



The Bee Informed Partnership Management Survey Results (2014-2015) Queen Management

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Funded by:



United States
Department of
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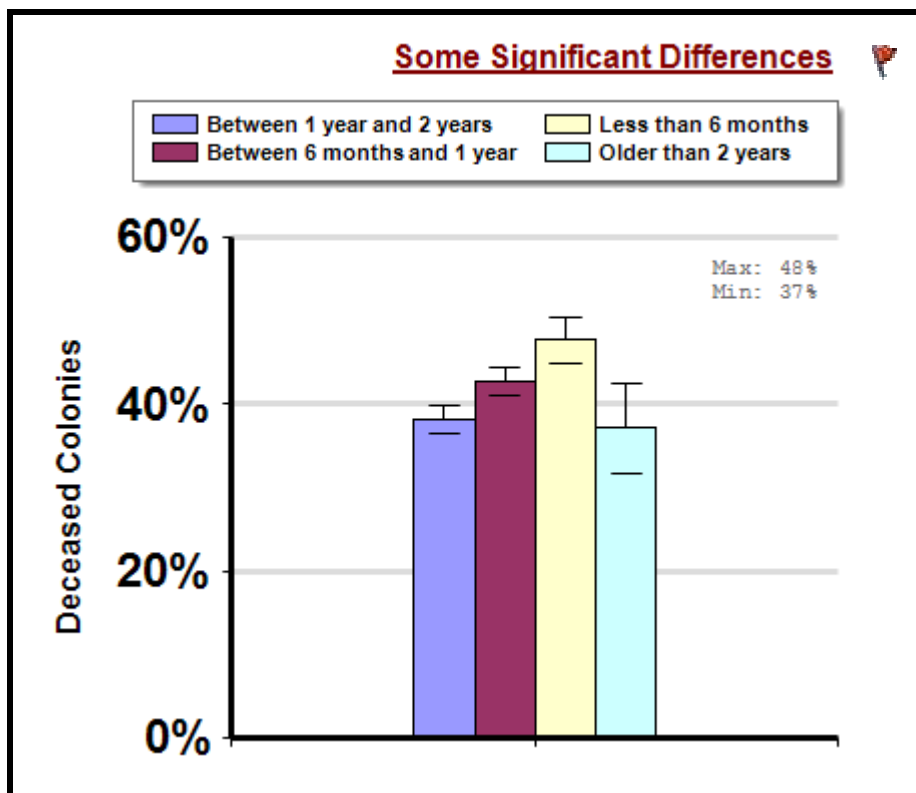
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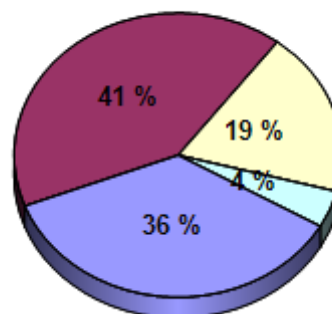
Average winter colony mortality suffered by beekeepers grouped by the average age of queens in their colonies between April 2014 and March 2015.

Winter

Report ID: 212-2015



Participant Ratio



Interpretation

Beekeeping operations whose queens were less than 6 months old lost significantly more overwintering colonies than beekeepers whose queens were aged between 6 months and 2 years, or had queens older than 2 years.

Survey Question

On average how old were the queens that headed a majority of your colonies on April, 2014?

