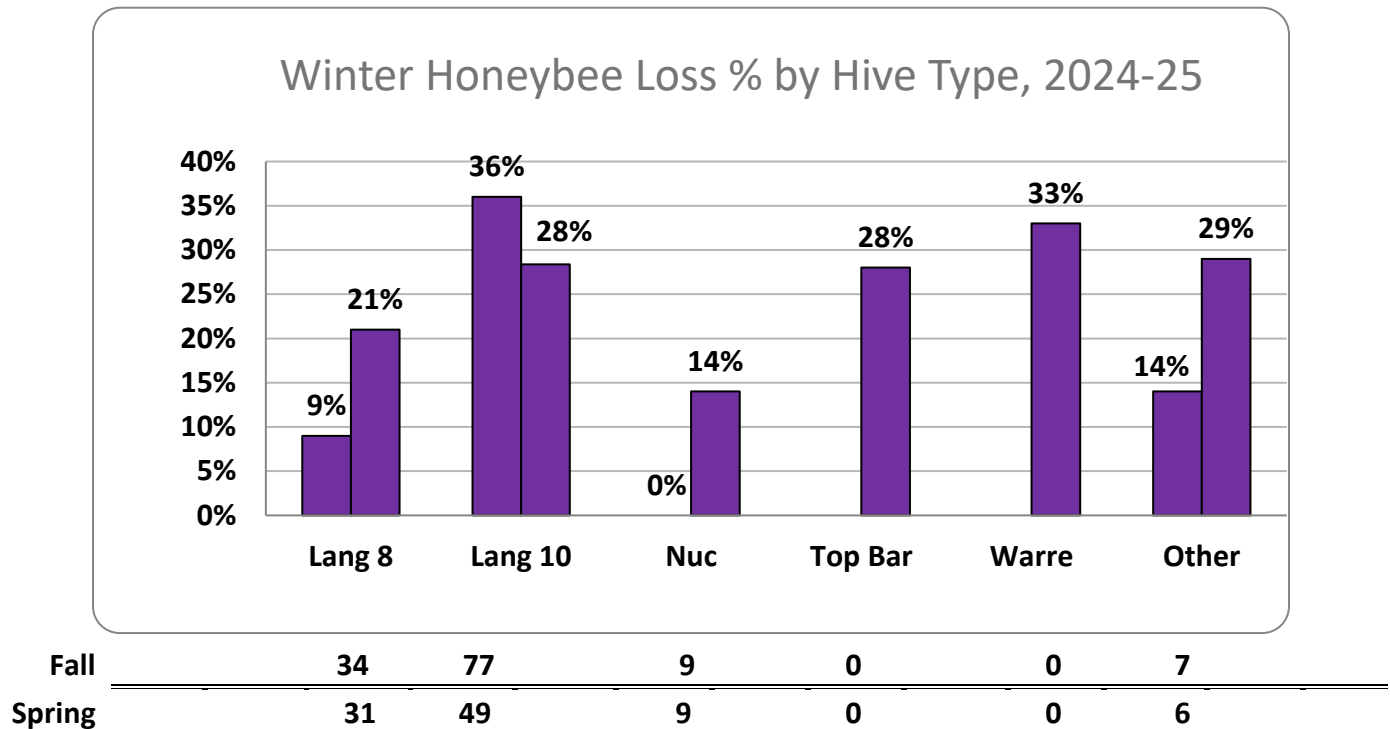


2024-2025 WVBA Winter Loss Report by Dewey M. Caron

WVBA members were encouraged to complete a web-based survey document in a continuing effort to define overwintering losses/successes of backyard beekeepers in Oregon. This was the 16th year of such survey activity. I received 250 reports from Oregon beekeepers keeping anywhere from 1 to 49 colonies; Willamette Valley members sent in 173 surveys, four more than last year but three below average return for past 6 years = 20.5%.

