

2017-18 COBA Beekeeper Winter Loss Report by Dewey M. Caron

Oregon and COBA beekeepers were directed to a web-based survey document as a continuing effort to define overwintering successes/losses. This was the 10th year of such survey activity. I received 303 responses from OR backyarders and 104 from Washington beekeepers keeping anywhere from 1 to 50 colonies. Central Oregon members sent in 34 surveys, 5 more than last year. A report of the OR beekeeper survey responses, including losses and, eventually when prepared, responses to management questions in the survey, with easy to understand graphs, will be posted at www.pnwhoneybeesurvey.com. Figure below shows the number of respondents (within () next to association name) and bar length expresses overwintering bee losses in most recent overwintering period as reported by members.

Central Oregon overwinter losses = 32%, 6 percentage point lower than statewide.

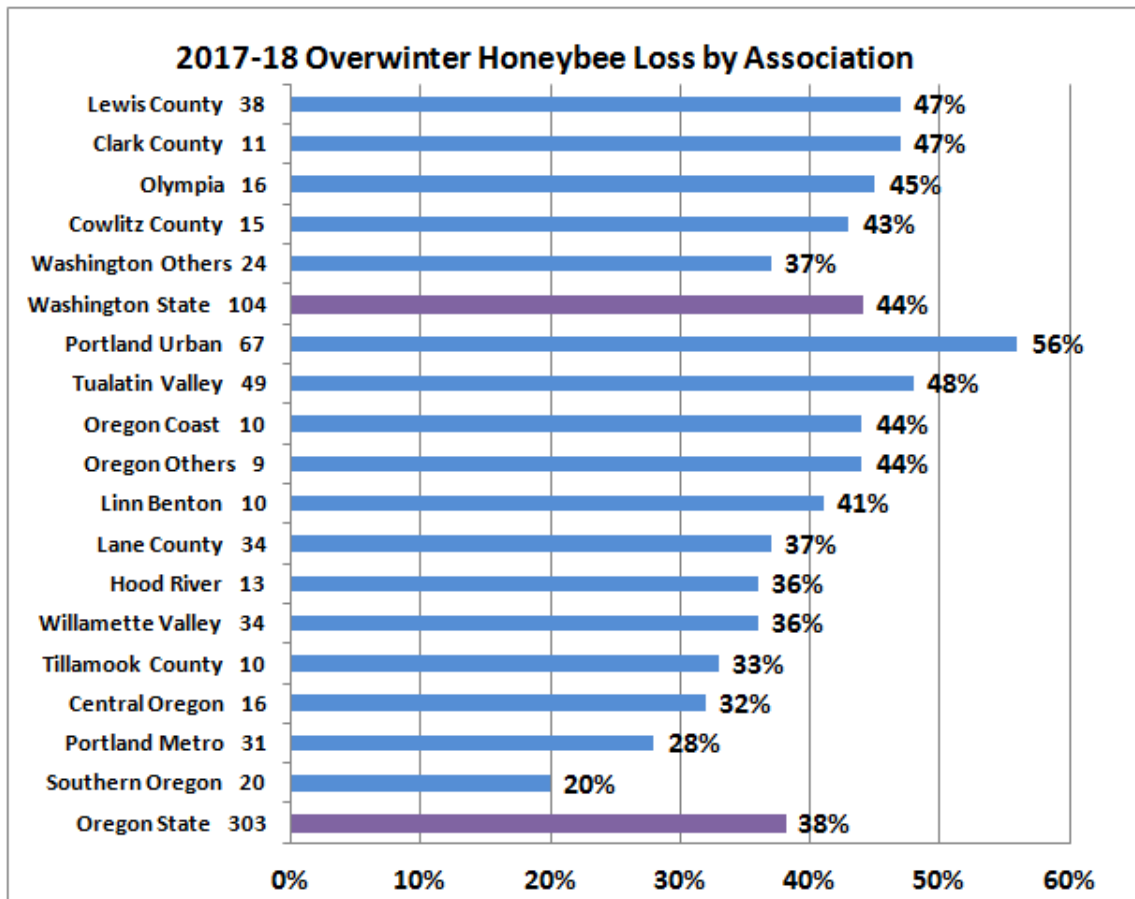
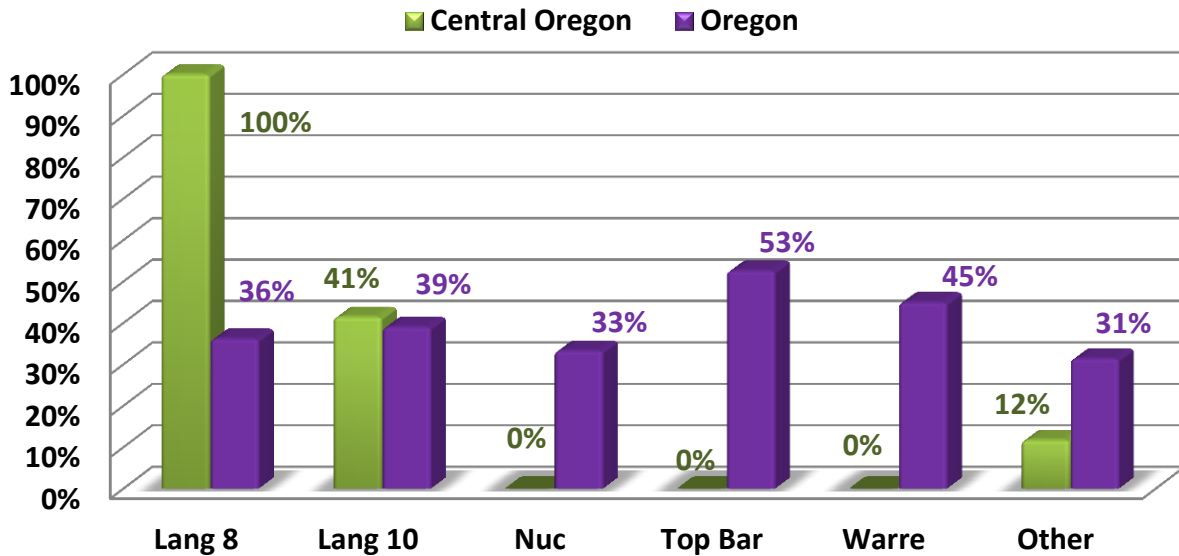


