The Bee Informed Partnership

Management Survey Results (2013)

Comb Management

BeeInformed.org

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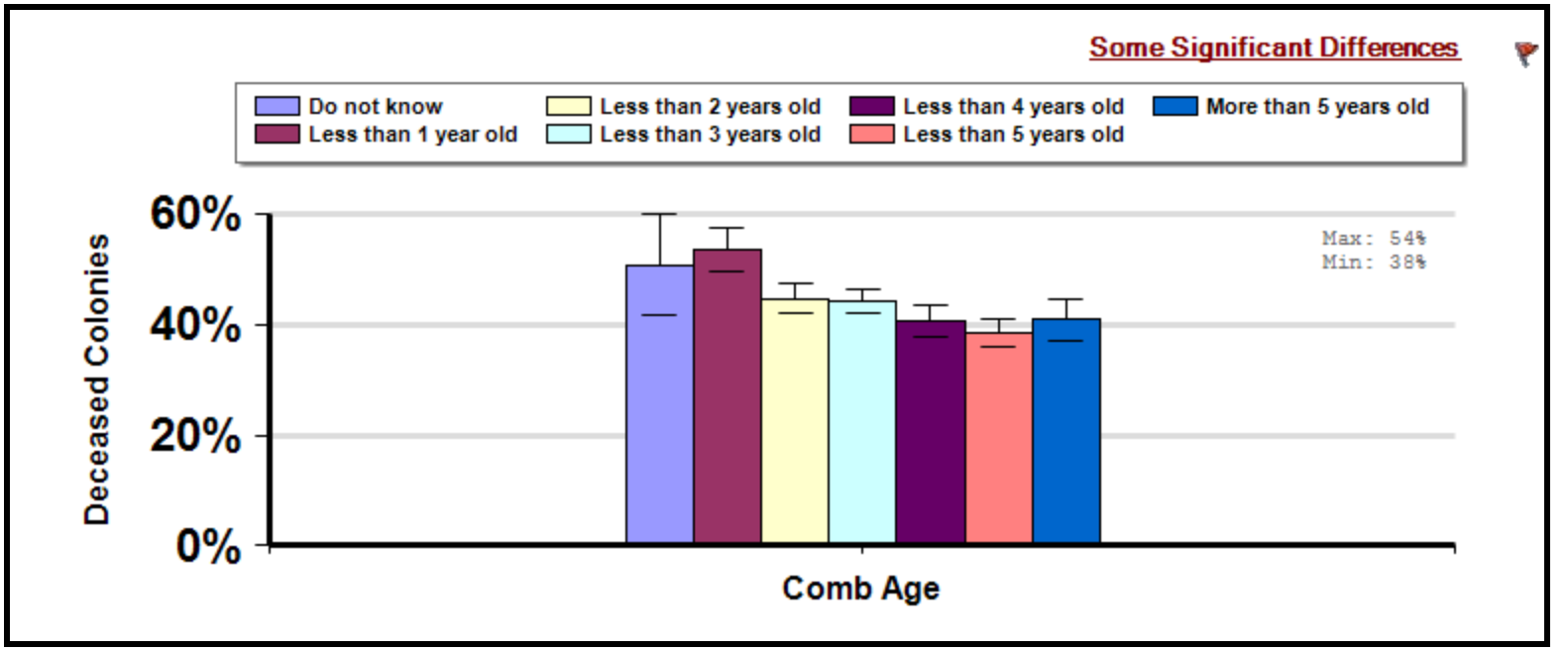
Average Brood Comb Age

Winter

Report ID: 143-2013

Average winter colony mortality suffered by beekeepers who kept bees in colonies with brood comb of different ages.



Interpretation

There are some significant differences between average ages of brood comb. Beekeepers who had brood comb less than a year old in their colonies reported losing more overwintering colonies than those beekeepers whose colonies had brood comb over one year old.

Survey Question

What proportions of your colonies brood comb fall into the following age ranges? If you do not know just skip this question, otherwise the proportions should total 100%

-More than 5 years old
-Between 4 and 5 years old
-Between 3 and 4 years old
-Between 2 and 3 years old
-Between 1 and 2 years old
-Less than 1 year old

		Total Number of Respondents Providing Valid Responses	Total Number of Colonies Managed	Average Number of Colonies Managed		Average Colony Loss
				Mean	Standard	Mean(%) [Lower, Upper] CI

					Error	
Comb Age	Do not know	77	2,520	32.7	13.6	**50.8 [41.7,59.8]**
	Less than 1 year old	414	84,256	203.5	172.7	**53.7 [49.8,57.7]**
	Less than 2 years old	747	5,436	7.3	0.6	**44.7 [42.1,47.3]**
	Less than 3 years old	1,036	12,259	11.8	1.3	**44.3 [42.2,46.4]**
	Less than 4 years old	579	45,256	78.2	39.8	**40.7 [37.9,43.5]**
	Less than 5 years old	623	98,395	157.9	51.4	**38.4 [35.9,40.9]**
	More than 5 years old	267	221,313	828.9	141.5	**40.8 [37.2,44.5]**

Comments About This Data

Relevant Links, References, and Citations

Funded By: USDA NIFA United States Department of Agriculture National Institute of Food and Agriculture

