



Honey Bee Colonies

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January 1 Honey Bee Colonies Down Slightly for Operations with Five or More Colonies

Honey bee colonies for operations with five or more colonies in the United States on January 1, 2017 totaled 2.62 million colonies, down slightly from January 1, 2016. The number of colonies in the United States on April 1, 2017 was 2.89 million colonies. During 2016, honey bee colonies on January 1, April 1, July 1, and October 1 were 2.62 million, 2.80 million, 3.18 million, and 3.03 million colonies, respectively.

Honey bee colonies lost for operations with five or more colonies from January through March 2017, was 362 thousand colonies, or 14 percent. The number of colonies lost during the quarter of April through June 2017 was 226 thousand colonies, or 8 percent. During the quarter of October through December 2016, colonies lost totaled 502 thousand colonies, or 17 percent, the highest of any quarter in 2016. The quarter in 2016 with the lowest number of colonies lost was April through June, with 330 thousand colonies lost, or 12 percent.

Honey bee colonies added for operations with five or more colonies from January through March 2017 was 586 thousand colonies. The number of colonies added during the quarter of April through June 2017 was 653 thousand. During the quarter of April through June 2016, 737 thousand colonies were added, the highest number of honey bee colonies added for any quarter of 2016. The quarter of October through December 2016 added 125 thousand colonies, the least number of honey bee colonies added for any quarter of 2016.

Honey bee colonies renovated for operations with five or more colonies from January through March 2017 was 240 thousand colonies, or 9 percent. During the quarter of April through June 2017, 806 thousand colonies, or 28 percent, were renovated. The quarter in 2016 with the highest number of colonies renovated was April through June with 561 thousand colonies renovated, or 20 percent. The quarter in 2016 with the lowest number of colonies renovated was October through December 2016, with 60.4 thousand or 2 percent. Renovated colonies are those that were requeened or received new honey bees through a nuc or package.

Varroa Mites Top Colony Stressor for Operations with Five or More Colonies

Varroa mites were the number one stressor for operations with five or more colonies during all quarters of 2016. The quarter of April through June 2016 had highest percentage of colonies reported to be affected by varroa mites at 53.4 percent. The percent of colonies reported to be affected by varroa mites during January through March 2017 and April through June 2017 are 42.2 percent and 41.6 percent, respectively.

Colonies Lost with Colony Collapse Disorder Symptoms Down 27 Percent for Operations with Five or More Colonies

Honey bee colonies lost with Colony Collapse Disorder symptoms on operations with five or more colonies was 84.4 thousand colonies from January through March 2017. This is a 27 percent decrease from the same quarter of 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.

January 1 Honey Bee Colonies Down 20 percent for Operations with Less than Five Colonies

Honey bee colonies for operations with less than five colonies in the United States on January 1, 2016 totaled 40.0 thousand down 20 percent from January 1, 2015. During 2016, honey bee colonies on April 1, July 1, and October 1 were 37.0 thousand, 44.0 thousand, and 40.0 thousand, respectively.

Honey bee colonies lost for operations with less than five colonies during the quarter of January through March 2016 was 10.0 thousand colonies, the highest number of honey bee colonies loss during any quarter for 2016. The quarter in 2016 with the least number of colonies lost was April through June, with 4.10 thousand colonies.

Honey bee colonies added for operations with less than five colonies during the quarter of April through June 2016 was 12.0 thousand colonies, the highest number honey bee colonies added during any quarter of 2016. The quarter in 2016 with the least number of colonies added was October through December, with 760 colonies.

Honey bee colonies renovated for operations with less than five colonies during the quarter of April through June 2016 was 3.40 thousand colonies, the highest number of honey bee colonies renovated during any quarter of 2016. The quarter in 2016 with the least number of colonies renovated was October through December, with 450 colonies.

Varroa Mites Top Colony Stressor for Operations with Less than Five Colonies

During 2016, the highest reported colony stressor was varroa mites, with 17.6 percent of the colonies reported to be affected. This is an 11 percent decrease from the previous year.

Colonies Lost with Colony Collapse Disorder Symptoms for Operations with Less than Five Colonies Down 40 percent

Honey bee colonies lost with Colony Collapse Disorder symptoms on operations with less than five colonies was 4.20 thousand colonies during 2016, a 40 percent decrease from 2015. 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.

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Number of Colonies, Maximum, Lost, Percent Lost, Added, Renovated, and Percent Renovated with Five or More Colonies – States and United States: January 1, 2016 and January-March 2016

State	January 1 number of colonies	January-March					
		Maximum colonies ¹	Lost colonies	Percent lost ²	Added colonies	Renovated colonies ³	Percent renovated ⁴
	(number)	(number)	(number)	(percent)	(number)	(number)	(percent)
Alabama	7,500	7,500	1,700	23	2,100	90	1
Arizona	30,000	30,000	4,700	16	3,500	150	1
Arkansas	27,000	27,000	5,000	19	5,000	1,100	4
California	1,130,000	1,410,000	200,000	14	210,000	139,000	10
Colorado	5,000	8,500	750	9	1,700	10	(Z)
Connecticut	2,700	2,700	270	10	70	10	(Z)
Florida	275,000	295,000	40,000	14	49,000	15,500	5
Georgia	100,000	100,000	15,500	16	36,000	3,200	3
Hawaii	15,000	15,000	280	2	570	530	4
Idaho	91,000	98,000	8,500	9	5,500	3,300	3
Illinois	8,500	9,500	1,400	15	860	40	(Z)
Indiana	6,500	6,500	770	12	30	-	-
Iowa	13,000	13,000	2,900	22	90	-	-
Kansas	5,000	5,000	1,100	22	1,400	100	2
Kentucky	6,500	6,500	1,300	20	390	40	1
Louisiana	54,000	55,000	11,000	20	9,500	2,600	5
Maine	2,200	3,700	170	5	-	-	-
Maryland	7,500	7,500	820	11	1,200	10	(Z)
Massachusetts	3,000	3,000	370	12	1,200	140	5
Michigan	25,000	42,000	5,000	12	2,300	80	(Z)
Minnesota	36,000	38,000	5,500	14	6,000	-	-
Mississippi	21,000	50,000	7,500	15	48,000	25,000	50
Missouri	10,000	10,000	1,300	13	5,500	420	4
Montana	16,500	65,000	900	1	24,000	-	-
Nebraska	11,000	20,000	720	4	510	-	-
New Jersey	6,000	6,000	1,000	17	80	20	-
New Mexico	6,000	6,500	1,700	26	1,400	30	1
New York	31,000	33,000	4,200	13	970	600	2
North Carolina	18,500	24,000	2,600	11	1,100	230	1
North Dakota	89,000	137,000	8,500	6	4,600	-	-
Ohio	16,500	16,500	2,900	18	760	50	(Z)
Oklahoma	13,500	13,500	3,300	24	4,800	570	4
Oregon	68,000	92,000	2,900	3	3,800	1,300	1
Pennsylvania	12,500	12,500	2,900	23	480	170	1
South Carolina	16,500	16,500	3,500	21	3,200	380	2
South Dakota	47,000	79,000	10,500	13	1,600	-	-
Tennessee	9,000	9,000	1,700	19	180	70	1
Texas	240,000	320,000	30,000	9	126,000	49,000	15
Utah	12,000	14,500	1,900	13	1,400	50	(Z)
Vermont	5,500	5,500	410	7	-	-	-
Virginia	6,500	6,500	1,100	17	560	70	1
Washington	77,000	146,000	13,500	9	5,500	1,200	1
West Virginia	6,500	8,000	1,700	21	-	-	-
Wisconsin	20,000	21,000	3,100	15	530	-	-
Wyoming	2,700	6,500	340	5	440	-	-
Other States ⁵	7,340	7,940	900	11	60	-	-
United States	2,619,940	(X)	416,100	16	571,880	245,060	9

- Represents zero.

