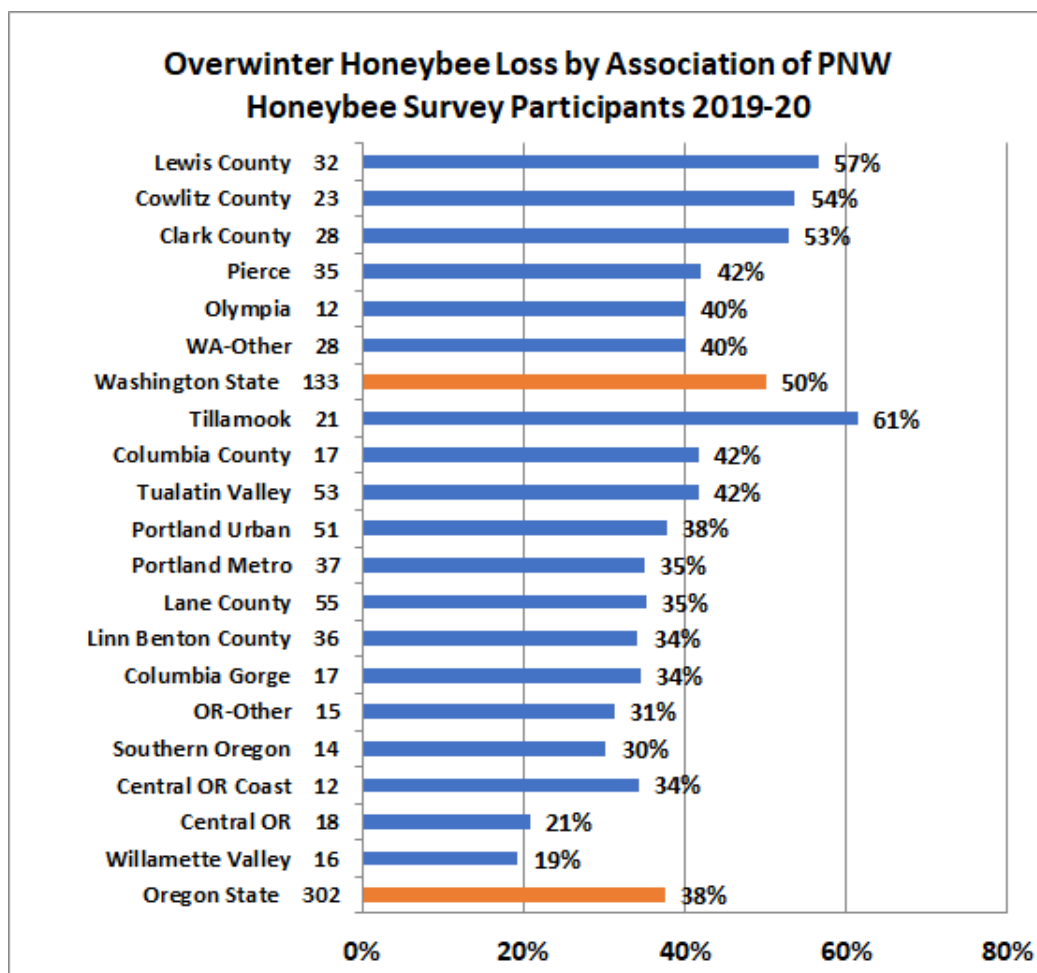


## 2019-20 Central Coast OR Beekeeper Winter Loss by Dewey M. Caron

OR beekeepers were directed to a web-based survey document in a continuing effort to define overwintering losses/successes. This was the 11<sup>th</sup> year of such survey activity. I received 302 responses from Oregon backyarders and 133 from Washington beekeepers keeping anywhere from 1 to 45 colonies. Last year I received 10 Ten Central Coastal survey responses and this year 2 more (=12). Unfortunately with this low number this report is abbreviated as the numbers have such wide variation and do not necessarily reflect what is really happening. I encourage individuals to compare their results with the Statewide OR report.

Figure 1 shows number of responses and club loss rate for Oregon/Washington clubs.