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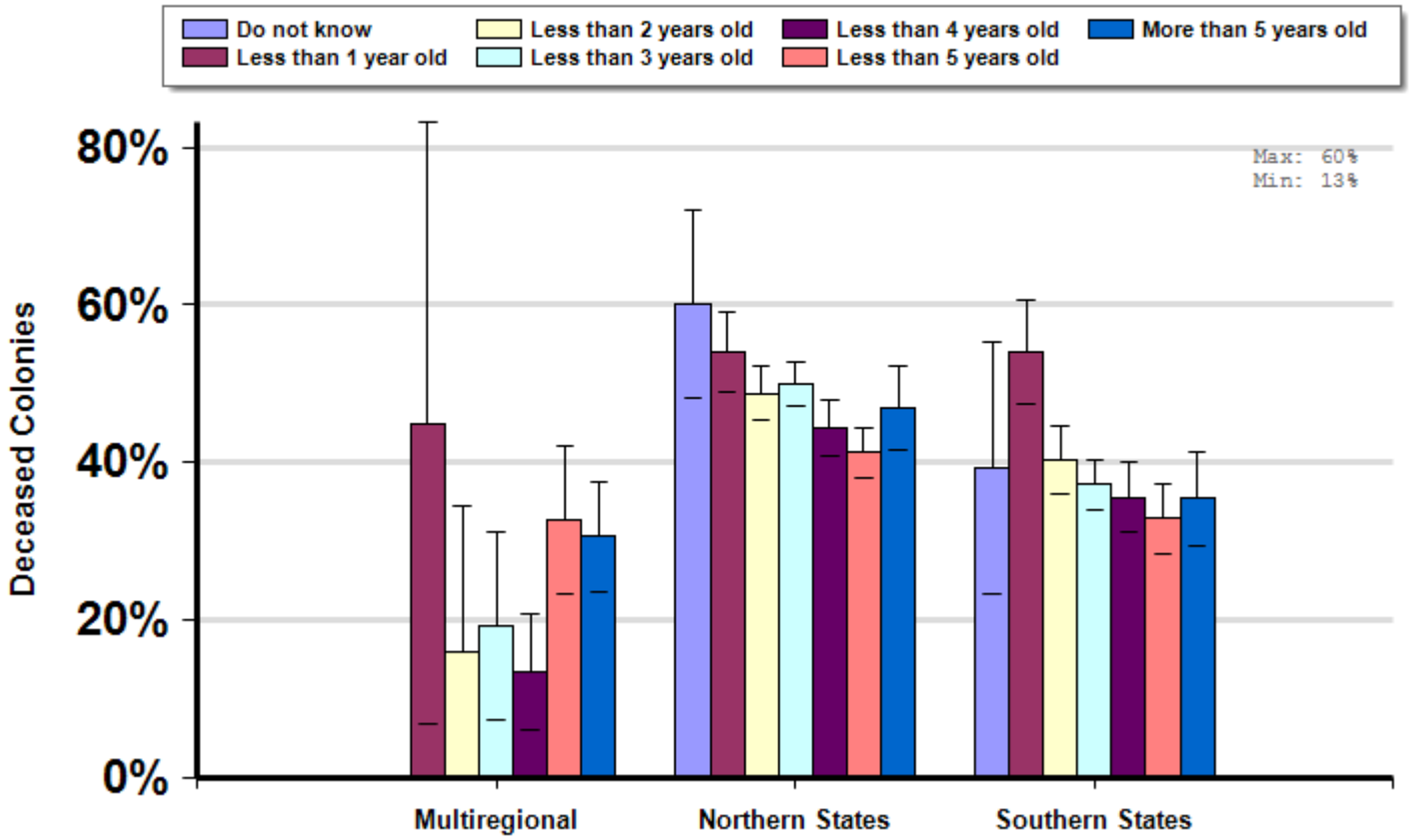
Average Brood Comb Age By Region

Winter

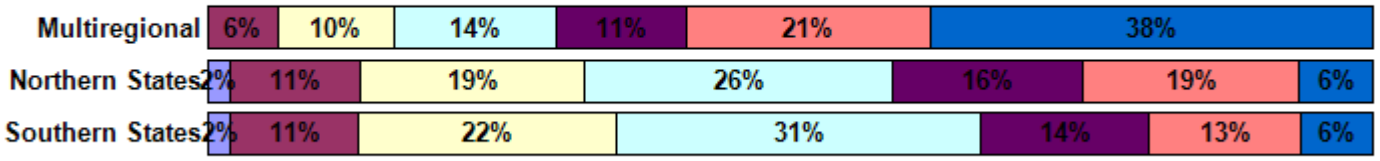
Report ID: 146-2013

Average winter colony mortality suffered by beekeepers who kept bees in colonies with brood comb of different ages by operations in different regions.

Some Significant Differences (within regions)



Respondent Ratio



Interpretation

There are some significant differences between groups in the Northern and Southern States. Beekeepers in the North and South who had brood comb greater than one year old lost fewer overwintering colonies than those in the North and South who had brood comb less than one year old.

Survey Question

What proportions of your colonies brood comb fall into the following age ranges?
If you don't know just skip this question, otherwise the proportions should total 100%.

