



**Statement of the
American Honey Producers Association, Inc.
for the
Committee on Agriculture, Nutrition and Forestry
United States Senate
Washington, D.C.**

April 24, 2007

"If the bee disappeared off the surface of the globe
then man would only have four years of life left.
No more bees, no more pollination, no more plants,
no more animals, no more man."

Attributed to Albert Einstein

Chairman Harkin and Members of the Committee, my name is Mark Brady. I am from Waxahachie, Texas. I have been a commercial beekeeper for over 30 years. I am President of the American Honey Producers Association ("AHPA"). The AHPA is a national organization of beekeepers actively engaged in most commercial honey production and agricultural pollination throughout the country.

We appreciate this opportunity to testify before the Committee on the state of America's beekeeping and honey industry. We look forward to working with the Committee – in the context of the Farm Bill and otherwise – to help assure that our beekeeping sector can remain strong and that we can have healthy bees for honey production and vital pollination services. To assist Congress in this process, we offer a number of suggestions for addressing the many difficult problems faced by modern beekeepers and those who rely on honey bees for critical pollination services.

As the Committee is well aware, Colony Collapse Disorder ("CCD") has recently emerged as a new and serious threat to America's beekeepers and their honey bees. CCD is a highly destructive and still mysterious condition. Despite the tremendous work being done by government, academic and private sector researchers, there is much we still do not know about CCD and its causes. However, based on reports from beekeepers throughout the country, it is becoming increasingly apparent that CCD poses a serious and, perhaps, unprecedented threat to America's honey bee colonies. For beekeepers, bee losses are a harsh fact of life. Beekeepers often face serious bee losses from a variety of causes. However, the losses apparently related to CCD are much more widespread and severe, with some beekeepers reporting the disappearance or destruction of 90 percent of their honey bees.

Given the importance of commercial bee pollination to wide segments of U.S. agriculture, it is imperative that beekeepers, producers, researchers and the government continue to work together on an urgent basis to develop measures to combat CCD. In this regard, the AHPA very much appreciates the letter that Senator Baucus and 43 other Senators – including 17 members of this Committee – recently sent to Secretary Johanns seeking prompt action on CCD research.

Although CCD is a potentially grave problem, it is not the only problem facing our industry. We also face many other difficult challenges. These include, to name a few, treatment-resistant mites and pests, rapidly increasing demands for pollination, rising production costs, a history of price fluctuations that have eroded profits, environmental concerns, and unfairly traded imports. Together with CCD, these other serious issues should be a wake-up call to all of us about the critical importance of longer-term and sustained programs, strategies and solutions, as well as new ideas, to assure the continued health of both our honey bees and our vital beekeeping sector.

I. The State of the U.S. Honey Industry

A. *Honey Bee Population*

In the past few decades, U.S. commercial beekeepers have seen a worrisome and dramatic decline in the population of U.S. honey bees. According to a report released last year by the National Research Council, the population of American honey bees has plunged by 30 percent in the last 20 years. This staggering loss of managed honey bee colonies is one of the most severe declines U.S. agriculture has ever experienced in such a short period (and does not even reflect the latest impact from CCD). Most troubling, there are far fewer bee hives in the United States today than at any time in the last 50 years.

As the honey bee population has declined, so has the number of commercial beekeepers. Not surprisingly, commercial beekeepers supply the vast majority of the domestic honey consumed in the United States and the majority of pollination services. Today, the number of commercial beekeepers has fallen to an all-time low of 1,600. This drop in the number of commercial beekeepers corresponds with a steady decline in the number of colonies producing honey in the United States. In 2006, 2.39 million colonies produced honey, down 7 percent from 2004.

B. *Honey Production and Sales*

Honey bees, and consequently the U.S. honey industry, are indispensable to contemporary American agriculture. Although honey is produced in every state, North Dakota, California, Florida, South Dakota, Montana and Minnesota lead the nation in honey production. Chart 1 below lists the top six honey-producing states in 2006, and indicates the number of pounds produced and the value of production for each of these states.

