



The Bee Informed Partnership Management Survey Results (2012) Brood Comb Management

BeeInformed.org

Funded by:



United States
Department of
Agriculture

National Institute
of Food
and Agriculture

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Average Brood Comb Age

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

Winter

Report ID: 143-2012

No Significant Differences



Data not present in 2012 survey



Interpretation

No comparison.

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 95% CI	Upper 95% CI
Comb Age	Data not present in 2012 survey	4,802	296,660	61.8	9.7	25.3	24.4	26.2

Comments About This Data

Relevant Links, References, and Citations

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Average Brood Comb Age By Region

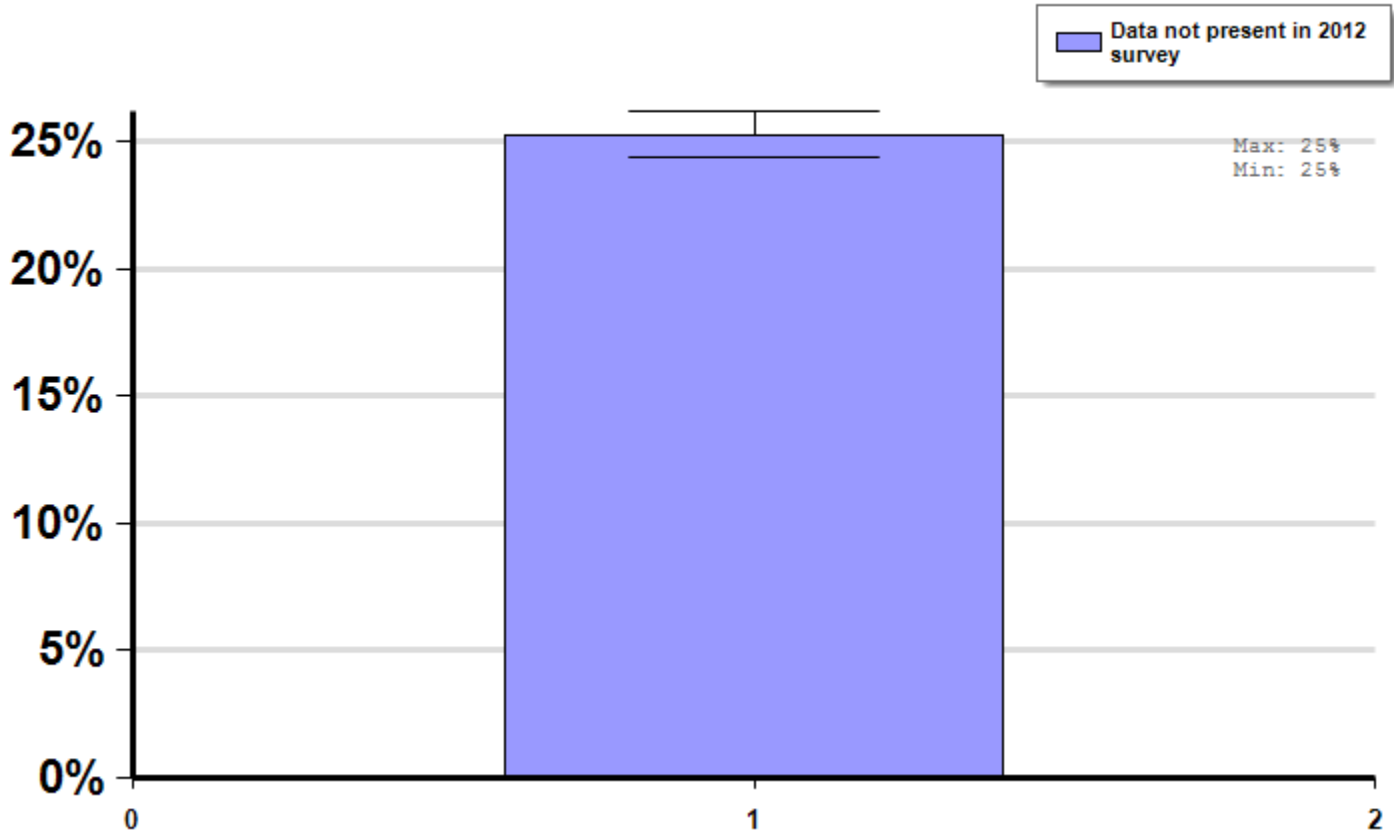
Management Survey 2012

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

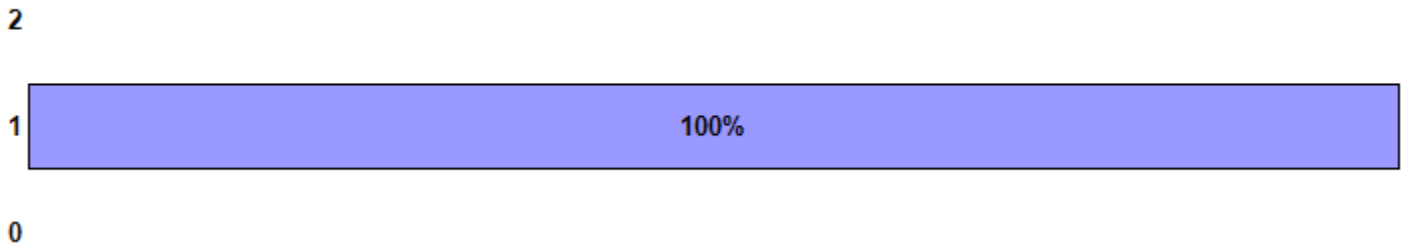
Winter

Report ID: 146-2012

No Significant Differences (within regions)



Respondent Ratio



Interpretation

No comparison.

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 95% CI	Upper 95% CI
	Data not present in 2012 survey	4,802	296,660	61.8	9.7	25.3	24.4	26.2

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Degree of Brood Comb Replacement

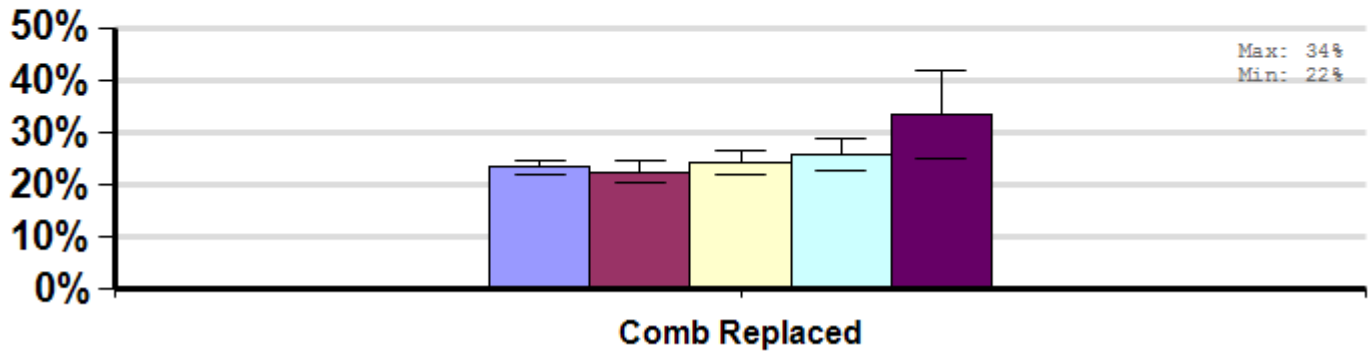
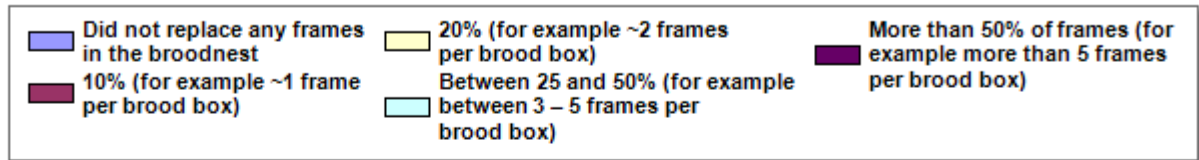
Management
Survey 2012

Average winter colony mortality reported by beekeepers who replaced different percentages of their brood nest comb in April, 2011 to March, 2012.

