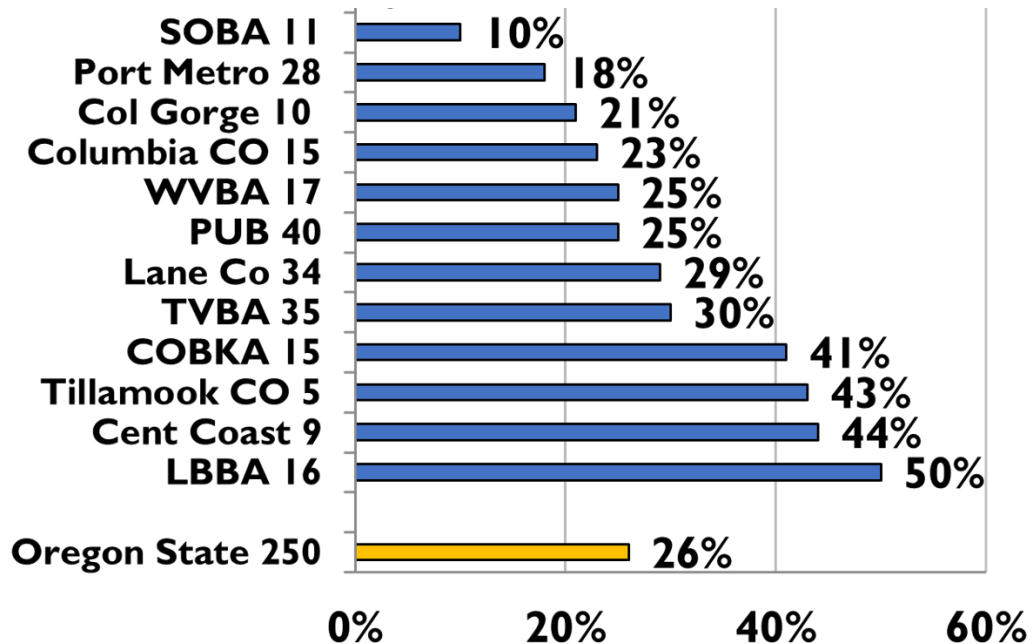


2024-25 Central Oregon Winter Loss by Dewey M. Caron

For the past 16 years, PNW winter colony losses and several managements related to bee health were solicited with an electronic honey bee survey instrument developed within the PUB bee group www.pnwhoneybeesurvey.com. A total of 250 responses were received. Oregon average loss was 25.5%, 5.5 percentage points above the previous year. During the 2023-2024 overwintering period, 15 COBKA member surveys were returned, slightly above the previous 5-year average of 11.4; response rate tripled the previous 3 years. **Loss was 41%.**

