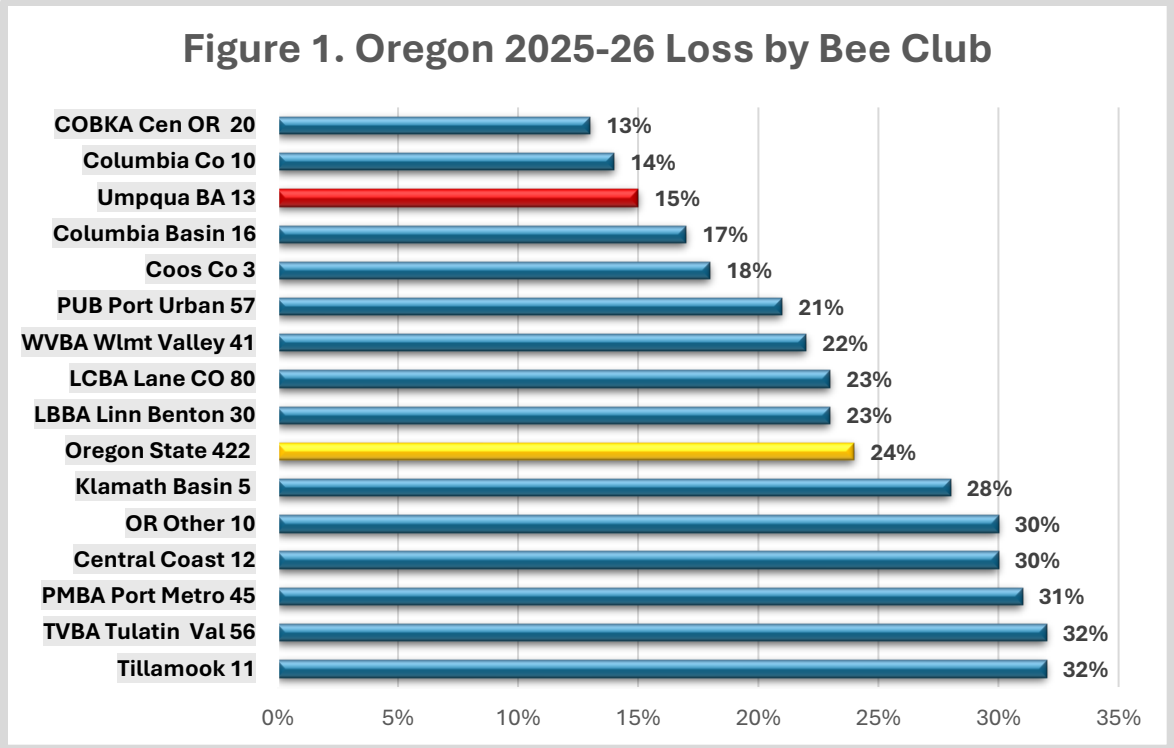
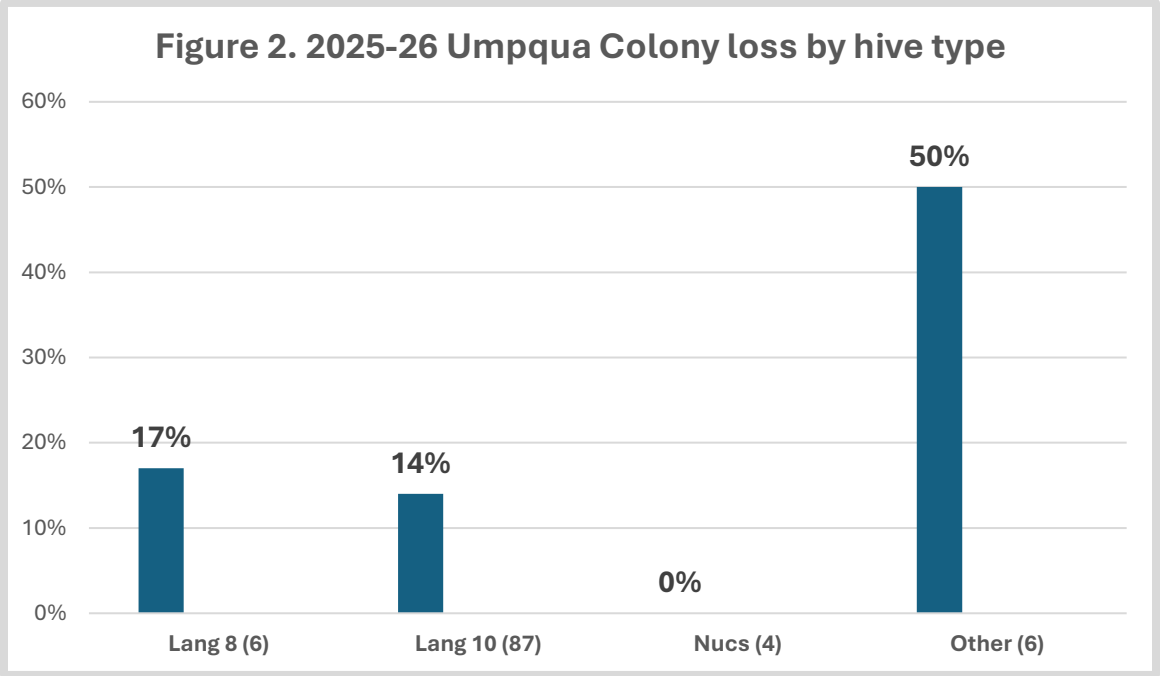
Winter Bee Losses of Umpqua Backyard Beekeepers for 2025-2026

