

Effect of non-edible oils on the development of mite, *Tyrophagus putrescentiae* Schrank stored groundnut

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ABSTRACT

The effect of various non-edible oils on developmental parameters of mite, *Tyrophagus putrescentiae* were studied during 2017-18 and 2018-19 at Acarology laboratory, Department of Entomology, N.M. College of Agriculture, Navsari Agricultural University, Navsari, Gujarat, India. The maximum percentage of adult emergence *i.e.* 50.33 was recorded when groundnut seeds were treated with alsi oil at 0.50 ml/kg concentration, while maximum reduction in adult emergence of acarid mite, *T. putrescentiae* was at 2.00 ml/kg concentration in *Neem* oil (10.20 %). The maximum longevity was observed at 0.50 ml/kg concentration in castor oil treated groundnut seeds (14.03 days). As the concentration increases the duration of egg stage also increases. In case of neem oil, the duration of egg stage was maximum (5.98 days) at 2.00 ml/kg followed by eucalyptus oil, castor oil, karanj oil and alsi oil with the duration of egg stage as 5.35, 4.60, 4.45 and 4.87 days, respectively at 2.00 ml/kg treatment. In *Neem* oil, the duration of larval stage was maximum (6.12 days) at 2.00 ml/kg concentration followed by eucalyptus oil (6.02 days), karanj oil (5.30 days), castor oil (5.25 days) alsi oil (5.20 days), respectively at 2.00 ml/kg concentration. In neem oil, the duration of nymphal stage was higher (14.08 days) at 2.00 ml/kg concentration followed by eucalyptus oil (13.68 days), castor oil (11.10 days), alsi oil (11.03 days) and karanj oil (11.93 days) at 2.00 ml/kg concentration.

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