically there were many distortions caused by European and Asian imperialism of rich and advanced nations over poorer nations which could be exploited and subjugated as colonies. This is true whether we look at the British Empire, the Roman Empire, the Greek Empire, the Mongolian Empire, the Japanese Empire or the Chinese Empire.

The acquisition of foreign resources is what underlies what the Chinese call the "China Dream." Forty percent of New Zealand's prized and superior dairy lands are currently owned by Chinese interests. China is depleting global fisheries and provoking the deforestation of the Amazon in favor of production of corn and soybeans for China to use as feed for their animal farms.

There is a Chinese saying which poetically sums up the underlying purpose of China's "Belt and Road" program: "Pick flowers in foreign lands to make honey in China."

CONCLUSION

In 1901, 120 years ago, Teddy Roosevelt stated in a 20,000 word State of the Union message to Congress:

"Great corporations exist only because they are created and safeguarded by our institutions. [It is] our right and our duty to see that they work in harmony with these institutions."

Roosevelt's legal weapon of choice was the Sherman Antitrust Act, passed under his predecessor William McKinley, and the first measure ever enacted by Congress directly aimed at prohibiting trusts and inhibiting monopoly power.

At the heart of the class action lawsuit is the spirit of Teddy Roosevelt, who also formed the U.S. Food and Drug Administration to ensure the safety and purity of the food and drug supply. To summarize the progress made during the past several years supporting honey authenticity, we have a framework which includes Codex, the USDA's Commercial Item Description of Honey, the Apimondia Statement on Honey Fraud, the U.S. Pharmacopeia's Honey Identity Statement, the 2020 U.S. Authorization Bill supporting use of advanced technology for honey testing, the engagement of the United Nations Food and Agriculture Organization, and commercial and consumer demands for authentic honey.

The effort to overcome adulterated honey, which means overcoming customs fraud and food fraud, and to promote authentic honey, is a battle which has raged for several decades. The American honey industry has to win the war against honey adulteration, protect its own beekeeping and honey industries, and embark on a positive path whereby beekeepers can serve the vast interest of American agriculture and creatively market authentic honey.

While all of the above factors will have a deep and prolonged impact on the honey market, the most immediate impact may be from the antidumping petition. That impact will, it should be recognized, confer on some exporting countries and some exporters comparative advantage, and on others comparative disadvantage, depending on the magnitude of their respective antidumping rates. But, as described above, there is a unique confluence of factors which may cause difficulties for those manipulating the market but result in a longer-term comparative advantage for producers of authentic honey.

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Ron is also President of the Board of the Long Island Concert Orchestra/Chamber Players International.