



# Drone Brood Removal By Region

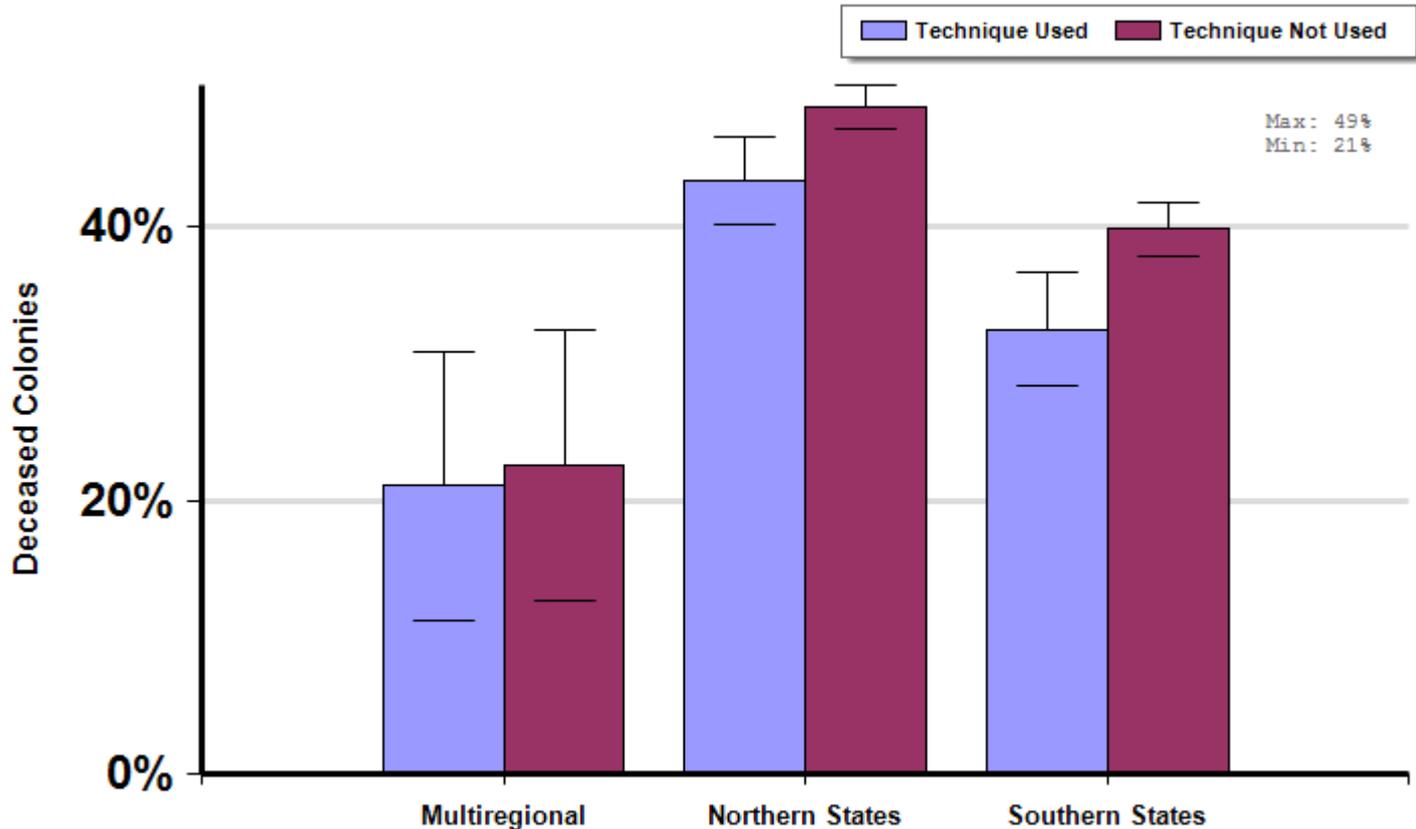
Management Survey 2013

Average winter colony mortality suffered by beekeepers who employed drone comb removal between April and March by region of operation.

## Winter

Report ID: 107-2013

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 employed drone brood removal lost fewer overwintering colonies than those beekeepers in the North and South who did not employ drone brood removal. Those in the North who removed drone brood saw 5.4 fewer overwintering colony deaths per 100 managed colonies (11.1% fewer losses) and beekeepers in the South who removed drone brood saw 7.4 fewer overwintering colony deaths per 100 managed colonies (18.5% fewer losses) than those who did not report any drone brood removal. There was no statistical difference for beekeepers who kept colonies in multiple regions.

## Survey Question

Over the last year, did you employ any of the IPM practices/equipment listed below?

- Drone comb removal
- Small cell size comb
- Small hive beetle trap
- Screened bottom board

		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	Technique Used	11	12,595	1145.0	604.7	21.1 [11.2,30.9]
	Technique Not Used	33	6,095	184.7	139.9	22.6 [12.7,32.5]
Northern States	Technique Used	418	6,604	15.8	2.8	43.4 [40.2,46.6]
	Technique Not Used	2,113	59,675	28.2	9.2	48.8 [47.2,50.3]
Southern States	Technique Used	199	3,912	19.7	6.1	32.5 [28.3,36.7]
	Technique Not Used	1,215	78,580	64.7	16.0	39.9 [37.9,41.8]

## Comments About This Data

### Relevant Links, References, and Citations

Funded By:



United States  
Department of  
Agriculture

National Institute  
of Food  
and Agriculture

This information is for educational purposes only. References to commercial products or trade names do not imply endorsement by the Bee Informed Partnership or its members. The results presented here are the summary of the population who responded. The sample may not be representative of the beekeeping population at large. These results simply highlight differences in the sample population. The results cannot be considered conclusive, causative, protective, or attest to product efficacy or lack of efficacy.