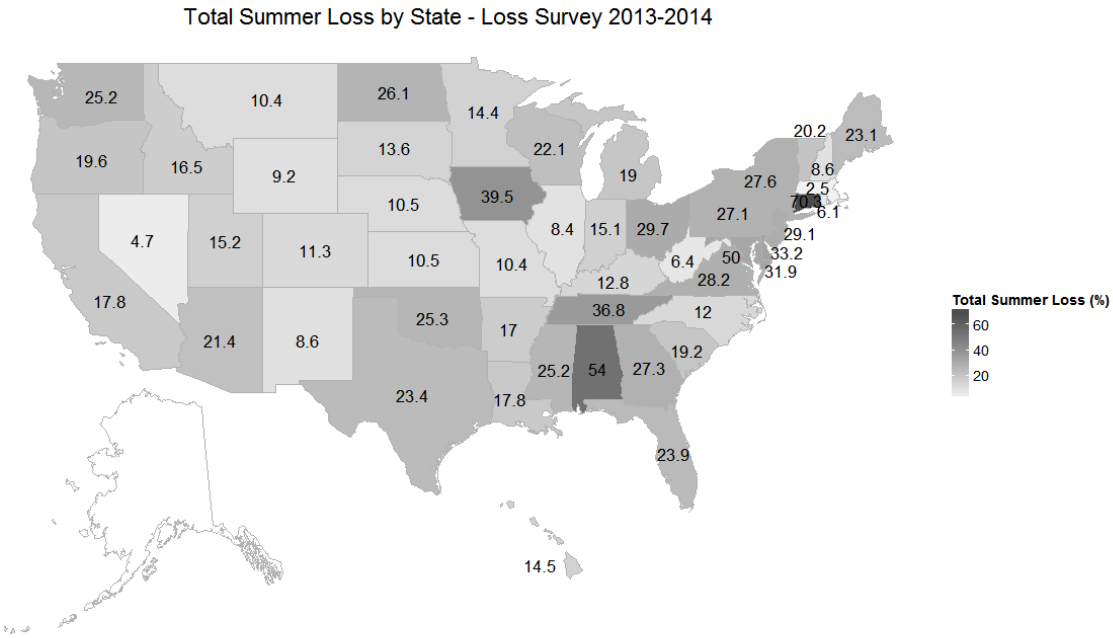
Online Resource 1. Survey questions used to determine the winter, summer and annual losses from 1 April 2013 to 1 April 2014. The allowed entries are included below each question. A required response is indicated by a "*." Definitions for a "colony," "living" colonies and "increases" were provided with the appropriate questions as the following: a colony is a queen right unit of bees that include full size colonies and queen right nucs (do not include mating nucs); "living" means alive on that date, independent of future prospects; and "increases" include successfully hived swarms and/or feral colonies.

1.	In what state(s) did you keep your colonies in between April 2013 - April 2014?* Multiple choice with multiple selections allowed of all US states, or "Other" category with open entry
2.	How many living colonies did you have last spring on April 1, 2013?* Numeric (integer) open entry
3.	How many colonies, splits, and/or increases did you make / buy between April 1, 2013 and October 1, 2013?* How many colonies, splits, and/or increases did you sell or give away between April 1, 2013 and October 1, 2013?* Numeric (integer) open entry
4.	How many colonies, splits, and/or increases did you sell or give away between April 1, 2013 and October 1, 2013?* Numeric (integer) open entry
5.	How many living colonies did you have on October 1, 2013?* Numeric (integer) open entry
6.	How many colonies, splits, and/or increases did you make / buy between October 1, 2013 and April 1, 2014?* Numeric (integer) open entry
7.	How many colonies, splits, and/or increases did you sell / give away between October 1, 2013 and April 1, 2014?* Numeric (integer) open entry
8.	How many total living colonies (overwinter surviving colonies plus purchase or splits) did you have on April 1, 2014?* Numeric (integer) open entry
9.	What was the largest number of living colonies you owned between April 1, 2013 and April 1, 2014? Numeric (integer) open entry
10.	What was the smallest number of living colonies you owned between April 1, 2013 and April 1, 2014? Numeric (integer) open entry
11.	You indicated you had ###### colonies alive on April 1, 2013. How many of those specific colonies were still alive on October 1, 2013? Numeric (integer) open entry
12.	You indicated you had ###### colonies alive on October 1, 2013. How many of those specific colonies were still alive on April 1, 2014? Numeric (integer) open entry