- Less than 6 months
- Between 6 months and 1 year
- Between 1 and 2 years
- Older than 2 years
- Don't know

	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
Between 1 year and 2 years	1,436	86,019	59.9	19.1	38.2 [36.4, 39.9]
Between 6 months and 1 year	1,648	216,400	131.3	42.5	42.8 [41.1, 44.5]
Less than 6 months	752	51,140	68.0	25.5	47.7 [44.9, 50.5]

Older than 2 years	169	1,959	11.6	5.7	37.1 [31.6, 42.6]
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Comments About This Data

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Average Queen Age By Region

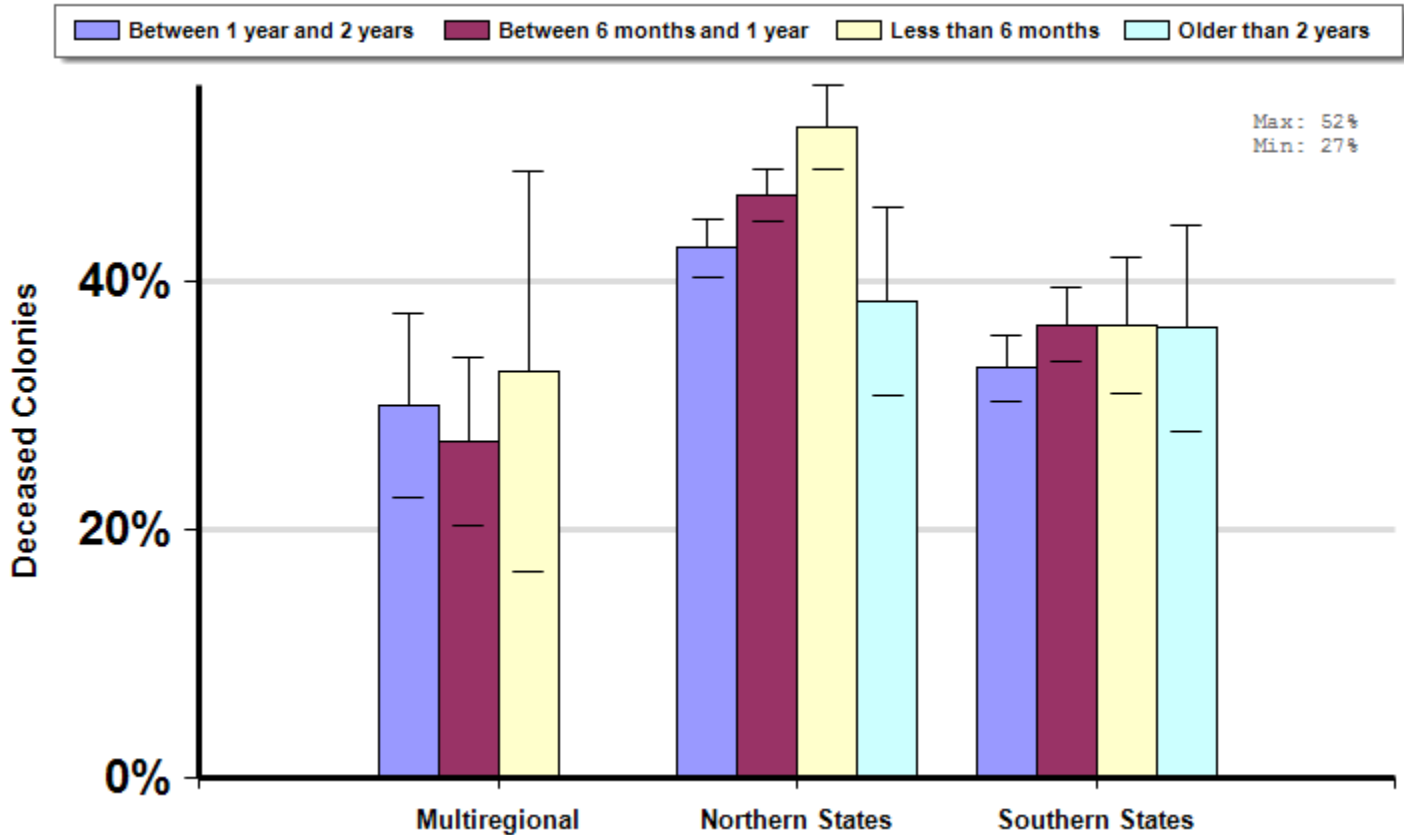
Management Survey 2015

Average winter colony mortality suffered by beekeepers grouped by the average age of queens in their colonies as of April and March.

