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In March 2013, 22 active honey bee brokers were contacted by phone to participate in the 2013 Bee Informed Partnership bee broker survey and 20 chose to participate in the survey. This response rate represents 4 more brokers participating than in 2012. In comparison, between 30 and 40 companies or individuals broker bees for CA almonds, thus we believe we our sample represents at least half of the bee brokers in place*.* The responding bee brokers placed bees for a total of 351 beekeepers. Nineteen of these brokers placed a total of 413,161 colonies in almond orchards for pollination. The five largest responding bee brokers collectively placed 248,000 colonies, which was 60% of the colonies from the sample. Each broker leased an average of 21,745 colonies from a colony weighted average of 22 beekeepers, with the largest five each leasing an average of about 49,600 colonies from roughly 131 beekeepers. Almond growers in 2013 paid an average of $155.00 per colony, ranging from a low of $95 and a high of $200. This average is only slightly increased from the average price of $151 per colony in 2012, with a high and low of … respectively. Collectively, the brokers reported an in*crease* in the number of colonies placed in 2012 over their total from the previous year; however, bear in mind this years figure contains 4 more brokers over the previous year.

While the survey was not designed to determine the losses experienced by beekeepers, the brokers estimated that 135 (38%) of the beekeepers they broker for had difficulty meeting their colony commitments due to colony death or serious decline in adult bee populations. This percentage was a sharp increase from 2012 where brokers reported only 11% of beekeepers were unable to meet or had difficulty meeting their commitments. Beekeepers’ ability to meet their commitments has fluctuated between survey periods from 16% in 2011 and 33% in 2010. The bee brokers surveyed estimated that collectively they were short by approximately 37,073 colonies (10.8% of total colonies placed) in 2013 as compared with 7,680 colonies (2.4 % of total colonies placed) in 2012. In 2011, the shortage was about 51,697 colonies (12.5% of total colonies placed) and in 2010 was 55,040 colonies (13% of total colonies placed). In general, beekeepers were concerned about shortages in bees available for pollination in 2013. Most of the brokers said that they could have placed more colonies if they were available. Given an unlimited supply, they reported that they would have placed 232,078 more colonies this year. This number of extra colonies would have meant an additional 56% over the amount of colonies actually placed. In 2012 given an unlimited supply, bee brokers reported that they would have been able to place an additional 70,100 (22% of colonies placed), which is about half the estimated excess demand this year. In 2011 brokers predicted that they needed even fewer colonies to meet the excess demand, around 30,700 (7.4% of total colonies used). In 2010 all but one broker said that he or she could have leased more bees had they been available; up to 20% more in some cases. Given an unlimited supply, brokers in 2010 would have placed an additional 97,740 (23% of colonies placed) more colonies if available, which though higher than 2012 and 2011 is still substantial less that the excess demand this year.

In 2013 the average grade of colonies placed in almond orchards declined from the previous two years to 8.2 frames. In 2012 the average colony grade was 9.3 frames of bees, just above the target colony size of 8.5 frames of bees per colony. This year 40% of the respondents stated that they placed field run colonies (8 of the 20). The simple average amount of field run colonies placed was 10%. Two of the 18 respondents stated that 50% of the colonies they placed were field run. This figure should be viewed critically since the criteria used to define field run colonies differ between brokers. Some brokers consider field run to mean ungraded hives while other define it as a grade below a certain number of frames, usually around 8.5 frames. In 2012, only 6 of the 16 beekeepers reported that a percentage of the total colonies placed in almonds were field run. The simple average number of field run colonies in 2012 was 8%. Most beekeepers mentioned that the lower grade of the colonies this year is a result of the shortage. On average, brokers reported placing 1.96 colonies per acre, which is lower than 2012 and 2011 with 2.02 colonies per acre in 2012 and with 2.06 colonies per acre in 2011. The lowest density of colonies reported was 0.5 colonies per acre. The highest density of colonies reported was 3.5 colonies per acre.

The vast majority of the arrangements between brokers, beekeepers, and almond growers are continuations from previous years. On average, brokers reported working for 85% of the same beekeepers from the year before, and placing colonies for 94% of the same almond growers. These results were similar to 2012 in which brokers reported working for 85% of the same beekeepers from the year before, and placing colonies for 97% of the same almond growers.

After several mild years, this year has been harsh on beekeepers with 38% of beekeeper having trouble meeting their commitments. Last year it appeared that despite national colony losses, bee brokers had less trouble meeting the number of colonies they commit for pollination (33% of brokers had issues with meeting their pollination commitments in 2010, 16% in 2011 and 11% in 2012). Furthermore, 18 of 20 brokers responded stating that a least some of the beekeepers they broker for were short bees. Given the bee shortage it is somewhat surprising that the average rental cost of colonies only increased $4.00. However, the quality of the colonies that were placed this year has grades on average 1.1 frames lower compared with 2012. Our preliminary analysis confirms suspicions that this year was a challenge for beekeepers.