Winter

Report ID: 149-
2012

Some Significant Differences



Interpretation

Beekeepers who replaced 50% or more of the comb in their colonies lost 10.3 more colonies per 100 managed colonies, or an average of 30.7% more colonies than those who did not replace any.

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 95% CI	Upper 95% CI
Comb Replaced	Did not replace any frames in the broodnest	2,035	27,364	13.4	2.9	23.3	22.0	24.7
	10% (for example ~1 frame per brood box)	630	79,253	125.8	35.2	22.5	20.4	24.5
	20% (for example ~2 frames per brood box)	643	78,229	121.7	45.5	24.3	22.1	26.5
	Between 25 and 50% (for example between 3 – 5 frames per brood box)	357	21,848	61.2	23.2	25.7	22.6	28.9
	More than 50% of frames (for example more than 5 frames per brood box)	73	29,148	399.3	249.3	33.6	25.2	42.0

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Degree of Brood Comb Replacement By Region

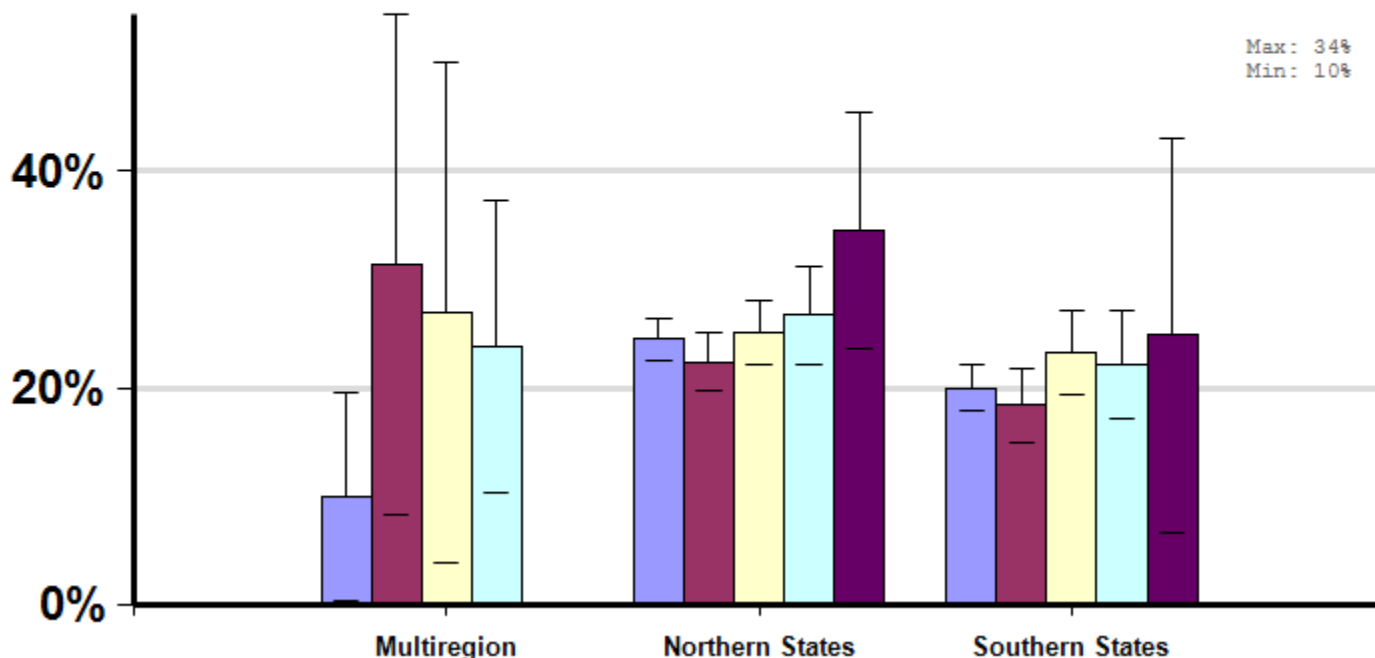
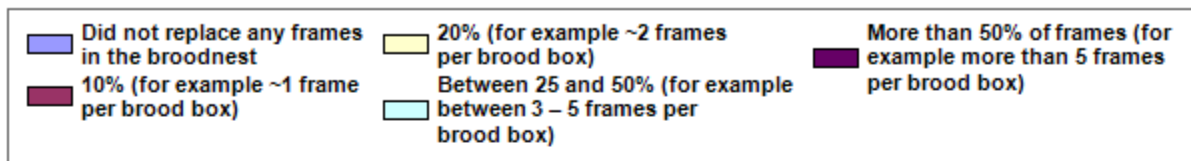
Management Survey 2012