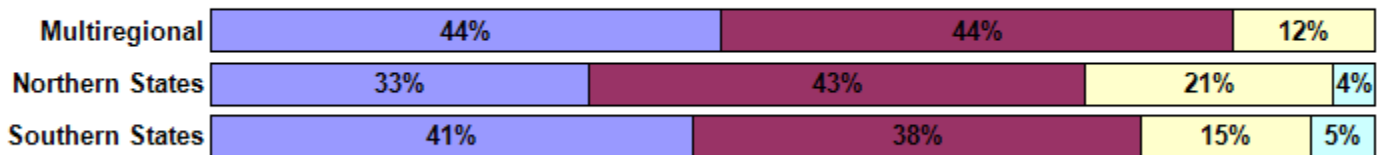
Winter

Report ID: 215-2015

Some Significant Differences (within regions)



Respondent Ratio



Interpretation

Northern beekeepers who had queens less than 6 months old lost significantly more overwintering colonies than beekeepers whose queens were aged between 6 months and 2 years, or had queens older than 2 years. There were no significant differences within the multiregional or southern groups.

Survey Question

On average how old were the queens that headed a majority of your colonies on April, 2014?

- Less than 6 months
- Between 6 months and 1 year

- Between 1 and 2 years
- Older than 2 years
- Don't know

		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	Between 1 year and 2 years	57	68,884	1208.5	457.1	29.9 [22.5, 37.3]
	Between 6 months and 1 year	57	152,286	2671.7	1149.8	27.0 [20.2, 33.8]
	Less than 6 months	16	23,647	1477.9	613.2	32.7 [16.5, 48.8]
Northern States	Between 1 year and 2 years	832	8,793	10.6	1.3	42.6 [40.3, 44.9]
	Between 6 months and 1 year	1,086	32,469	29.9	10.2	46.9 [44.7, 49.0]
	Less than 6 months	543	4,165	7.7	0.7	52.4 [49.0, 55.7]
	Older than 2 years	94	1,499	15.9	10.1	38.3 [30.8, 45.8]
Southern States	Between 1 year and 2 years	527	7,098	13.5	2.1	33.0 [30.3, 35.6]
	Between 6 months and 1 year	490	28,362	57.9	27.2	36.5 [33.5, 39.5]
	Less than 6 months	186	19,743	106.1	82.0	36.3 [30.9, 41.8]
	Older than 2 years	70	308	4.4	0.5	36.2 [27.9, 44.5]

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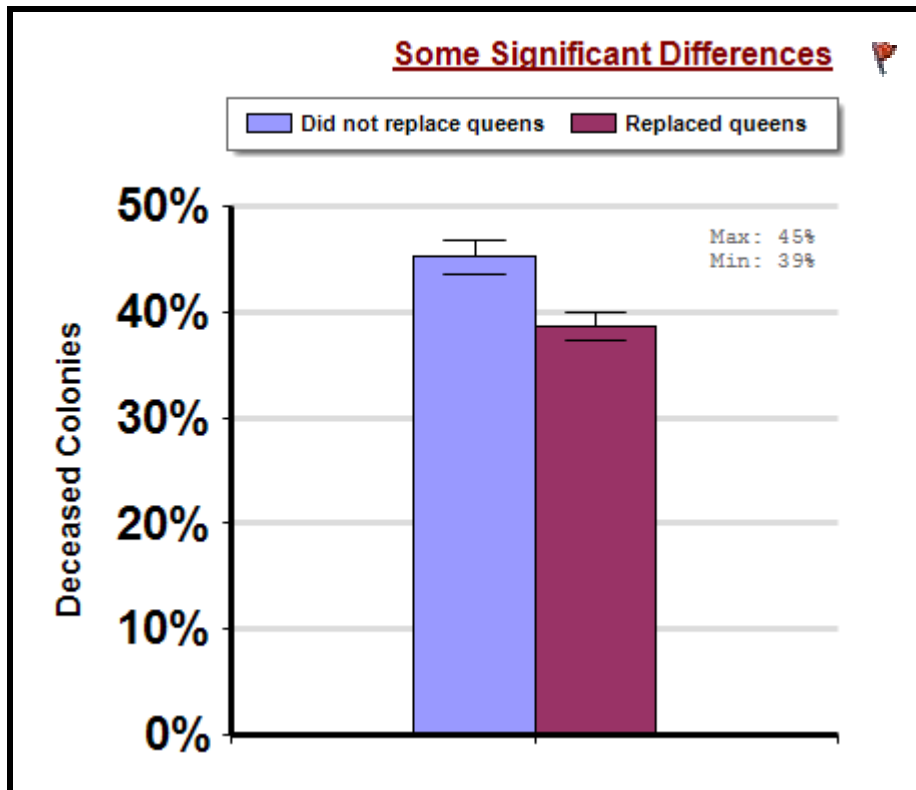
Queen Replacement