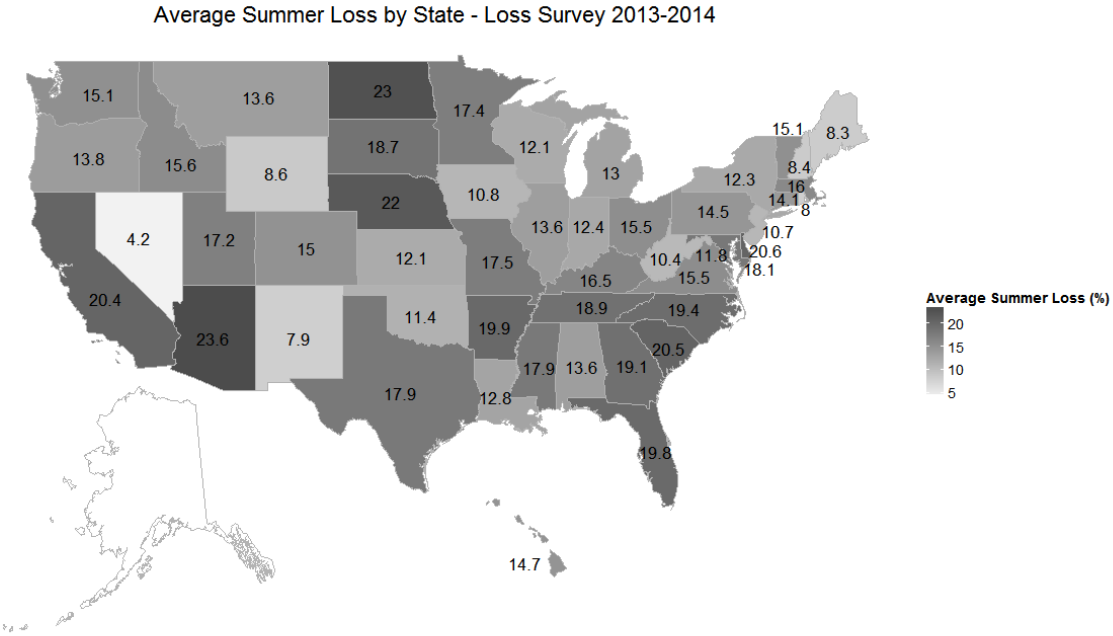
13.	What percentage of loss, over the winter, would you consider acceptable? Percentage with value between 0-100
14.	Was your winter loss this year higher or lower than last year? Single choice entry with the following possible choices: Higher, Lower, Same, Unsure, Did not keep bees last year
15.	What percentage of the colonies that died over the winter (between October 1, 2013 and April 1, 2014) were lost without dead bees in the hive or apiary? Percentage with value between 0-100
16.	In your opinion, what factors were the most prominent cause (or causes) of colony death in your operation between October 1, 2013 and April 1, 2014? Multiple choice with multiple selections allowed of the following answers: I did not experience any winter loss, Queen failure, Starvation, Varroa mites, Nosema disease, Small Hive Beetles, Poor wintering conditions, Pesticides, Weak in the fall, Colony Collapse Disorder, Natural disaster and alike (ex: flood, bear, …), Don't know, Other to specify (open entry)
17.	Did you move any of your colonies last year (between April 1, 2013 and April 1, 2014) at least once across state lines?* Single choice of Yes or No
18.	In what zip or postal code is your operation based? Numeric open entry
19.	What percentage of your hives did you send to or move into California almond orchards for pollination in 2014? Percentage with value between 0-100
20.	Approximately what percentage of your operation moved across state lines at least once between April 1, 2013 and April 1, 2014? Percentage with value between 0-100
21.	Please indicate in which states you kept bees for the months listed. Multiple choice, with multiple selections allowed of the following: all states, all months
22.	On December 31, 2013, please list the number of colonies you had in each state. Numeric (integer) entry, 1 per state

Online Resource 2. US maps of the total losses (%) and average losses (%) by state for: (a) total summer losses (%), (b) average summer losses (%) by state, (c) total winter losses (%), (d) average winter losses (%), (e) total annual losses (%), (f) average annual losses (%). The map of the number of winter loss respondents by state is shown in (g). Colonies owned by beekeepers operating in multiple states are counted in all states in which the beekeeper reported having colonies. Results from states with fewer than five respondents are not shown.

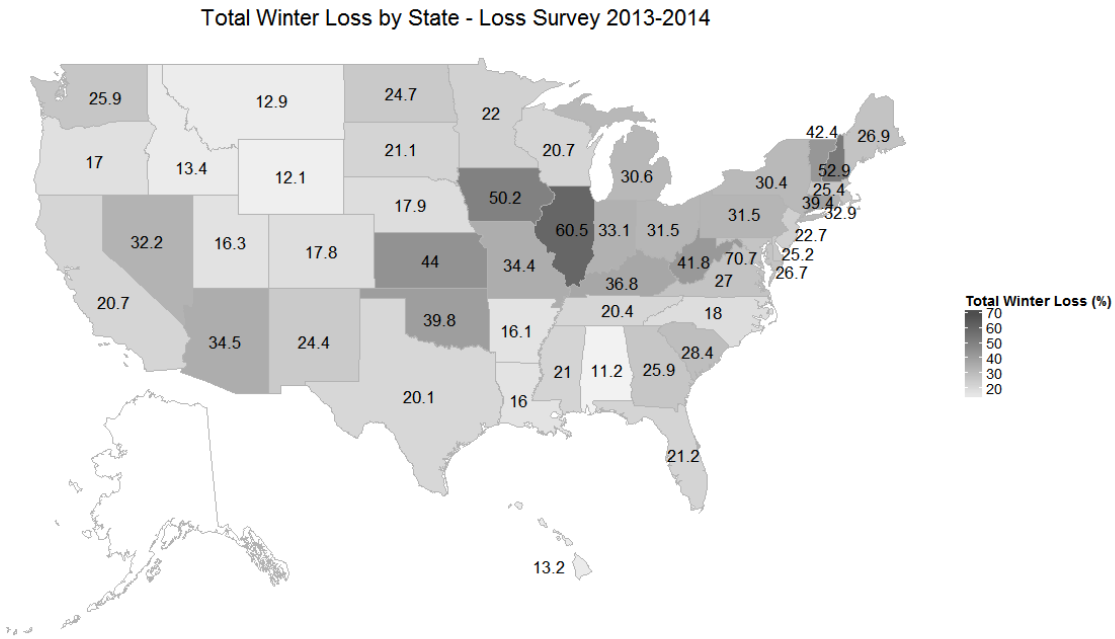
a.



