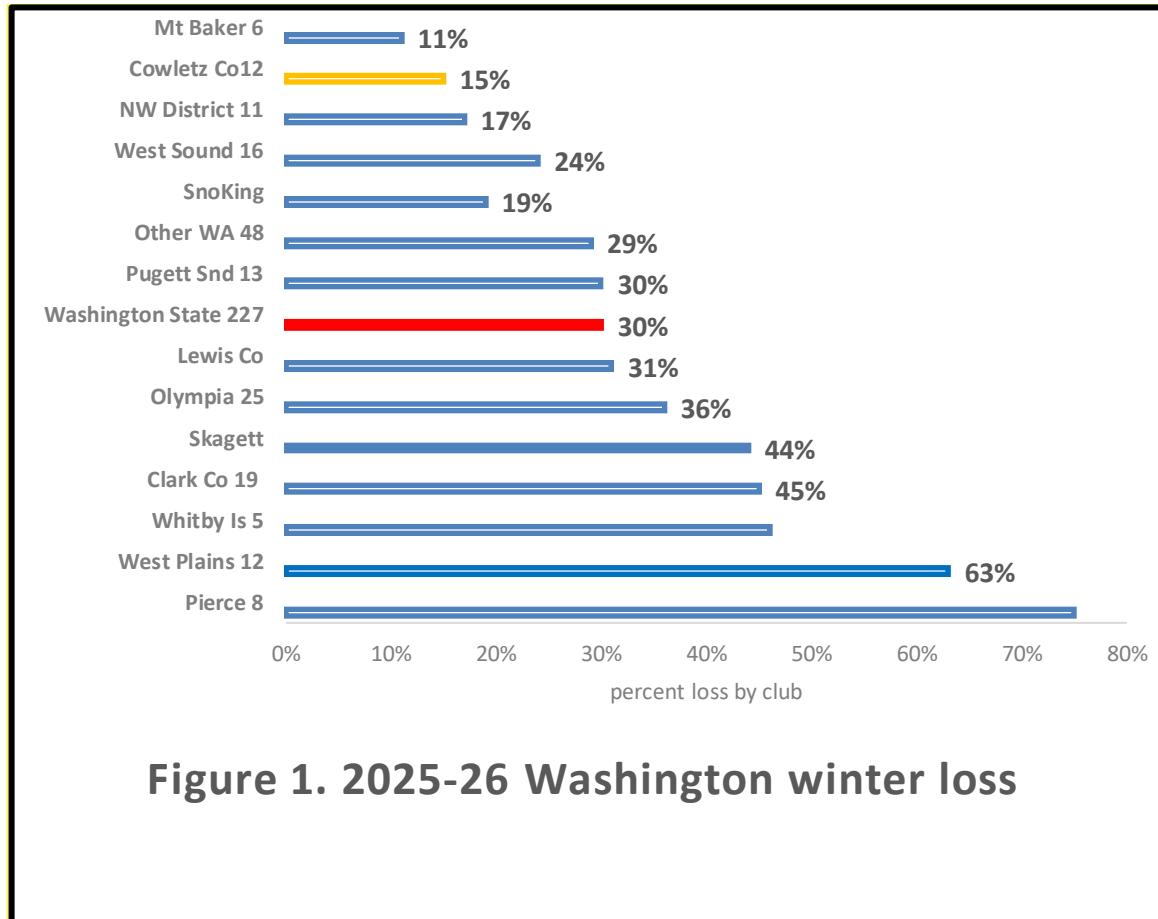


Cowlitz Co beekeeper Losses 2025-26 by Dewey Caron

Overwintering losses of small-scale Washington backyard beekeepers = 30% a decrease of four percentage points from last year, 14 percentage points below the 10-year loss average. Two hundred twenty-seven, 97 more than last year completed a survey and 106 above the 120.8 average respondent rate for the last seven years. Individuals maintained up to 676 fall colonies. Information on winter losses and several managements related to bee health was included on the electronic honey bee survey instrument www.pnwhoneybeesurvey.com.



Twelve Cowlitz individuals sent in a response. One was new without overwintering colonies. The loss rate average was 15%, one-half of the Sashington state loss level. Cowlitz responders had 81 fall colonies.

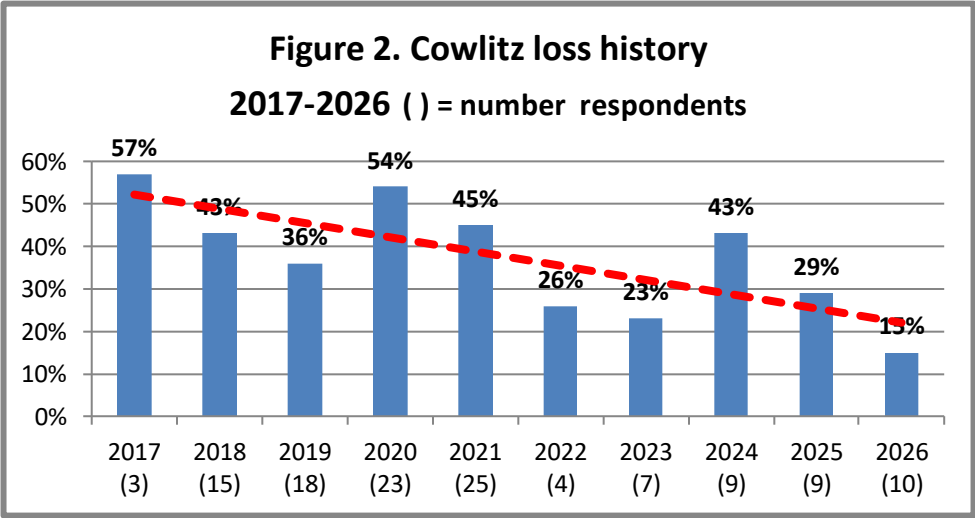
The loss survey overwintering statistic was developed by our asking number of fall colonies and surviving number in the spring by hive type. Results for Cowlitz respondents: five individuals had 27 fall Langstroth 8-frame colonies of which six did not survive (11% loss). Nine individuals had 54 fall colonies and six did not survive (11% loss). The single Top Bar hive survived, and one of five "other" hive types did not survive – hive type not specified. The heavier loss of 8-frame Langstroth versus 10-frame