Figure 1

Overwintering losses were determined by asking number of fall (October) colonies by hive type and subsequently how many were still alive in the spring (April). COBA response included 41 Langstroth 10 frame hives in the fall, of which 24 survived (41% loss) + a single Langstroth 8 frame hives (it did not survive), 3 top bar, all survivors, and 17 other hives, consisting of Long and tree hives. No Warré nor nuc hives were reported by COBA members. Of 62 total fall hives, 42 spring = 20 colonies lost **Total COBA loss = 32%**. Data comparing Central Oregon and state-wide respondents shown in Figure 2.

Figure 2

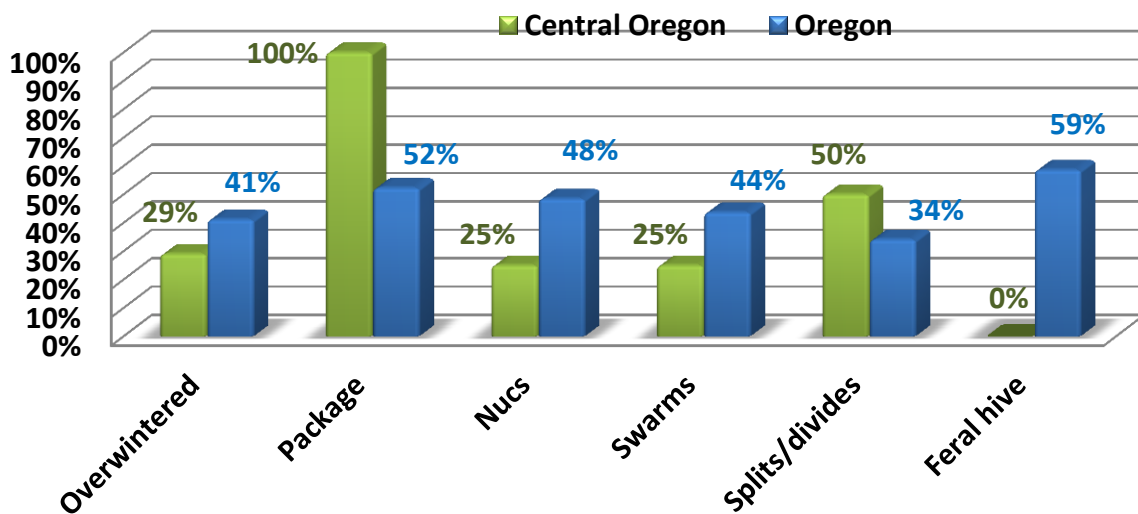
2017-18 Winter Honeybee Loss % by Hive Type