(X) Not applicable.

(Z) Less than half of the unit shown.

¹ January 1 number of colonies plus all colonies moved into that state during the quarter.

² Percent lost is the number of lost colonies divided by maximum colonies except for the United States, where percent lost is the number of lost colonies divided by the January 1 number of colonies.

³ Defined as any surviving colony that was requeened or received new honey bees through nuc or package.

⁴ Percent renovated is the number of renovated colonies divided by maximum colonies except for the United States, where percent renovated is the number of renovated colonies divided by the January 1 number of colonies.

⁵ Alaska, Delaware, Nevada, New Hampshire, and Rhode Island not published separately to avoid disclosing data for individual operations.

Number of Colonies, Maximum, Lost, Percent Lost, Added, Renovated, and Percent Renovated with Five or More Colonies – States and United States: April 1, 2016 and April-June 2016

State	April 1 number of colonies	April-June					
		Maximum colonies ¹	Lost colonies	Percent lost ²	Added colonies	Renovated colonies ³	Percent renovated ⁴
	(number)	(number)	(number)	(percent)	(number)	(number)	(percent)
Alabama	8,000	8,000	930	12	1,200	690	9
Arizona	22,000	23,000	3,700	16	14,000	1,600	7
Arkansas	24,000	24,000	3,400	14	12,000	1,600	7
California	1,110,000	1,150,000	108,000	9	240,000	185,000	16
Colorado	9,500	29,000	1,800	6	9,000	680	2
Connecticut	2,500	2,500	100	4	390	60	2
Florida	240,000	240,000	29,000	12	43,000	21,000	9
Georgia	108,000	111,000	11,000	10	17,500	3,600	3
Hawaii	13,500	13,500	830	6	870	-	-
Idaho	60,000	80,000	6,000	8	19,000	5,500	7
Illinois	9,000	9,000	740	8	2,200	380	4
Indiana	4,300	7,000	220	3	2,700	900	13
Iowa	10,500	26,000	2,400	9	26,000	760	3
Kansas	4,700	6,000	960	16	3,000	900	15
Kentucky	5,500	6,000	450	8	2,100	270	5
Louisiana	52,000	53,000	4,300	8	10,000	9,500	18
Maine	3,600	25,000	4,200	17	510	560	2
Maryland	8,000	9,000	320	4	2,800	400	4
Massachusetts	4,200	8,500	300	4	1,100	440	5
Michigan	40,000	103,000	7,500	7	13,500	3,200	3
Minnesota	27,000	126,000	13,000	10	24,000	4,200	3
Mississippi	85,000	90,000	3,700	4	9,000	61,000	68
Missouri	12,000	12,500	770	6	1,800	730	6
Montana	62,000	157,000	7,000	4	25,000	13,500	9
Nebraska	19,500	43,000	6,000	14	8,000	28,000	65
New Jersey	4,200	18,000	1,500	8	1,900	110	1
New Mexico	6,500	6,500	1,400	22	2,700	100	2
New York	31,000	46,000	4,000	9	13,500	1,500	3
North Carolina	23,000	24,000	1,600	7	10,000	550	2
North Dakota	110,000	530,000	27,000	5	23,000	95,000	18
Ohio	14,000	16,500	1,700	10	6,000	1,100	7
Oklahoma	12,000	13,000	310	2	4,000	10,000	77
Oregon	77,000	132,000	4,300	3	19,000	16,000	12
Pennsylvania	11,000	14,000	1,300	9	6,500	1,100	8
South Carolina	12,500	13,500	1,300	10	2,200	410	3
South Dakota	51,000	182,000	11,000	6	15,000	13,000	7
Tennessee	8,000	8,000	580	7	3,900	200	3
Texas	340,000	350,000	36,000	10	74,000	54,000	15
Utah	14,500	25,000	4,800	19	12,000	7,000	28
Vermont	5,000	6,500	20	(Z)	480	30	(Z)
Virginia	6,000	6,500	230	4	2,200	480	7
Washington	91,000	143,000	6,000	4	21,000	11,500	8
West Virginia	7,000	7,000	990	14	2,600	160	2
Wisconsin	18,500	78,000	5,500	7	17,500	3,600	5
Wyoming	6,500	27,000	2,600	10	7,500	580	2
Other States ⁵	7,970	15,530	1,070	7	3,270	270	2
United States	2,801,470	(X)	329,820	12	736,920	561,160	20

- Represents zero.

(X) Not applicable.

(Z) Less than half of the unit shown.

¹ April 1 number of colonies plus all colonies moved into that state during the quarter.

² Percent lost is the number of lost colonies divided by maximum colonies except for the United States, where percent lost is the number of lost colonies divided by the April 1 number of colonies.

³ Defined as any surviving colony that was requeened or received new honey bees through nuc or package.

⁴ Percent renovated is the number of renovated colonies divided by maximum colonies except for the United States, where percent renovated is the number of renovated colonies divided by the April 1 number of colonies.

⁵ Alaska, Delaware, Nevada, New Hampshire, and Rhode Island not published separately to avoid disclosing data for individual operations.

Number of Colonies, Maximum, Lost, Percent Lost, Added, Renovated, and Percent Renovated with Five or More Colonies – States and United States: July 1, 2016 and July-September 2016

State	July 1 number of colonies	July-September					
		Maximum colonies ¹	Lost colonies	Percent lost ²	Added colonies	Renovated colonies ³	Percent Renovated ⁴
	(number)	(number)	(number)	(percent)	(number)	(number)	(percent)
Alabama	8,000	8,000	1,200	15	440	50	1
Arizona	30,000	32,000	6,000	19	3,200	2,600	8
Arkansas	32,000	32,000	1,500	5	270	60	(Z)
California	740,000	820,000	82,000	10	33,000	78,000	10
Colorado	33,000	37,000	6,500	18	1,100	740	2
Connecticut	3,100	3,100	270	9	890	180	6
Florida	200,000	220,000	25,000	11	62,000	14,500	7
Georgia	102,000	103,000	13,000	13	12,500	2,300	2
Hawaii	13,500	13,500	600	4	430	820	6
Idaho	79,000	131,000	13,000	10	1,900	2,800	2
Illinois	11,000	11,000	1,300	12	850	310	3
Indiana	9,500	9,500	600	6	450	550	6
Iowa	50,000	50,000	5,500	11	10,500	2,400	5
Kansas	8,000	8,000	2,600	33	310	190	2
Kentucky	7,500	7,500	1,000	13	900	230	3
Louisiana	51,000	60,000	7,000	12	2,600	2,100	4
Maine	5,500	5,500	420	8	240	140	3
Maryland	7,000	7,000	200	3	400	20	(Z)
Massachusetts	9,500	9,500	530	6	450	40	(Z)
Michigan	108,000	108,000	15,000	14	11,000	9,500	9
Minnesota	132,000	138,000	26,000	19	1,300	1,900	1
Mississippi	19,000	20,000	3,300	17	750	740	4
Missouri	13,500	13,500	650	5	480	170	1
Montana	147,000	158,000	11,500	7	4,100	6,500	4
Nebraska	45,000	47,000	8,500	18	390	27,000	57
New Jersey	18,000	18,000	270	2	120	80	(Z)
New Mexico	6,500	6,500	1,100	17	2,000	1,000	15
New York	56,000	56,000	10,000	18	1,900	800	1
North Carolina	25,000	25,000	1,400	6	1,400	1,200	5
North Dakota	510,000	550,000	71,000	13	25,000	104,000	19
Ohio	21,000	21,000	1,600	8	980	630	3
Oklahoma	3,700	3,700	560	15	30	30	1
Oregon	107,000	112,000	7,500	7	2,900	4,300	4
Pennsylvania	19,000	22,000	1,300	6	680	780	4
South Carolina	13,000	13,500	920	7	990	50	(Z)
South Dakota	178,000	191,000	25,000	13	4,200	9,500	5
Tennessee	10,000	10,000	950	10	340	290	3
Texas	129,000	143,000	12,000	8	12,500	810	1
Utah	27,000	33,000	3,200	10	1,200	120	(Z)
Vermont	6,500	6,500	400	6	170	50	1
Virginia	8,000	8,000	810	10	460	360	5
Washington	57,000	74,000	5,000	7	7,500	2,000	3
West Virginia	7,500	7,500	190	3	130	220	3
Wisconsin	71,000	75,000	12,000	16	880	640	1
Wyoming	32,000	40,000	7,000	18	1,800	1,000	3
Other States ⁵	11,880	11,890	1,920	16	1,690	430	4
United States	3,181,180	(X)	397,290	12	217,320	282,130	9