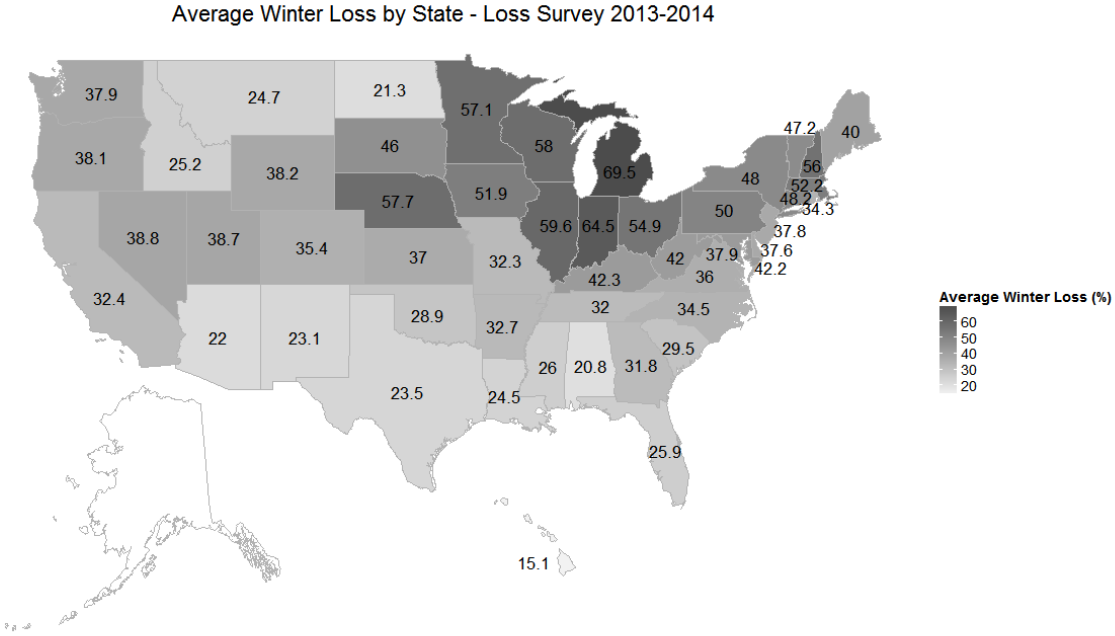
b.



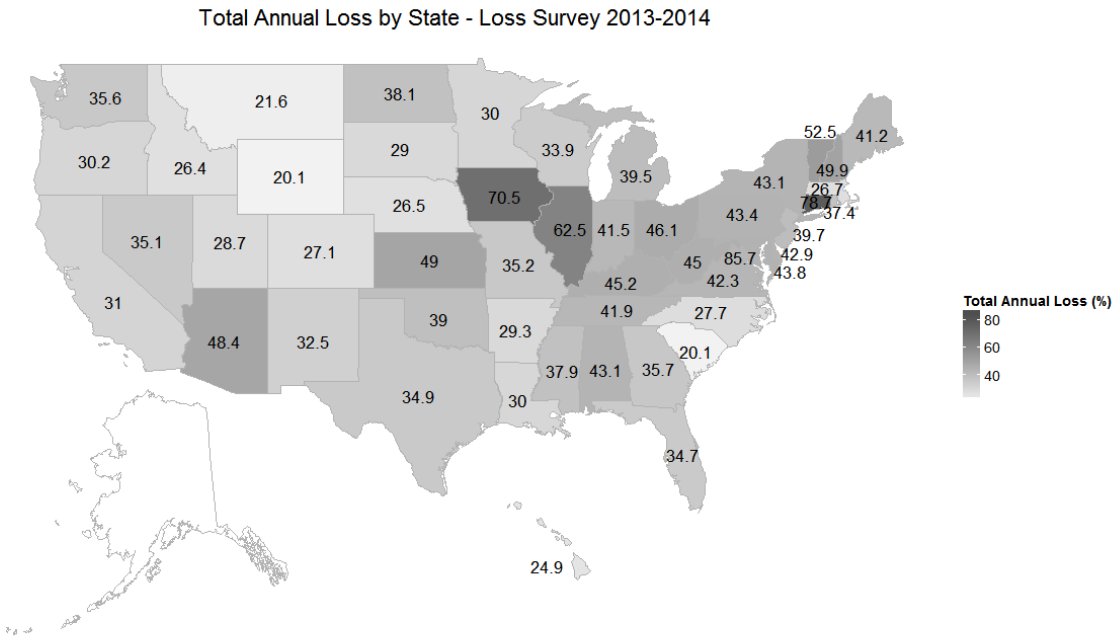
c.