FallCol # (loss) 1(1) 41(17) 0(o) 3(o) 0(o) 17(2)

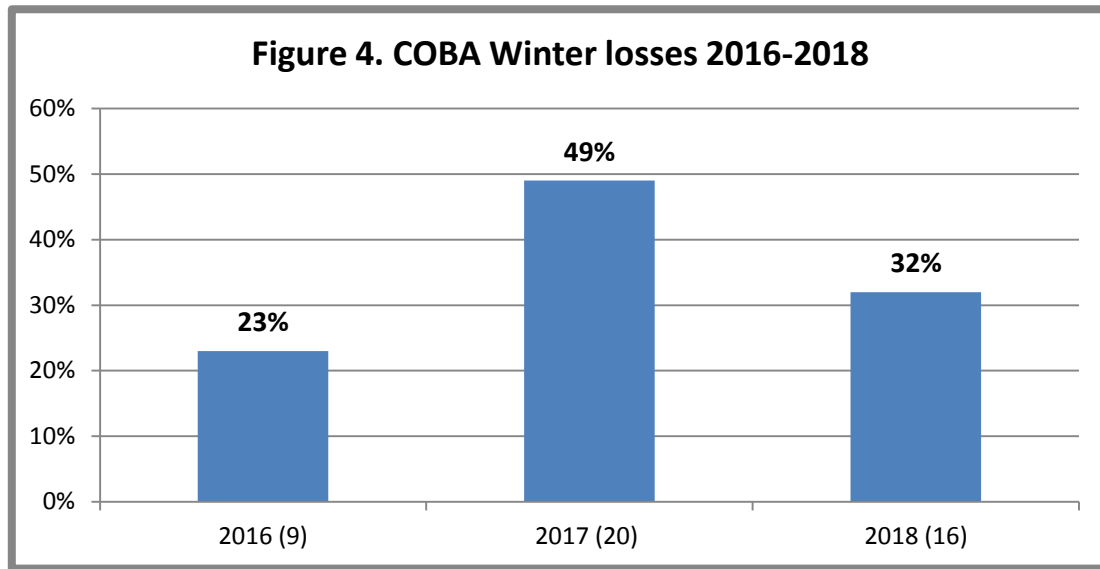
Survey also asked about colony losses by hive origination. Twenty four of 31 overwintered colonies (29% loss) survived. No packages survived (of 5 total) while of 4 Nucs only one did not survive. 25% of swarms and 50% of splits were lost. Four feral hives did not survive. COBA compared with statewide in Figure 3

2017-18 Winter Honeybee Loss % by Origination



Fall col # (loss) 31(9) 5(5) 4(1) 16(4) 16(8) 4(o)