-More than 5 years old
-Between 4 and 5 years old

-Between 3 and 4 years old
-Between 2 and 3 years old
-Between 1 and 2 years old
-Less than 1 year old

		Total Number of Respondents Providing Valid Responses	Total Number of Colonies Managed	Average Number of Colonies Managed		Average Colony Loss
				Mean	Standard Error	Mean(%) [Lower, Upper] CI
Multiregional	Less than 1 year old	6	70,522	11753.7	11749.3	**44.9 [6.7,83.1]**
	Less than 2 years old	10	297	29.7	19.3	**15.9 [0.0,34.4]**
	Less than 3 years old	14	1,639	117.1	78.3	**19.3 [7.2,31.3]**
	Less than 4 years old	11	36,300	3300.0	1933.4	**13.4 [6.1,20.8]**
	Less than 5 years old	21	76,044	3621.1	1315.2	**32.7 [23.4,42.0]**
	More than 5 years old	38	163,540	4303.7	705.6	**30.6 [23.6,37.5]**
Northern States	Do not know	45	360	8.0	2.1	**60.1 [48.2,72.1]**
	Less than 1 year old	258	842	3.3	0.3	**54.1 [49.1,59.1]**
	Less than 2 years old	442	2,728	6.2	0.5	**48.8 [45.3,52.2]**
	Less than 3 years old	610	5,698	9.3	0.7	**49.9 [47.2,52.7]**
	Less than 4 years old	376	5,458	14.5	2.2	**44.3 [40.8,47.8]**
	Less than 5 years old	427	8,772	20.5	3.5	**41.3 [38.2,44.4]**
	More than 5 years old	147	18,406	125.2	55.6	**46.9 [41.7,52.2]**
Southern States	Do not know	26	253	9.7	3.0	**39.2 [23.3,55.2]**
	Less than 1 year old	142	12,755	89.8	84.5	**54.0 [47.3,60.7]**
	Less than 2 years old	287	2,118	7.4	0.7	**40.3 [36.1,44.5]**
	Less than 3 years old	406	4,844	11.9	1.5	**37.2 [34.0,40.3]**
	Less than 4 years old	187	3,204	17.1	4.3	**35.6 [31.1,40.1]**
	Less than 5 years old	170	12,121	71.3	33.5	**32.9 [28.3,37.4]**
	More than	80	33,182	414.8	113.8	**35.4 [29.5,41.3]**

	5 years old					

Comments About This Data

Relevant Links, References, and Citations

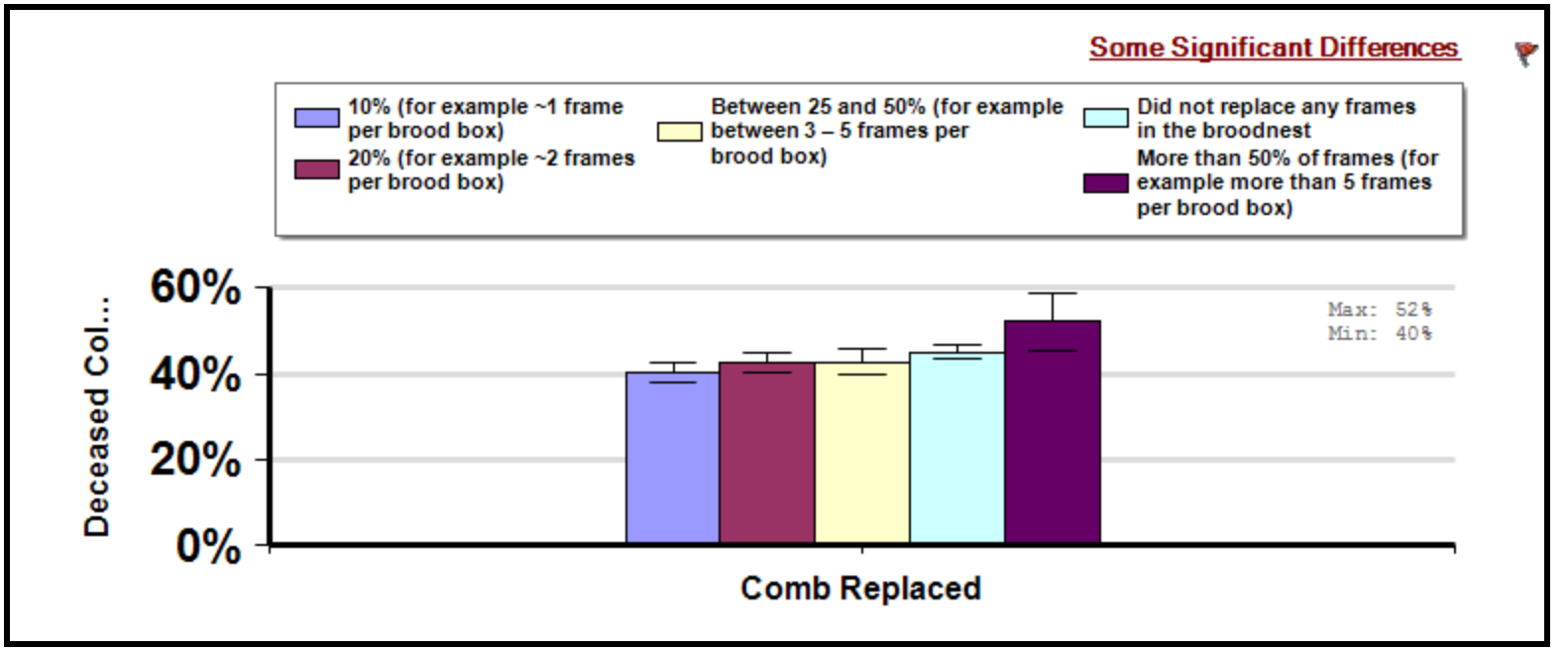
Funded By: USDA NIFA United States Department of Agriculture National Institute of Food and Agriculture

Degree of Brood Comb Replacement

Winter

Report ID: 149-2013

Average winter colony mortality reported by beekeepers who replaced different percentages of their brood nest comb in April to March.



