
FLORIDA TAXWATCH

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Bees, Please Don't Buzz Off

Walk into any office or home across the U.S. and one will likely find someone snacking on almonds, cashews, potato chips, celery, etc. While these common snack foods work to power us through the day and help quench that afternoon hunger, they also have something else in common: all of these snack foods are brought to you, in part, by bees.

In fact, honey bees enable the production of more than 90 commercially grown crops here in the United States.¹ Around the world, more than one-third of food production relies on pollination, which is important to understand because, over the past 60 years, the number of honey bee colonies in the United States has decreased steadily.²

WHAT'S THE BUZZ

While the decline in the bee population has become a headline recently, the fact is the U.S. has been dealing with a declining bee population for more than 60 years. In 1947, the U.S. was home to more than 6 million bee colonies;³ today, that number has dropped to roughly 2.5 million.⁴

While the decline of the honey bee population is not necessarily new in the U.S., the rate of decline has picked up over the past 10 years. Since 2006, commercial beekeepers in the U.S. have experienced winter loss rates⁵ averaging 30 percent each winter,⁶ and the most recent statistics show this trend continuing as winter loss rates from 2015-2016 were approximately 28 percent.⁷ This figure is also daunting because it is nearly double the historical winter loss rates that typically fluctuated between 15 percent and 20 percent.⁸

1 Fact Sheet: The Economic Challenge Posed by Declining Pollinator Populations. The White House. June 20, 2014.

2 Fact Sheet: The Economic Challenge Posed by Declining Pollinator Populations. The White House. June 20, 2014.

3 Fact Sheet: The Economic Challenge Posed by Declining Pollinator Populations. The White House. June 20, 2014.

4 Honey Bee Colonies. The United States Department of Agriculture. May 12, 2016.

5 Winter loss rates account from the number of colonies where elderly bees failed to replace their colonies with a new generation of worker bees, thus effecting the colonies ability to pollinate.

6 Fact Sheet: The Economic Challenge Posed by Declining Pollinator Populations. The White House. June 20, 2014.

7 America's bees had another tough and deadly winter, probably because of mites. U.S. News and World Report. May 10, 2016.

8 Colony Collapse Disorder Impact on the Economy. The Balance. September 19, 2016.

THE ECONOMIC IMPACT

If the population of bees across the U.S. and world continues to decline at their current rate, the economic impact on the agriculture business could be significant. Currently, more than one-third of humans' diets across the world rely on pollinated crops, and the honeybee is responsible for 80 percent of that pollination.⁹ In terms of dollars, the honeybee contributes more than \$15 billion towards the U.S. economy in the form of agriculture and crops.¹⁰

The decline in the bee population is also impacting the cost of agriculture in the United States. In California, bees are crucial for the production of almonds. Each year, California almond growers use roughly 1.4 million bee colonies for pollination.¹¹ While the bees are in high demand for California almond growers, who produce nearly 80 percent of almonds worldwide,¹² the cost of their production has gone up significantly since the early 2000's. For example, in 2003, the typical cost for renting a bee hive for the use of almond pollination was about \$50. Just 6 years later that number had more than tripled as renting bee hives in 2009 cost between \$150 and \$175.¹³ These increases in the cost of production have been passed on to the consumer, and the costs of almonds in the U.S. have risen dramatically. From 2003-2014, the per-pound cost of almonds more than doubled, going from \$1.57 per pound to \$4 per pound.¹⁴

WHAT IS BEING DONE NOW?

The good news is that all hope is not lost for the bees, and Florida is one of the states leading the charge to help make a difference. Currently, the University of Florida is getting set to build a state of the art laboratory and research facility that will be dedicated to the study of bees. The facility, which has garnered funding through a partnership that includes the Florida Legislature, beekeeper groups, and the University of Florida's Institute of Food and Agricultural Sciences, is set to break ground in early 2017.¹⁵

⁹ Declining honeybees a 'threat' to food supply. NBC News. May 2, 2007.

¹⁰ Fact Sheet: The Economic Challenge Posed by Declining Pollinator Populations. The White House. June 20, 2014.

¹¹ Special Report: Economic Impact Evaluation of a Proposed Honeybee Research and Extension Laboratory in Florida. March 2014.

¹² Fact Sheet: The Economic Challenge Posed by Declining Pollinator Populations. The White House. June 20, 2014.

¹³ Fact Sheet: The Economic Challenge Posed by Declining Pollinator Populations. The White House. June 20, 2014.

¹⁴ U.S. Almonds Price Received Historical Data. YCharts.

¹⁵ Beekeeper group pushes for UF bee research facility. The Gainesville Sun. October 24, 2016.

The new facility will work with students and local beekeepers to test theories and educate individuals on the latest beekeeping methods. The overall goal of the new lab is to study and create new beekeeping techniques in an effort to help increase the bee population.¹⁶

The U.S. is also working to curb the declining bee population on the federal level. In 2015, the President's budget recommended appropriating \$50 million across various agencies within the United States Department of Agriculture. The resources were dedicated to enhanced research on bee population decline, increasing the number of acres used for conservation efforts, increased funding for surveys to measure the true impacts of pollinator losses, and more.¹⁷ The federal government also established a new Pollinator Health Task Force that will work to coordinate a "research action plan" to help officials understand, prevent, and recover from the decline in pollinator populations.¹⁸

CONCLUSION

Understanding the importance of bees to Florida's environment and our state and national economies is a crucial step in the effort to help slow their decline. While bees may seem like a nuisance when they create a hive in your backyard, they may actually be shaping the environment around you, helping flowers grow, and contributing to production of fruits and vegetables that you enjoy on a daily basis. Their pollination efforts are an instrumental part of the agriculture sector here in the U.S., contributing billions of dollars in product to our nation's economy and supplying nearly one-third of our diets. So the next time you think about swatting a bee that's flying around, think twice—they may be more important than you know.

¹⁶ Beekeeper group pushes for UF bee research facility. The Gainesville Sun. October 24, 2016.

¹⁷ Fact Sheet: The Economic Challenge Posed by Declining Pollinator Populations. The White House. June 20, 2014.

¹⁸ Fact Sheet: The Economic Challenge Posed by Declining Pollinator Populations. The White House. June 20, 2014.

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