

Ontario Beekeepers' Association 2026 Spring Survey Results

July 2026

Executive Summary

Ontario Beekeepers reported winter losses in the spring of 2026 with 503 respondents reporting on 30,486 hives that went into the winter of 2025. The overall winter loss reported was 39.5%. Beekeepers also reported in-season losses prior to the 2025/2026 winter of 9.6%. The combination of in-season and winter losses means that beekeepers lost an average of 45.3% of their colonies over the last year.

Winter weather (33.9%), small clusters going into winter (29.3%), and queen issues (20.9%) were reported as the top three reasons for winter losses. Beekeepers who felt they had overwinter success reported effective Varroa control (56.1%), good sized clusters going into winter (55.7%), and effective fall feeding (53.4%) as the drivers of their success.

Winter losses suffered over 2025/2026 continued to show a high degree of variability and unpredictability. Beekeepers in three regions in Ontario reported average winter losses over 50% while beekeepers in two other regions reported average losses under 20%. Among individual beekeepers 22% reported that their winter losses were much better than the last 5 years while 16.9% reported their winter losses were much worse than the last 5 years. The average winter loss for the 16.9% of beekeepers who reported much worse losses was 70.2%.

Qualitative data provided by beekeepers highlights that business as usual is no longer working for beekeepers. The Ontario Beekeepers' Association (OBA) continues to advocate for investments in research, extension, and adoption. Ontario has a strong infrastructure to support new knowledge and tools in the beekeeping sector. Examples of past successes include the registration of oxalic acid glycerin and the inclusion of low Varroa growth in the Ontario Resistant Honey Bee Selection (ORHBS) Program. Research, extension, and adoption programs going forward should focus on updated research on winter losses that reflect current mite treatment options and virus pressures. A second focus should be on overwintering queens and nucleus colonies to help Ontario beekeepers recover from losses and become more independent as *Tropilaelaps* makes imported sources of bees increasingly unpredictable.

Methods

The OBA carried out its annual spring survey from May 29 to June 22, 2026. The survey was available to OBA members and non-members. Google Forms was used to capture the data. The survey link was shared through the OBA's email list of about 4,500 contacts as well as through social media. Reminders were sent at intervals through the survey period.

There were 522 responses. Data cleaning removed 19 responses that were:

- Duplicates
- Reporting on bees not located in Ontario
- Reporting 0 hives going into winter
- or where winter losses were over 100%

After data cleaning 503 responses remained in the analysis.

Not all questions were mandatory. Sample sizes in the results section represent the number of beekeepers who responded to a particular question or who met certain criteria for different categories of sub-analyses (ie analyses by region or by size of operation).

Average winter loss results were calculated by dividing the total number of hives that were not viable at the time of the survey by the total number of hives that were put into winter. This produces an average that is weighted by hive numbers rather than an average calculated by beekeeper which would give equal weight to each beekeeper regardless of the number of hives they manage. The median is the middle number in a sorted list and therefore represents the mid-point of the data where approximately 50% of the data falls above and below the median value. Percentage responses were calculated by dividing the number of beekeepers citing a particular response by the total number of Ontario beekeepers who answered that question. Data was analyzed using Microsoft Excel.

Results

The 503 Ontario beekeepers included in the survey reported putting 30,486 hives into winter. At the time of the survey 18,454 of the 30,486 hives were viable representing a winter loss of 39.5% (Figure 1). The median winter loss was 33.3%. This year 301 respondents (57.7%) reported winter losses over 20% compared with 64.3% in 2025.

The 437 respondents managing less than 50 hives each accounted for a total of 4,203 hives going into winter and reported an average winter loss of 40.1% (median 33.3%). The 65 respondents managing at least 50 hives each accounted for 26,283 hives and reported an average winter loss of 39.4% (median 32.0%). Beekeepers were asked to report on in-season hive losses prior to winter wrapping in the fall of 2025. The average reported in-season loss was 9.6% (Figure 2). This included in-season losses for beekeepers with less than 50 hives reported at 12.7% and in-season losses for beekeepers with at least 50 hives reported at 9.1%. Combining the in-season and winter losses the average full year losses were 45.3% (Figure 3). Beekeepers with less than 50 hives reported full year losses of 47.7% and beekeepers with at least 50 hives reported full year losses of 44.9%.