Interpretation

Beekeepers who replaced 50% or more of the comb in their colonies lost 11.9 more colonies per 100 managed colonies, or an average of 22.9% more colonies than those who only replaced 10% of the brood comb in their colonies. Similarly, beekeepers who replaced 50% or more of the comb in their colonies lost 9.5 more colonies per 100 managed colonies, or an average of 18.3% more colonies than those who only replaced 20% of the brood comb in their colonies.

Survey Question

On average, how many frames from the brood nest of your colonies did you replace last year? Select one of the following..

-Did not replace any frames in the broodnest
-10% (for example ~1 frame per brood box)
-20% (for example ~2 frames per brood box)
-Between 25 and 50% (for example between 3 – 5 frames per brood box)
-More than 50% of frames (for example more than 5 frames per brood box)
-Don't know
-Other (please specify)

		Total Number of Respondents Providing Valid Responses	Total Number of Colonies Managed	Average Number of Colonies Managed		Average Colony Loss
				Mean	Standard Error	Mean(%) [Lower, Upper] CI
Comb Replaced	10% (for example ~1 frame per brood box)	669	181,164	270.8	58.8	**40.1 [37.7,42.5]**
	20% (for example ~2 frames per brood box)	794	172,205	216.9	97.1	**42.5 [40.2,44.7]**
	Between 25 and 50% (for example between 3 - 5 frames per brood box)	452	91,664	202.8	71.4	**42.7 [39.6,45.9]**
	Did not replace any frames in the broodnest	1,809	63,544	35.1	10.7	**45.0 [43.3,46.8]**
	More than 50% of frames (for example more than 5 frames per brood box)	109	16,255	149.1	124.2	**52.0 [45.3,58.7]**

Comments About This Data

Relevant Links, References, and Citations

Funded By: USDA NIFA United States Department of Agriculture National Institute of Food and Agriculture

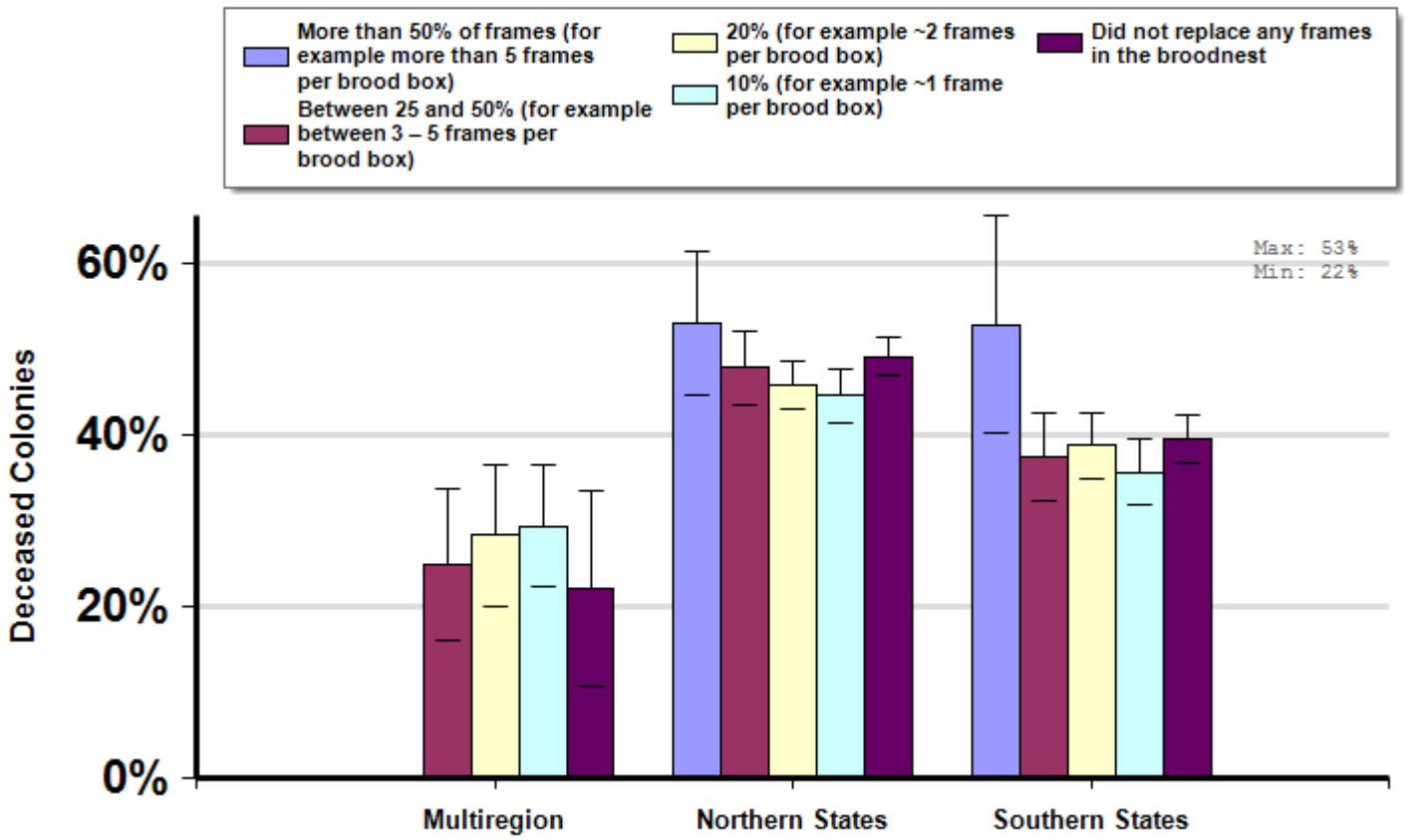
Degree of Brood Comb Replacement By Region