(X) Not applicable.

(Z) Less than half of the unit shown.

¹ July 1 number of colonies plus all colonies moved into that state during the quarter.

² Percent lost is the number of lost colonies divided by maximum colonies except for the United States, where percent lost is the number of lost colonies divided by the July 1 number of colonies.

³ Defined as any surviving colony that was requeened or received new honey bees through nuc or package.

⁴ Percent renovated is the number of renovated colonies divided by maximum colonies except for the United States, where percent renovated is the number of renovated colonies divided by the July 1 number of colonies.

⁵ Alaska, Delaware, Nevada, New Hampshire, and Rhode Island not published separately to avoid disclosing data for individual operations.

Number of Colonies, Maximum, Lost, Percent Lost, Added, Renovated, and Percent Renovated with Five or More Colonies – States and United States: October 1, 2016 and October-December 2016

State	October 1 number of colonies	October-December					
		Maximum colonies ¹	Lost colonies	Percent lost ²	Added colonies	Renovated colonies ³	Percent renovated ⁴
	(number)	(number)	(number)	(percent)	(number)	(number)	(percent)
Alabama	7,000	7,000	610	9	50	10	(Z)
Arizona	29,000	31,000	6,500	21	4,600	3,100	10
Arkansas	28,000	28,000	2,500	9	20	10	(Z)
California	770,000	1,330,000	205,000	15	40,000	35,000	3
Colorado	30,000	30,000	4,500	15	2,500	-	-
Connecticut	3,100	3,100	240	8	-	-	-
Florida	255,000	300,000	41,000	14	31,000	11,500	4
Georgia	96,000	112,000	11,000	10	12,000	450	(Z)
Hawaii	13,500	13,500	970	7	60	840	6
Idaho	121,000	143,000	15,500	11	5,000	420	(Z)
Illinois	9,000	9,000	720	8	-	-	-
Indiana	7,500	7,500	1,200	16	20	-	-
Iowa	54,000	54,000	4,700	9	-	20	(Z)
Kansas	5,000	5,000	1,300	26	200	-	-
Kentucky	7,500	7,500	950	13	60	80	1
Louisiana	48,000	57,000	2,000	4	250	340	1
Maine	3,500	3,500	280	8	-	-	-
Maryland	7,500	9,500	500	5	20	30	(Z)
Massachusetts	8,000	8,000	740	9	-	-	-
Michigan	101,000	101,000	12,500	12	10	130	(Z)
Minnesota	113,000	114,000	13,500	12	-	-	-
Mississippi	17,500	30,000	2,400	8	330	60	(Z)
Missouri	9,000	9,000	590	7	1,400	640	7
Montana	124,000	124,000	16,000	13	2,700	-	-
Nebraska	37,000	37,000	4,300	12	190	-	-
New Jersey	12,000	12,000	340	3	400	-	-
New Mexico	7,000	7,000	1,600	23	1,100	20	(Z)
New York	48,000	49,000	9,000	18	240	130	(Z)
North Carolina	25,000	25,000	5,500	22	220	50	(Z)
North Dakota	385,000	390,000	44,000	11	13,500	2,500	1
Ohio	19,500	19,500	2,100	11	20	140	1
Oklahoma	3,100	44,000	2,700	6	120	30	(Z)
Oregon	98,000	124,000	9,500	8	1,500	1,000	1
Pennsylvania	21,000	21,000	3,100	15	120	180	1
South Carolina	12,000	17,000	1,300	8	760	370	2
South Dakota	146,000	146,000	11,000	8	-	2,400	2
Tennessee	9,000	9,000	840	9	120	10	(Z)
Texas	136,000	310,000	39,000	13	2,200	650	(Z)
Utah	30,000	30,000	1,600	5	440	50	(Z)
Vermont	6,500	6,500	260	4	20	10	(Z)
Virginia	7,000	7,000	730	10	230	10	(Z)
Washington	65,000	97,000	9,000	9	3,100	130	(Z)
West Virginia	7,500	7,500	1,000	13	80	60	1
Wisconsin	59,000	59,000	7,500	13	10	20	(Z)
Wyoming	25,000	27,000	2,200	8	50	-	-
Other States ⁵	6,360	6,460	580	9	20	-	-
United States	3,032,060	(X)	502,350	17	124,660	60,390	2

- Represents zero.

(X) Not applicable.

(Z) Less than half of the unit shown.

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⁵ Alaska, Delaware, Nevada, New Hampshire, and Rhode Island not published separately to avoid disclosing data for individual operations.