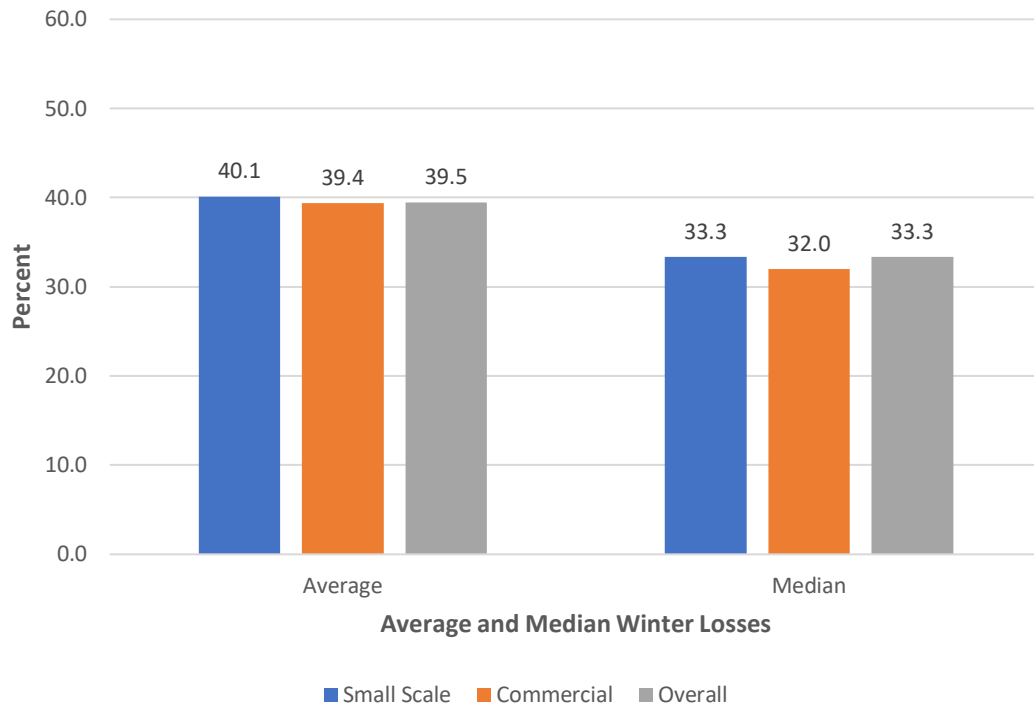


Figure 1: Average and median winter losses reported by small scale (<50 hives), commercial (>50 hives) and all Ontario beekeepers.

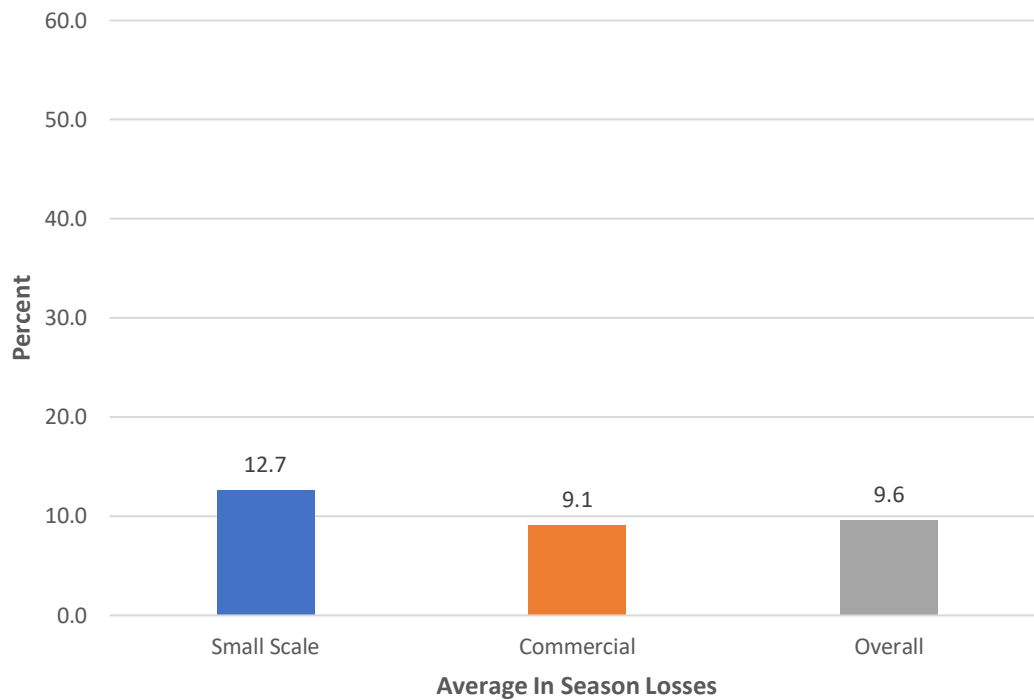


Figure 2: Average in-season losses reported by small scale (<50 hives), commercial (>50 hives) and all Ontario beekeepers.