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

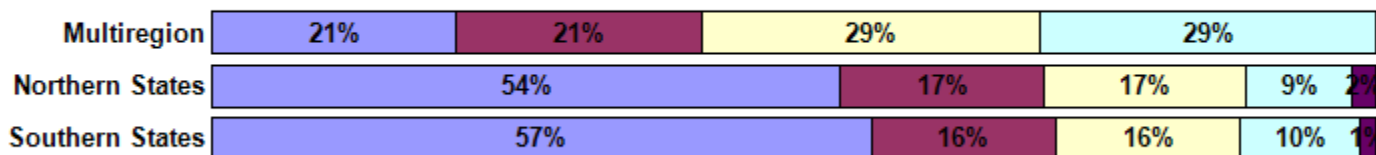
Winter

Report ID: 152-2012

No Significant Differences (within regions)



Respondent Ratio



Interpretation

No differences between 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 95% CI	Upper 95% CI
Multiregion	Did not replace any frames in the broodnest	8	769	96.1	83.5	9.9	0.3	19.5
	10% (for example ~1 frame per brood box)	8	6,261	782.6	533.1	31.4	8.3	54.5
	20% (for example ~2 frames per brood box)	11	15,360	1396.4	1360.5	27.0	3.9	50.1
	Between 25 and 50% (for example between 3 – 5 frames per brood box)	11	7,372	670.2	533.5	23.8	10.2	37.3
Northern States	Did not replace any frames in the broodnest	1,090	10,366	9.5	2.0	24.5	22.5	26.5
	10% (for example ~1 frame per brood box)	352	33,553	95.3	39.6	22.4	19.7	25.1
	20% (for example ~2 frames per brood box)	351	45,230	128.9	69.0	25.1	22.1	28.1
	Between 25 and 50% (for example between 3 – 5 frames per brood box)	183	7,360	40.2	20.7	26.7	22.2	31.2
	More than 50% of frames (for example more than 5 frames per brood box)	42	220	5.2	0.9	34.5	23.6	45.4
Southern States	Did not replace any frames in the	674	8,475	12.6	4.2	20.0	17.9	22.1

broodnest								
10% (for example ~1 frame per brood box)	188	3,455	18.4	2.8	18.4	15.0	21.8	
20% (for example ~2 frames per brood box)	189	6,213	32.9	8.9	23.2	19.3	27.1	
Between 25 and 50% (for example between 3 – 5 frames per brood box)	122	6,697	54.9	35.5	22.1	17.1	27.2	
More than 50% of frames (for example more than 5 frames per brood box)	17	7,768	456.9	440.3	24.9	6.7	43.1	