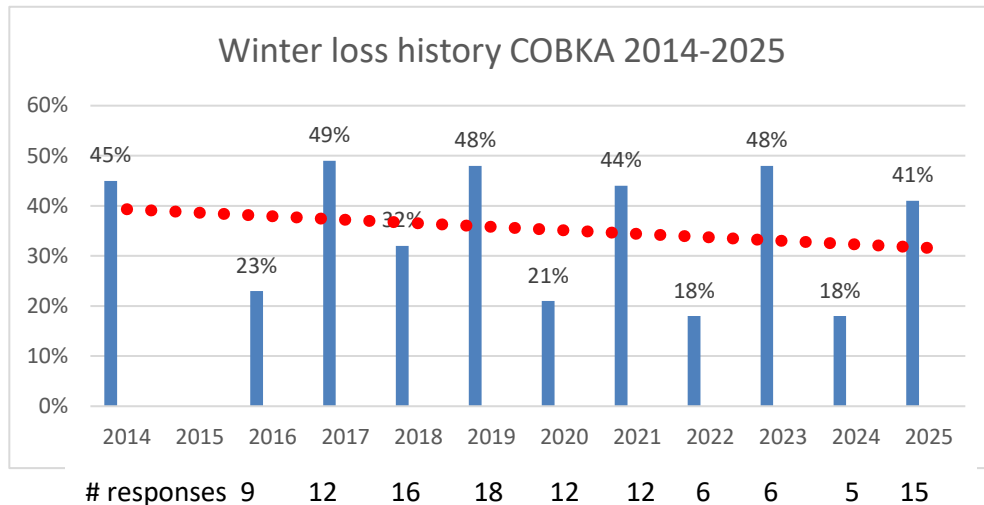


COBKA responses reported on 51 fall hives. Five individuals had 11 8-frame hives in the fall and lost 2 (18% loss). Fourteen individuals maintained 10-frame Langstroth hives - their loss level was 46% (20 of 37 survived). No nucs were reported overwinter. One of three Top Bar hives survived winter.

Four individual COBKA members had total loss (2 lost 3 colonies each and 2 lost a single colony – total 8 colonies). Five individuals had 100% survival - range 2 to 5 colonies, total 14 colonies. Heaviest loss was a single colony (5 individuals), one lost 2 colonies, 3 each lost 3 colonies and heaviest loss was the individual who lost 5 colonies of 6 total.

Two individuals had a single colony, 4 individuals had 2 and 3 individuals had 3. Nine individuals (of 15 total COBKA respondents) owned 1-3 colonies. Five individuals had 4-6 colonies and the greatest number of colonies of respondents was 7. Ten of the 15 said they had a mentor as they were learning beekeeping. The total 15 respondents probably do not adequately represent the beekeepers of Central Oregon.

The loss history of 11 years for COBKA is shown below in Figure 2. The red dashed line shows the loss trend – number of COBKA responses has never been very robust. Number shown in numbers below graph is the number of responses.



Curiously, losses every other year are reduced. Heavy losses in 2017 were thought due to “heavy, long winter” and in 2019 to “slow spring”.

Responding individuals could FAST TRACK and did not need to provide information on loss by origination. Only 3 of 15 (20%) individuals provided such information. Statewide 54% did provide information and I refer members to that report.

Individuals were asked why a reason they felt they had overwinter loss. More than one response was possible. For the 10 individuals with loss (5 had no loss), 2 listed don’t know, 5 indicated varroa and 5 said weak the fall. Three said poor overwintering and 2 said starvation. When asked about an acceptable loss percentage, 2 said none, 2 said 5%, 1 each 10% and 15%, 2 said 20% (both COBKA and State medium), 3 said 25% and one each indicated 33%, 59% and 75%.

Why do colonies die?

There is no easy way to verify reason(s) for colony loss. Colonies in the same apiary may die for different reasons. Examination of dead colonies is often confusing, some options may be ruled out, we are often left with two or more possible reasons for losses. There is a good deal of variance in opinion as to what might be an acceptable loss level. We are dealing with living animals which are constantly exposed to many different challenges, both in the natural environment and the beekeeper’s apiary. Our acceptable loss level has crept upwards over time.

Major factors in colony loss are thought to be mites and their enhancement of viruses, especially DWV (deformed wing virus, plus declining nutritional adequacy/forage and diseases. Pesticides in the agricultural environment weakens colonies. Yellow jacket predation is a constant challenge to weaker fall colonies, Management, especially learning proper bee care in the first years of beekeeping, remains a factor in losses. What effects our changing environment, such as global warming, contrails, electromagnetic forces, including human disruption of it, human alteration to the bee's natural environment and other factors, play in colony losses are not at all clear.

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 currently facing honey bees. Varroa mites and the viruses they transmit are considered a major factor why colonies are not as healthy as they should be.

Managements

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. Individuals could FAST TRACK and not provide management information but 12 of the 15 COBKA (80%) did respond; statewide 69% responded.

This analysis seeks to compare responses of this past season to previous survey years. With 5 respondents the numbers are skewed. Refer to the statewide report when it is posted.

Thank you to COBKA members for the returns. I am hopeful we can get response level back up to the double digits as was the case prior to 2021.