Total Winter Loss by State - Loss Survey 2013-2014
25.9
12.9
24.7
22
17
13.4
12.1
21.1
20.7
42.4
26.9
30.6
52.9
30.4
25.4
17.9
50.2
39.4
31.5
32.9
32.2
16.3
17.8
60.5
33.1
31.5
22.7
44
34.4
41.8
70.7
25.2
36.8
27
26.7
20.7
20.4
18
39.8
16.1
34.5
24.4
28.4
21
11.2
25.9
20.1
16
21.2
13.2
Total Winter Loss (%)
70
60
50
40
30
20

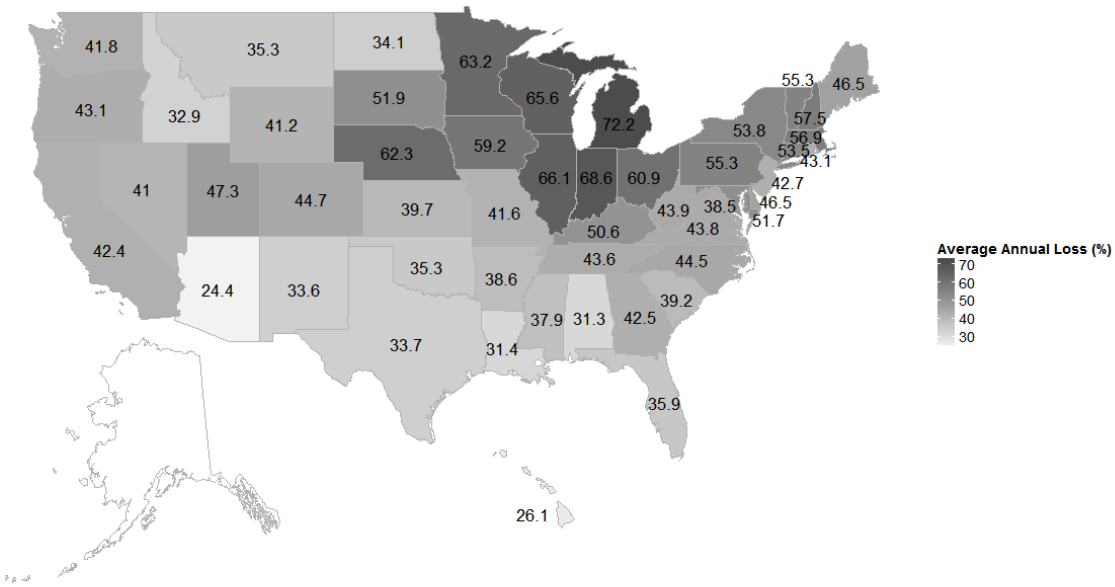
d.


Average Winter Loss by State - Loss Survey 2013-2014
37.9
24.7
21.3
57.1
47.2
40
38.1
25.2
46
58
38.2
69.5
56
48
57.7
51.9
52.2
48.2
34.3
59.6
64.5
54.9
50
38.8
38.7
35.4
37
32.3
37.8
42
37.9
37.6
42.3
36
42.2
32.4
32
34.5
28.9
32.7
22
23.1
29.5
26
20.8
31.8
23.5
24.5
25.9
15.1
Average Winter Loss (%)
60
50
40
30
20

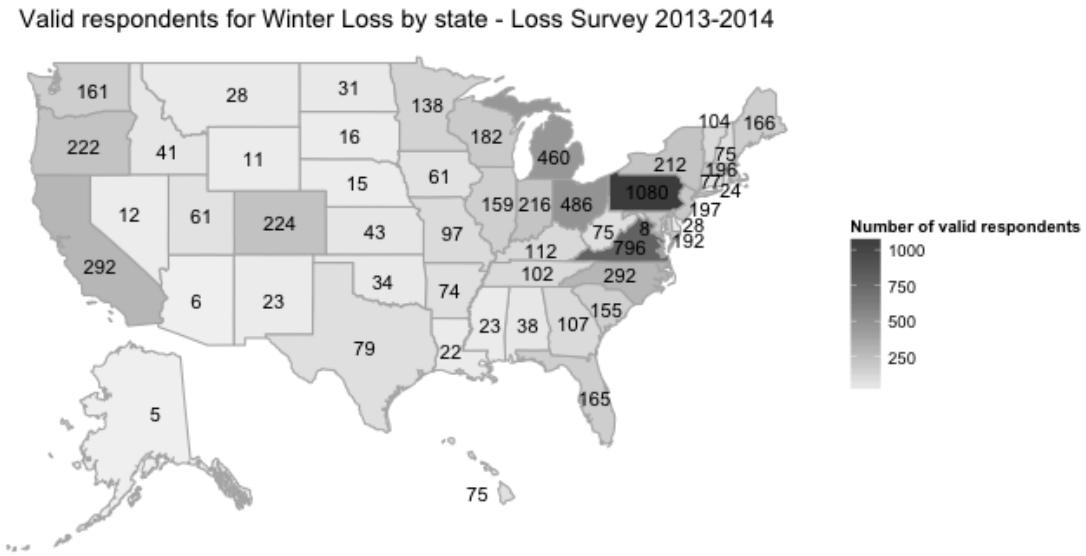
e.


Total Annual Loss by State - Loss Survey 2013-2014
35.6
21.6
38.1
30
52.5
41.2
30.2
26.4
20.1
29
33.9
39.5
49.9
43.1
26.7
26.5
70.5
78.7
37.4
43.4
35.1
28.7
27.1
49
35.2
62.5
41.5
46.1
39.7
45
85.7
42.9
43.8
45.2
42.3
31
48.4
32.5
39
29.3
41.9
27.7
20.1
37.9
43.1
35.7
34.9
30
34.7
24.9
Total Annual Loss (%)
80
60
40

f.