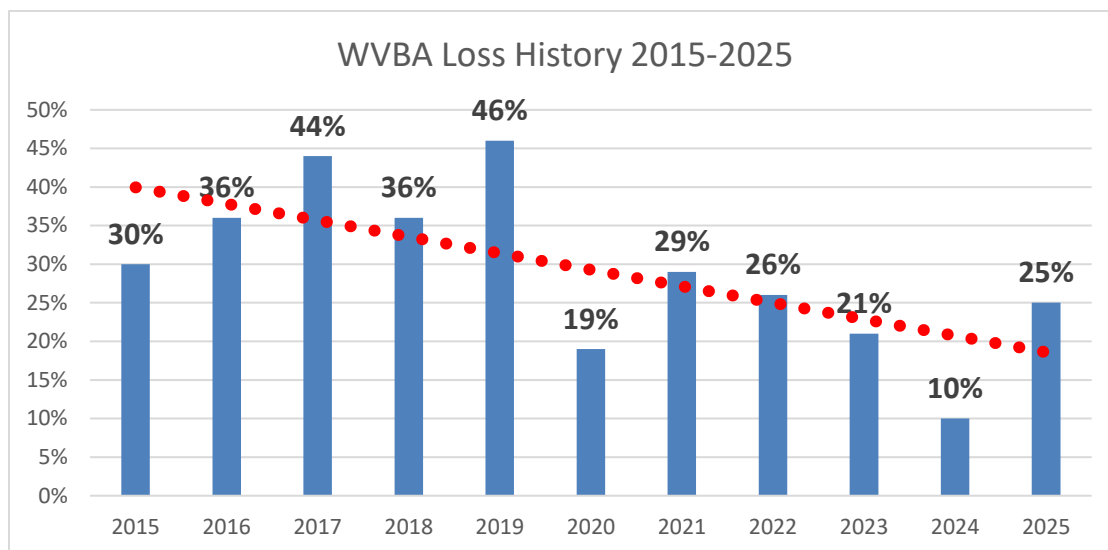


Overwintering losses of WVBA respondents = 25%, fifteen and half percentage points higher compared to last year WVBA results but same as statewide losses of 25.5%. A total of 127 hives were included in survey. Percent losses, determined by hive types were 9% for Langstroth 8-frame (3 of 34 fall colonies lost) and 36% for Langstroth 10-frames hives (77 total in fall); 9 of 9 nucs survived. There were no Top Bar or Warré hives managed by the 17 respondents. Six of seven “other” hives survived. Only one was identified as a long hive – it survived.

Loss level of 25% is 4.7 percentage points below the WVBA average loss level of previous ten years (29.7%) and 10.8 percentage points below Oregon statewide 9-year average (35.8%). Statewide the loss rates of Langstroth 8 and 10 frame hives over the past 9 years has averaged 34.2% for 8 frame Langstroth hives and 37.7% loss for 10 frame hives respectively. Nuc losses are typically higher than losses of 8 or 10 frame Langstroth hives, the Nuc 9-year average loss is 45% but all 9 WVBA overwintered nucs survived,