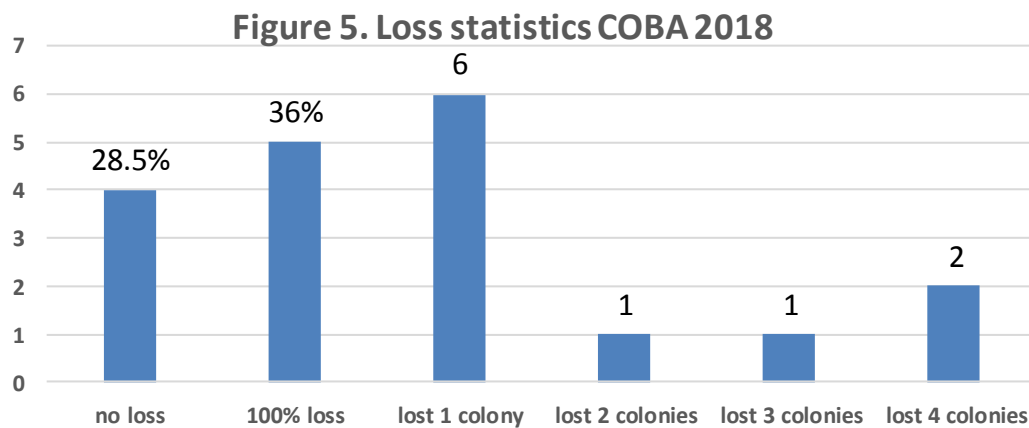
Losses this past overwinter were reduced from the very heavy losses last winter, both by COBA beekeepers (49%) and statewide beekeepers (48%). Figure 4 shows number of COBA responses and percent loss for this and past two seasons.



The COBA association respondents can be characterized, as are the state respondents, by small numbers of colonies and a wide range of years of experience. Five individuals had 1 fall colony, 2 had two and 2 had three (60%). One individual had 6 and another 7 colonies. Three had 9+beekeeping years; largest number was 2 individuals with 12 fall colonies.

Years experience shows a broad spread. There were 5 individuals with 1, 2 or 3 years experience (36%), 3 with 4 or 5, 3 with 8, 9 and 10 years and there were 3 individuals with 15+ years experience; greatest was 22 years experience. Eleven individuals (78.5%) said they had a mentor available when they were learning beekeeping, 13 percentage points above statewide.

Not all Central Oregon individuals had losses Four individuals (28.5%) had NO LOSS while 5 (36%) lost all their fall colonies. Six individuals lost one colony, 1 lost two colonies, one individual lost 3 colonies and two individuals lost 4 colonies, the heaviest loss. One of these 2 individuals had a 33% total loss.



One individual respondent kept their bees in 2 apiaries. There was a 25% loss in their home apiary and a bit higher 33% loss rate in the 2nd apiary site. None said they moved colonies during the year.

Reasons indicated for losses

The 10 individuals with loss were asked to what they attributed their loss (multiple factors could be chosen; one individual chose 4 factors. There were 20 choices (2/individual) selected. Varroa mite and queen failure each had 5 selections and Weak in the fall was indicated by 4 individuals. One each indicated don't know, pesticides, starvation, virus, poor wintering and mice. Asked to indicate an acceptable level of loss resulted in a range of zero to 50%. No loss, 4 individuals, 10% indicated by 2 individuals and 20% (medium) also chosen by 2 individuals was 50% of selections. Additionally 25%, 33% and 50%, the most common choice (by 5 individuals) were indicated.

There is no easy way to verify reason(s) for colony loss nor an acceptable loss level. 50% percent of COBA beekeepers felt 20% or less was acceptable while statewide 47% felt likewise. 10.5% statewide stated 50% or higher was acceptable while among COBA beekeepers five individuals (33%) stated 50% an acceptable loss level. Colonies in the same apiary may die for different reasons. **Doing the dead colony necropsy is the first step in seeking to solve the heavy loss problem. More attention to colony strength and possibility of mitigating winter starvation will help reduce some of the losses. Effectively controlling varroa mites will definitely help reduce losses.**

Management selections and losses

The survey inquired about feeding practices, wintering preparations, sanitation measures utilized, screen bottom board usage, queens, mite monitoring and both mite control techniques (such as screen bottom board use, drone brood removal efforts, etc.) and chemical mite controls used. Individuals could check none or more than one response; most COBA and OR beekeepers most often do not do just one thing/management to their colony (ies) to control mites toward improving overwintering success.

I will complete an analysis of these managements relative to loss levels for the statewide data base and indicate responses for COBA member respondents. This will be posted to the same website, when completed.

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 May 2018