**Overwintering losses of 12 Central Oregon Coast Beekeepers was 34% (73 fall colonies) same loss level as last year (65 fall colonies).** Overall state loss was 38%, a drop of 10 percentage points from the previous survey year, the highest level (in 10 years) of PNW survey

activity. Central OR coast had 16 Langstroth 8 frames (lost 38%), 54 Langstroth 10 colonies (lost 33% and of 3 nucs one was lost (also 33% loss level) for overall of 34% loss.

The survey also asked for hive loss by hive origination. Statewide, overwintered colonies had the lowest loss level (34% and Central Oregon Coast had even better survival – 26% loss. Colonies started form swarms had 29% loss, colonies started as packages 40% loss and colonies from splits 50% were lost.

The coastal survey respondents were a wide mixture of numbers of bees and years beekeeping experience. One individual had one colony 3 individual had 2 and 3 colonies each (medium number was 3), two individuals had 6, one had 9 and 2 individuals had 10+ colonies. In years experience 2 individuals had 1 and 3 colonies each, one individual each had 4, 6, 7 (medium number between 6 &7) and 9 years of beekeeping experience and 4 individuals had 10+ years.

Not everyone had loss. Two respondents had NO LOSS (174%) and two had total loss. Heaviest loss was either one (3 individual) or 2 colonies (4 individuals). Heaviest loss was 6 colonies. See Figure 2.

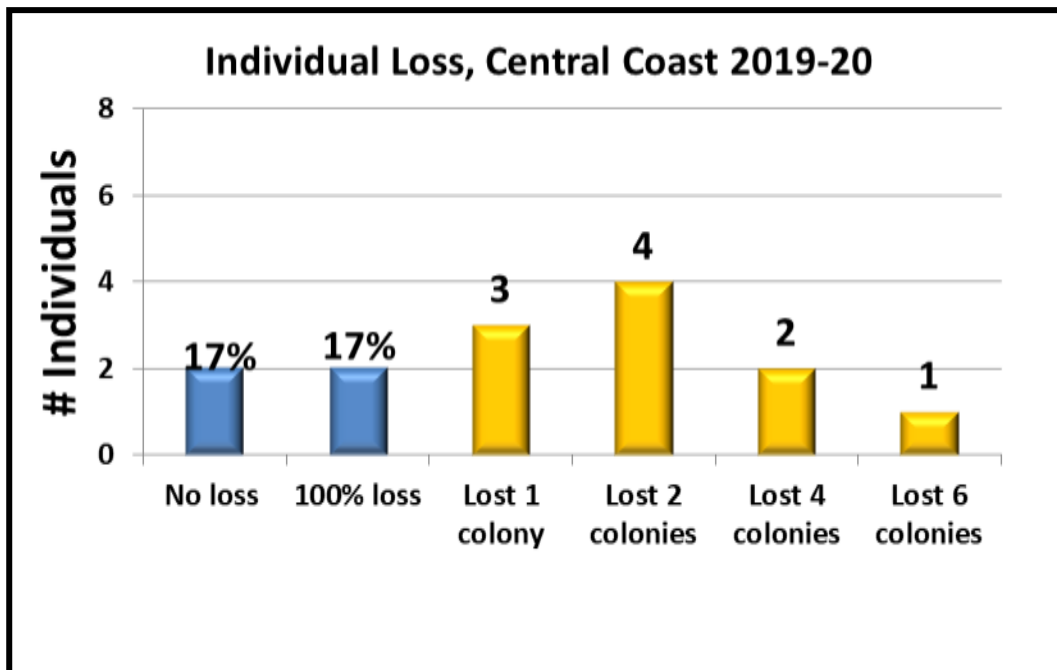


Figure 2

### Reasons for Colony Loss/Acceptable loss

We asked of individuals that had colony loss to estimate what the likely reason(s) might have been, Multiple responses were permitted. Queen failure (4 selected this option) and varroa mites were the most commonly chosen. In question of acceptable levels of loss, 3 respondents said zero, 1 said 5%, 2 indicated 10%, ad 3 each said 20 and 25%.