by Dewey M. Caron

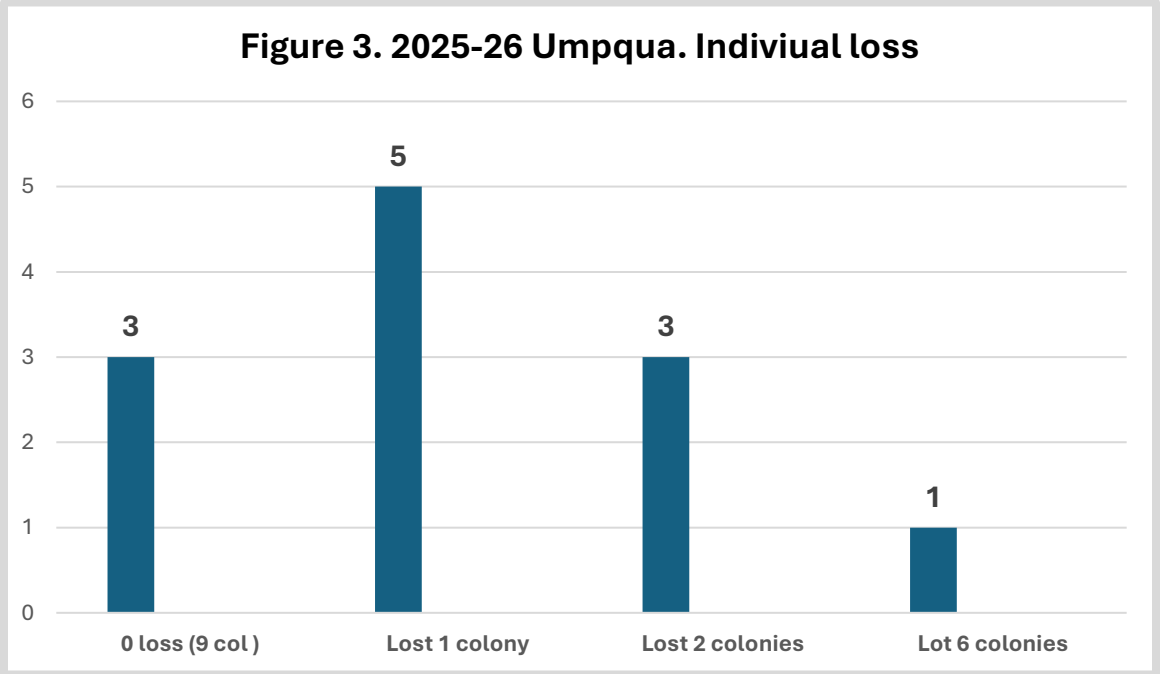
Overwintering losses of small-scale Oregon backyard beekeepers remained low this season, 1.1 percentage points below the previous winter of Oregon hobbyist/backyard beekeeper surveys. - www.pnwhoneybeesurvey.com. There 422 Oregon beekeepers returning a survey, an increase of 170 from the previous year and 147 above the 10-year average response rate of 275 (range171-416) respondents. **Overall loss rate was 24.4%.** Results of the 226 Washington respondents completing surveys (more than 100 above the average response rate of the last 6 years of 120) are included in a separate loss report. The Washington average loss was 28.8%, 5.2 percentage points below loss rate last year. It was a record year for returns. Umpqua Beekeepers (13 total but one was new) had a 15% loss level.