Average Annual Loss by State - Loss Survey 2013-2014
41.8
35.3
34.1
63.2
55.3
46.5
43.1
32.9
41.2
51.9
65.6
72.2
57.5
53.8
56.9
62.3
59.2
53.5
43.1
55.3
41
47.3
44.7
39.7
41.6
66.1
68.6
60.9
42.7
43.9
38.5
46.5
50.6
43.8
51.7
42.4
24.4
33.6
35.3
38.6
43.6
44.5
39.2
37.9
31.3
42.5
33.7
31.4
35.9
26.1
Average Annual Loss (%)
70
60
50
40
30

g.


Valid respondents for Winter Loss by state - Loss Survey 2013-2014
161
28
31
138
104
166
222
41
11
16
182
460
212
75
196
15
61
77
24
1080
12
61
224
43
97
159
216
486
197
75
8
28
192
796
292
112
102
292
34
74
6
23
155
23
38
107
79
22
165
5
75
Number of valid respondents
1000
750
500
250

Online Resource 3. US state estimates of total and average losses for summer, winter and annual (% [95% CI]). Included are the numbers of beekeeper operations reporting for each state (BK = beekeeper, N/A=not applicable). If a state had fewer than five respondents, the losses are not shown to protect the identity of the respondents. Estimates of the total number of colonies and total and average losses are calculated using the USDA-NASS method of counting colonies of multi-state beekeepers where colonies are counted multiple times, once for each state in which the beekeeper reported keeping bees during the monitoring period. Percent beekeepers and colonies operating exclusively within a state are included.

	Summer Loss				Winter Loss									Annual Loss		
	n (# of operations)	Total # of colonies (04/2013)	Total Loss mean [95%CI]	Average Loss mean [95%CI]	n (# of operations)	n Backyard BK	n Sideline BK	n Commercial BK	% BKs exclusively in state	Total # of colonies (10/2013)	% colonies exclusively in state	Total Loss mean [95%CI]	Average Loss mean [95%CI]	n (# of operations)	Total Loss mean [95%CI]	Average Loss mean [95%CI]
US	5,962	397,611	19.8 [19.3-20.3]	15.1 [14.5-15.7]	7,189	6,899	186	104	N/A	497,855	N/A	23.7 [23.3-24.1]	44.8 [43.9-45.7]	6,105	34.1 [33.7-34.6]	51.1 [50.2-52.0]
STATE:																
Alabama	35	599	54 [43.1-64.7]	13.6 [64.7-13.6]	38	37	1	0	94.7	345	74.5	11.2 [6.2-18]	20.8 [18-20.8]	35	43.1 [38.9-47.4]	31.3 [47.4-31.3]
Alaska	3	.	.	.	5	5	0	0	.	.	.	.	.	4	.	.
Arizona	6	204	21.4 [17.2-25.9]	23.6 [25.9-23.6]	6	5	1	0	83.3	362	98.3	34.5 [21.1-49.9]	22 [49.9-22]	6	48.4 [36-60.9]	24.4 [60.9-24.4]
Arkansas	61	6,713	17 [15.5-18.5]	19.9 [18.5-19.9]	74	69	3	2	94.6	8,676	7.8	16.1 [13.5-18.8]	32.7 [18.8-32.7]	64	29.3 [26.7-31.9]	38.6 [31.9-38.6]
California	269	294,045	17.8 [16.2-19.5]	20.4 [19.5-20.4]	292	187	28	77	68.2	391,481	8.9	20.7 [19.1-22.4]	32.4 [22.4-32.4]	275	31 [29.3-32.7]	42.4 [32.7-42.4]
Colorado	179	42,715	11.3 [10.9-11.7]	15 [11.7-15]	224	.	.	.	97.8	68,982	1.2	17.8 [17.3-18.3]	35.4 [18.3-35.4]	183	27.1 [26.5-27.6]	44.7 [27.6-44.7]
Connecticut	66	1,295	70.3 [59.2-80]	14.1 [80-14.1]	77	73	4	0	90.9	816	68.3	39.4 [33.6-45.5]	48.2 [45.5-48.2]	67	78.7 [71-85.2]	53.5 [85.2-53.5]
Delaware	22	12,097	33.2 [31.9-34.4]	20.6 [34.4-20.6]	28	.	.	.	78.6	10,160	0.7	25.2 [24.1-26.3]	37.6 [26.3-37.6]	23	42.9 [42.1-43.7]	46.5 [43.7-46.5]
District of Columbia	6	110	50 [41.3-58.7]	11.8 [58.7-11.8]	8	7	1	0	62.5	192	9.9	70.7 [54-84.3]	37.9 [84.3-37.9]	6	85.7 [68.7-95.7]	38.5 [95.7-38.5]
Florida	170	52,965	23.9 [21.4-26.4]	19.8 [26.4-19.8]	165	137	9	19	82.4	50,493	7.2	21.2 [19.2-23.4]	25.9 [23.4-25.9]	167	34.7 [32.2-37.3]	35.9 [37.3-35.9]
Georgia	102	14,949	27.3 [24.2-30.6]	19.1 [30.6-19.1]	107	95	6	6	87.9	12,352	12.4	25.9 [21.9-30.3]	31.8 [30.3-31.8]	101	35.7 [31.2-40.5]	42.5 [40.5-42.5]