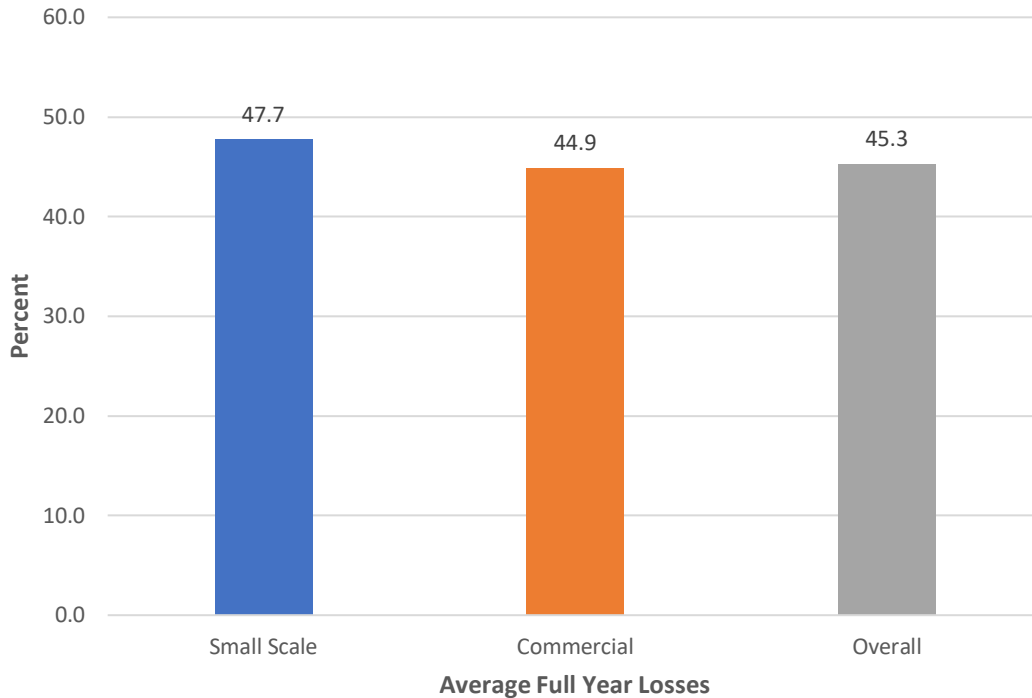


Figure 3: Average full year losses reported by small scale (<50 hives), commercial (>50 hives) and all Ontario beekeepers.

To better understand how this years' winter losses compare to beekeepers' previous experiences we asked how this years' losses compared to their last 5 years of winter losses. There were 455 responses to this question. This included 22.0% of respondents reporting that this year's losses were "much better" than their last 5 years while 16.9% of respondents reported that their losses were "much worse" than their last 5 years (Figure 4). Among respondents who reported "much better" winter losses the average winter loss was 12.3% while those who reported "much worse" winter losses had an average winter loss of 70.2% (Figure 5).

Beekeepers' comments in the survey responses support the quantitative data and highlight the varied experience of beekeepers:

2026 much better than 2025 despite the long winter and cold wet spring. Respondent reporting a 27% winter loss

Worst year I have had in 10 years. Respondent reporting a 71% winter loss

We were more diligent than seasons before with mite checks and variable mite treatments, yet we experienced our worst colony loss. Respondent reporting a 72% winter loss

