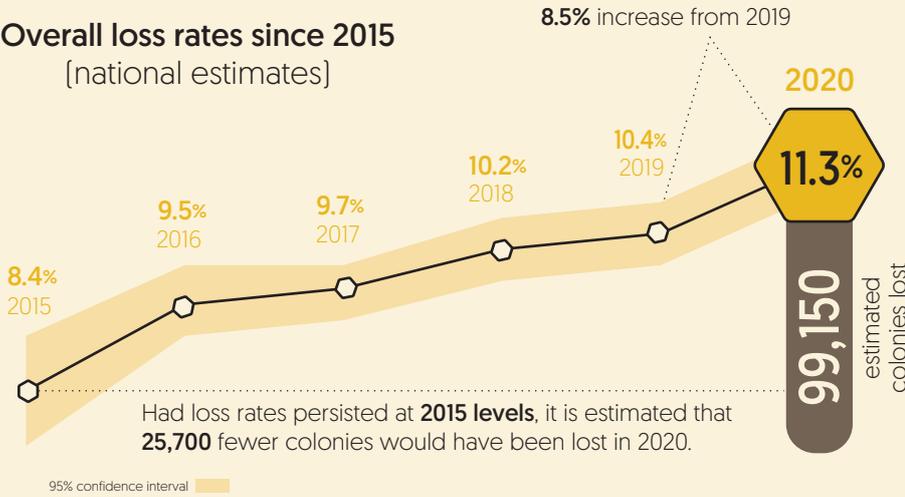


NZ COLONY LOSS SURVEY SUMMARY 2020

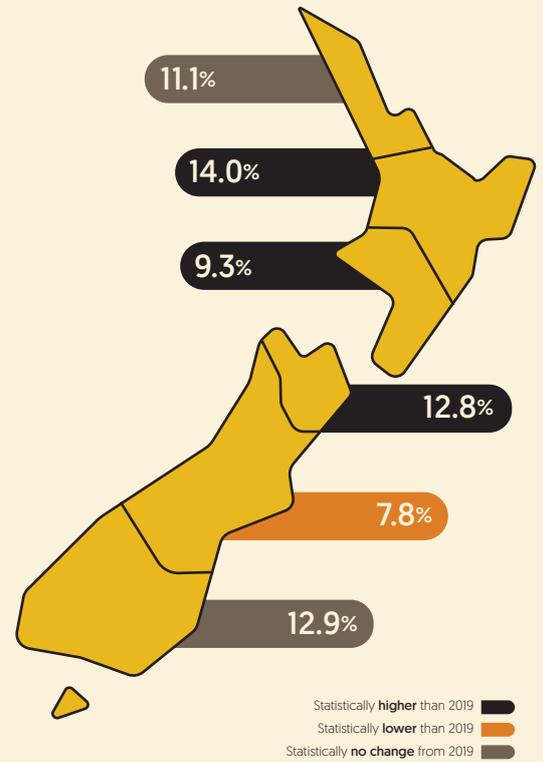
This is an on-line survey of beekeepers that aims to quantify winter colony losses. The survey has been conducted annually since 2015. The questionnaire is based on the international COLOSS survey and has been adapted to include topics of specific interest to NZ beekeepers.

Overall loss rates since 2015 [national estimates]

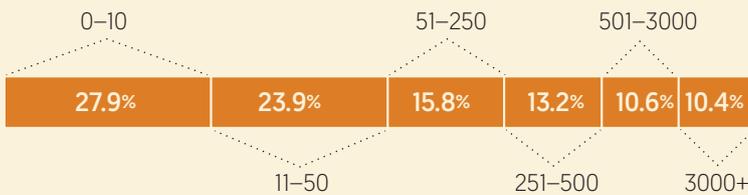


Had loss rates persisted at 2015 levels, it is estimated that **25,700** fewer colonies would have been lost in 2020.