Chart 1

U.S. Honey Production — Top 6 States

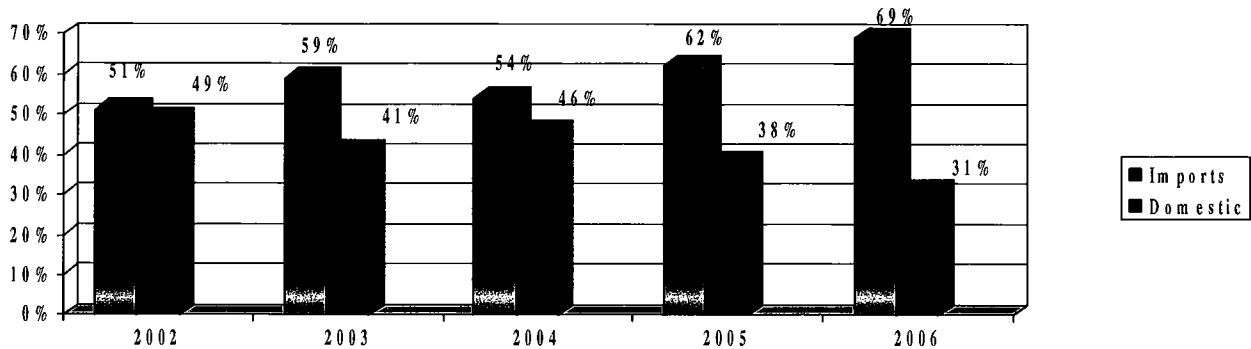
| State | Pounds Produced | Dollar Value of Production |
|--------------|-----------------|----------------------------|
| North Dakota | 25,900,000 | \$23,310,000 |
| California | 19,760,000 | \$19,365,000 |
| Florida | 13,770,000 | \$13,908,000 |
| South Dakota | 10,575,000 | \$8,672,000 |
| Montana | 10,428,000 | \$10,428,000 |
| Minnesota | 10,000,000 | \$8,900,000 |

Source: USDA, National Agricultural Statistics Service

In the recent past, honey bees have produced an average of 200 million pounds of honey annually in the United States. In 2005, however, less than 175 million pounds of honey were produced in the United States, a five percent decrease from 2004. In 2006, domestic honey production fell even further, amounting to less than 155 million pounds, almost a 16 percent decrease from 2004. By comparison, as recently as 2000, U.S. commercial beekeepers produced over 220 million pounds of honey.

U.S. sales of domestic honey also reached historically low levels in the past two years. Based on the National Honey Board's data, U.S.-produced honey accounted for only 38 percent of all U.S. honey sales in 2005, and fell to a startling 31 percent in 2006. This represents a sharp decline from 2004, when 46 percent of U.S. sales were of domestic honey. Meanwhile, honey imports have dramatically risen, accounting for 62 percent of U.S. sales in 2005 and 69 percent in 2006. Chart 2 below shows the recent decrease in the share of U.S. honey sales and the increase in the level of foreign honey being imported into the U.S. marketplace.