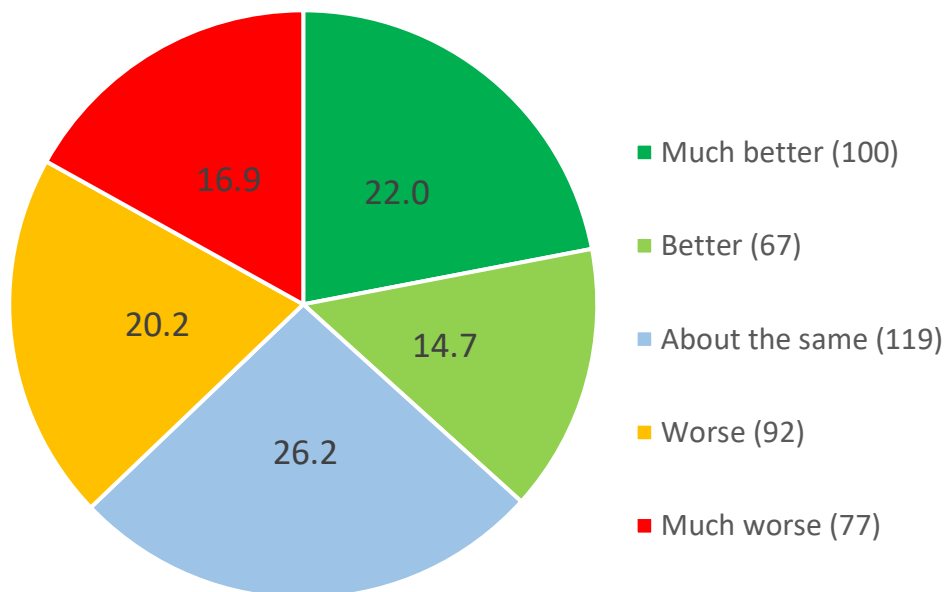


Figure 4: Beekeeper responses to the question “Compared to your last 5 years of winter losses, how would you describe this year’s losses?” (n=498)

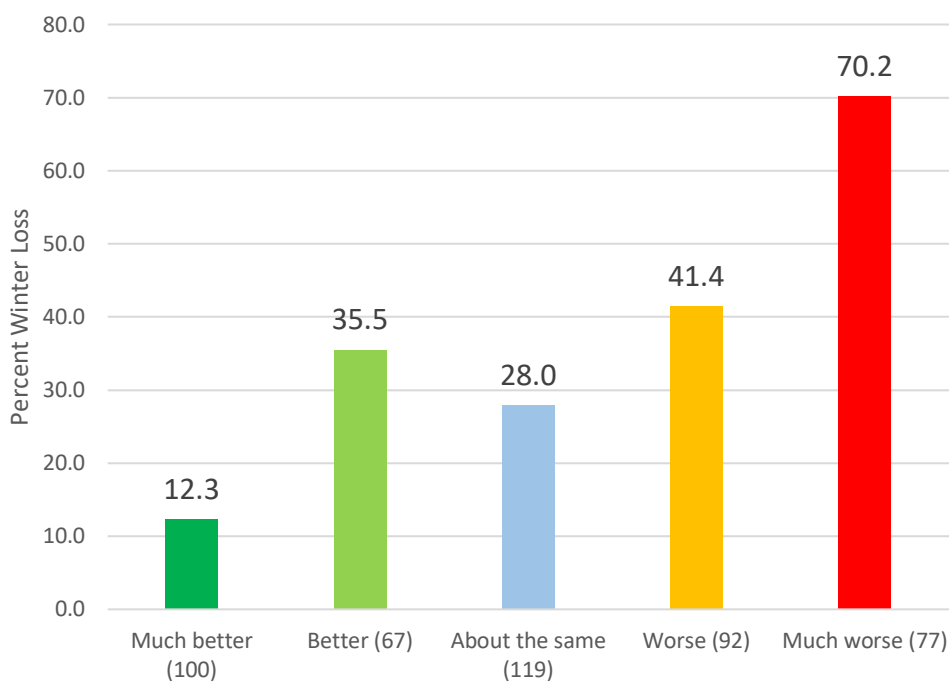


Figure 5: Average percent winter loss by response to the question “Compared to your last 5 years of winter losses, how would you describe this year’s losses?” (n=498)

Winter losses reported by region were higher in 5 regions than reported in 2025 and lower or the same as 2025 in the remaining 5 regions (Figure 6). Beekeepers from Northeastern Ontario reported the highest average winter losses this spring at 54.7% while beekeepers from

Northwestern Ontario reported the lowest average winter losses at 13.1%. The highest number of survey respondents were from Eastern Ontario (n=137). The largest number of bees were put into winter by respondents who keep their bees in multiple regions (9,217 hives), Niagara (6,388 hives), Central Ontario (4,041 hives), and Southwestern Ontario (3,859 hives).

The highest in-season losses were reported by beekeepers who kept their bees in Niagara region (14.0%) followed by Northwestern Ontario (12.4%), and Southwestern Ontario (11.5%) (Figure 7).