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State	January 1 number of colonies	January-March					
		Maximum colonies ¹	Lost colonies	Percent lost ²	Added colonies	Renovated colonies ³	Percent renovated ⁴
	(number)	(number)	(number)	(percent)	(number)	(number)	(percent)
Alabama	7,000	7,000	1,600	23	570	730	10
Arizona	31,000	32,000	6,000	19	2,900	-	-
Arkansas	18,000	20,000	3,500	18	430	190	1
California	1,150,000	1,440,000	172,000	12	215,000	92,000	6
Colorado	9,500	21,000	1,100	5	100	-	-
Connecticut	3,100	3,100	380	12	100	110	4
Florida	260,000	265,000	30,000	11	80,000	33,000	12
Georgia	123,000	125,000	14,000	11	36,000	21,000	17
Hawaii	13,000	13,000	190	1	510	50	(Z)
Idaho	95,000	99,000	8,500	9	2,000	280	(Z)
Illinois	11,000	11,000	2,900	26	3,100	150	1
Indiana	7,000	7,500	1,900	25	1,700	70	1
Iowa	10,000	15,500	3,000	19	70	-	-
Kansas	3,800	3,800	1,000	26	930	380	10
Kentucky	6,500	7,000	1,300	19	950	430	6
Louisiana	44,000	47,000	2,700	6	11,000	1,900	4
Maine	2,700	3,100	1,000	32	100	-	-
Maryland	9,000	9,000	2,100	23	770	260	3
Massachusetts	3,300	3,300	1,500	45	120	110	3
Michigan	29,000	59,000	5,000	8	600	130	(Z)
Minnesota	27,000	41,000	3,500	9	3,300	-	-
Mississippi	31,000	68,000	2,600	4	23,000	7,500	11
Missouri	6,500	7,500	1,200	16	400	10	(Z)
Montana	18,500	46,000	470	1	3,100	6,000	13
Nebraska	7,500	13,000	750	6	120	-	-
New Jersey	6,000	6,500	490	8	10	-	-
New Mexico	5,500	5,500	2,100	38	3,600	-	-
New York	32,000	33,000	6,000	18	520	-	-
North Carolina	16,000	23,000	2,500	11	3,700	1,200	5
North Dakota	50,000	123,000	640	1	1,100	10	(Z)
Ohio	15,500	17,500	4,400	25	1,300	530	3
Oklahoma	26,000	26,000	550	2	9,500	1,600	6
Oregon	71,000	90,000	8,000	9	7,500	1,400	2
Pennsylvania	17,000	18,000	4,200	23	810	410	2
South Carolina	17,000	17,500	1,600	9	4,700	970	6
South Dakota	21,000	48,000	2,700	6	1,500	440	1
Tennessee	8,500	8,500	1,600	19	1,500	160	2
Texas	270,000	330,000	35,000	11	148,000	68,000	21
Utah	16,000	18,500	2,700	15	2,900	60	(Z)
Vermont	6,500	6,500	440	7	-	-	-
Virginia	8,000	8,000	1,400	18	1,900	280	4
Washington	68,000	104,000	9,000	9	8,500	-	-
West Virginia	5,500	8,000	800	10	450	100	1
Wisconsin	17,000	22,000	4,400	20	450	70	(Z)
Wyoming	6,500	17,000	3,600	21	1,300	-	-
Other States ⁵	6,190	6,490	1,540	24	130	50	1
United States	2,615,590	(X)	361,850	14	586,240	239,580	9

- Represents zero.

(X) Not applicable.

(Z) Less than half of the unit shown.

¹ January 1 number of colonies plus all colonies moved into that state during the quarter.

² Percent lost is the number of lost colonies divided by maximum colonies except for the United States, where percent lost is the number of lost colonies divided by the January 1 number of colonies.

³ Defined as any surviving colony that was requeened or received new honey bees through nuc or package.

⁴ Percent renovated is the number of renovated colonies divided by maximum colonies except for the United States, where percent renovated is the number of renovated colonies divided by the January 1 number of colonies.

⁵ Alaska, Delaware, Nevada, New Hampshire, and Rhode Island not published separately to avoid disclosing data for individual operations.

Number of Colonies, Maximum, Lost, Percent Lost, Added, Renovated, and Percent Renovated with Five or More Colonies – States and United States: April 1, 2017 and April-June 2017

State	April 1 number of colonies	April-June					
		Maximum colonies ¹	Lost colonies	Percent lost ²	Added colonies	Renovated colonies ³	Percent renovated ⁴
	(number)	(number)	(number)	(percent)	(number)	(number)	(percent)
Alabama	6,500	6,500	440	7	1,200	500	8
Arizona	22,000	22,000	2,600	12	12,500	3,000	14
Arkansas	17,000	17,000	1,900	11	5,000	1,300	8
California	1,140,000	1,180,000	82,000	7	210,000	235,000	20
Colorado	16,500	29,000	3,500	12	5,500	7,500	26
Connecticut	3,000	3,000	140	5	2,200	350	12
Florida	245,000	250,000	25,000	10	40,000	50,000	20
Georgia	125,000	142,000	10,500	7	21,000	33,000	23
Hawaii	12,000	12,000	60	1	520	910	8
Idaho	61,000	78,000	9,500	12	24,000	31,000	40
Illinois	12,000	12,500	1,200	10	3,600	1,600	13
Indiana	7,500	11,000	1,200	11	3,000	510	5
Iowa	12,500	23,000	2,000	9	24,000	3,900	17
Kansas	4,400	4,900	380	8	2,500	890	18
Kentucky	6,500	7,000	560	8	2,900	600	9
Louisiana	56,000	56,000	2,600	5	4,600	9,000	16
Maine	2,200	40,000	910	2	790	1,400	4
Maryland	8,000	9,500	190	2	3,200	930	10
Massachusetts	1,900	8,000	130	2	1,900	490	6
Michigan	55,000	79,000	4,600	6	22,000	11,500	15
Minnesota	34,000	128,000	5,000	4	18,500	9,000	7
Mississippi	89,000	89,000	3,800	4	5,500	42,000	47
Missouri	7,000	7,500	260	3	1,700	1,000	13
Montana	46,000	134,000	3,800	3	15,000	20,000	15
Nebraska	8,500	63,000	640	1	6,000	39,000	62
New Jersey	6,000	21,000	430	2	1,600	660	3
New Mexico	7,000	7,500	1,700	23	2,300	3,900	52
New York	25,000	41,000	1,300	3	16,000	7,500	18
North Carolina	24,000	25,000	1,600	6	3,900	2,700	11
North Dakota	112,000	385,000	10,500	3	19,500	37,000	10
Ohio	13,500	14,500	1,100	8	8,000	2,500	17
Oklahoma	25,000	25,000	200	1	6,500	1,600	6
Oregon	84,000	108,000	5,000	5	18,000	24,000	22
Pennsylvania	15,000	16,500	510	3	7,000	2,200	13
South Carolina	20,000	20,000	870	4	1,900	3,700	19
South Dakota	34,000	152,000	6,000	4	10,000	20,000	13
Tennessee	8,500	9,000	1,100	12	2,600	1,300	14
Texas	345,000	345,000	18,000	5	43,000	148,000	43
Utah	19,000	35,000	2,300	7	14,500	10,500	30
Vermont	6,000	8,000	170	2	390	190	2
Virginia	8,500	9,000	1,000	11	3,100	1,100	12
Washington	89,000	132,000	6,500	5	36,000	21,000	16
West Virginia	7,500	7,500	340	5	3,400	2,500	33
Wisconsin	18,000	65,000	2,900	4	13,000	6,500	10
Wyoming	15,000	30,000	1,100	4	4,800	4,100	14
Other States ⁵	5,530	7,040	150	2	870	840	12
United States	2,886,030	(X)	225,680	8	653,470	806,170	28

(X) Not applicable.

¹ April 1 number of colonies plus all colonies moved into that state during the quarter.

² Percent lost is the number of lost colonies divided by maximum colonies except for the United States, where percent lost is the number of lost colonies divided by the April 1 number of colonies.

³ Defined as any surviving colony that was requeened or received new honey bees through nuc or package.

⁴ Percent renovated is the number of renovated colonies divided by maximum colonies except for the United States, where percent renovated is the number of renovated colonies divided by the April 1 number of colonies.

⁵ Alaska, Delaware, Nevada, New Hampshire, and Rhode Island not published separately to avoid disclosing data for individual operations.

