



Minnesota Ag News – Honey Bee Colonies

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Cooperating with the Minnesota Department of Agriculture

August 1, 2018

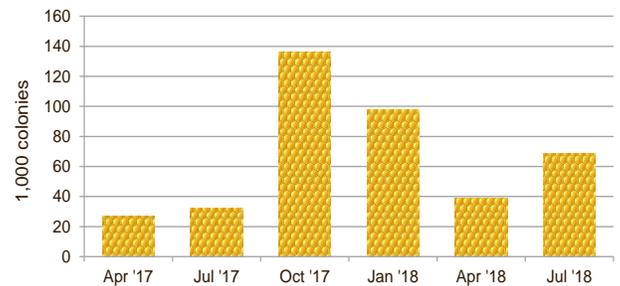
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Honey bee colonies for operations with 5 or more colonies in Minnesota as of April 1, 2018, totaled 69,000 colonies. This is 116 percent above the 32,000 colonies on April 1 last year and 77 percent above the 39,000 colonies last quarter. Producers boosted their April 1 inventory by moving colonies into Minnesota and adding colonies to a maximum of 108,000 during the April-June 2018 quarter. In the last 6 quarters the July-September 2017 quarter had the largest maximum number of colonies, with 136,000, while January-March 2017 had the smallest maximum number of colonies with 41,000.

Honey bee colonies lost for operations with 5 or more colonies for the April-June 2018 quarter was 6,500 colonies or 6 percent. This was the fourth most colonies lost in the past 6 quarters and was down 46 percent from the same period last year, but 67 percent above losses reported last quarter. In the previous 6 quarters surveyed the largest number and percentage of the colonies lost occurred in the July-September 2017 quarter with 20,000 colonies or 15 percent lost. The January-March 2017 quarter had the fewest number of colonies lost at 3,500 colonies.

Varroa mites have been the leading stressor affecting Minnesota honey bee colonies in 4 of the last 6 quarters with 12.2 percent of the colonies being affected in the April-June 2018 quarter, an 8.3 percentage point decrease from last year, but up 10.2 percentage points from last quarter. The number one stressor for operations with 5 or more colonies during the April-June 2018 quarter was attributed to unknown causes, which reportedly affected 21.7 percent of Minnesota's honey bee colonies.

**Number of Colonies - Minnesota
First Day of the Quarter**



Honey Bee Colonies – Minnesota: 2017-2018

[Operations with 5 or more colonies.]

	First of the quarter number of colonies ¹	Maximum colonies ²	Lost colonies	Percent lost ³	Added colonies	Renovated colonies ⁴	Percent renovated ⁵
	(number)	(number)	(number)	(percent)	(number)	(number)	(percent)
Jan-Mar 2017	27,000	41,000	3,500	9	3,300	0	0
Apr-Jun 2017	32,000	128,000	12,000	9	19,000	8,500	7
Jul-Sep 2017	136,000	136,000	20,000	15	1,900	2,200	2
Oct-Dec 2017	98,000	98,000	7,000	7	1,900	450	(Z)
Jan-Mar 2018	39,000	62,000	3,900	6	13,500	2,900	5
Apr-Jun 2018	69,000	108,000	6,500	6	46,000	24,000	22

(Z) Less than half of the unit shown.

¹ Number of colonies in the state as of the first day of the quarter.

² Number of colonies in the state on the first day of the quarter plus all colonies moved into state during the quarter.

³ Percent lost is the number of lost colonies divided by the maximum colonies.

⁴ Defined as any surviving colony that was requeened or received new honey bees through nuc or package.

⁵ Percent renovated is the number of renovated colonies divided by the maximum colonies.

Colony Health – Minnesota: 2017-2018

[Operations with 5 or more colonies, percent of colonies affected by stressor. A colony may be affected by multiple stressors during the quarter.]

	Varroa mites	Other pests and parasites ¹	Disease ²	Pesticide	Other ³	Unknown
	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)
Jan-Mar 2017	2.1	0.4	0.1	0.9	9.0	5.8
Apr-Jun 2017	20.5	4.7	2.3	12.8	6.6	2.2
Jul-Sep 2017	39.8	4.7	1.8	9.4	11.6	2.3
Oct-Dec 2017	62.9	4.0	4.2	39.8	7.2	3.1
Jan-Mar 2018	2.0	0.7	1.9	0.6	1.1	1.6
Apr-Jun 2018	12.2	8.5	6.7	5.6	7.8	21.7

¹ Tracheal mites, nosea, hive beetle, wax moths, etc.

² Includes American and European foulbrood, chalkbrood, stonebrood, paralysis (acute and chronic), kashmir, deformed wing, sabrood, IAPV, Lake Sinai II, etc.