Beekeepers were asked what they felt had caused their winter losses and were able to provide as many reasons as they felt were relevant (Figure 8). The most frequently cited causes of winter mortality were fluctuations in weather during the winter (33.9%), small or weak colonies going into winter (29.3%), and queen problems (20.9%). Beekeepers were also asked what they felt had helped them successfully overwinter their bees and could select multiple reasons (Figure 9). The most frequently cited reasons for overwinter success were Effective Varroa mite population control (56.1%), good sized clusters going into winter (55.7%), and effective fall feeding (53.4%).

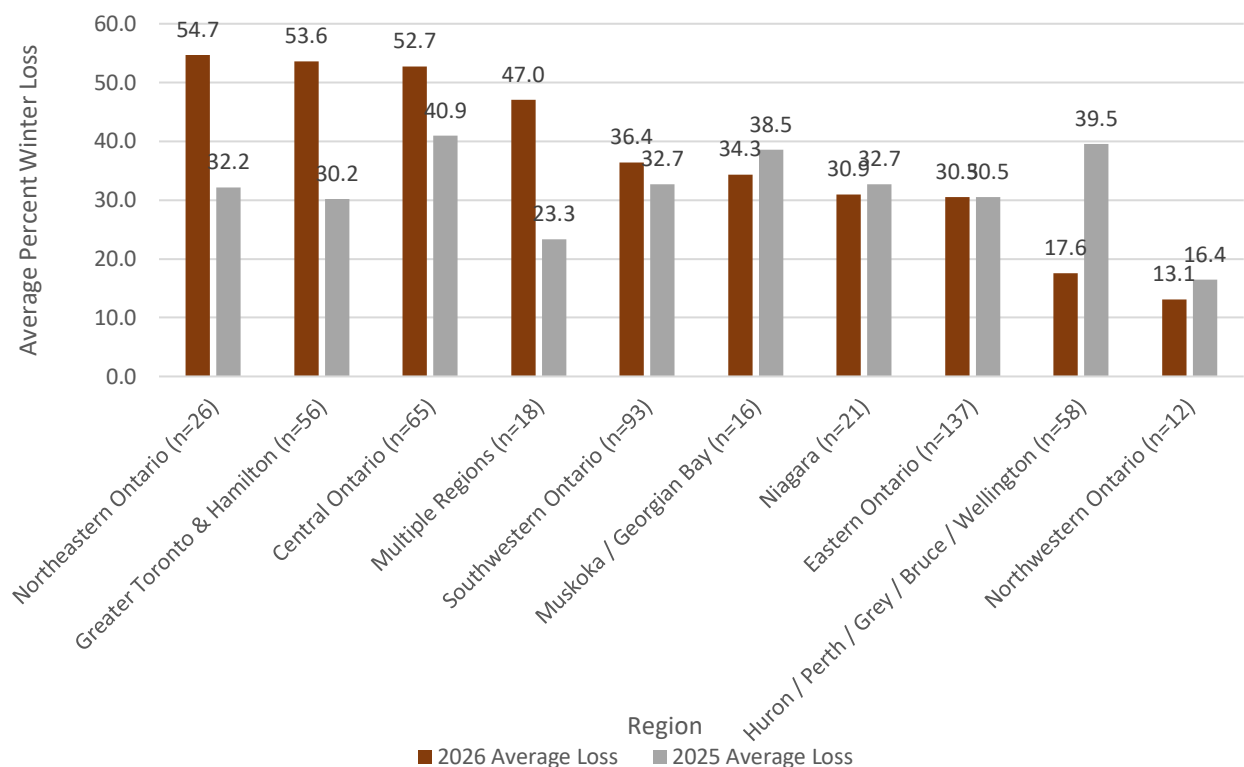


Figure 6: Average winter losses reported in 2026 and 2025 by region of the province (n=502)

