*i*-Trap system: A new monitoring and control system for red mites

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The red mite (*Dermanyssus gallinae*) is a widespread ectoparasite that causes a decrease in chicken egg production globally. In Japan, a red mite monitoring system has been established utilizing the *i*-Trap System (Kondo-Electric Co., Ltd.).

The efficacy of the *i*-Trap System in differing conditions overseas (Thailand, Taiwan & the US) was investigated in three independent studies. In an analysis of organic farm management, red mite colonies were not detected in the organic farms in Thailand nor in the United States. Conversely, at typical farms in Japan, an average 299 of red mites were captured in each *i*-Trap. The absence of red mites at organic farms suggests that organic farmers are more conscious of pest control and animal welfare. Red mite monitoring and trapping is of increasing importance because it can indicate the quality of the farm and pest management system. However, investigation of the actual red mite condition necessitates the live capture of red mites without the use of pesticides. This “clean capture” allows for accurate analysis of the biological interactions with the chicken farm environment and layers. Furthermore, it has been suggested that the red mite may be a vector for the spread of disease, and “clean capture” is needed for the analysis of bacteria inside the red mites. This is an important area of future study.