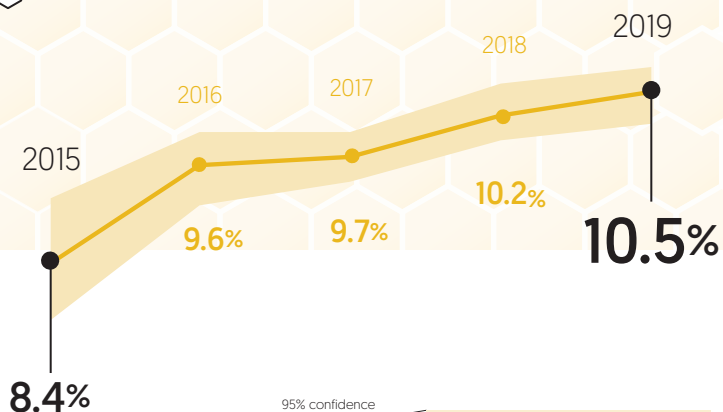


This is an on-line survey of beekeepers that aims to quantify winter colony losses. The survey has been conducted annually since 2015. The questionnaire is based on the international COLOSS survey and has been adapted to include topics of specific interest to NZ beekeepers.

Estimated overall loss rate increased by 25% over five years

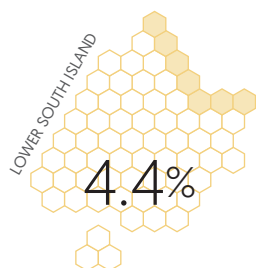
81,965
estimated
colonies lost
winter 2019