Management Survey 2015

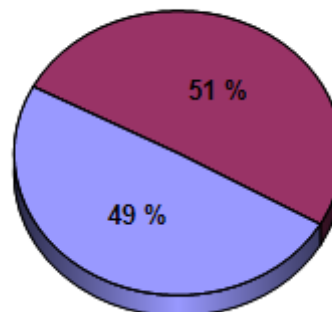
Average winter colony mortality suffered by beekeepers who indicated they did or did not replace any queens in their colonies between April and March.

Winter

Report ID: 218-2015



Participant Ratio



Interpretation

Beekeepers who replaced queens in their operation reported 6.6 fewer overwintering colony deaths out of 100 managed colonies (14.6% fewer losses) than beekeepers who did not replace any queens in their operation.

Survey Question

Did you replace the queens in any of your colonies between April 1, 2014 and March, 2014?

		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
	Did not replace queens	2,226	18,833	8.5	1.8	45.3 [43.7, 46.9]
	Replaced queens	2,278	341,338	149.8	34.0	38.7 [37.3, 40.0]

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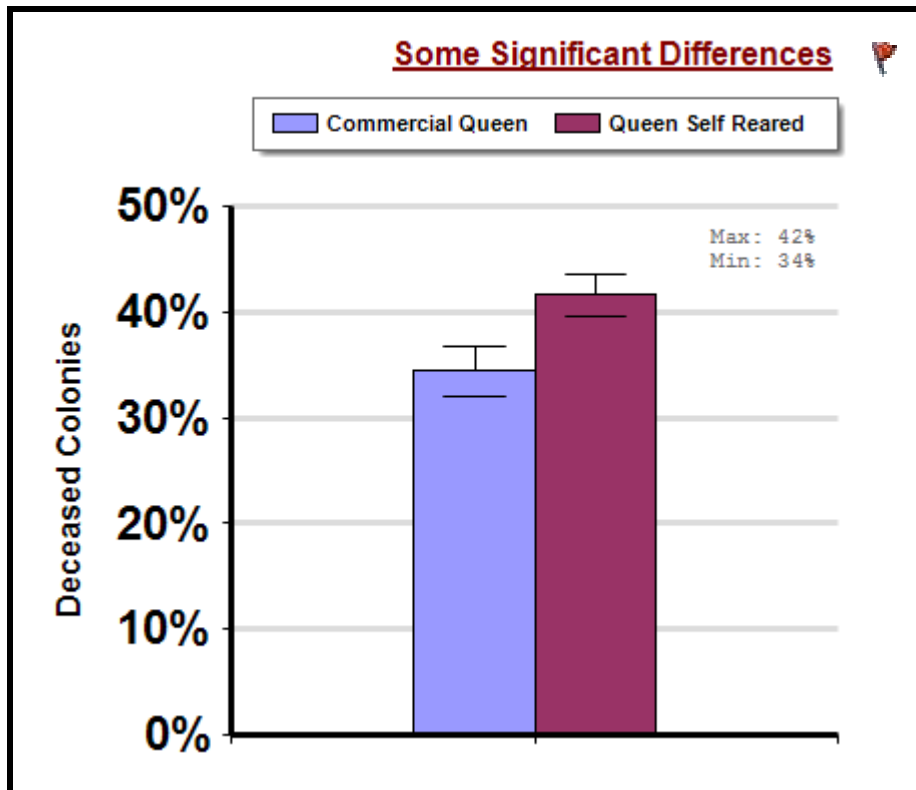
Queen Replacement By Queen Source Origin