Winter

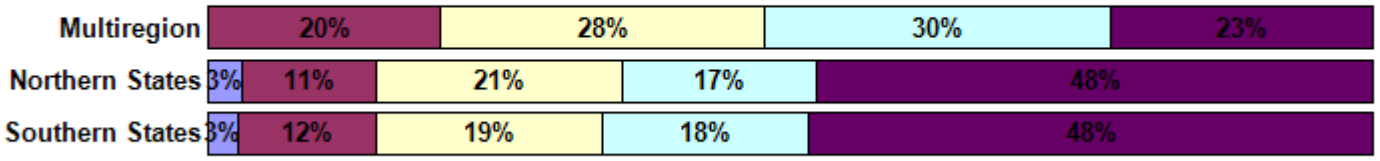
Report ID: 152-2013

Average winter colony mortality suffered by beekeepers who replaced different percentages of their brood nest comb the previous year by region of operation.

Some Significant Differences (within regions)



Respondent Ratio



Interpretation

Beekeepers in the South who replaced more than 50% of the brood nest reported losing 17.2 more overwintering colonies (32.6% more deaths) than those only replaced 10% of brood frames in their colonies. There was no statistical difference for beekeepers who kept colonies in the Northern States or in multiple regions.

Survey Question

On average, how many frames from the brood nest of your colonies did you replace last year?

-Did not replace any frames in the brood nest
-10% (for example ~1 frame per box)
-20% (for example ~2 frames per brood box)

-Between 25 and 50% (for example ~3-5 frames per brood box)
-More than 50% of frames (for example more than 5 frames per brood box)

		Total Number of Respondents Providing Valid Responses	Total Number of Colonies Managed	Average Number of Colonies Managed		Average Colony Loss
				Mean	Standard Error	Mean(%) [Lower, Upper] CI
Multiregion	Between 25 and 50% (for example between 3 – 5 frames per brood box)	23	75,573	3285.8	1243.8	**24.9 [16.1,33.8]**
	20% (for example ~2 frames per brood box)	32	149,240	4663.8	2294.8	**28.2 [20.0,36.5]**
	10% (for example ~1 frame per brood box)	34	134,272	3949.2	904.9	**29.4 [22.3,36.5]**
	Did not replace any frames in the broodnest	26	26,836	1032.2	527.3	**22.0 [10.7,33.4]**
Northern States	More than 50% of frames (for example more than 5 frames per brood box)	70	638	9.1	2.4	**53.0 [44.6,61.3]**
	Between 25 and 50% (for example between 3 – 5 frames per brood box)	269	5,838	21.7	4.2	**47.8 [43.6,52.0]**
	20% (for example ~2 frames per brood box)	498	6,617	13.3	1.2	**45.8 [42.9,48.6]**
	10% (for example ~1 frame per brood box)	392	17,491	44.6	18.9	**44.5 [41.3,47.8]**
	Did not replace any frames in the	1,123	14,236	12.7	3.6	**49.1 [46.8,51.3]**

	broodnest					
Southern States	More than 50% of frames (for example more than 5 frames per brood box)	34	471	13.9	4.1	**52.8 [40.2,65.4]**
	Between 25 and 50% (for example between 3 - 5 frames per brood box)	157	9,773	62.2	32.5	**37.4 [32.4,42.4]**
	20% (for example ~2 frames per brood box)	257	9,925	38.6	12.8	**38.7 [34.8,42.6]**
	10% (for example ~1 frame per brood box)	234	27,842	119.0	38.8	**35.6 [31.8,39.4]**
	Did not replace any frames in the broodnest	642	22,281	34.7	19.2	**39.5 [36.6,42.3]**

Comments About This Data

Relevant Links, References, and Citations

Funded By: USDA NIFA United States Department of Agriculture National Institute of Food and Agriculture