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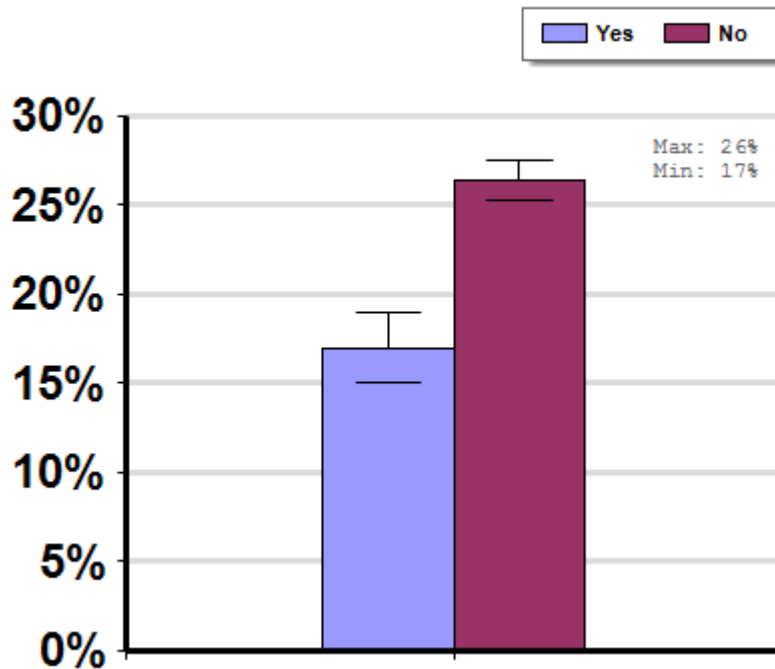
Brood Comb Reuse

Average winter colony mortality reported by beekeepers who did or did not re-use any old brood comb in their colonies between April, 2011 and March, 2012.

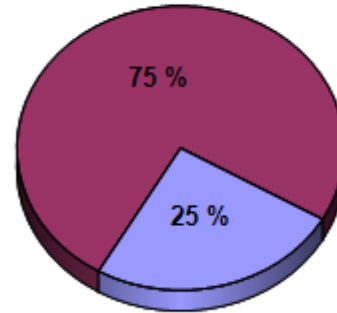
Winter

Report ID: 71-2012

Some Significant Differences



Respondent Ratio



Interpretation

Beekeepers who reported that they did not reuse comb lost on average 4.7 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 18.4% fewer colonies than beekeepers who reused old comb.

Survey Question

Between April, 2011 and March, 2012, 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 Valid Responses	Total Number of Colonies Managed	Average Number of Colonies Managed		Average Colony Loss		
				Mean	Standard Error	Mean(%)	Lower 95% CI	Upper 95% CI
Did Not Reuse comb	No	2,778	222,940	80.3	15.0	26.4	25.3	27.5
	Yes	927	4,908	5.3	0.8	17.0	15.0	18.9