Overall loss rates for 2020 [regional estimates]

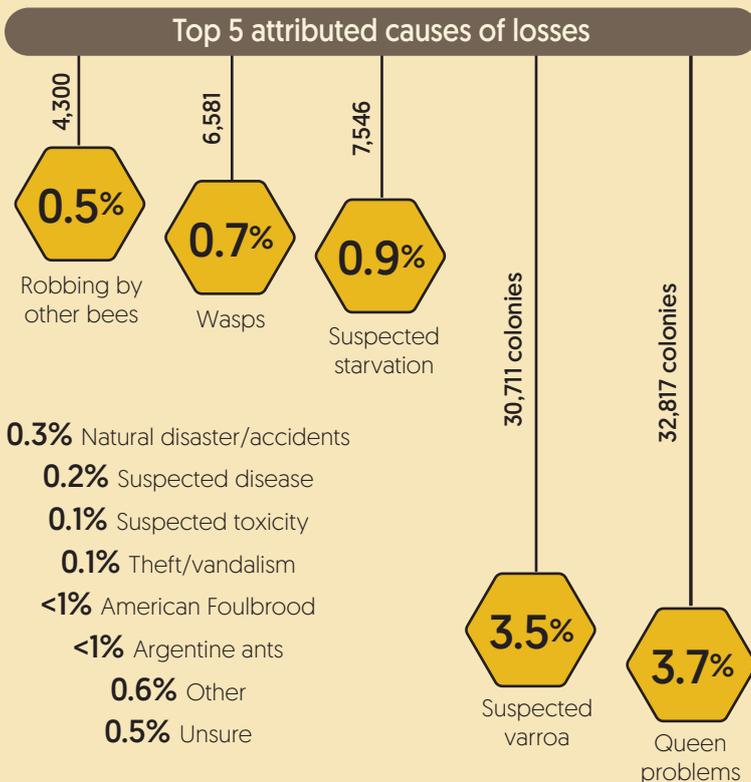


Estimated share of colonies lost by operation size



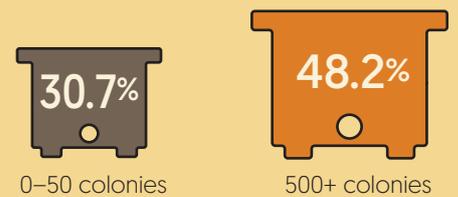
Estimated colonies lost during winter 2020