Management Survey 2015

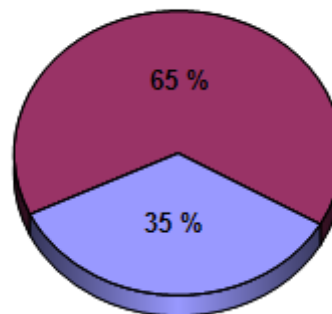
Average winter colony mortality suffered by beekeepers who reported replacing queens in their colonies between April and March by the source of the queens used for replacement.

Winter

Report ID: 230-2015



Participant Ratio



Interpretation

Beekeepers who purchased their queens from a commercial queen breeder reported 7.2 fewer overwintering colony deaths out of 100 managed colonies (17.3% fewer losses) than beekeepers who reared queens themselves.

Survey Question

If you introduced mated or virgin queens and/or queen cells, where did you get the majority of these queens?

- Not applicable
- Do not know
- Queen self reared
- Commercial queen

		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
	Commercial Queen	563	169,531	301.1	121.7	34.5 [32.1, 36.8]
	Queen Self Reared	1,065	171,541	161.1	34.0	41.7 [39.7, 43.7]

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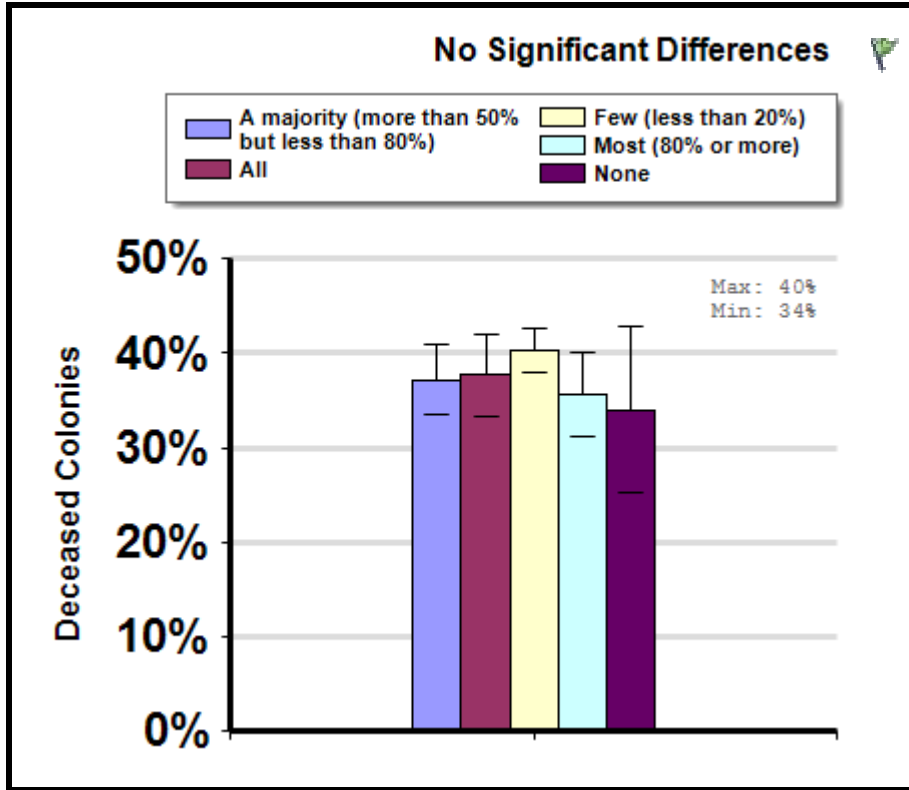
Queen Replacement By Proportion of Operation Replaced

