

TOOL BOX

APPROACH ESSENTIAL FOR



Varroa mite has been in New Zealand for more than 20 years and is now considered the most significant cause of colony loss. Put simply, without treatment of hives as part of an effective varroa management program hives will collapse.

For effective varroa control beekeepers need to use all the available tools and adopt an Integrated Pest Management approach.



Things which must be considered include:

LABEL DIRECTIONS:



Read and understand the label.
Apply varroa control products strictly as per label.
This includes position in brood box, length of duration of strips in the hive, and most importantly the number of strips per hive.

The 2021 New Zealand colony loss survey¹ indicated 40% of beekeepers were underdosing with Bayvarol – this will inevitably lead to poor mite control and should be avoided at all costs.

MONITORING MITE NUMBERS:

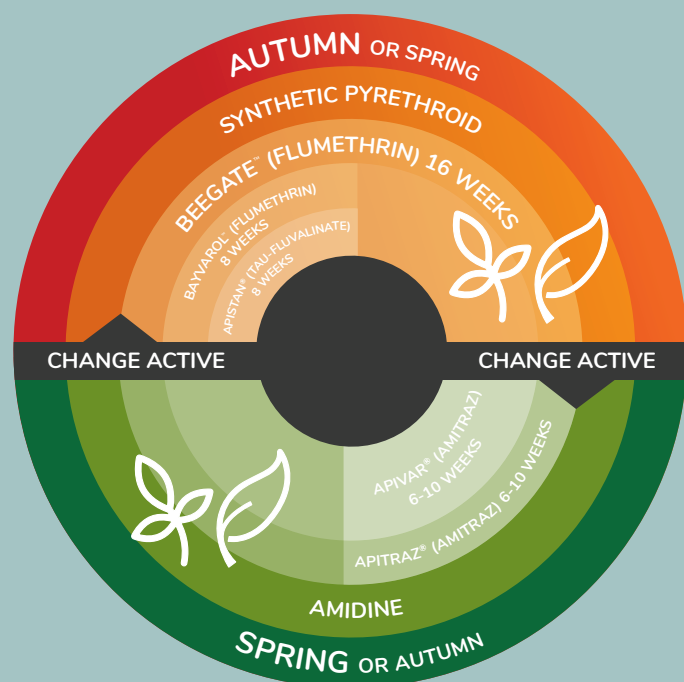


The decision of when to treat for varroa and measuring the success of any treatment program can only be done through objective measurements provided by using mite population assessment techniques such as sugar shakes or alcohol washes.

A pre-treatment count of 10 mites/300 bees indicates the hive is under severe challenge – particularly in the autumn as bee numbers begin to decrease. Monitoring will also determine the success of any treatment regime and if further treatments are required.

TREATMENT ROTATION:

The “hard” chemicals, namely synthetic pyrethroids (flumethrin (Bayvarol) and tau fluvalinate (Apistan)) and amitraz (Apivar and Apitraz), provide the cornerstone of varroa control. Along with strict compliance with label directions, rotation between chemical groups at alternate spring and autumn treatments is considered the most effective way to manage the long term effective life of these valuable products and slow the development of resistance. Repeat use of the same chemical strips time after time will inevitably lead to resistance by varroa to the active ingredient used.



Increasingly intermediate treatments between spring and autumn with other treatments such as oxalic acid, formic acid and thymol are being used to support front-line treatments.

TIMING OF TREATMENT:



Industry sales data indicates that both the spring and autumn hard chemical treatments are being implemented up to six weeks earlier than previously. The days of basing treatment simply on calendar date are gone. The timing of treatments must be based on monitoring mite numbers as described above.

REPORTING:



Based on the 2021 survey >85% of bee keepers consider their Bayvarol and amitraz treatments to be mostly successful in controlling varroa. These products are registered pesticides with the Agricultural Pesticides and Veterinary Medicines Group within the Ministry of Primary Industries and as such have a legal responsibility to report all adverse events with MPI.

If you are not happy with the performance of these products, as soon as possible, please contact your distributor with all relevant details. This will allow the manufacturers to support an investigation into any perceived product failings, including the development of varroa resistance.

HIVE AND PRODUCT MANAGEMENT:



All colonies located on the same apiary should be treated simultaneously. Inappropriate use of varroacides could result in an increased risk of development of varroa resistant to the product used and ultimately ineffective treatment and colony loss.

REMEMBER

Successful varroa control requires a continual integrated pest control approach using all of the available tools.

Reference.

1. “Varroa Appears to Drive Persistent Increases in New Zealand Colony Losses” Philip Stahlmann-Brown , Richard J. Hall , Hayley Pragert and Thomas Robertson Insects 2022, 13, 589. <https://doi.org/10.3390/insects13070589>