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Brood Comb Reuse By Region

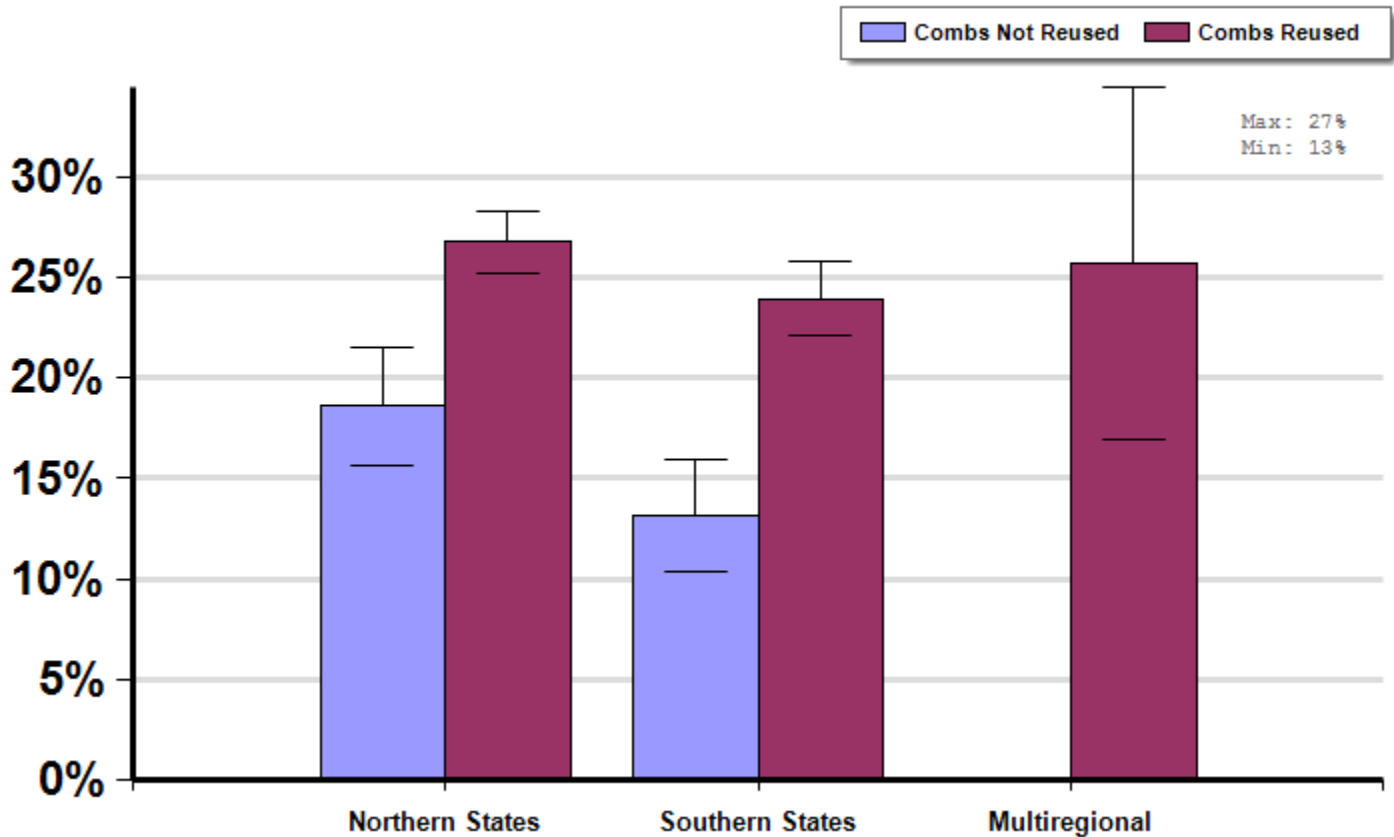
Management Survey 2012

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, 2011 and March, 2012 .

Winter

Report ID: 77-2012

Some Significant Differences (within regions)



Respondent Ratio



Interpretation

Beekeepers in the northern and southern states who did not reuse brood comb saw lower colony losses than those who reused brood comb between April, 2011 and March, 2012.

Survey Question

Between April 1, 2011 and March, 2012, 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 (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 95% CI	Upper 95% CI
Multiregional	Combs Reused	36	41,339	1148.3	611.9	25.7	16.9	34.5
Northern States	Combs Not Reused	471	2,565	5.4	1.5	18.6	15.7	21.5
	Combs Reused	1,526	94,974	62.2	18.5	26.8	25.3	28.3
Southern States	Combs Not Reused	327	1,780	5.4	0.8	13.2	10.3	16.0
	Combs Reused	852	26,363	30.9	7.3	23.9	22.1	25.8

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Brood Comb Treatment Before Reuse