Management Survey 2015

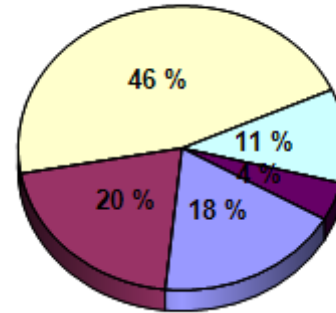
Average winter colony mortality suffered by beekeepers who reported replacing queens in their colonies between April and March by the proportion of colonies in their operation whose queen they replaced.

Winter

Report ID: 224-2015



Participant Ratio



Interpretation

There are no significant differences of queen replacement by proportion of operation replaced.

Survey Question

You indicated that you replaced queens in at least some of your colonies. In what percentage of the colonies in your operation did you replace queens over the last year?

- None
- All
- Most (80% or more)
- A majority (more than 50% but less than 80%)
- A minority (less than 50% but more than 20%)
- Few (less than 20%)

		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
	A majority (more than 50% but less than 80%)	277	76,032	274.5	74.8	37.2 [33.4, 41.0]
	All	310	44,336	143.0	60.1	37.6 [33.2, 42.1]

Few (less than 20%)	698	24,480	35.1	8.3	40.2 [37.9, 42.5]
Most (80% or more)	162	130,824	807.6	410.6	35.6 [31.2, 40.0]
None	66	514	7.8	1.8	34.0 [25.2, 42.7]

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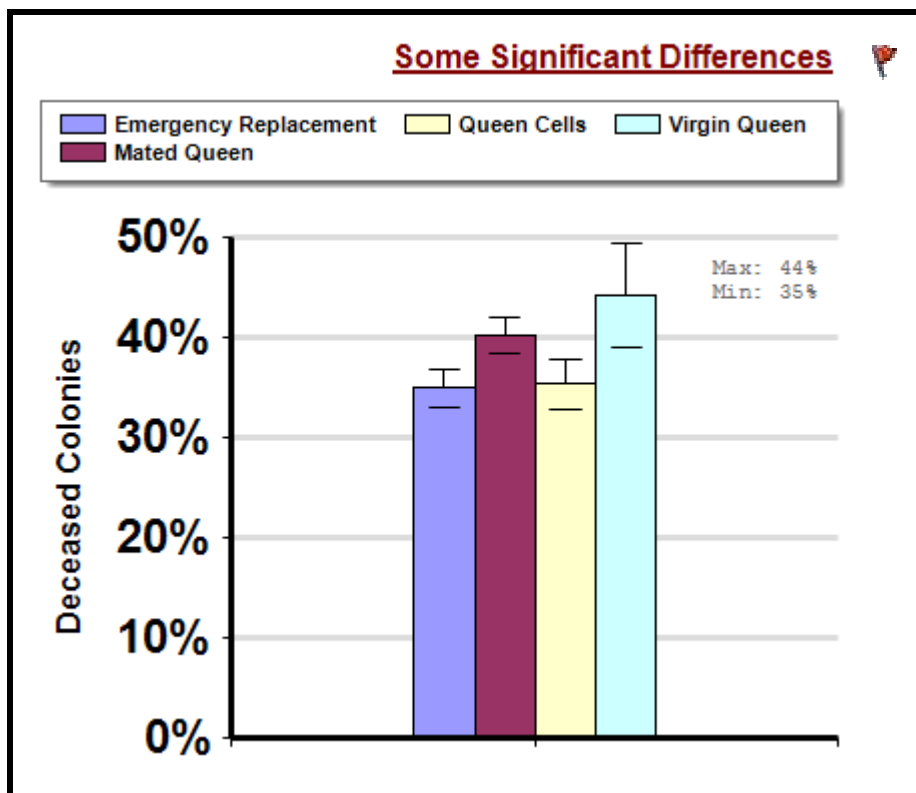
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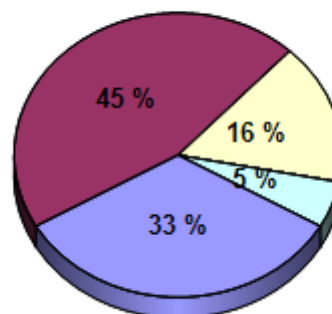
Average winter colony mortality suffered by beekeepers who reported replacing queens in their colonies between April and March by the type of queen replacement method used.