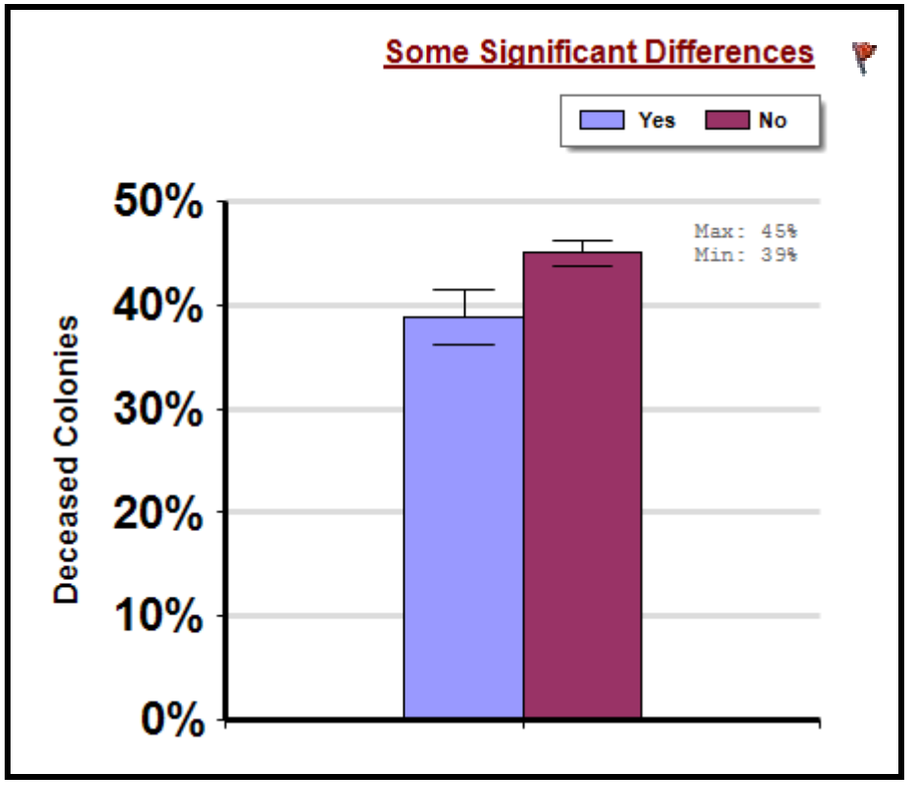
Brood Comb Reuse

Management Survey 2013

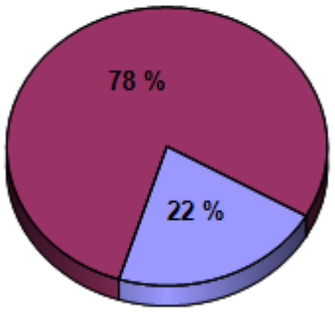
Winter

Report ID: 71-2013

Average winter colony mortality reported by beekeepers who did or did not re-use any old brood comb in their colonies between April and March.



Participant Ratio



Interpretation

Beekeepers who reported that they did not reuse comb lost on average 6.1 fewer colonies per 100 managed colonies than those who did reuse old comb. In other words, beekeepers who didn't reuse old brood comb lost an average 14% fewer colonies than beekeepers who reused old comb.

Survey Question

Between April, 2012 and March, 2013, before you re-used brood comb that you had taken out of production of purchased, did you...
Check all that apply

-I did not reuse any old brood comb
-Cull any particularly old or bad combs and replace them
-Irradiate the comb
-Fumigate the comb with acetic acid
-Freeze the comb
-Store the comb with paradichlorobenzene crystals
-Did not treat the comb in any particular way
-Other (please specify)

		Total Number of Respondents Providing	Total Number of Colonies Managed	Average Number of Colonies Managed	Average Colony Loss

		Valid Responses				
				Mean	Standard Error	Mean(%) [Lower, Upper] CI
Did Not Reuse comb	Yes	808	3,924	4.9	0.3	**38.9 [36.2, 41.6]**
	No	2,950	526,654	178.5	32.4	**45.0 [43.8, 46.3]**

Comments About This Data

Relevant Links, References, and Citations

Funded By: USDA NIFA United States Department of Agriculture National Institute of Food and Agriculture