Chart 2
Share of U.S. Honey Sales



Source: National Honey Board Assessments

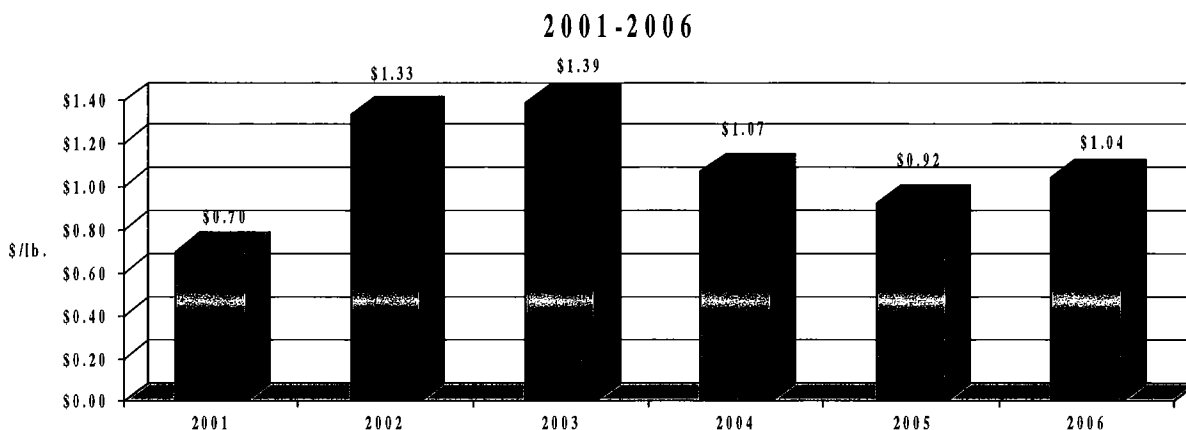
C. Unfairly Traded Imports and Honey Prices

The substantial increases in sales of imported honey in the United States over the past two years is a reflection of the significant pressure that U.S. honey producers have continued to face from below-cost, unfairly traded imports, particularly from China.

In 2002, domestic honey producers obtained antidumping protection from unfair imports. As a result, U.S. honey prices recovered from 70 cents per pound in 2001 to \$1.33 per pound in 2002 and \$1.39 per pound in 2003. However, beginning in 2004, importers of honey from "new shippers" in China began to employ a loophole under U.S. trade law that permitted their deposits of estimated antidumping duties to be secured by bonds, rather than cash, as is required in other circumstances. Importers related to Chinese producers imported massive amounts of below-cost honey under such bonds. Once final duties were determined, these unscrupulous parties would disappear before U.S. Customs and Border Protection could collect the required duties.

As a result of such abuses, U.S. honey prices fell to \$1.07 per pound in 2004 and 92 cents per pound in 2005. In August 2006 – with the strong support of many members of this Committee – Congress closed this bonding loophole through a provision of the Pension Protection Act of 2006. Since this important action by Congress, U.S. honey prices have recovered somewhat, increasing to \$1.04 per pound in 2006. While these prices are improved, they are still significantly below 2003 prices. However, as shown on Chart 3 below, recent prices are significantly above prices in 2001, during the period before antidumping protection was imposed by the United States.

Chart 3
U.S. Honey Prices



Source: USDA, National Agricultural Statistics Service

Increased imports, decreased sales and low honey prices caused U.S. honey producers to face unprecedented difficulty in selling honey during 2004, 2005 and portions of 2006. This difficulty in making sales placed significant economic and financial strain on the U.S. honey sector, and caused many long-time honey producers to consider exiting the honey and beekeeping business altogether. Although Congress has eliminated the loophole that permitted massive abuses of U.S. trade law, U.S. honey producers still face unfairly traded imports and new attempts to circumvent U.S. law. These include imports of honey that are deliberately declared and labeled as other products, imports of tainted honey and the transshipment of honey through third countries to avoid duties.

D. *Beeswax*

Commercial beekeepers also market and sell the beeswax produced by honey bees. Beeswax is used commercially to make fine candles, cosmetics, and pharmaceuticals. Cosmetics and pharmaceuticals account for 60 percent of the total consumption of beeswax.

E. *Pollination*

In addition to providing the marketplace with U.S. honey, commercial beekeepers also supply U.S. honey bees for the pollination of a variety of agricultural crops. These pollination services contribute billions of dollars annually to the U.S. farm economy. Without honey bee pollination, many plants cannot produce fruit after they bloom. If pollination levels are not sufficient, the fruit produced is likely to be deformed or smaller than its normal size.