Colony Health Stressors with Five or More Colonies – States and United States: January-March 2016

[Percent of colonies affected by stressors anytime during the quarter. A colony may be affected by multiple stressors during the quarter]

State	Varroa mites	Other pests and parasites ¹	Diseases ²	Pesticides	Other ³	Unknown
	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)
Alabama	24.2	22.0	4.3	8.1	2.4	11.3
Arizona	33.8	2.8	-	7.7	6.5	7.2
Arkansas	57.4	6.9	(Z)	0.5	1.9	8.1
California	38.1	15.2	9.0	13.5	8.4	4.4
Colorado	2.9	4.1	0.5	0.2	2.7	0.2
Connecticut	12.3	0.8	0.2	-	7.7	1.7
Florida	23.6	5.8	0.4	4.9	1.8	1.4
Georgia	32.3	7.8	2.1	21.4	3.2	3.9
Hawaii	0.3	1.5	-	0.1	0.8	(Z)
Idaho	31.5	2.3	2.1	5.9	5.4	1.4
Illinois	12.4	6.4	0.3	2.6	4.6	8.6
Indiana	17.4	3.7	0.9	0.3	7.2	5.5
Iowa	52.8	14.4	13.8	2.7	24.0	4.8
Kansas	30.3	10.0	0.1	1.1	2.4	5.4
Kentucky	23.6	9.0	0.7	6.3	12.5	8.4
Louisiana	22.8	14.2	18.6	0.4	12.4	1.9
Maine	3.3	0.4	0.3	-	0.8	1.4
Maryland	26.2	0.1	-	9.5	6.7	0.7
Massachusetts	10.1	5.2	0.7	-	3.1	1.1
Michigan	5.9	0.2	(Z)	0.5	1.3	11.3
Minnesota	12.1	7.0	0.2	11.6	8.0	14.5
Mississippi	13.8	1.6	(Z)	3.2	0.3	14.5
Missouri	20.2	7.0	0.4	6.2	4.5	7.3
Montana	0.6	(Z)	-	0.5	0.1	-
Nebraska	1.8	0.4	0.1	0.2	0.8	0.6
New Jersey	8.0	1.1	0.2	0.6	1.7	12.0
New Mexico	69.0	0.4	31.5	-	1.5	0.3
New York	27.5	5.9	1.5	7.6	9.5	2.6
North Carolina	9.5	2.5	1.9	2.7	4.0	2.4
North Dakota	2.7	-	-	-	0.1	11.7
Ohio	41.6	4.3	0.2	1.3	10.2	5.3
Oklahoma	4.9	1.2	(Z)	0.3	0.9	21.0
Oregon	20.4	15.0	5.3	(Z)	2.4	0.3
Pennsylvania	44.8	4.3	0.3	3.8	5.5	4.6
South Carolina	10.7	2.3	0.6	2.0	5.1	4.8
South Dakota	0.2	(Z)	(Z)	-	0.5	0.3
Tennessee	19.7	7.1	0.2	3.7	10.1	10.9
Texas	19.4	9.8	2.3	9.4	3.7	2.5
Utah	26.2	7.0	0.1	0.4	1.6	0.5
Vermont	1.3	-	0.3	-	0.5	1.7
Virginia	32.7	7.3	-	0.4	5.0	3.8
Washington	23.3	10.5	1.3	1.7	1.9	5.1
West Virginia	21.9	2.9	1.1	0.6	6.9	6.5
Wisconsin	24.2	1.6	1.1	13.4	10.8	10.4
Wyoming	(Z)	0.4	0.2	2.5	0.8	1.3
Other States ⁴	5.5	2.3	0.5	2.1	8.6	0.1
United States	34.6	12.6	6.2	10.9	6.9	5.4

- Represents zero.

(Z) Less than half of the unit shown.

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

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

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

⁴ Alaska, Delaware, Nevada, New Hampshire, and Rhode Island not published separately to avoid disclosing data for individual operations.

Colony Health Stressors with Five or More Colonies – States and United States: April-June 2016

[Percent of colonies affected by stressors anytime during the quarter. A colony may be affected by multiple stressors during the quarter]

State	Varroa mites	Other pests and parasites ¹	Diseases ²	Pesticides	Other ³	Unknown
	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)
Alabama	9.6	8.2	0.3	1.7	4.8	5.4
Arizona	26.8	47.5	17.2	12.0	17.4	3.5
Arkansas	84.9	8.5	5.5	0.1	3.4	1.6
California	49.7	14.1	11.2	14.2	15.3	2.6
Colorado	38.7	0.8	3.3	1.4	2.6	0.3
Connecticut	9.3	0.6	0.5	0.3	4.4	1.2
Florida	48.2	23.3	10.0	11.6	10.1	2.0
Georgia	59.3	28.4	2.0	28.4	11.7	2.7
Hawaii	35.6	38.1	(Z)	0.6	3.2	-
Idaho	21.2	4.8	2.7	3.1	5.4	2.7
Illinois	11.4	4.4	2.0	3.1	4.7	2.1
Indiana	12.5	2.9	(Z)	2.1	2.8	4.3
Iowa	23.5	17.8	18.7	0.6	6.0	5.7
Kansas	47.3	11.6	2.8	8.3	3.7	1.8
Kentucky	38.9	36.1	1.7	28.4	16.0	3.8
Louisiana	20.7	1.1	-	0.3	1.2	0.6
Maine	82.7	-	4.3	31.1	2.4	27.9
Maryland	4.2	2.3	2.4	2.9	3.3	0.6
Massachusetts	40.5	10.6	0.3	10.6	2.3	11.9
Michigan	54.1	9.3	1.1	16.5	11.8	1.1
Minnesota	20.8	6.0	6.5	18.2	8.6	7.6
Mississippi	12.3	2.3	1.2	2.7	1.2	0.1
Missouri	17.2	1.6	0.7	0.1	1.6	1.2
Montana	30.3	7.1	4.5	3.9	6.9	0.2
Nebraska	6.1	0.1	1.0	3.8	1.1	3.5
New Jersey	11.9	0.9	0.2	(Z)	0.2	0.3
New Mexico	59.1	0.3	12.1	2.5	8.2	-
New York	20.4	3.1	0.9	11.7	4.1	3.8
North Carolina	51.8	23.5	4.7	33.8	8.3	41.7
North Dakota	16.2	3.7	2.1	1.1	3.6	0.2
Ohio	10.6	2.2	0.6	18.3	2.9	1.4
Oklahoma	51.8	2.8	0.2	1.2	0.6	0.4
Oregon	52.7	14.5	9.9	2.6	16.7	6.0
Pennsylvania	18.7	3.9	2.4	3.6	4.6	0.9
South Carolina	51.3	36.6	1.0	35.8	14.3	1.3
South Dakota	32.4	6.6	1.7	5.1	15.4	0.1
Tennessee	40.9	22.7	0.1	0.4	9.1	2.6
Texas	26.1	9.0	7.5	2.4	7.4	3.7
Utah	23.0	0.1	1.8	7.3	3.4	0.8
Vermont	2.6	0.1	0.1	-	0.3	0.1
Virginia	23.1	4.2	6.8	6.0	7.3	2.9
Washington	40.9	11.4	3.3	3.1	11.1	0.6
West Virginia	20.1	0.8	4.2	-	14.7	0.7
Wisconsin	23.4	3.7	12.8	12.6	14.9	10.5
Wyoming	7.1	2.6	1.2	0.6	2.5	0.8
Other States ⁴	7.6	0.2	-	0.8	0.6	5.4
United States	53.4	16.3	9.5	12.4	12.3	4.1

- Represents zero.

(Z) Less than half of the unit shown.

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

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

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

⁴ Alaska, Delaware, Nevada, New Hampshire, and Rhode Island not published separately to avoid disclosing data for individual operations.

