

CONTROLLING VARROA MITES USING NATURAL OIL EXTRACTS

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ABSTRACT:

The efficacy percentages of both pumpkin oil and clove oil against varroa mites are equal recording 72.25 and 74.93 %, followed by cassia oil and cardamom oil resulting 70.37 and 66.62, respectively, compared with the control 40.47. The reduction percentages of mites attached to honey bee workers as affected by the application of pumpkin oil, cardamom oil and cassia oil are approximately the same recording 81.58, 80.04 and 83.01%, respectively, compared with the clove oil, which reduced only 67.65 %. The reduction percentage of mite infestation levels inside worker brood for cardamom oil was the highest recording 94.52 %, followed by pumpkin oil, clove oil and cassia oil, which gave 74.03, 84.18 and 84.4 %, respectively, in comparison with the control, which increased more than 100%.

Key words: honeybee, *Apis mellifera*, *Varroa destructor* control, essential oils