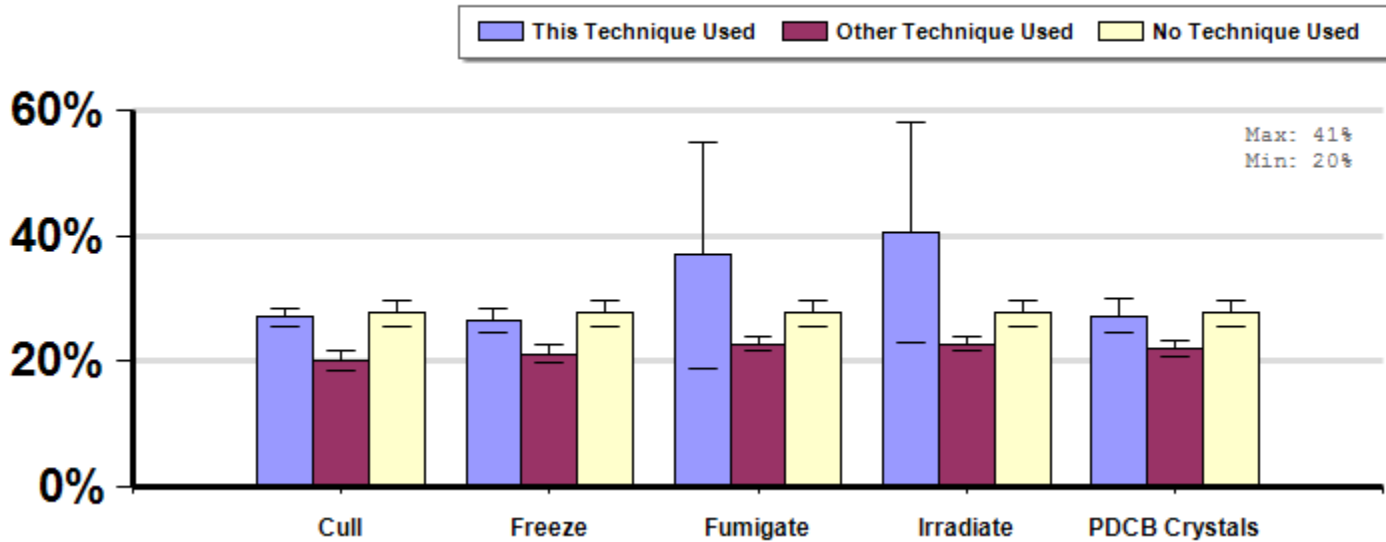
Management
Survey 2012

Average winter colony mortality reported by beekeepers who treated brood comb differently before re-using them between April, 2011 and March, 2012.

Winter

Report ID: 74-
2012

Some Significant Differences



Interpretation

Beekeepers who reported culling or freezing their comb before comb reuse lost more colonies than those who did not use those techniques.

Survey Question

Between April, 2011 and March, 2012, 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 Valid Responses	Total Number of Colonies Managed	Average Number of Colonies Managed		Average Colony Loss		
				Mean	Standard Error	Mean(%)	Lower 95% CI	Upper 95% CI
Cull	This Technique Used	1,374	179,012	130.3	28.7	27.0	25.5	28.5
	Other Technique Used	1,564	24,216	15.5	4.1	20.1	18.5	21.6
	No Technique Used	917	36,033	39.3	14.0	27.6	25.6	29.7
Freeze	This Technique Used	929	36,721	39.5	24.9	26.5	24.5	28.5
	Other Technique Used	1,883	155,533	82.6	17.0	21.2	19.9	22.5
	No Technique Used	917	36,033	39.3	14.0	27.6	25.6	29.7
Fumigate	This Technique Used	20	8,781	439.1	297.2	36.9	18.9	54.9
	Other Technique Used	2,769	183,037	66.1	14.1	22.8	21.7	23.9
	No Technique Used	917	36,033	39.3	14.0	27.6	25.6	29.7
Irradiate	This Technique Used	22	1,517	69.0	43.2	40.6	22.9	58.2
	Other Technique Used	2,766	190,298	68.8	14.3	22.7	21.6	23.8
	No Technique Used	917	36,033	39.3	14.0	27.6	25.6	29.7
PDCB Crystals	This Technique Used	434	19,588	45.1	12.5	27.2	24.5	30.0
	Other Technique Used	2,361	172,519	73.1	16.6	22.1	20.9	23.3
	No Technique Used	917	36,033	39.3	14.0	27.6	25.6	29.7

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