Colony Health Stressors with Five or More Colonies – States and United States: July-September 2016

[Percent of colonies affected by stressors anytime during the quarter. A colony may be affected by multiple stressors during the quarter]

State	Varroa mites	Other pests and parasites ¹	Diseases ²	Pesticides	Other ³	Unknown
	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)
Alabama	11.7	42.0	(Z)	3.8	3.2	13.8
Arizona	41.7	1.0	0.9	13.5	13.4	8.9
Arkansas	80.7	9.0	0.4	7.9	2.7	0.3
California	42.2	17.8	8.5	18.8	10.4	6.9
Colorado	49.3	22.4	16.8	24.6	10.6	0.1
Connecticut	18.8	1.6	-	0.2	5.0	0.8
Florida	45.1	23.4	2.7	9.9	8.5	1.8
Georgia	30.7	16.4	2.4	12.1	7.6	4.5
Hawaii	67.8	75.3	0.1	0.8	-	-
Idaho	25.3	4.7	4.5	7.6	6.0	3.3
Illinois	17.4	7.9	0.7	4.3	2.9	1.6
Indiana	50.4	12.4	1.2	0.6	2.5	1.2
Iowa	32.6	3.4	0.8	16.7	2.4	5.6
Kansas	42.8	25.5	14.1	29.1	4.5	2.6
Kentucky	42.3	25.7	0.9	11.5	7.4	4.5
Louisiana	39.5	26.1	(Z)	1.6	9.6	0.7
Maine	9.3	0.1	0.2	-	0.6	-
Maryland	10.8	4.8	0.1	0.7	0.6	1.6
Massachusetts	14.1	8.7	6.8	0.1	3.4	7.9
Michigan	64.1	25.1	0.3	9.1	6.5	2.7
Minnesota	47.2	14.6	6.2	22.4	17.8	8.9
Mississippi	27.5	3.5	1.6	1.8	5.0	4.7
Missouri	13.3	7.7	1.0	0.1	3.1	0.7
Montana	41.9	8.8	7.0	6.9	6.1	1.4
Nebraska	20.4	1.6	0.1	10.2	1.6	0.1
New Jersey	20.2	7.1	1.2	8.5	1.3	0.3
New Mexico	59.5	55.4	55.2	24.1	1.7	0.7
New York	37.4	9.0	5.5	5.2	24.7	2.6
North Carolina	27.8	13.4	0.1	2.9	13.4	3.0
North Dakota	38.0	11.8	6.3	12.9	9.9	3.1
Ohio	60.6	10.6	2.3	2.9	3.6	3.2
Oklahoma	7.5	6.5	0.3	0.7	1.4	21.8
Oregon	52.9	18.5	12.5	9.6	5.1	1.5
Pennsylvania	27.3	7.7	1.6	4.3	2.8	1.2
South Carolina	20.4	18.8	0.1	2.6	2.6	1.9
South Dakota	48.8	19.5	14.2	22.7	4.6	2.8
Tennessee	22.5	23.1	1.3	2.4	6.2	2.0
Texas	47.2	11.4	1.7	31.4	3.7	4.1
Utah	32.1	20.2	0.6	21.8	2.5	1.7
Vermont	5.6	8.0	1.7	-	2.4	0.8
Virginia	39.1	24.1	1.1	2.3	5.3	3.6
Washington	65.2	1.4	0.9	19.1	4.3	0.1
West Virginia	41.5	7.1	3.6	0.1	8.1	0.4
Wisconsin	31.5	13.6	10.8	15.8	5.1	11.1
Wyoming	38.6	3.1	0.5	2.6	3.4	0.3
Other States ⁴	7.8	1.6	0.5	-	2.3	9.8
United States	46.1	15.6	6.7	15.1	9.3	4.5

- Represents zero.

(Z) Less than half of the unit shown.

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

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

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

⁴ Alaska, Delaware, Nevada, New Hampshire, and Rhode Island not published separately to avoid disclosing data for individual operations.

Colony Health Stressors with Five or More Colonies – States and United States: October-December 2016

[Percent of colonies affected by stressors anytime during the quarter. A colony may be affected by multiple stressors during the quarter]

State	Vарroa mites	Other pests and parasites ¹	Diseases ²	Pesticides	Other ³	Unknown
	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)
Alabama	12.3	9.9	0.2	2.4	6.7	3.3
Arizona	98.8	15.5	2.3	6.5	4.3	3.2
Arkansas	21.1	4.8	(Z)	1.3	1.1	3.3
California	41.9	13.7	8.0	9.1	9.6	3.5
Colorado	32.4	1.3	0.1	3.1	13.0	0.1
Connecticut	14.7	6.6	1.1	1.0	5.8	3.2
Florida	30.9	27.1	7.7	17.0	13.6	6.5
Georgia	43.6	8.6	3.7	7.6	4.1	2.5
Hawaii	39.9	40.8	-	0.1	0.2	0.1
Idaho	31.9	0.8	4.8	0.2	4.2	3.0
Illinois	27.8	11.7	1.2	5.6	3.9	4.8
Indiana	28.2	9.6	0.2	1.4	1.0	3.8
Iowa	18.7	9.8	8.9	9.0	11.4	6.3
Kansas	29.2	8.3	0.3	3.1	5.1	1.4
Kentucky	48.2	22.3	3.3	3.0	10.3	5.7
Louisiana	2.9	1.0	1.0	0.1	0.7	1.2
Maine	10.7	0.8	0.1	-	5.8	0.1
Maryland	23.8	8.3	4.5	4.6	5.8	0.6
Massachusetts	6.1	2.6	0.4	0.4	0.7	4.2
Michigan	23.9	1.5	0.1	2.7	4.0	0.6
Minnesota	27.5	7.7	3.1	17.6	5.0	8.9
Mississippi	21.9	6.0	0.1	-	2.1	2.8
Missouri	16.1	12.6	0.2	(Z)	1.5	0.7
Montana	59.1	39.4	32.9	13.7	33.3	33.1
Nebraska	10.5	1.4	0.2	1.2	0.4	1.5
New Jersey	28.6	11.3	0.4	1.9	3.4	8.6
New Mexico	46.2	0.3	7.2	-	0.8	0.3
New York	27.8	2.2	3.6	12.5	2.2	2.1
North Carolina	24.0	7.7	1.8	-	12.5	1.3
North Dakota	23.5	7.9	1.5	0.4	2.6	2.2
Ohio	42.0	18.1	0.8	4.2	11.2	10.9
Oklahoma	4.9	0.5	(Z)	0.1	0.1	0.7
Oregon	25.5	2.8	13.0	2.8	2.6	1.3
Pennsylvania	18.7	2.6	1.0	2.8	4.9	3.1
South Carolina	29.0	27.1	23.3	24.6	25.9	1.9
South Dakota	48.9	5.3	0.3	6.0	1.0	0.3
Tennessee	19.9	21.6	-	1.1	2.2	3.1
Texas	33.1	17.5	3.2	3.6	2.8	1.4
Utah	26.4	0.1	0.2	0.9	0.7	0.3
Vermont	44.5	41.3	41.2	41.0	0.4	-
Virginia	31.4	19.9	2.0	-	1.8	5.1
Washington	21.4	4.6	3.7	9.1	4.5	0.3
West Virginia	23.8	2.3	1.1	1.1	4.3	2.8
Wisconsin	69.3	12.2	10.0	10.6	10.6	46.2
Wyoming	32.2	1.6	3.1	5.2	1.1	-
Other States ⁴	24.1	9.3	9.3	9.6	2.3	1.4
United States	46.6	16.9	8.3	9.4	10.1	6.4

- Represents zero.

(Z) Less than half of the unit shown.

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

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

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

⁴ Alaska, Delaware, Nevada, New Hampshire, and Rhode Island not published separately to avoid disclosing data for individual operations.

