



# Minnesota Ag News – Honey Bee Colonies



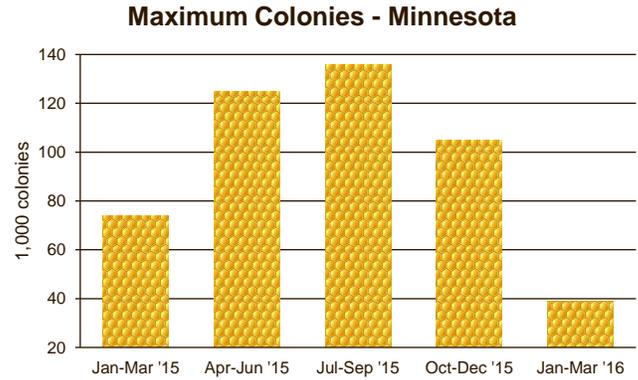
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Honey bee colonies for operations with 5 or more colonies in Minnesota as of January 1, 2016 totaled 37.0 thousand colonies. This is 32 percent above the 28.0 thousand colonies on January 1, 2015. During 2015, honey bee colonies on April 1, July 1, and October 1 were 71.0 thousand, 133 thousand, and 104 thousand, respectively. The quarter of July-September 2015 had the largest maximum number of colonies, with 136 thousand, while January-March 2016 had the smallest maximum number of colonies with 39.0 thousand.



Honey bee colonies lost for operations with 5 or more colonies during the quarter of January-March 2016 was 6,000, 62 percent more than 3,700 lost during the same quarter the year before. The quarter of July-September 2015 had a loss of 32.0 thousand colonies or 24 percent of the maximum colonies, the highest honey bee colony loss of the 5 quarters. The quarter January-March 2015, at 3,700 or 5 percent, showed the smallest loss.

Varroa mites were the number one stressor for operations with 5 or more colonies during 3 quarters in 2015 and the number two stressor during the remaining 2 quarters surveyed. The quarter of October-December 2015 showed the highest percentage of varroa mites, with 43.6 percent of Minnesota's honey bee colonies affected.

## Honey Bee Colonies – Minnesota: 2015-2016

[Operations with 5 or more colonies.]

	First of the quarter number of colonies <sup>1</sup>	Maximum colonies <sup>2</sup>	Lost colonies	Percent lost <sup>3</sup>	Added colonies	Renovated colonies <sup>4</sup>	Percent renovated <sup>5</sup>
	(number)	(number)	(number)	(percent)	(number)	(number)	(percent)
Jan-Mar 2015 .....	28,000	74,000	3,700	5	690	530	1
Apr-Jun 2015 .....	71,000	125,000	12,500	10	20,000	21,000	17
Jul-Sep 2015 .....	133,000	136,000	32,000	24	640	2,300	2
Oct-Dec 2015 .....	104,000	105,000	10,000	10	600	40	(Z)
Jan-Mar 2016 .....	37,000	39,000	6,000	15	4,400	10	(Z)

(Z) Less than half of the unit shown.

<sup>1</sup> Number of colonies in the state as of the first day of the quarter.

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

<sup>3</sup> Percent lost is the number of lost colonies divided by the maximum colonies.

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

<sup>5</sup> Percent renovated is the number of renovated colonies divided by the maximum colonies.

## Colony Health – Minnesota: 2015-2016

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

	Varroa mites	Other pests and parasites <sup>1</sup>	Disease <sup>2</sup>	Pesticide	Other <sup>3</sup>	Unknown
	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)
Jan-Mar 2015 .....	1.4	0.1	(Z)	0.1	1.6	2.1
Apr-Jun 2015 .....	25.4	6.2	1.4	16.5	10.1	9.3
Jul-Sep 2015 .....	33.3	14.6	7.4	27.4	7.0	7.2
Oct-Dec 2015 .....	43.6	8.7	8.4	25.0	3.8	8.9
Jan-Mar 2016 .....	11.8	6.9	0.1	11.3	7.1	14.2

(Z) Less than half of the unit shown.

<sup>1</sup> Tracheal mites, nosea, hive beetle, wax moths, etc.

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

<sup>3</sup> 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 as of January 1, 2016 totaled 2.59 million. This is 8 percent below the 2.82 million colonies on January 1, 2015. During 2015, honey bee colonies on April 1, July 1, and October 1 were 2.85 million, 3.13 million, and 2.87 million, respectively. Honey bee colonies lost for operations with five or more colonies during the quarter of January-March 2016, was 429 thousand colonies or 17 percent lost. The quarter of January-March 2015 had a loss of 500 thousand colonies or 18 percent, the highest honey bee colonies loss of the five quarters. The quarter of April-June 2015, at 353 thousand or 12 percent, showed the least amount of lost honey bee colonies.

Varroa mites were the number one stressor for operations with five or more colonies during each of the quarters surveyed. The quarter of January-March 2016 showed varroa mites at 34.3 percent. The quarter of April-June 2015 showed the highest percentage of varroa mites at 43.4 percent affected.

Colonies with loss reported that met 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, peaked at 114 thousand colonies lost during January-March 2016. That same quarter a year ago showed 92.3 thousand colonies lost.