Langstroth colonies was counter to statewide results. Statewide results were 23% loss of Langstroth 8-frame and 30% loss of Langstroth 10-frame hives and this has been the situation most years. Statewide nuc losses were 48% (78 fall nucs overwintered). Losses of top bar hives were 33% (21 fall overwintered).

Loss by hive origination: We also asked survey respondents to list their loss by hive origination. This year individuals could FAST TRACK and not respond to this survey question – 5 Cowlitz individuals supplied information while seven did not. Cowlitz respondents reported that all 15 previously overwintered colonies survived, both package-originated colonies survived, three of five swarm originated colonies survived, and all three splits survived for these five individuals. Statewide 50% used FAST TRACK. The best survival was previously overwintered, with a 22% loss rate (80 individuals). Packages overwintered by 28 individuals had 30% loss Overwintered Nucs, 86 fall colonies, had 29% loss. There were 45 individuals overwintering swarms, 72 colonies, they had 32% loss. Forty-five individuals overwintered splits, 127 total and they had 21% loss.

Loss History: Losses of Cowlitz beekeepers this past overwinter was 15%. Response rate, however, (10 individuals), was three less than the 11.7 average. Statewide, the 108 individuals with 1 to 3 fall colonies lost 41%, while the 42 individuals with 10+ colonies lost 31%. Statewide, simple average colony number was 6.8 while for Olympia beekeepers it was 6.1 colonies. As colony numbers increase statewide percentage of loss decreases but this was not the case for Olympian beekeepers.

Figure 2 shows 10-year Cowlitz loss history (bars) with number of survey respondents in () on x-axis. The red dotted line shows loss trend. Survey response from Cowlitz members has been lower in the last 5 years.



Six Cowlitz Co respondents to the electronic survey lost no colonies of 44 total (range 3 to 20 colonies). Two individuals lost two colonies, and another two individuals lost two colonies. Heaviest loss was four colonies. Statewide, 81 individuals had no loss (329 colonies, range 1-20) while 24 beekeepers lost 100% (84 colonies, range 1-10). The greatest loss was one colony (58 individuals). Statewide nine individuals lost 10+ colonies.

Three Cowlitz respondents had 3 colonies each, two were lost overwinter (=22% loss), six individuals had 4 to 9 colonies – they lost 9 of 33 fall colonies (27% loss) while three individuals reported 10+ colonies, 45 colonies (highest was 20 colonies) – they lost 2 for 4.5% loss level. Statewide, the 108 individuals with 1 to 3 fall colonies lost 41%, while the 42 individuals with 10+ colonies lost 31%. Statewide, simple average colony number was 6.8 while for Cowlitz beekeepers it was 7.9 colonies.

Three individuals with 3 years' experience lost 3 of 28 colonies (10.5% loss), the five individuals with 6-9 years' experience lost 24% and the four individuals with 10+ years' experience lost 4 of 34 colonies (12%). Twenty-five years was the most extensive experience, and simple average was 10 years' experience. Statewide, 61 respondents had 1 - 3 years of experience (37% loss level). Seventy-six individuals had 4 – 6 years' experience (33.5% loss level), 30 individuals had 7-9 years' experience (loss level 29%), 45 had 10-18 years keeping bees (39% loss level and the 15 individuals with 20 to 64 years' experience lost 24%. Medium number = 5 years' experience and 64 years' experience was greatest.

Examining the relationship of number of colonies and years' experience related to loss shows that the greater the number of colonies plus the greater number of years of experience results in a percent loss decrease.

Self-reported “reasons” for colony losses: One survey question asked respondents to check the “reasons” for winter loss; multiple responses were possible. There were a total of six individuals offering nine selections. Three indicated varroa mites, two said queen issues, and one each said CCD, starvation, absconding and yellowjackets.

Acceptable loss. When asked to choose an acceptable loss Cowlitz Co mirrored statewide respondents. One said none, two each said 10%, 15th and 20%, three said 25% and two 75%. The median was 20%, as was the Statewide median.

Why do colonies die? There is no straightforward way to verify reason(s) for colony loss. Colonies in the same apiary may die for several reasons. Examination of dead colonies is, at best, confusing, and although 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. Cowlitz Co individual choices varied from zero to 75%, with a medium of 20% higher than actual losses of 15%.

Major factors in colony loss are thought to be mites and their enhancement of viruses, especially DWV (deformed wing virus) and declining nutritional adequacy/forage and diseases. Pesticide in the agricultural environment weakens colonies. Yellow jacket predation is a constant danger 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 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.

Colony 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 none and other selection possible. This analysis seeks to compare responses of this past season to previous survey years. Two Cowlitz respondents FAST TRACKED and did not respond while 10 did respond to initial questions on managements.

The response of 10 individuals likely skews data on managements and varroa controls. I therefore refer Cowlitz members to the statewide data and graphs. I would gladly share the raw data collected with any member who desires to run the comparisons. Data for past years is also available and I will gladly share. When I talk to the members at a monthly meeting I can include further discussion and analysis.

Closing

I intend to continue to refine this instrument each season and hope you will join in response next April. Email me directly with any questions or reflections on this report. dmcaron@udel.edu

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 2026

