

## **Preliminary Results: Honey Bee Colonies Losses in the U.S., winter 2009-2010.**

April 22, 2010

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*Note: This is a preliminary analysis, and a more detailed final report is being prepared for publication at a later date.*

The Apiary Inspectors of America (AIA) and USDA-ARS Beltsville Honey Bee Lab conducted a survey to estimate winter colony losses for 2009/2010. Over 22.4% of the country's estimated 2.46 million colonies were surveyed.

A total loss of 33.8% of managed honey bee colonies was recorded. This compares to total losses of 29%, 35.8% and 31.8% recorded respectively in the winters of 2008/2009, 2007/2008 and 2006/2007.

In all 4,207 beekeepers responded to the on-line survey and an additional 24 were contacted by phone. This response rate is orders of magnitude greater than previous years efforts which relied on phone or email responses only (2008/2009 n=778, 2007/2008 n=331, 2006/2007 n=384).

On average responding beekeepers lost 42.2% of their operation, this is an 8 point or 23% increases in the average operational loss experienced by beekeepers in the winter of 2008/2009.

Average losses were nearly 3 times greater than the losses beekeepers reported that they considered acceptable (14.4%). Sixty-one percent of beekeepers reported losses in excess of what they would consider acceptable.

Colony Collapse Disorder (CCD) is characterized, in part, by the complete absence of bees in dead colonies and apiaries. This survey was not designed to differentiate between definitive cases of CCD and colonies lost as the result of other causes that share the "absence of dead bees" symptom. Only 28% of operations reported that at least some of their dead colonies were found dead without dead bees. However this group lost a total of 44% of their colonies, as compared to the total loss of 25% experienced by beekeepers who did not report losses indicative of CCD.

Responding beekeepers attributed their losses to starvation (32%), weather (29%), weak colonies in the fall (14%), Mites (12%), and poor queens (10%). Only 5% of beekeepers attributed CCD as the major cause for their losses.

It is also important to note that this survey only reports on winter losses and does not capture the colony losses that occurs throughout the summer as queens or entire colonies fail and need to be replaced. Preliminary data from other survey efforts suggest that these

“summer” losses can also be significant. All told the rate of loss experienced by the industry is unsustainable.

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