³ Includes weather, starvation, insufficient forage, queen failure, hive damage/destroyed, etc.

UNITED STATES HONEY BEE COLONIES

Honey bee colonies for operations with five or more colonies in the United States on January 1, 2018 totaled 2.63 million colonies, down slightly from January 1, 2017. The number of colonies in the United States on April 1, 2018 was 2.69 million colonies. During 2017, honey bee colonies on January 1, April 1, July 1, and October 1 were 2.64 million, 2.69 million, 2.99 million, and 2.85 million colonies, respectively.

Honey bee colonies lost for operations with five or more colonies from January through March 2018, was 425 thousand colonies, or 16 percent. The number of colonies lost during the quarter of April through June 2018 was 270 thousand colonies, or 10 percent. During the quarter of October through December 2017, colonies lost totaled 425 thousand colonies, or 15 percent, the highest of any quarter in 2017. The quarter in 2017 with the lowest number of colonies lost was April through June, with 286 thousand colonies lost, or 11 percent.

Honey bee colonies added for operations with five or more colonies from January through March 2018 was 513 thousand colonies. The number of colonies added during the quarter of April through June 2018 was 726 thousand. During the quarter of April through June 2017, 613 thousand colonies were added, the highest number of honey bee colonies added for any quarter of 2017. The quarter of October through December 2017 added 205 thousand colonies, the least number of honey bee colonies added for any quarter of 2017.

Honey bee colonies renovated for operations with five or more colonies from January through March 2018 was 289 thousand colonies, or 11 percent. During the quarter of April through June 2018, 715 thousand colonies, or 27 percent, were renovated. The quarter in 2017 with the highest number of colonies renovated was April through June with 763 thousand colonies renovated, or 28 percent. The quarter in 2017 with the lowest number of colonies renovated was October through December 2017, with 214 thousand or 8 percent. Renovated colonies are those that were requeened or received new honey bees through a nuc or package.

Varroa mites were the number one stressor for operations with five or more colonies during all quarters of 2017. The quarter of October through December 2017 had the highest percentage of colonies reported to be affected by varroa mites at 55.3 percent. The percent of colonies reported to be affected by varroa mites during January through March 2018 and April through June 2018 are 40.8 percent and 53.4 percent, respectively.

Honey bee colonies lost with Colony Collapse Disorder symptoms on operations with five or more colonies was 77.8 thousand colonies from January through March 2018. This is a 15 percent increase from the same quarter of 2017. Colonies lost with Colony Collapse Disorder symptoms were reported to meet all of the following criteria: 1) Little to no build-up of dead bees in the hive or at the hive entrance 2) Rapid loss of adult honey bee population despite the presence of queen, capped brood, and food reserves 3) Absence or delayed robbing of the food reserves 4) Loss not attributable to varroa or nosema loads.

Honey bee colonies for operations with less than five colonies in the United States on January 1, 2017 totaled 40.0 thousand down 9 percent from January 1, 2016. During 2017, honey bee colonies on April 1, July 1, and October 1 were 35.0 thousand, 43.0 thousand, and 39.0 thousand, respectively.

Honey bee colonies lost for operations with less than five colonies during the quarter of January through March 2017 was 13.5 thousand colonies, the highest number of honey bee colonies lost during any quarter for 2017. The quarter in 2017 with the least number of colonies lost was April through June, with 4.20 thousand colonies.

Honey bee colonies added for operations with less than five colonies during the quarter of April through June 2017 was 12.5 thousand colonies, the highest number of honey bee colonies added during any quarter of 2017. The quarter in 2017 with the least number of colonies added was October through December, with 960 colonies.

Honey bee colonies renovated for operations with less than five colonies during the quarter of April through June 2017 was 4.40 thousand colonies, the highest number of honey bee colonies renovated during any quarter of 2017. The quarter in 2017 with the least number of colonies renovated was October through December, with 1.10 thousand colonies.

During 2017, the highest reported colony stressor was varroa mites, with 26.3 percent of the colonies reported to be affected. This is a 5 percent increase from the previous year.

Honey bee colonies lost with Colony Collapse Disorder symptoms on operations with less than five colonies was 6.00 thousand colonies during 2017, a 9 percent increase from 2016. Colonies lost with Colony Collapse Disorder symptoms were reported to meet all of the following criteria: 1) Little to no build-up of dead bees in the hive or at the hive entrance 2) Rapid loss of adult honey bee population despite the presence of queen, capped brood, and food reserves 3) Absence or delayed robbing of the food reserves 4) Loss not attributable to varroa or nosema loads.