	Summer Loss				Winter Loss									Annual Loss		
	n (# of operations)	Total # of colonies (04/2013)	Total Loss mean [95%CI]	Average Loss mean [95%CI]	n (# of operations)	n Backyard BK	n Sideline BK	n Commercial BK	% BKs exclusively in state	Total # of colonies (10/2013)	% colonies exclusively in state	Total Loss mean [95%CI]	Average Loss mean [95%CI]	n (# of operations)	Total Loss mean [95%CI]	Average Loss mean [95%CI]
Hawaii	67	11,804	14.5 [12.8-16.4]	14.7 [16.4-14.7]	75	.	.	.	98.7	13,511	48.2	13.2 [11.1-15.5]	15.1 [15.5-15.1]	68	24.9 [21.9-28.1]	26.1 [28.1-26.1]
Idaho	34	81,574	16.5 [12.9-20.6]	15.6 [20.6-15.6]	41	22	2	17	61.0	96,469	8.4	13.4 [11.6-15.2]	25.2 [15.2-25.2]	37	26.4 [22.6-30.4]	32.9 [30.4-32.9]
Illinois	127	973	8.4 [6.3-10.9]	13.6 [10.9-13.6]	159	155	3	1	96.2	2,438	47.5	60.5 [57.4-63.4]	59.6 [63.4-59.6]	135	62.5 [59.5-65.5]	66.1 [65.5-66.1]
Indiana	179	2,919	15.1 [13-17.5]	12.4 [17.5-12.4]	216	210	5	1	96.8	3,713	49.0	33.1 [28.6-37.9]	64.5 [37.9-64.5]	183	41.5 [36.9-46.2]	68.6 [46.2-68.6]
Iowa	55	818	39.5 [30.3-49.3]	10.8 [49.3-10.8]	61	57	4	0	96.7	1,257	83.2	50.2 [42.9-57.6]	51.9 [57.6-51.9]	55	70.5 [62.7-77.7]	59.2 [77.7-59.2]
Kansas	38	365	10.5 [6.7-15.5]	12.1 [15.5-12.1]	43	41	2	0	95.3	575	64.5	44 [35.3-53]	37 [53-37]	40	49 [40.2-57.8]	39.7 [57.8-39.7]
Kentucky	96	1,097	12.8 [9.4-16.8]	16.5 [16.8-16.5]	112	105	7	0	96.4	1,500	73.0	36.8 [32.4-41.4]	42.3 [41.4-42.3]	99	45.2 [40.5-49.9]	50.6 [49.9-50.6]
Louisiana	23	7,802	17.8 [17-18.7]	12.8 [18.7-12.8]	22	19	1	2	95.5	9,276	24.5	16 [13.7-18.5]	24.5 [18.5-24.5]	22	30 [27.6-32.4]	31.4 [32.4-31.4]
Maine	141	27,162	23.1 [20.3-26]	8.3 [26-8.3]	166	160	2	4	96.4	29,096	3.6	26.9 [25.5-28.4]	40 [28.4-40]	142	41.2 [38.8-43.6]	46.5 [43.6-46.5]
Maryland	158	13,252	31.9 [30.6-33.1]	18.1 [33.1-18.1]	192	187	3	2	93.2	11,871	13.4	26.7 [25.2-28.1]	42.2 [28.1-42.2]	162	43.8 [42.5-45.2]	51.7 [45.2-51.7]
Massachusetts	151	7,463	2.5 [1.4-4.1]	16 [4.1-16]	196	190	4	2	95.4	10,490	18.2	25.4 [23.1-27.8]	52.2 [27.8-52.2]	155	26.7 [24.2-29.3]	56.9 [29.3-56.9]
Michigan	339	22,706	19 [17.3-20.9]	13 [20.9-13]	460	439	12	9	97.0	24,523	19.7	30.6 [28.6-32.7]	69.5 [32.7-69.5]	357	39.5 [37.3-41.8]	72.2 [41.8-72.2]
Minnesota	95	69,640	14.4 [12.8-16.2]	17.4 [16.2-17.4]	138	123	6	9	91.3	95,626	2.7	22 [20.2-23.9]	57.1 [23.9-57.1]	99	30 [28-32.1]	63.2 [32.1-63.2]
Mississippi	26	70,611	25.2 [16.1-36.2]	17.9 [36.2-17.9]	23	15	2	6	65.2	85,643	0.3	21 [18.8-23.2]	26 [23.2-26]	24	37.9 [31.8-44.3]	37.9 [44.3-37.9]
Missouri	83	1,137	10.4 [8.1-13.1]	17.5 [13.1-17.5]	97	93	4	0	96.9	1,396	83.4	34.4 [29.7-39.4]	32.3 [39.4-32.3]	89	35.2 [30.1-40.6]	41.6 [40.6-41.6]
Montana	23	25,793	10.4 [9-11.9]	13.6 [11.9-13.6]	28	22	1	5	75.0	28,378	0.4	12.9 [10.1-16.2]	24.7 [16.2-24.7]	23	21.6 [18-25.5]	35.3 [25.5-35.3]
Nebraska	11	53,652	10.5 [8.4-12.9]	22 [12.9-22]	15	12	1	2	80.0	79,237	0.1	17.9 [16.2-19.6]	57.7 [19.6-57.7]	13	26.5 [23.9-29.2]	62.3 [29.2-62.3]