Total estimated colonies lost is 99,150 

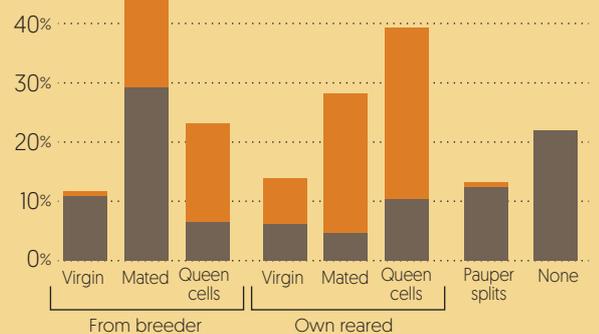


Queen management

Share of hives requeened



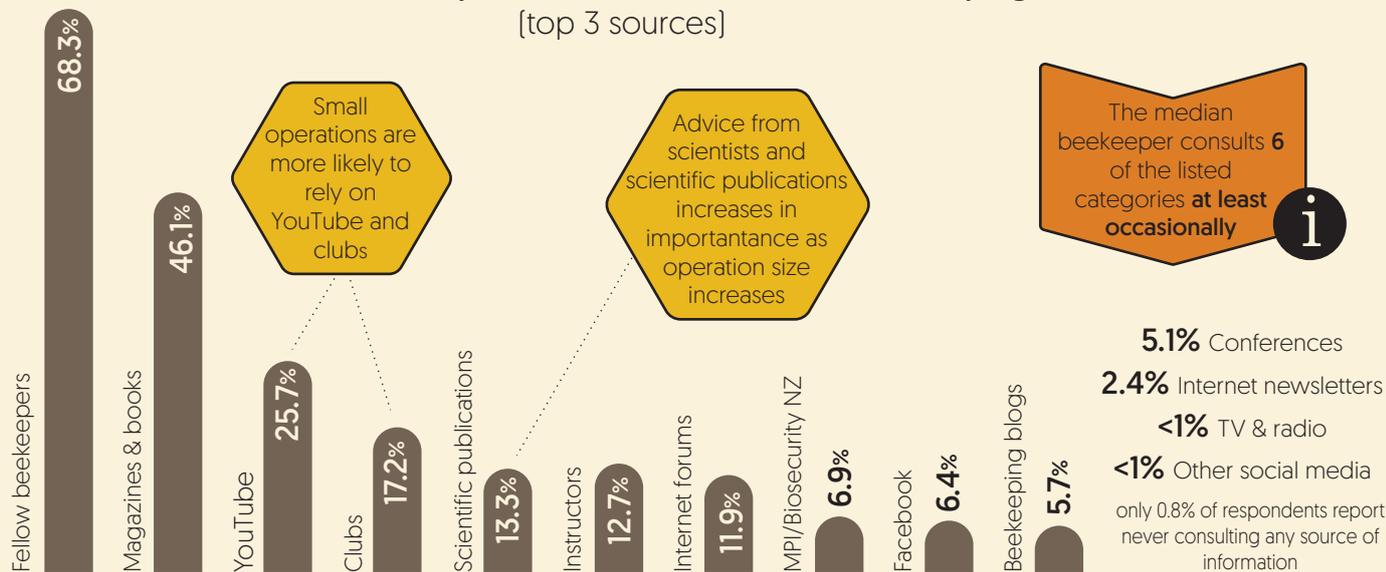
Requeening strategy



Queen performance



Where do beekeepers find information about beekeeping? (top 3 sources)

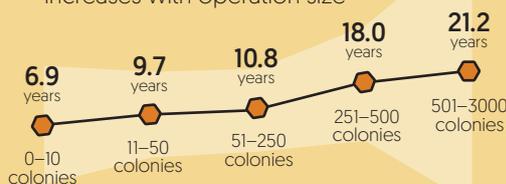


Average years of experience

Overall average



Average years of experience increases with operation size



Highest beekeeping education



Beginner's course



Mentored by other beekeepers



Learning by doing



Professional qualification



Advanced course

Beekeeper views

Beekeepers* rated 4 aspects of the 2019/20 season using this scale:



Average responses



Lifestyle



Biosecurity



Environment



Economics

*[with > 50 colonies]

In a nutshell

The overall loss rate for winter 2020 is estimated to be 11.30%. These loss rates imply that New Zealand lost approximately 99,150 colonies over winter 2020. Had 2015 loss rates continued through 2020, we estimate that there would have been 25,700 fewer colony losses over winter 2020.

As in previous years, overall loss rates for winter 2020 show considerable regional variation. Moreover, while loss rates since 2019 rose substantially in the Middle North Island, Lower North Island, and Upper South Island, they fell in the Middle South Island.

As in past surveys, smaller operators reported greater losses (as a share) than commercial beekeepers. For example, small hobbyists lost 27.9% of their colonies over winter 2020, on average, compared to 10.4% for the largest commercial operators.

The causes to which beekeepers assign losses are similar to previous years, although losses caused by suspected varroa are up 3 percentage points compared to winter 2019. Queen problems accounted for the most losses. Re-queening is a common strategy for

reducing potential queen problems, especially among commercial beekeepers, with most beekeepers having specific strategies for replacing queens.

Beekeepers use a range of sources of information and advice. Small beekeeping operations are more likely to get information from YouTube and beekeeping clubs. In contrast, bee scientists and scientific publications become increasingly important as operation size increases.

Beekeepers reported having 8 years of experience, on average. Most beekeepers learned beekeeping from a beginner's course or from a mentor.

Asked to reflect on the economics (honey and pollination prices), environmental factors (weather, floral resources), biosecurity (pests, diseases), and lifestyle (stress, time pressure) of beekeeping in 2019/20, respondents considered economics to be poor-moderate and other factors to be moderate-good.

View full survey results at:
www.landcareresearch.co.nz/bee-health

Survey and report commissioned by
Ministry for Primary Industries

Ministry for Primary Industries
Manatu Ahu Matua



Manaaki Whenua
Landcare Research