ABSTRACT

The coconut mite (*Aceria guerreronis*) was first reported in the state of Guerrero in Mexico in 1960. In Sri Lanka, it was first reported in Kalpitiya area in December 1997. By 1999 the damage developed to an outbreak level in Puttalam district. A yield loss of 20-30% has been estimated in severely affected areas. Research conducted in the past on basic biology of coconut mite are very rare. Due to the high variation in population among nuts in the field, it is difficult to conduct research in the field. An effective and long lasting control method has not been developed yet. Therefore the study was carried out to find out a suitable culture medium for laboratory rearing of coconut mites and to evaluate the effectiveness of several different neem based botanicals on mite control. To achieve these objectives, two Agar media, wax – coated perianths and tender leaf tissue pieces were evaluated for the survival of mites. Among the media, tender leaf tissue pieces medium was the best medium for the survival. Effectiveness of the 2% neem oil-garlic-soap mixture, Neem Azal and neem seed kernel ethanolic extract on mite control was tested by spraying pesticides on laboratory cultures of coconut mite. 2% neem oil-garlic-soap mixture was the most effective among the pesticides tested. Neem seed kernel ethanolic extract was the second best pesticide on mite control.