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ABSTRACTS

BOOK I

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Embrapa

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[2983] EXPERIMENTAL OBSERVATIONS ON THE OUTBREAK OF INFESTATION BY *KNEMIDOKOPTES PILAE* (ACARINA: KNEMIDOKOPTIDAE) IN PARROTS (*MELOPSITTACUS UNDULATUS*)

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The mange of parrots caused by *Knemidokoptes pilae* is a serious infestation, which though with slow course, can lead the bird to death for cachexia. Although it occurs frequently, the factors favouring its outbreak are not well known. The biological behaviour of *K. pilae* seems to be similar to that of other mites, such as *Sarcoptes scabiei* in mammals which determines a deep mange, but contrarily of that mite, it does not seem to be infectious at all. In fact, if parrots affected with serious mange are kept for months in captivity with other healthy birds, the illness does not pass on these ones. On the other hand, it seems inexplicable how the infestation can suddenly rise up in groups of healthy birds. We effected therefore some experimental tests with the aim of trying to understand the factors favouring the outbreak of mange. Two couples of parrots, one of which affected with mange, were placed under conditions of high relative humidity (80% RH), maintained constant by a NaCl saturated liquid and two more couples, one of which affected with mange, were kept at a reduced level of RH (55%). In both cases the temperature was stabilized around 20°C. After 46 days, two of the parrots kept at 80% HR showed the first evident signs of infestation: two small holes in their beaks, under their nasal cavities. After 38 more days the infestation was evident on the limbs showing hyperkeratosis and a tiny hole containing a *K. pilae* female. Three months later the infestation was clinically evident and the first lesions began to rise up on the wings and on the perianal skin. After such period the experimental was stopped. Throughout the experiment, one of the parrots did not show any sign of illness. The birds kept at low RH (55%) were not infected. This simple experiment shows how the rate of environmental humidity is relevant for the infestation outbreak, though some subjects may turn up particularly resistant. We can also assume that the infestation is maintained quiescent for the presence of nymphal instar of the mite remaining among the feathers and penetrating into the skin only when the conditions of RH become favourable.

Index terms: mange, mites, Relative Humidity.