Winter

Report ID: 227-2015



Participant Ratio



Interpretation

Beekeepers who replaced their queens with queen cells reported significantly less overwintering colony deaths than beekeepers who replaced queens with mated queens or virgin queens. Also, beekeepers who permitted their colonies to split or rear a new replacement queen lost fewer overwintering colonies than beekeepers who introduced mated or virgin queens.

Survey Question

How did you re-queen the colonies that you re-queened last year?

- Introduced mated queens
- Introduced virgin queens
- Introduced queen cells
- Permitted colony or split to rear a new replacement queen on its own
- 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

Emergency Replacement	999	30,300	30.3	12.5	35.0 [33.1, 36.9]
Mated Queen	1,356	192,874	142.2	28.1	40.3 [38.5, 42.0]
Queen Cells	483	190,332	394.1	145.7	35.3 [32.8, 37.8]
Virgin Queen	159	4,647	29.2	4.5	44.2 [39.0, 49.4]

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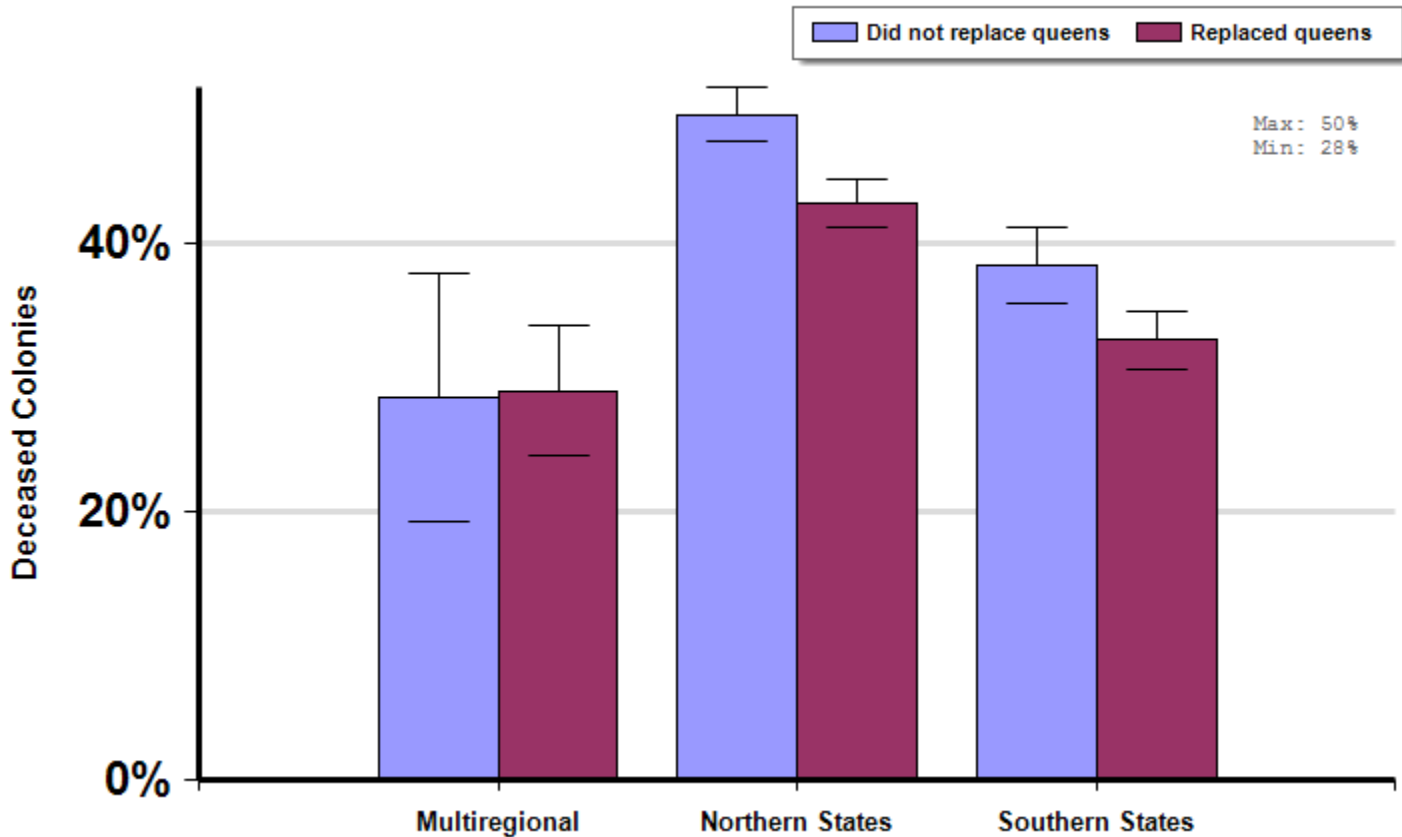
Queen Replacement By Region