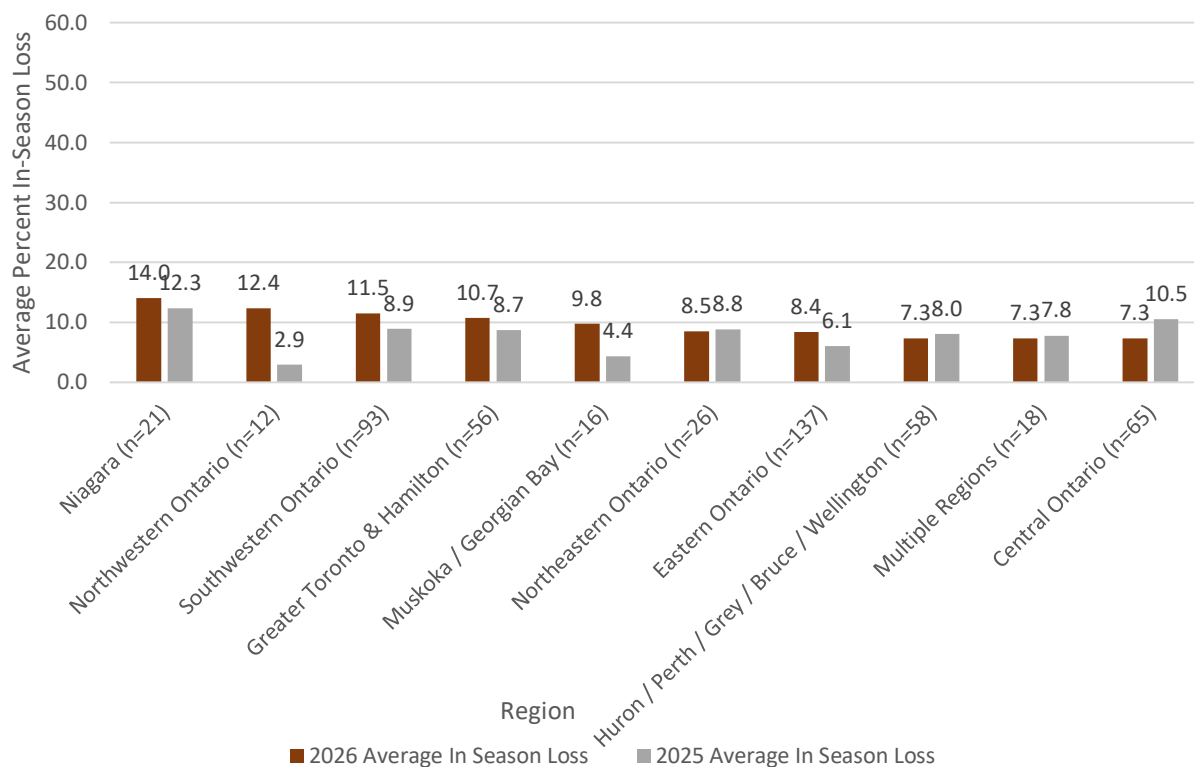


Figure 7: Average in-season losses reported in 2026 and 2025 by region of the province (n=502)