I don't know	1	6%
CCD	2	13%
Nosema Disease	0	0%
Pesticides	0	0%
Poor wintering Condition	0	0%
Small Hive Beetles	0	0%
Starvation	1	6%
Queen Failure	4	25%
Varroa Mites	3	19%
Weak in the Fall	2	13%
Yellow Jackets	1	6%
I have no opinion	0	0%
Other	2	13%
	16	100%
removed	2	N/A

### Why do colonies die?

**There is no simple answer to explain the levels of current losses nor is it possible to demonstrate that they are necessarily excessive for all the issues facing honey bees in the current environment. Varroa mites and the viruses they transmit are considered a major factor colonies are not as healthy as they should be.**

### Management selections and losses

We asked in the survey for information about some managements practiced by respondents. The survey inquired about feeding practices, wintering preparations, sanitation measures utilized, screen bottom board usage, mite monitoring, both non-chemical and chemical mite control techniques and queens. Respondents could select multiple options and there was always a none and other selection possible. This analysis seeks to compare responses of this past season to previous survey years.

Most Oregon beekeepers do not perform just one management to their colony (ies) toward improving colony health and overwintering success. This analysis however is mainly of a single factor equated with loss level. Such analysis is correlative and doing a similar management as fellow beekeepers do does not necessarily mean you too will improve success.

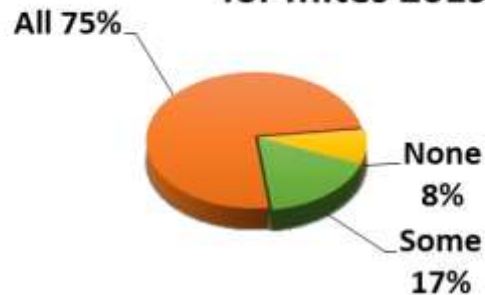
A small respondent base renders analysis of little value. Please see the full analysis for statewide respondents (data base of 302 OR beekeepers).

For feeding 1 Central Oregon Coast respondent did no feeding (33% loss), 8 fed sugar syrup and 8 pollen patties, 6 fed frames honey 3 fed dry sugar and hard candy and 2 fondant For winter management all did something. Nine used Vivaldi Board, 7 provided wind/weather shelter, 4 insulated the top and 4 provided rain shelter. Individuals doing sanitation and using Screen bottom boards had little improved survival statewide; 10 Central OR Coast beekeepers

used them on all their colonies and 2 on some of their colonies. Six closed screen bottom boards which statewide had better survival than those that did not (4 individuals).

Monitoring is pretty important. One individual did none, while 9 monitored all and 2 some (see Figure 3. Eight individuals used sticky board, 5 used alcohol wash, a single individual did powdered sugar, one looked at drone brood and five said they monitored adults for mites (multiple responses were possible)

### Central Coast Beekeepers Monitored \_\_\_% of hives for mites 2019-20



For mite control all 12 Central OR Coast beekeepers did at least one non-chemical treatment. Eleven used Screen bottom boards, 7 provided distinct hive colors, 4 each used minimal hive intervention and brood break, 3 indicated they did something to reduce drifting and 1 said they used drone brood removal. The alternatives you used should be compared to statewide results. For chemicals, one individual did not use any chemical (had %loss). Nine used formic acid, 6 vaporized with Oxalic acid, 2 used ApiLife Var and one each Apiguard and Apivar. All of these treatments, except for the Formic, helped statewide beekeepers realize better survival.

### Closing comments

This survey is designed to 'ground truth' the larger, national Bee Informed loss survey. Some similar information is additionally available on the BeelInformed website [www.beeinformed.org](http://www.beeinformed.org) and individuals are encouraged to examine that data base as well. Recall that the BeelInformed survey is measuring the larger scale OR beekeepers not the backyarders (figure 6 of OR state loss report.) Reports for individual bee groups are customized and posted to the PNW website.

We intend to continue to refine this instrument each season and hope you will join in response next April. If you would like a reminder when survey is open please email us at [info@pnwhoneybeesurvey.com](mailto:info@pnwhoneybeesurvey.com) with "REMINDER" in the subject line. We have a blog on the [pnwhoneybeesurvey.com](http://pnwhoneybeesurvey.com) and will respond to any questions or concerns you might have.

**Thank You to all who participated.** If you find any of this information of value please consider adding your voice to the survey in a subsequent season. Dewey Caron June 2020