16,377 more colonies lost
as a result of loss rates
increasing since 2015



95% confidence interval
KEY

Overcrowding shows regional variation



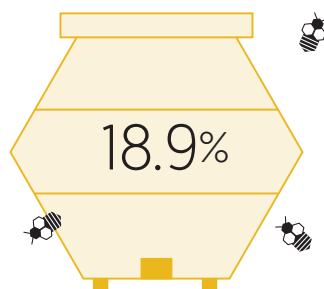
Ranges across
the regions



Apiaries compromised or lost due to overcrowding

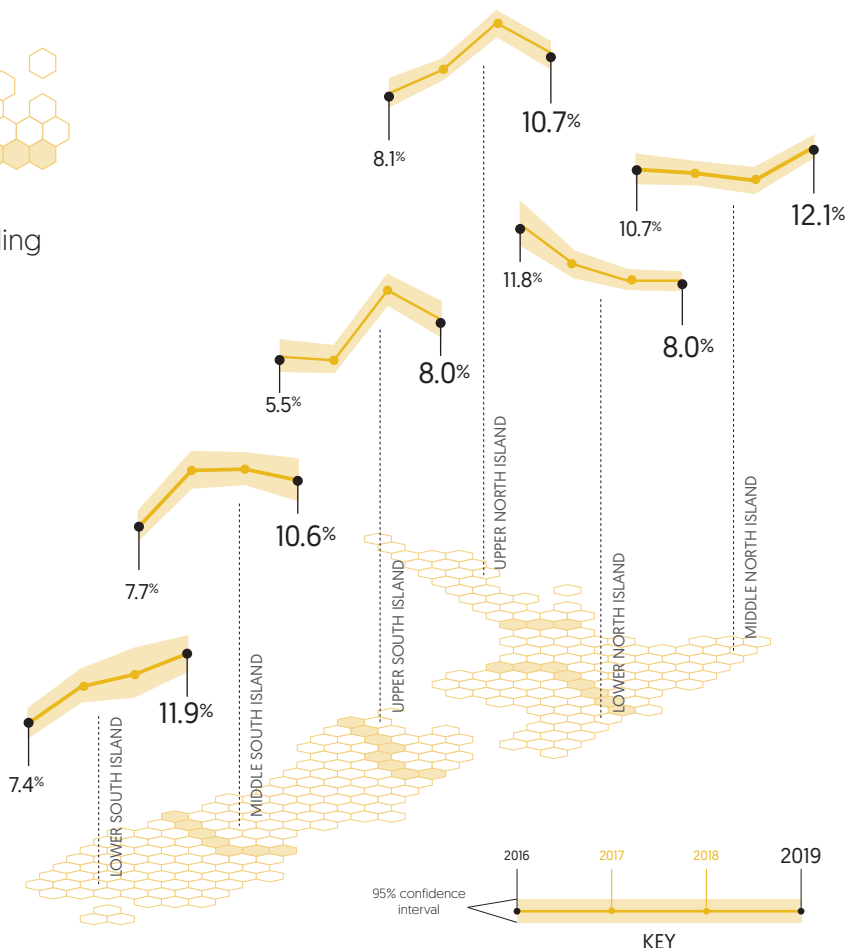
Number of weak hives is high

Beekeepers with
>250 colonies



Colonies that are weak but queenright

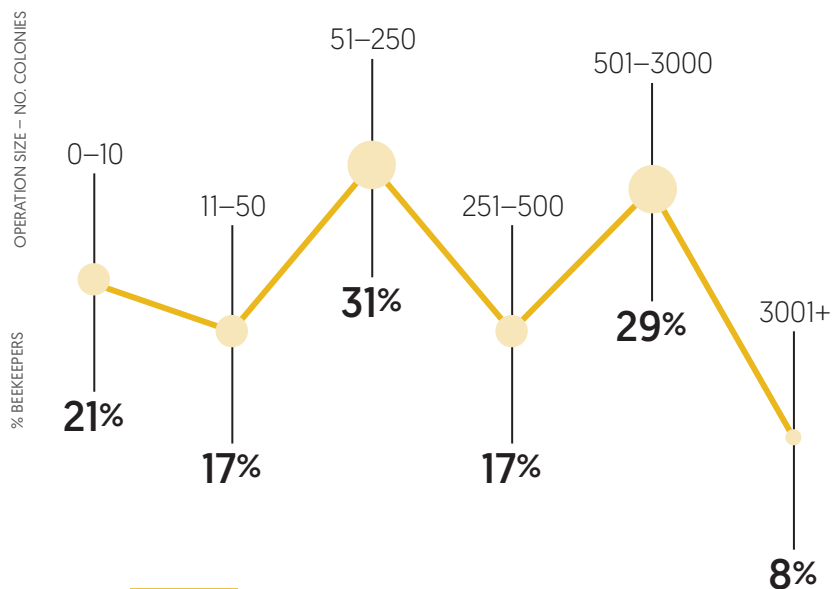
Estimated loss rates vary by region



95% confidence interval
KEY

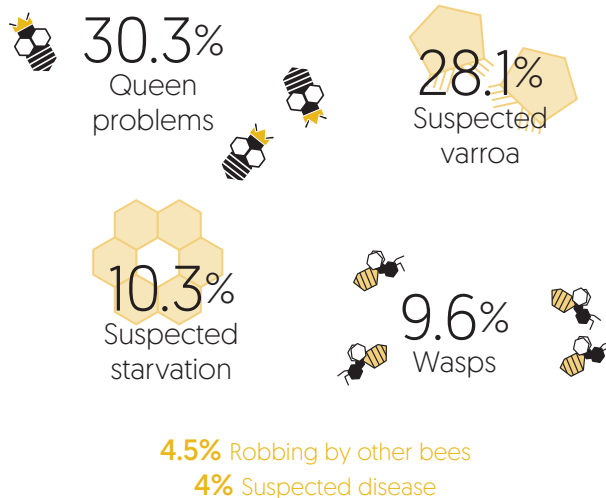
Varroa monitoring methods vary

Beekeepers who do no inspection or visual inspection of adult bees only



Methods for monitoring varroa vary across region and operation size

Losses are attributed to various causes



297 377 colonies surveyed

40.9%*
of registered
beekeepers

*with a valid email address

In a nutshell

The overall loss rate for winter 2019 is estimated to be 10.46%, an increase of 25% since the NZ Colony Loss Survey began in 2015. This loss rate implies that New Zealand lost approximately 81,965 colonies over winter 2019. Had 2015 loss rates continued, we estimate 16,377 fewer colony losses over winter 2019. Regardless, the share of colonies that are weak at the beginning of spring is high, at nearly 20% among beekeepers with more than 250 colonies.

Overall loss rates were lowest in the Lower North Island and highest in the Middle North Island and Lower South Island. Loss rates in the Lower South Island continued their upward

trend since 2015. Overall loss rates in the Upper North Island and Upper South Island were down sharply from winter 2018. As in past surveys, smaller operators reported greater losses (as a share) than commercial beekeepers.

Varroa monitoring is inconsistent, with many beekeepers either undertaking no monitoring or relying on visual inspection of adult bees only. In addition to varroa, leading causes of colony losses include queen problems, suspected starvation, and wasps. Overcrowding continues to be a challenge for beekeepers, particularly in the Upper North Island.

Survey and report commissioned by
Ministry for Primary Industries

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

Ministry for Primary Industries
Manatu Ahu Matua



Manaaki Whenua
Landcare Research