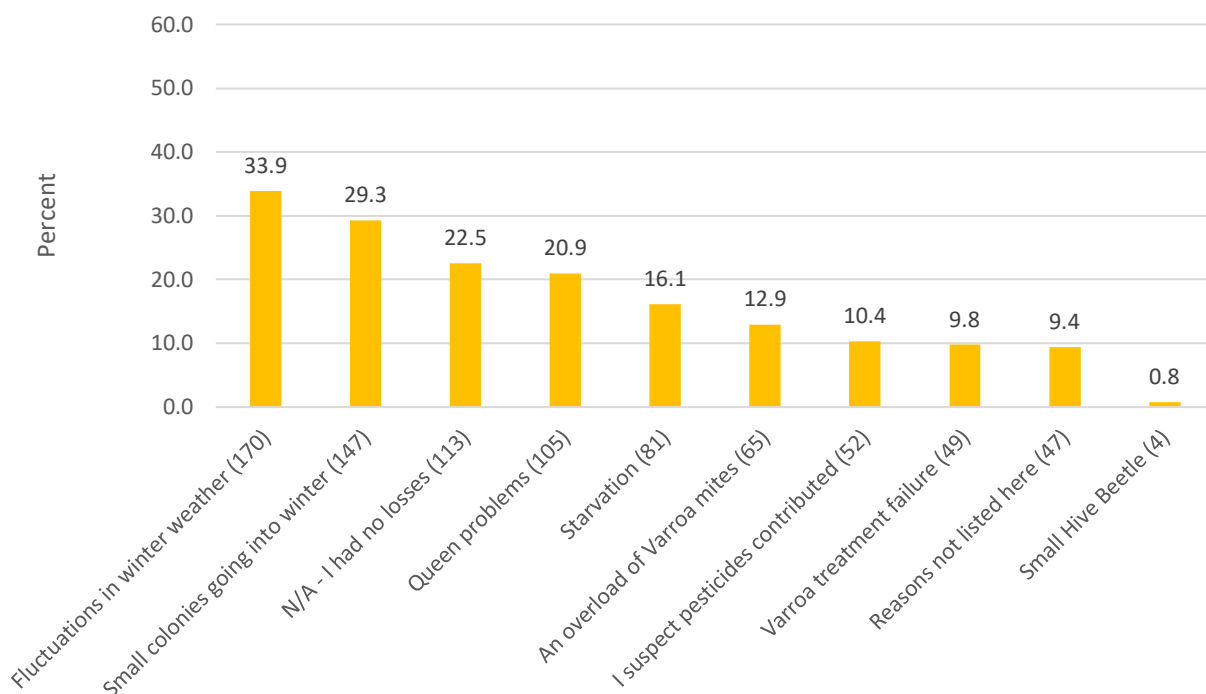


Figure 8: Reported reasons for winter losses. Beekeepers were able to provide as many reasons as they felt were relevant. There were 833 responses to this question from 502 beekeepers.

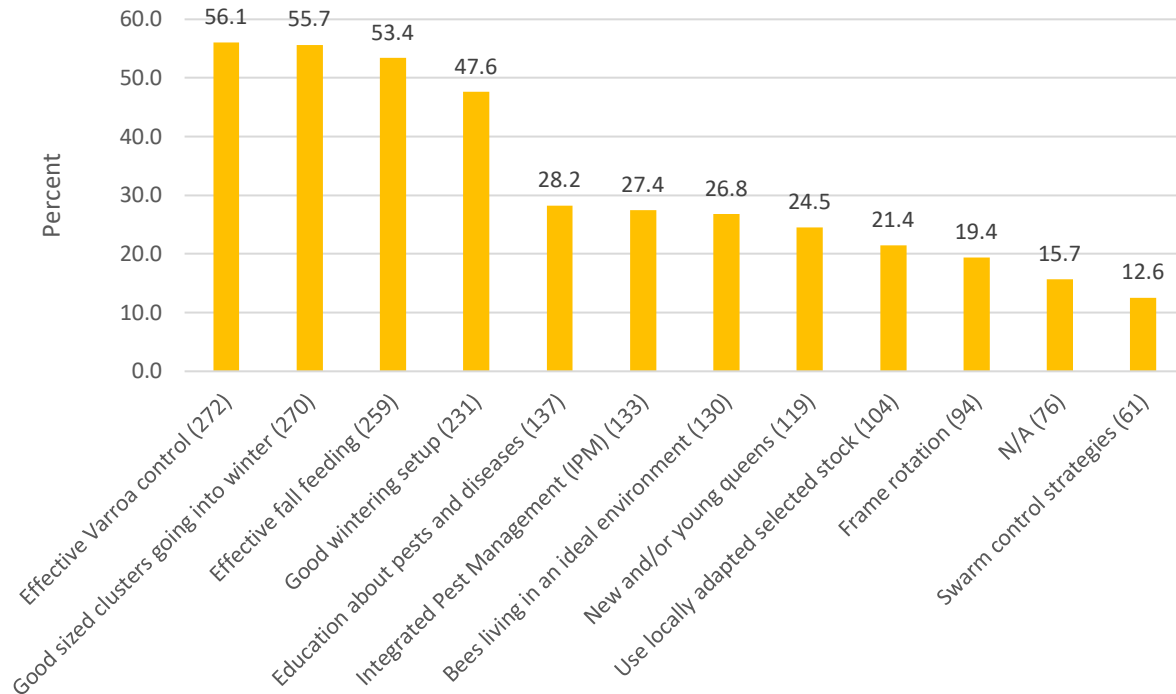


Figure 9: Reported reasons for overwintering success. Beekeepers were allowed to select all relevant responses. There were 1,886 responses to this question from 485 beekeepers.

Discussion and Recommendations

The 39.5% overall winter loss reported by Ontario beekeepers in 2026 is higher than the 33.5% winter loss reported by Ontario beekeepers in 2025. This continues a trend of several years of sustained high winter losses (Figure 10). Beekeepers also experienced an average in season loss of 9.6%. Combined this means that Ontario beekeepers faced full year losses of 45.3% over the past year. The survey data highlights some of the complexities that may not be apparent in a single headline statistic. These include:

High levels of variation between operations

Among beekeepers with at least 50 hives winter loss experiences range from 0% all the way to 98.5% winter loss. Averages mask both the success stories and the devastating losses.

Regional variation

We continue to see high levels of regional variation. This year there were three regions in Ontario with average winter losses over 50% while two other regions had average winter losses less than 20%. Even within a region the winter loss experience can be quite varied.