Colony Health Stressors with Five or More Colonies – States and United States: January-March 2017

[Percent of colonies affected by stressors anytime during the quarter. A colony may be affected by multiple stressors during the quarter]

State	Varroa mites	Other pests and parasites ¹	Diseases ²	Pesticides	Other ³	Unknown
	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)
Alabama	15.3	10.9	0.2	3.6	7.5	10.4
Arizona	35.6	2.1	3.8	1.7	6.5	2.1
Arkansas	23.7	13.8	(Z)	0.3	3.6	0.6
California	38.0	12.8	7.6	9.2	6.6	6.3
Colorado	17.0	(Z)	(Z)	0.9	2.6	0.4
Connecticut	51.5	1.5	-	-	6.1	5.6
Florida	37.6	14.8	1.5	14.2	6.2	17.9
Georgia	35.3	7.0	0.2	2.6	4.4	1.8
Hawaii	1.2	2.1	0.2	-	0.1	0.1
Idaho	74.2	42.3	42.3	21.2	1.7	0.4
Illinois	24.3	11.8	0.6	4.2	10.2	7.9
Indiana	15.8	8.0	5.2	4.1	10.4	7.1
Iowa	33.6	8.3	8.4	12.0	11.9	11.7
Kansas	47.1	2.9	-	3.6	16.4	14.3
Kentucky	31.9	11.5	0.4	3.8	16.0	7.5
Louisiana	20.5	8.5	0.1	2.2	5.2	2.3
Maine	23.9	20.9	30.5	8.1	26.3	-
Maryland	11.3	3.3	1.0	1.0	11.9	4.3
Massachusetts	32.0	5.6	2.9	4.5	10.5	5.2
Michigan	7.9	0.3	(Z)	1.9	1.1	3.9
Minnesota	2.1	0.4	0.1	1.0	8.8	5.8
Mississippi	41.7	35.3	(Z)	0.1	0.5	1.4
Missouri	16.2	15.2	0.5	2.6	5.4	5.3
Montana	34.0	13.6	(Z)	2.3	5.6	0.1
Nebraska	14.9	0.3	0.4	-	2.2	1.2
New Jersey	16.3	0.7	0.3	0.1	0.8	0.6
New Mexico	93.9	-	87.4	-	2.0	-
New York	20.4	9.4	9.8	4.4	13.2	10.9
North Carolina	34.7	17.4	0.2	1.5	7.2	3.9
North Dakota	0.8	-	-	-	0.2	0.1
Ohio	25.8	11.6	0.6	0.1	5.2	16.5
Oklahoma	11.9	1.0	(Z)	0.1	0.5	0.3
Oregon	28.7	8.5	10.1	9.1	15.4	8.5
Pennsylvania	21.0	2.4	0.8	2.9	3.6	7.3
South Carolina	12.6	5.3	0.4	1.1	2.7	1.8
South Dakota	2.9	-	-	(Z)	0.2	0.3
Tennessee	28.6	12.6	0.9	2.4	8.1	7.0
Texas	36.2	22.5	2.0	5.1	3.5	3.6
Utah	38.7	(Z)	0.1	-	2.0	0.3
Vermont	6.0	0.7	2.1	0.2	0.9	2.1
Virginia	21.4	12.8	2.8	3.2	7.4	8.4
Washington	6.8	0.1	(Z)	(Z)	8.1	4.4
West Virginia	15.8	1.0	0.2	-	11.9	1.3
Wisconsin	19.0	1.9	1.1	2.0	4.0	10.5
Wyoming	0.2	-	0.2	-	0.6	(Z)
Other States ⁴	3.4	0.8	6.6	2.6	1.8	2.5
United States	42.2	15.6	7.1	8.9	7.2	7.4

- Represents zero.

(Z) Less than half of the unit shown.

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

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

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

⁴ Alaska, Delaware, Nevada, New Hampshire, and Rhode Island not published separately to avoid disclosing data for individual operations.

Colony Health Stressors with Five or More Colonies – States and United States: April-June 2017

[Percent of colonies affected by stressors anytime during the quarter. A colony may be affected by multiple stressors during the quarter]

State	Varroa mites	Other pests and parasites ¹	Diseases ²	Pesticides	Other ³	Unknown
	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)
Alabama	17.9	13.6	-	4.2	9.4	5.3
Arizona	57.8	15.6	19.4	12.2	20.1	0.7
Arkansas	24.5	12.2	2.4	4.9	3.4	3.1
California	36.1	7.5	2.9	12.4	4.7	3.0
Colorado	31.6	0.9	5.3	3.2	4.7	0.1
Connecticut	9.7	0.2	-	0.5	2.0	0.7
Florida	36.3	14.3	6.1	9.0	6.4	18.6
Georgia	33.0	5.6	1.0	6.7	6.3	2.8
Hawaii	89.5	3.5	(Z)	-	0.4	-
Idaho	31.2	7.4	3.9	8.2	7.7	4.7
Illinois	11.0	4.2	0.7	2.9	5.5	1.4
Indiana	5.9	2.3	0.1	32.1	8.6	1.3
Iowa	39.4	27.7	7.6	26.7	8.2	0.9
Kansas	19.7	9.6	0.7	22.2	1.8	7.8
Kentucky	28.5	12.9	1.1	5.0	4.8	2.1
Louisiana	26.2	3.5	-	2.1	1.6	0.7
Maine	3.6	3.6	3.4	3.6	1.6	14.2
Maryland	3.3	6.9	0.7	0.2	2.0	1.0
Massachusetts	13.8	11.4	11.8	9.9	0.4	1.6
Michigan	24.4	9.8	0.2	1.7	1.0	0.6
Minnesota	21.4	4.7	2.4	13.3	6.6	2.2
Mississippi	14.4	0.6	-	1.3	2.9	0.5
Missouri	13.8	8.7	3.0	1.0	5.1	1.8
Montana	24.3	3.8	4.2	3.3	4.4	0.6
Nebraska	73.8	67.2	0.7	66.6	8.9	0.5
New Jersey	24.1	5.4	2.3	1.9	0.3	0.7
New Mexico	88.4	0.6	72.9	-	35.6	0.6
New York	21.7	2.2	2.2	2.1	9.1	0.1
North Carolina	23.4	5.5	2.3	0.8	5.1	1.5
North Dakota	27.9	3.6	2.8	5.4	3.0	0.4
Ohio	45.6	6.4	6.2	10.5	16.8	3.0
Oklahoma	23.0	1.6	11.1	0.3	7.6	0.2
Oregon	32.7	9.0	10.2	3.6	14.8	9.6
Pennsylvania	13.9	1.0	0.8	1.4	2.4	1.6
South Carolina	23.9	21.3	14.7	17.9	4.1	0.3
South Dakota	20.9	1.4	1.3	9.7	6.2	3.6
Tennessee	47.4	24.9	1.0	3.1	10.4	3.9
Texas	28.8	16.6	1.5	12.5	2.9	1.1
Utah	32.2	1.1	0.2	0.1	10.9	(Z)
Vermont	3.3	0.3	0.3	-	0.2	0.5
Virginia	19.8	19.1	1.0	5.3	1.9	4.8
Washington	19.5	4.7	3.6	6.7	3.1	0.4
West Virginia	11.5	1.5	1.7	0.4	3.6	1.6
Wisconsin	13.7	1.6	1.7	2.1	2.5	0.3
Wyoming	37.8	3.3	11.6	2.6	7.4	2.1
Other States ⁴	6.8	0.4	0.3	-	4.0	0.6
United States	41.6	11.7	4.3	12.9	6.6	4.4

- Represents zero.

(Z) Less than half of the unit shown.

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

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

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

⁴ Alaska, Delaware, Nevada, New Hampshire, and Rhode Island not published separately to avoid disclosing data for individual operations.