	Summer Loss				Winter Loss									Annual Loss		
	n (# of operations)	Total # of colonies (04/2013)	Total Loss mean [95%CI]	Average Loss mean [95%CI]	n (# of operations)	n Backyard BK	n Sideline BK	n Commercial BK	% BKs exclusively in state	Total # of colonies (10/2013)	% colonies exclusively in state	Total Loss mean [95%CI]	Average Loss mean [95%CI]	n (# of operations)	Total Loss mean [95%CI]	Average Loss mean [95%CI]
Nevada	12	424	4.7 [2.5-8]	4.2 [8-4.2]	12	10	2	0	75.0	625	11.7	32.2 [23.7-41.6]	38.8 [41.6-38.8]	12	35.1 [26.1-44.9]	41 [44.9-41]
New Hampshire	58	176	8.6 [5.1-13.3]	8.4 [13.3-8.4]	75	74	1	0	94.7	531	62.1	52.9 [46.2-59.5]	56 [59.5-56]	61	49.9 [42.1-57.7]	57.5 [57.7-57.5]
New Jersey	171	16,953	29.1 [27.9-30.4]	10.7 [30.4-10.7]	197	190	5	2	95.9	14,714	9.0	22.7 [21.1-24.4]	37.8 [24.4-37.8]	172	39.7 [38.3-41.2]	42.7 [41.2-42.7]
New Mexico	18	59	8.6 [3.8-16.1]	7.9 [16.1-7.9]	23	23	0	0	100.0	116	100.0	24.4 [14.2-37]	23.1 [37-23.1]	18	32.5 [20.1-46.8]	33.6 [46.8-33.6]
New York	165	22,029	27.6 [25.1-30.1]	12.3 [30.1-12.3]	212	193	14	5	94.3	20,608	18.3	30.4 [28.2-32.6]	48 [32.6-48]	170	43.1 [40.3-45.9]	53.8 [45.9-53.8]
North Carolina	260	45,056	12 [11.3-12.9]	19.4 [12.9-19.4]	292	285	5	2	94.5	71,168	2.9	18 [17.2-18.7]	34.5 [18.7-34.5]	260	27.7 [26.9-28.5]	44.5 [28.5-44.5]
North Dakota	26	128,819	26.1 [17.9-35.6]	23 [35.6-23]	31	2	3	26	3.2	150,882	0.0	24.7 [19.5-30.4]	21.3 [30.4-21.3]	28	38.1 [32.5-44]	34.1 [44-34.1]
Ohio	416	14,106	29.7 [28.6-30.8]	15.5 [30.8-15.5]	486	479	6	1	97.9	13,724	25.2	31.5 [29.8-33.1]	54.9 [33.1-54.9]	428	46.1 [44.9-47.4]	60.9 [47.4-60.9]
Oklahoma	26	4,718	25.3 [23.3-27.4]	11.4 [27.4-11.4]	34	32	0	2	91.2	6,551	3.7	39.8 [37.1-42.5]	28.9 [42.5-28.9]	29	39 [36.6-41.5]	35.3 [41.5-35.3]
Oregon	176	34,975	19.6 [17.4-21.9]	13.8 [21.9-13.8]	222	207	3	12	92.8	50,691	10.1	17 [15.3-18.8]	38.1 [18.8-38.1]	183	30.2 [27.8-32.6]	43.1 [32.6-43.1]
Pennsylvania	857	23,575	27.1 [25.9-28.2]	14.5 [28.2-14.5]	1080	1059	18	3	98.1	23,116	31.0	31.5 [30.4-32.6]	50 [32.6-50]	887	43.4 [42.1-44.7]	55.3 [44.7-55.3]
Puerto Rico	0	.	.	.	1	.	.	.	.	.	.	.	.	1	.	.
Rhode Island	22	119	6.1 [2.9-10.9]	8 [10.9-8]	24	23	1	0	70.8	205	38.0	32.9 [23.7-43]	34.3 [43-34.3]	22	37.4 [27.8-47.7]	43.1 [47.7-43.1]
South Carolina	159	4,350	19.2 [17.3-21.2]	20.5 [21.2-20.5]	155	149	5	1	96.1	2,313	57.6	28.4 [25.2-31.8]	29.5 [31.8-29.5]	156	20.1 [17.1-23.4]	39.2 [23.4-39.2]
South Dakota	15	58,410	13.6 [9.5-18.6]	18.7 [18.6-18.7]	16	11	1	4	56.3	76,028	0.0	21.1 [15.9-27]	46 [27-46]	15	29 [22.2-36.5]	51.9 [36.5-51.9]
Tennessee	94	1,020	36.8 [30.1-43.9]	18.9 [43.9-18.9]	102	97	5	0	95.1	1,066	81.6	20.4 [16-25.4]	32 [25.4-32]	96	41.9 [38-45.8]	43.6 [45.8-43.6]
Texas	80	117,086	23.4 [18.6-28.6]	17.9 [28.6-17.9]	79	59	7	13	79.7	119,507	2.1	20.1 [18.2-22.1]	23.5 [22.1-23.5]	81	34.9 [31-38.8]	33.7 [38.8-33.7]