Average winter colony mortality suffered by beekeepers who indicated they did or did not replace any queens in their colonies between April and March by region of operation.

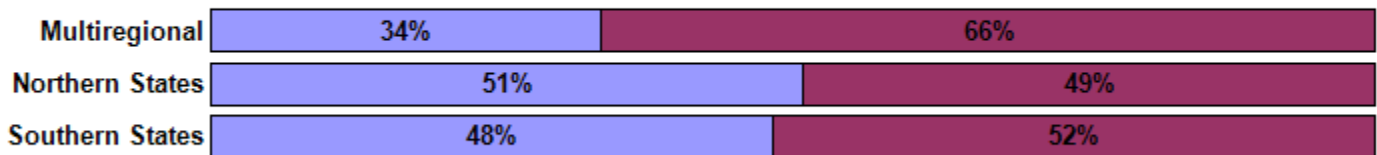
Winter

Report ID: 221-2015

Some Significant Differences (within regions)



Respondent Ratio



Interpretation

Northern beekeepers who replaced queens in their colonies reported 6.6 fewer overwintering colony deaths out of 100 managed colonies (13.3% fewer losses) than northern beekeepers who did not replace queens. Also, southern beekeepers who replaced queens saw 5.6 fewer overwintering colony deaths out of 100 managed colonies (14.6% fewer losses) than those who did not replace queens.

Survey Question

Did you replace the queens in any of your colonies between April 1, 2014 and April 1, 2015?

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

		Providing Valid Responses				Mean(%) [Lower, Upper] CI
				Mean	Standard Error	
Multiregional	Did not replace queens	47	5,571	118.5	80.5	28.4 [19.2, 37.7]
	Replaced queens	93	241,438	2596.1	754.0	29.0 [24.1, 33.9]
Northern States	Did not replace queens	1,461	8,650	5.9	0.7	49.6 [47.6, 51.5]
	Replaced queens	1,407	39,695	28.2	7.9	43.0 [41.2, 44.8]
Southern States	Did not replace queens	698	4,437	6.4	0.8	38.3 [35.6, 41.1]
	Replaced queens	747	52,179	69.9	27.1	32.7 [30.5, 34.9]

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