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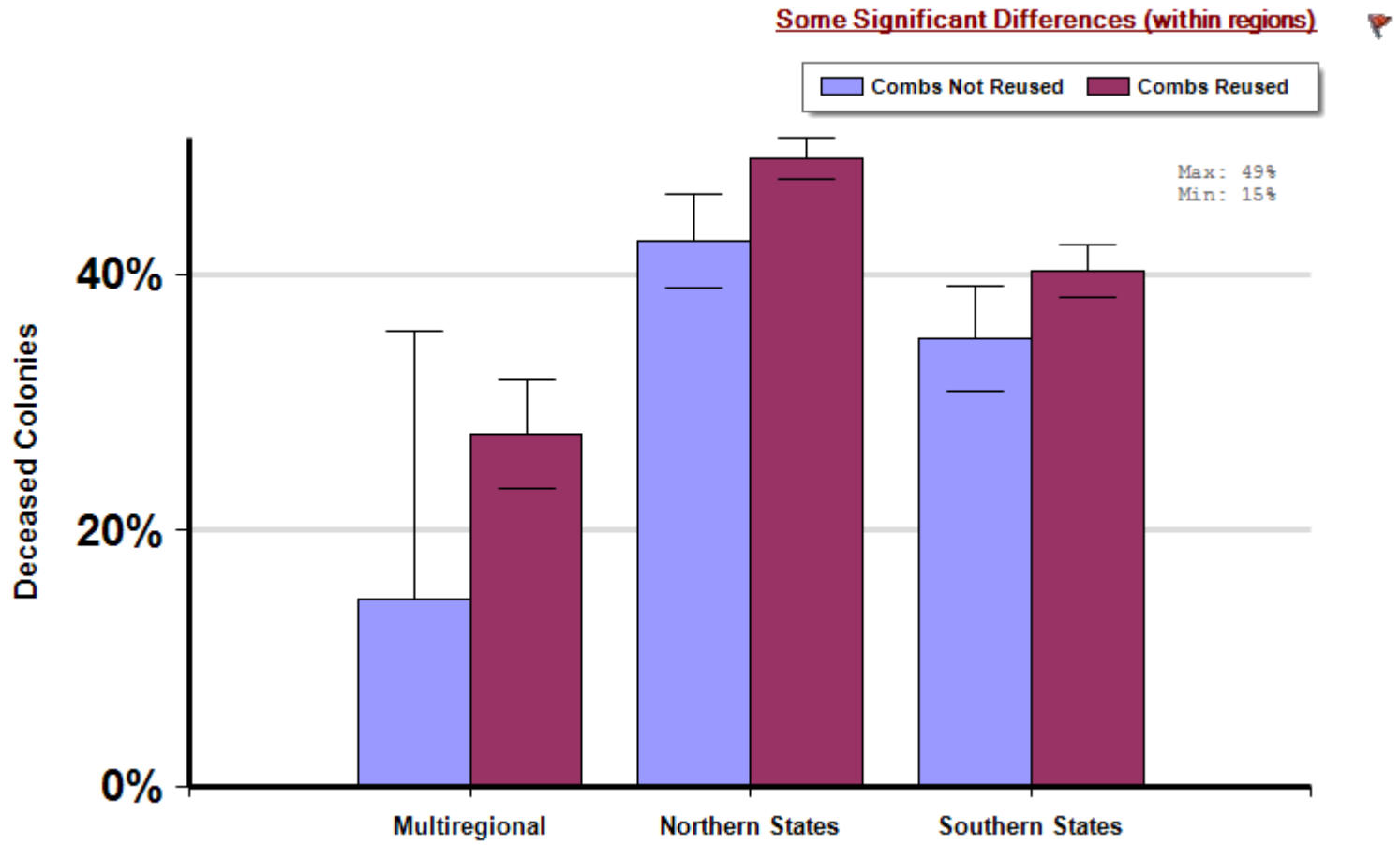
Brood Comb Reuse By Region

Winter

Report ID: 77-2013

Average winter colony mortality reported by beekeepers who did or did not reuse any old brood comb in their colonies, by region of operation between April and March.



Respondent Ratio

Interpretation

Northern beekeepers who did not reuse old brood comb reported 6.5 fewer overwintering colony deaths per 100 managed colonies than those who did reuse old brood comb. In other words, beekeepers who did not reuse old brood comb lost 13.2% fewer colonies than those who did reuse old brood comb.

Survey Question

Between April, 2012 and March, 2013, before you re-used brood comb that you had taken out of production or purchased, did you...
Check all that apply

-I did not reuse old brood comb

-Cull any particularly old or bad combs and replace them
-Irradiate the comb
-Fumigate the comb with acedic acid
-Freeze the comb
-Store the comb with paradichlorobenzene crystals (moth crystals)
-Did not treat the comb in any particular way
-Other, please specify

		Total Number of Respondents Providing Valid Responses	Total Number of Colonies Managed	Average Number of Colonies Managed		Average Colony Loss
				Mean	Standard Error	Mean(%) [Lower, Upper] CI
Multiregional	Combs Not Reused	6	28	4.7	1.1	**14.6 [0.0,35.6]**
	Combs Reused	116	408,332	3520.1	744.2	**27.6 [23.3,31.8]**
Northern States	Combs Not Reused	462	2,034	4.4	0.3	**42.6 [39.0,46.3]**
	Combs Reused	1,837	44,485	24.2	4.7	**49.1 [47.5,50.6]**
Southern States	Combs Not Reused	329	1,775	5.4	0.5	**35.0 [30.8,39.1]**
	Combs Reused	969	64,755	66.8	16.7	**40.3 [38.2,42.3]**