Honey bees pollinate more than 90 food, fiber, and seed crops. In particular, the fruits, vegetables and nuts that are cornerstones of a balanced and healthy diet are especially dependent on continued access to honey bee pollination. Honey bee pollination is vital for the production of such diverse crops as almonds, apples, oranges, melons, broccoli, tangerines, cranberries,

strawberries, vegetables, alfalfa, soybeans, sunflower, and cotton, among others. In fact, honey bees pollinate about one-third of the food in the human diet. USDA has estimated that improved crop yields and crop quality attributable to honey bee pollination alone are valued at some \$20 billion annually.

The importance of this pollination to contemporary agriculture cannot be understated – the value of pollinated crops is vastly greater than the total value of honey and wax produced by honey bees. The scale of commercial pollination is also vast. Each year more than 140 billion honey bees representing 2 million colonies are employed by U.S. beekeepers across and around the country to pollinate a wide range of important crops.

The critical role of honey bees—and of the U.S. honey producers who supply honey bees for pollination—is illustrated by the pollination of California’s almond crop, which is that state’s largest agricultural export. California grows 100 percent of the nation’s almond crop and supplies 80 percent of the world’s almonds. Each year, honey bees are transported from all over the nation to pollinate California almonds, which is the largest single crop requiring honey bees for pollination. Currently, more than one million honey bee hives are needed to pollinate the 600,000 acres of almond groves that line California’s Central Valley. That means nearly half of all the managed honey-producing colonies in the U.S. are involved in pollinating almonds in California during February and early March. As with other agricultural products, having enough bees to pollinate the almond crop can mean the difference between a good crop and disaster. As *OnEarth* magazine noted recently, the fate and continued success of California’s almond crop rests “on the slender back of the embattled honey bee.”

Many other U.S. agriculture producers rely on extensive honey bee pollination. A Maine blueberry grower recently put it quite succinctly—“without bees in May, there are no blueberries in August.” Additionally, avocados — a \$363 million crop in California — receive more than 90 percent of their pollination from the honey bee. Studies on the effect of pollination of cotton by honey bees show an increase of 17 to 19 percent in the yield of seed cotton, as compared to a cotton crop that is not pollinated by honey bees. The cattle and farm-raised catfish industries also benefit from honey bee pollination, as pollination is important for growing alfalfa, which is fodder for cattle and farm-raised fish. In short, the bee pollination is vital to important crops nationwide.

The ability of U.S. beekeepers to provide these essential pollination services at reasonable cost depends directly on their ability to produce honey and beeswax and sell these important products at fair prices. *Although the United States can import honey, it will never be able to import bees on the massive scale required by U.S. farm producers for critical pollination services.* Without strong sales and good prices for honey, many beekeepers will simply be unable to continue in business. This, in turn, will reduce the supply and increase the price of honey bee pollination. Additionally, the production of honey is necessary to assure the good health of bees that pollinate other crops, such as almonds, that are not good sources of honey.

II. Trends and Threats in the Honey and Beekeeping Sector

In addition to the perils posed by CCD, the most recent threat to our industry, it is also important for Congress to recognize other continuing trends and threats facing the U.S. beekeeping sector.

A. Fewer Colonies, Increasing Pollination Demands

As noted above, the number of U.S. bee colonies has plunged in recent decades. Under current conditions, it is anticipated that the number of bee colonies will, at best, remain stagnant. At the same time, the demand for commercial pollination services has been increasing exponentially. For example, in the early 1990s, only a relatively limited number of out-of-state beekeepers traveled to California to pollinate the almond crop. Today, well over 1 million of the nation's 2 million commercial bee colonies are used for almond pollination. The California Almond Board estimates that, by 2012, substantial increases in almond acreage will require over 2 million hives for pollination – *an amount equivalent to the number of all current commercial bee colonies*. In short, fewer and fewer bees are available to pollinate ever increasing crop volumes.