Colonies Lost with Colony Collapse Disorder Symptoms with Five or More Colonies – United States: Quarterly January-December 2016 and 2017

[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. Blank cells indicate estimation period has not yet begun]

Year	January-March	April-June	July-September	October-December
	(number)	(number)	(number)	(number)
2016	115,950	47,780	92,610	129,290
2017	84,430	34,750		

Number of Colonies, Lost, Percent Lost, Added, Renovated, and Percent Renovated with Inventory of Less than Five Colonies – United States: First of Quarter and Quarterly 2015 and 2016

Quarter	Colonies on first of the quarter ¹	Lost colonies	Percent lost ²	Added colonies	Renovated colonies ³	Percent renovated ⁴
	(number)	(number)	(percent)	(number)	(number)	(percent)
2015						
January-March	50,000	15,500	31	8,000	3,200	6
April-June	43,000	5,500	13	15,000	3,800	9
July-September	52,000	6,500	13	2,800	1,400	3
October-December	49,000	7,000	14	860	470	1
2016						
January-March	40,000	10,000	25	6,500	2,700	7
April-June	37,000	4,100	11	12,000	3,400	9
July-September	44,000	6,000	14	1,800	1,100	3
October-December	40,000	6,000	15	760	450	1

¹ Number of colonies on January 1, April 1, July 1, and October 1.

² Percent lost is the number of lost colonies divided by the first of quarter number of colonies.

³ Defined as any surviving colony that was requeened or received new honey bees through nuc or package.

⁴ Percent renovated is the number of renovated colonies divided by the first of quarter number of colonies.

Colony Health Stressors with Less than Five Colonies – United States: Annual 2015 and 2016

[Percent of colonies affected by stressors anytime during the year. A colony may be affected by multiple stressors during the year]

Year	Varroa mites	Other pests and parasites ¹	Diseases ²	Pesticides	Other ³	Unknown
	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)
2015	19.8	12.5	2.2	4.9	15.5	20.8
2016	17.6	13.4	2.2	4.1	10.4	16.1

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

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

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

Colonies Lost with Colony Collapse Disorder Symptoms with Less than Five Colonies – United States: Annual 2015 and 2016

[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]

Item	2015	2016
	(number)	(number)
Colonies lost	7,000	4,200

Statistical Methodology

Survey Procedures: Data for operations with honey bee colonies are collected from a stratified sample of operations that responded as having honey bees on the *Bee and Honey Inquiry* and from the NASS list frame. For operations with five or more colonies, data was collected on a quarterly basis; operations with less than five colonies were collected with one, annual survey. NASS Regional Field Offices maintain a list of all known operations with honey bees and use known sources of producers to update their lists. All operations are mailed a questionnaire and given adequate time to respond by mail or electronic data reporting (EDR). Those that do not respond by mail or EDR are telephoned or possibly enumerated in person.

Estimation Procedures: Estimates were prepared by the Agricultural Statistics Board after reviewing recommendations and analysis submitted by each Regional Field Office. All data were analyzed for unusual values. Data from each operation were compared to their own past operating profile and to trends from similar operations. Data for missing operations were estimated based on similar operations or historical data. National and State survey data were reviewed for reasonableness with each other and estimates from the previous quarters using a balance sheet.

Revision Policy: The previous year's estimates are subject to revision when current year's estimates are made. Revisions are the result of late reports or corrected data. Estimates will also be reviewed after data from the 5-year Census of Agriculture are available. No revisions will be made after that date.

Reliability: Since all operations with honey bees are not included in the sample, survey estimates are subject to sampling variability. Survey results are also subject to non-sampling errors such as omissions, duplication, and mistakes in reporting, recording, and processing the data. While these errors cannot be measured directly, they are minimized through strict quality controls in the data collection process and a careful review of all reported data for consistency and reasonableness.

Terms and Definitions of Honey Bee Colony Estimates

Added colonies: A new or replacement, surviving colony that was either created or purchased whole by an operation.

Colony: A hive containing a queen honey bee and attendant worker bees and/or drone bees.

Colony Collapse Disorder (CCD) criteria: Colonies reported as being lost due to CCD must have fully met four 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. Colonies lost due to CCD were collected on a quarterly basis for operations with five or more colonies. Colonies lost due to CCD on operations with less than five colonies were collected annually and for the year as a whole.

Lost colony: A completely failed colony, loss of most workers, and possibly the queen. Colony is no longer viable. Sometimes referred to as a dead out.

Maximum colonies: Refers to the sum of colonies in a state on the first of the quarter plus all those moved into the state during that period. Maximum colonies is considered the base number from which a data user can do further analysis. It does not include the colonies that were added, lost, or renovated in the state. Colonies are counted in every state they were in during the quarter; therefore, a national level maximum number of colonies cannot be calculated due to duplication.

Nuc: A smaller sized hive box with reduced numbers of bees and brood, usually containing a queen; used for expansion of the apiary operation or renovating an existing colony.

Package: A shipping container with several pounds of honey bees that may or may not include a queen; used for expansion of the apiary operation or renovating an existing colony.

Percent lost: The state-level percentage of colonies lost is the number of colonies lost in that state divided by the maximum colonies for that state. The national level percentage of colonies lost is the total number of all colonies lost in the United States divided by the number of colonies on the first of the quarter.

Percent renovated: The state-level percentage of colonies renovated is the number of colonies renovated in that state divided by the maximum colonies for that state. The national level percentage of colonies renovated is the total number of all colonies renovated in the United States divided by the number of colonies on the first of the quarter.

Renovated colony: An existing colony that was requeened or received a nuc or package.

Stressors: State level colony health stressors for operations with five or more colonies are the percent of the maximum colonies reported to be affected, by quarter. The national level colony stressors is the summed number for the United States divided by the number of colonies on the first of the quarter. The health percentages for operations with less than five colonies are the percent of colonies reported to be affected during the entire year divided by the maximum number of colonies for all purposes reported to be on operations with less than five colonies, collected from the *Bee and Honey Inquiry*.

Information Contacts

Listed below are the commodity specialists in the Livestock Branch of the National Agricultural Statistics Service to contact for additional information. E-mail inquiries may be sent to nass@nass.usda.gov

Vacant, Chief, Livestock Branch	(202) 720-3570
Bruce Boess, Head, Poultry and Specialty Commodities Section	(202) 720-4447
Aaron Cosgrove – Egg Products, Poultry Slaughter, Turkey Hatchery, Turkeys Raised.....	(202) 690-3237
Alissa Cowell-Mytar – Cold Storage	(202) 720-4751
Brenda Hill – Catfish Production, Trout Production	(202) 720-6147
Tom Kruchten – Census of Aquaculture	(202) 690-4870
Kim Linonis – Layers, Eggs	(202) 690-8632
Joshua O’Rear – Cost of Pollination, Honey, Honey Bee Colonies	(202) 690-3676
Miste Salmon – Broiler Hatchery, Chicken Hatchery, Mink	(202) 720-3244

Access to NASS Reports

For your convenience, you may access NASS reports and products the following ways:

- All reports are available electronically, at no cost, on the NASS web site: www.nass.usda.gov
- Both national and state specific reports are available via a free e-mail subscription. To set-up this free subscription, visit www.nass.usda.gov and click on “National” or “State” in upper right corner above “search” box to create an account and select the reports you would like to receive.

For more information on NASS surveys and reports, call the NASS Agricultural Statistics Hotline at (800) 727-9540, 7:30 a.m. to 4:00 p.m. ET, or e-mail: nass@nass.usda.gov.

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