The loss statistic was developed by asking for the number of fall colonies by hive type and surviving number in the spring by hive type. Respondents had 112 fall colonies of which 95 survived to spring (17 lost), equating to a 15% loss (85% survival rate). Most of the colonies (87) were Langstroth 10-frame. Numbers of actual colonies are shown in ( ) on x-axis).



Not everyone had loss. Three individuals (9 colonies total) did not lose any colonies. Five individuals lost one colony, three lost two colonies and one individual lost six colonies, the heaviest loss.



Like statewide, most beekeepers keep few colonies and are relatively new to keeping bees. For Umpqua BA, five individuals had 15 colonies and lost =20%, two

individuals had 4-6 colonies (9 total) and lost 2 = 22% loss, one individual had 7-9 colonies with 11% loss and four individuals had10+ colonies with 14% loss. Highest colony number was 27. In terms of beekeeping experience, six individuals had 1-3 years' experience with 15% loss, three had 4-7 years' experience with 27% loss and the three individuals with 10+ years' experience was 8%. As you gain experience the loss percentage decreases.

In terms of reason for loss, individuals could make multiple selections - recall that three individuals had no loss. Survey also asked for an acceptable loss. This information is shown below.

- **Reasons – 9 individuals** **Acceptable loss - 12 individuals**
  - **Don't know 2** **None 2**
  - **Varroa 2** **5% 1**
  - **Queen issues 3** **10% 2**
  - **Weak in the fall 2** **15% 1 Medium**
  - **Moisture 2** **20 %3**
  - **Starvation 1** **25% 3**
  - **Bear 1** **50% 2**

Why do colonies die?

There is no uncomplicated 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. A dead colony necropsy can be of use. Opinions vary 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. Individual acceptable choices varied from zero to 50%, with a medium of between 15% and 20%.

The major factor in colony loss is thought to be mites and their enhancement of viruses especially DWV (deformed wing virus), VDV (Varroa destructor Virus - also termed DWV B) and Israeli and chronic paralysis viruses. But we do not have a test for these viruses. Declining nutritional adequacy/forage and diseases, especially at certain apiary sites, are additional

factors that result in poor bee health. 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 them), 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 our honey bees face in the environment. It was encouraging to see from survey responses that overall losses this past year, 17%, were almost 10 percentage points lower than statewide loss level. More attention to colony strength and the possibility to mitigate colony weakness in the fall may help reduce some of the losses. Effectively controlling varroa mites will definitely help reduce losses as fewer mites will result in less virus damage.

Colony Managements

The survey asked for information about management practiced by respondents. This year individuals could FAST TRACK through the electronic survey and not answer questions on management. A third of Umpqua individuals did, so results can become skewed with fewer than 10 respondents. Umpqua individuals are encouraged to review their managements with those for the state to determine how they did compared to fellow beekeepers. The survey inquired about feeding practices, wintering preparations, sanitation measures utilized, screen bottom board usage, and mite monitoring. Respondents could select multiple options and there was always a none and other selection possible.

Feeding of protein, mainly as protein patties and feeding dry sugar were statewide feeding managements that helped reduce average losses. For winterizing using top insulation or a ventilated top such as quilt box or Vivaldi board and providing colors to hive and/or spreading colonies out to reduce drifting were the managements that helped the most in reducing loss. Sanitation measures and screen bottom boards provided little in improved wintering but might be useful managements for other reasons.

Monitoring helps determine if additional varroa control are needed. Most use sticky (debris) board or alcohol wash to monitor. Non-chemical managements of minimal inspections, drone brood removal and brood break, although not many individuals said they did such manipulations, were most helpful to reduce average losses. Chemical

controls included Apivar, the synthetic amitraz, the essential oil Apiguard and oxalic acid as either extended or vaporized, to best defense against high mite numbers.

I will be joining the Umpqua members at their June 3rd meeting to discuss the results and how we might manage varroa mites. Thank you to all members who sent in a survey. I hope to be back next year with another survey in March and April. Good luck with colonies this current season. Dewey M. Caron May 2026