	Summer Loss				Winter Loss									Annual Loss		
	n (# of operations)	Total # of colonies (04/2013)	Total Loss mean [95%CI]	Average Loss mean [95%CI]	n (# of operations)	n Backyard BK	n Sideline BK	n Commercial BK	% BKs exclusively in state	Total # of colonies (10/2013)	% colonies exclusively in state	Total Loss mean [95%CI]	Average Loss mean [95%CI]	n (# of operations)	Total Loss mean [95%CI]	Average Loss mean [95%CI]
Utah	55	4,409	15.2 [12.4-18.3]	17.2 [18.3-17.2]	61	52	5	4	83.6	9,250	2.6	16.3 [13.6-19.3]	38.7 [19.3-38.7]	57	28.7 [24.9-32.7]	47.3 [32.7-47.3]
Vermont	82	1,317	20.2 [18-22.4]	15.1 [22.4-15.1]	104	101	2	1	96.2	1,696	95.9	42.4 [39-45.8]	47.2 [45.8-47.2]	87	52.5 [49.1-55.9]	55.3 [55.9-55.3]
Virginia	662	16,043	28.2 [27.2-29.2]	15.5 [29.2-15.5]	796	781	14	1	98.2	15,726	35.1	27 [26-28]	36 [28-36]	671	42.3 [41.3-43.2]	43.8 [43.2-43.8]
Washington	123	44,946	25.2 [22.8-27.7]	15.1 [27.7-15.1]	161	141	9	11	90.1	74,378	1.7	25.9 [22.7-29.2]	37.9 [29.2-37.9]	125	35.6 [32.8-38.4]	41.8 [38.4-41.8]
West Virginia	65	867	6.4 [4.3-9.1]	10.4 [9.1-10.4]	75	70	5	0	92.0	1,125	67.9	41.8 [35-48.8]	42 [48.8-42]	70	45 [38.2-51.9]	43.9 [51.9-43.9]
Wisconsin	138	37,324	22.1 [20-24.3]	12.1 [24.3-12.1]	182	159	13	10	89.6	35,044	6.1	20.7 [18.4-23.2]	58 [23.2-58]	139	33.9 [31.4-36.4]	65.6 [36.4-65.6]
Wyoming	10	14,184	9.2 [4.2-16.7]	8.6 [16.7-8.6]	11	6	1	4	36.4	20,661	0.1	12.1 [9.6-14.8]	38.2 [14.8-38.2]	11	20.1 [14.8-26.2]	41.2 [26.2-41.2]

Online Resource 4. Comparing the average losses among operation types for each time period using the Kruskal-Wallis rank sum test, followed by a Mann Whitney test. The number of operation types included in each analysis is provided. The associated "*" indicates significance where the Mann Whitney p-value is <0.05.

Period	Operation Type	n		Operation Type	n	Kruskal-Wallis χ^2	Mann Whitney p-value	
Summer Loss	Backyard	5,695	vs.	Sideline	164	61.6609	0.0011	*
	Backyard	5,695	vs.	Commercial	103		< 0.0001	*
	Sideline	164	vs.	Commercial	103		< 0.0001	*
Winter Loss	Backyard	6,899	vs.	Sideline	186	21.6678	0.0640	
	Backyard	6,899	vs.	Commercial	104		< 0.0001	*
	Sideline	186	vs.	Commercial	104		< 0.0001	*
Annual Loss	Backyard	5,815	vs.	Sideline	180	39.2306	0.0148	*
	Backyard	5,815	vs.	Commercial	110		< 0.0001	*
	Sideline	180	vs.	Commercial	110		0.0014	*

Online Resource 5. Comparison of beekeeper self-reported winter causes of death of colonies and the associated average winter loss (%) [95% CI] for beekeepers that selected a factor and those that did not select that factor using the Kurskal-Wallis rank-sum and followed-up with a Mann Whitney test. P-values less than 0.05 are considered significant and indicated with a "*".

Factor	Factor selected		Factor not selected		Kruskal-Wallis χ^2	Mann Whitney p-value	
	n	Average winter loss (%) [95%CI]	n	Average winter loss (%) [95%CI]			
Queen failure	956	51.2 [49.3-53.2]	3,947	65.0 [64.0-65.9]	151.9933	< 0.0001	*
Starvation	1,774	62.3 [60.9-63.7]	3,129	62.3 [61.2-63.4]	0.0397	0.8420	
Varroa destructor	836	57.4 [55.3-59.4]	4,067	63.3 [62.3-64.2]	26.234	< 0.0001	*
Nosema spp.	261	59.3 [55.9-62.8]	4,642	62.4 [61.6-63.3]	2.6427	0.1040	
Small hive beetle	250	59.8 [56.0-63.6]	4,653	62.4 [61.5-63.3]	1.6903	0.1936	
Poor wintering conditions	2,237	70.5 [69.3-71.7]	2,666	55.4 [54.2-56.6]	286.5315	< 0.0001	*
Pesticides	325	63.6 [60.3-66.8]	4,578	62.2 [61.3-63.1]	0.3604	0.5483	
Weak in the fall	1,610	58.1 [56.6-59.6]	3,293	64.3 [63.3-65.4]	44.018	< 0.0001	*
CCD	324	65.9 [62.6-69.2]	4,579	62.0 [61.1-62.9]	4.2501	0.0393	*
Disaster	100	64.4 [58.8-70.1]	4,803	62.2 [61.4-63.1]	0.4277	0.5131	
Don't know	921	67.2 [65.3-69.2]	3,982	61.1 [60.2-62.1]	31.2649	< 0.0001	*
Other	455	59.3 [56.5-62.1]	4,448	62.6 [61.7-63.5]	5.0879	0.0241	*