Unclear causes for losses

Comments from this year's winter loss survey highlight the challenge beekeepers are having in understanding and addressing the causes of their losses. Examples of the comments that beekeepers shared include:

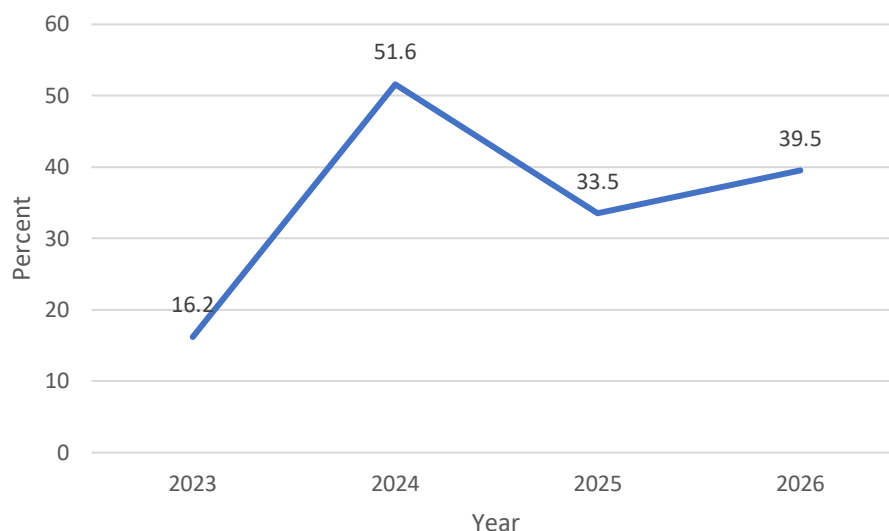


Figure 10: Trend in average winter losses from 2023 to 2026 based on data collected through the OBA's annual survey.

The bees are really struggling to grow this spring. I felt like I did the best job with mite treatments last year and fed on time. I had a lot of confidence going into spring and unfortunately had the worst spring ever. Respondent with 68.8% winter loss

We were more diligent than seasons before with mite checks and variable mite treatments, yet we experienced our worst colony loss. Respondent with 72% winter loss.

Unpredictability of winter losses

Beekeepers were asked how their winter losses this year compared to their last 5 years of winter losses. Among respondents 22% reported much better winter losses while 16.9% reported much worse winter losses. That means that over 1/3 beekeepers experienced winter losses that were much different than their usual experience. Beekeepers who reported much worse losses had an average winter loss of 70.2%. Even beekeepers who reported much better losses had an average winter loss of 12.3% which is just under the traditional economic threshold of 15%. This unpredictability in winter losses makes business planning challenging. Unexpected winter losses

...over the past 12 years I have typically experienced 0–2 winter colony losses annually, often none at all. This past winter, however, 58 of 59 colonies died, with most losses appearing to occur between mid-October and mid-November. Very little changed in my management practices compared to previous successful years... Respondent with 98% winter loss

Looking forward

Despite the high losses some beekeepers expressed hope. The four newly registered mite treatments this spring were a cause for cautious optimism:

Hopefully new registration of mite control products will help this year. Respondent with 31% winter loss.

I am looking forward to trying the TTP's [the OBA's Technology Transfer Program] Oxalic glycerin treatment mid-summer this year. Respondent with 41% winter loss.

The registration of oxalic acid glycerin this spring highlights one of Ontario's strengths. Ontario has a strong infrastructure for beekeeping research, extension, and adoption. The collaboration between the Ontario Ministry of Agriculture, Food, and Agribusiness, the OBA's TTP, and academic researchers that has made innovations like oxalic acid glycerin and low Varroa growth available to Ontario beekeepers can help beekeepers navigate our current challenges.

Two priority areas of focus for research, extension, and adoption support stand out. These include updated research on winter losses. The groundbreaking winter loss research in Ontario that shaped our current approaches is from a time when beekeepers often successfully relied on a single miticide to control Varroa and when the viruses transmitted by Varroa may have been less diverse and complex. New research based on current treatment options and pathogen pressures would help beekeepers identify the practices needed to achieve overwintering success.

The ongoing spread of *Tropilaelaps* mites has started to affect beekeepers' access to the early spring queens and packages needed to rebuild after high winter losses. Several Ontario beekeepers are working on innovative ways to overwinter queens and nucleus colonies to decrease our dependence on imported spring stock. Investments in research, extension, and adoption supports to further develop these processes and bring them to mainstream beekeepers will help Ontario beekeepers be more independent, resilient, and sustainable in face of high winter losses and increasingly unpredictable sources of imported stock.