Comments About This Data

Relevant Links, References, and Citations

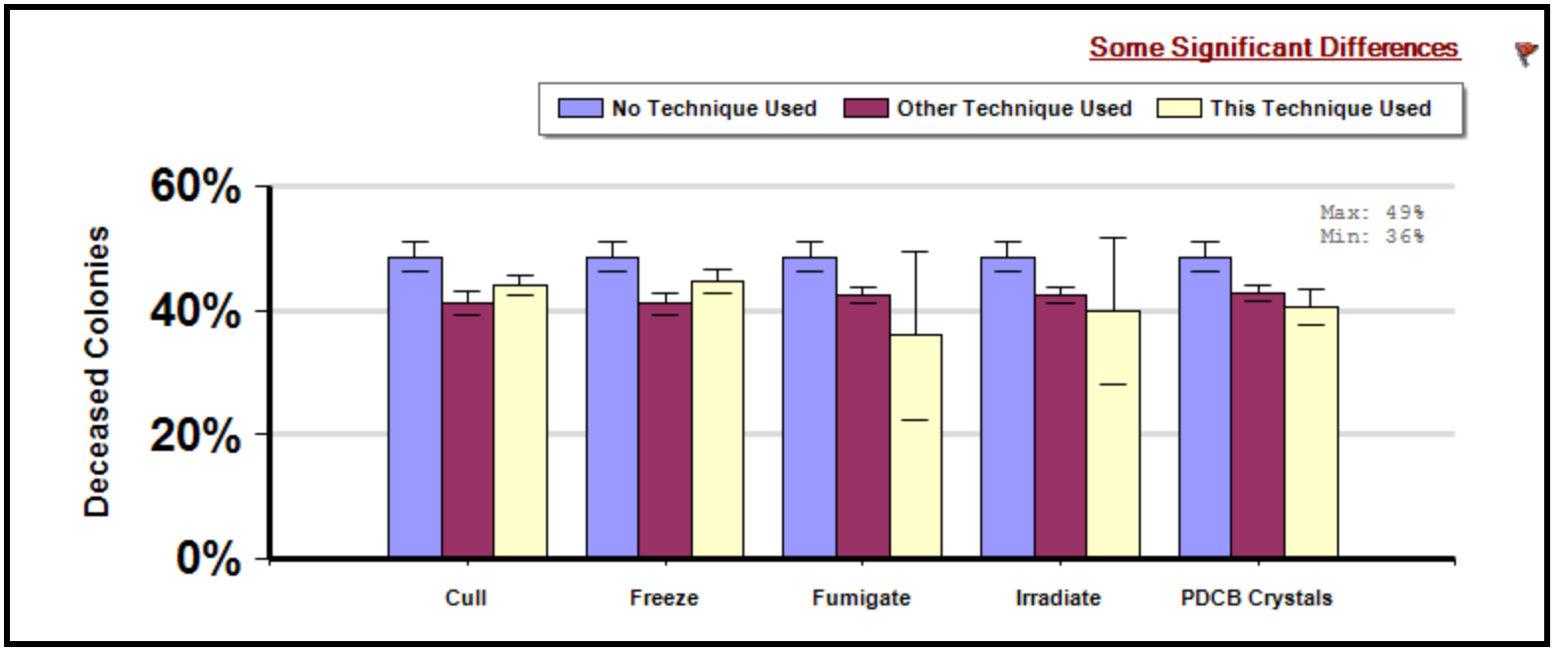
Funded By: USDA NIFA United States Department of Agriculture National Institute of Food and Agriculture

Brood Comb Treatment Before Reuse

Winter

Report ID: 74-2013

Average winter colony mortality reported by beekeepers who treated brood comb differently before re-using them between April and March.



Interpretation

Beekeepers who reported culling or using paradichlorobenzene (PDCB) crystals reported losing fewer colonies than those who did not use those techniques. Those who culled their brood comb before reuse reported 4.4 fewer overwintering colony deaths per 100 managed colonies (9.1% fewer losses) than those who did not report treating their brood comb in any particular way. Beekeepers who treated their brood comb with PDCB crystals saw 8.1 fewer colony deaths per 100 managed colonies (16.7% fewer losses).

Survey Question

Between April, 2012 and March, 2013, before you re-used brood comb that you had taken out of production or purchased, did you...
Check all that apply

-I did not reuse any old brood comb
-Cull any particularly old or bad combs and replace them
-Irradiate the comb
-Fumigate the comb with acetic acid
-Freeze the comb
-Store the comb with paradichlorobenzene crystals
-Did not treat the comb in any particular way
-Other (please specify)

		Total Number of Respondents Providing	Total Number of Colonies Managed	Average Number of Colonies Managed	Average Colony Loss

		Valid Responses				
				Mean	Standard Error	Mean(%) [Lower, Upper] CI
Cull	No Technique Used	822	98,042	119.3	36.3	**48.6 [46.3,51.0]**
	Other Technique Used	1,538	54,122	35.2	12.5	**41.1 [39.2,43.0]**
	This Technique Used	1,534	399,829	260.6	58.1	**44.2 [42.6,45.8]**
Freeze	No Technique Used	822	98,042	119.3	36.3	**48.6 [46.3,51.0]**
	Other Technique Used	1,759	313,848	178.4	46.2	**41.1 [39.4,42.8]**
	This Technique Used	1,209	119,539	98.9	33.4	**44.6 [42.7,46.5]**
Fumigate	No Technique Used	822	98,042	119.3	36.3	**48.6 [46.3,51.0]**
	Other Technique Used	2,912	401,903	138.0	30.3	**42.4 [41.1,43.6]**
	This Technique Used	27	41,191	1525.6	852.4	**36.0 [22.4,49.6]**
Irradiate	No Technique Used	822	98,042	119.3	36.3	**48.6 [46.3,51.0]**
	Other Technique Used	2,911	417,632	143.5	31.1	**42.3 [41.1,43.6]**
	This Technique Used	26	14,905	573.3	302.4	**40.0 [28.2,51.7]**
PDCB Crystals	No Technique Used	822	98,042	119.3	36.3	**48.6 [46.3,51.0]**
	Other Technique Used	2,431	381,985	157.1	36.8	**42.8 [41.4,44.2]**
	This Technique Used	515	50,904	98.8	29.3	**40.5 [37.7,43.3]**

Comments About This Data

Relevant Links, References, and Citations

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