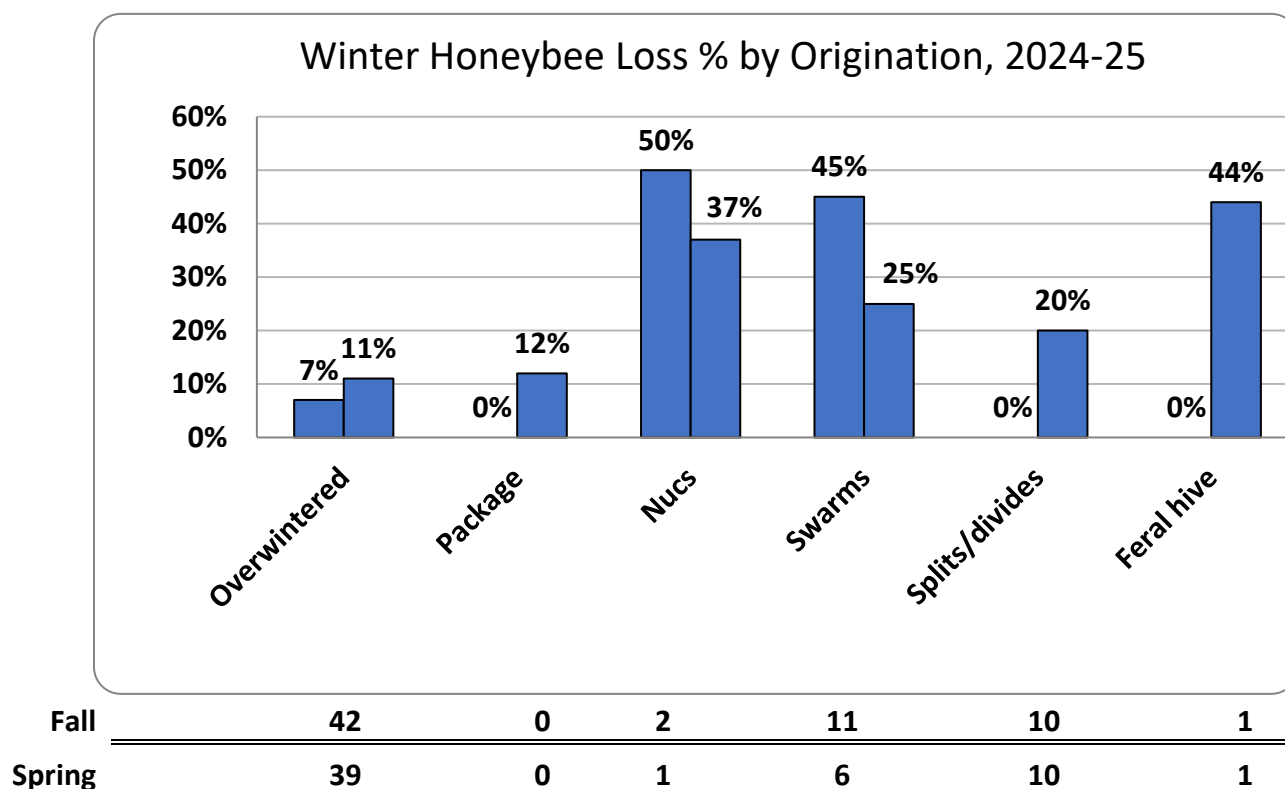
Graph below illustrates the loss history of last 10 years. Dotted line in red shows trend. Obviously the loss levels are going in right direction with losses the last 6 years below 30%.

Figure 2



The survey also asked for hive loss by **hive origination**. The members reported 7% loss of previously overwintered colonies (statewide loss level was 11%). There were no overwintered hives originated from packages, one of two nuc-originated colonies survived. Splits had better survival than swarm-originated overwintered colonies. Figure 3 compares WVBA with Statewide.

Figure 3



Six individuals (35%) had no loss (45 colonies). One had total loss (2 colonies). Four individuals lost one colony, 3 lost 2 colonies one lost 4 and one lost 5 and the heaviest loss was 11 colonies.

Seven Three WVBA individuals (41% of respondents) had one to three colonies with a 57% loss – statewide respondents with 1-3 colonies (53% of total number of respondents) experienced a 34% loss. Four WVBA individuals had 4 to 8 colonies (21% loss) and six WVBA individuals with 10-22 colonies also had a 21% overwinter loss level. Greatest number was 22 colonies. Statewide the 20 individuals with 10+ colonies lost 15%. Statewide, as colony numbers increase the loss level decreases, which was generally true for WVBA as well.

Statewide, and for WVA respondents as years of experience increase, the loss level percentage decreases. The seven WVBA individuals with 1-3 years experience had 39% loss level, the five individuals with 5 to 9 years experience had 25% loss level and the 5 individuals with 11 to 36 years experience had 19% loss level.

We asked individuals why they thought they had overwinter colonies fail to survive. Multiple responses were possible. There were 16 total reasons offered by 11 individuals who had loss. Varroa (4), weak (3) and queen failure (also 3) were the most commonly selected choices by WVBA respondents. Don't know was also checked by 3 individuals. One each said, CCD, Small hive beetle and moisture.

We asked about acceptable loss. One individual said none, 5 said 5%, 2 said 10%, one each said 15% (the median – state median was 20%) 20% and 25%. Four individuals said 50% was an acceptable loss level.

Why do colonies die?

There is no effortless way to verify reason(s) for colony loss. Colonies in the same apiary may die for varied 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.

Major factors in colony loss are mites and their enhancement of viruses especially DWV (deformed wing virus) and declining nutritional adequacy/forage and diseases. Pesticide exposure 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 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.

Dewey Caron May 2025