B. Difficult-to-Control Pests and Diseases

Since 1984, the health of U.S. bee colonies has also been under continued attack from mites and pests for which appropriate controls must constantly be developed. For example, the pinhead-sized Varroa "Vampire" mite is systematically destroying bee colonies and, in recent years, has been considered the most serious threat to honey bees. In addition, tracheal mites destroy bee colonies by clogging the bees' breathing tubes, blocking the flow of oxygen and eventually killing the infested bees. Additional losses are caused by a honey bee bacterial disease and a honey bee fungal disease. These pests and diseases, especially Varroa mites and the bacterium causing American foulbrood, are now resistant to chemical controls in many regions of the country. Further, pests are building resistance to newly-developed chemicals more quickly than in the past, thereby limiting the longevity of new chemical controls.

In 2006, losses caused by these pests and mites and other recent problems required U.S. beekeepers to import some honey bees from other countries (namely, New Zealand and Australia) for pollination services. This marked the first time since 1922 that honey bees were imported into the U.S. for pollination, underscoring the fragile state of the U.S. honey industry.

C. Environmental Challenges

Beekeepers must also operate in an increasingly complex ecological and agricultural environment. The improper use of agricultural pesticides has long been responsible for bee kills nationwide. These bee kills have been increasing in frequency and damage in recent years. Beekeepers also worry about the effects on bees of new genetically modified crops and new and more complex agricultural chemicals, which must be studied thoroughly to make sure that they do not pose the risk of further compounding existing man-made threats to bee colonies.

D. Increased Demands on Beekeepers

These developments and trends are placing increasing demands on commercial bee colonies and the beekeepers who manage them. Many commercial bee colonies are in almost constant motion, crisscrossing the country to pollinate a vast array of crops. While this mobility is a boon to agricultural producers who need pollination, it places increased stresses on the bees and exposes them to additional threats and increasingly subjects beekeepers to the vagaries of such factors as energy costs and crop cycles. Additionally, commercial bee colonies must be managed much more intensively than in the past, requiring greater effort and vigilance throughout the year in the monitoring, treatment and feeding of bees. These efforts are time-consuming and expensive, but are absolutely essential if U.S. agriculture is to have the pollination that it increasingly requires.

III. Beekeeper Experience with CCD

A. Massive Losses Linked to CCD

Within the past year, CCD has emerged as a new, additional and potentially grave threat to America's beekeepers. CCD causes the sudden and unexplained death of bees in colonies. Most of the adult bees in a colony mysteriously disappear, and soon the colony completely collapses. As shown in Attachment 1, bee losses linked to CCD have been reported in 27 states.

The AHPA has been receiving many reports of collapsing colonies and staggering bee losses from beekeepers throughout the country. There does not appear to be a discernible pattern to these losses. Loss reports have come to us from both large-scale and smaller beekeepers, and from beekeepers who transport their colonies extensively as well as those who keep their colonies at one location. One beekeeper may experience pervasive colony collapse, while neighboring beekeepers report no such losses. Additionally, CCD-related losses have been experienced by beekeepers with colonies under stress from pests and other factors, as well as by those who have strong colonies and vigilantly employ state-of-the-art management practices, including syrup and protein feeding and mite controls.

The experiences of a number of individual beekeepers demonstrate the extent to which CCD is devastating beekeeping operations and poses a threat to the U.S. beekeeping sector as a whole. These are a few of many examples:

- A highly respected beekeeping operation in Ohio that usually provides excellent bees to larger operations for pollination has reported that all but 100 of its 800 colonies have been destroyed, and that the remaining colonies were not strong enough for pollination in California.
- A shipment of 1900 bee colonies from South Dakota was inspected in California on February 1st and found to be very strong. A mere two weeks later, almost one-quarter of these bees were below pollination strength.
- The Mississippi State apiarist reports that one migratory beekeeper based in Mississippi has only 220 of 1200 colonies remaining.

