

# NEW METHODS FOR DETECTING AND MONITORING MITE INFESTATIONS

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Increasing concerns about the presence of storage mites in food, and their medical importance in domestic and occupational environments, have been addressed by the development at this laboratory of two new techniques. This poster outlines these techniques and presents examples of results obtained which demonstrate their invaluable benefits in combating mite infestations. To minimise the risk of mite infestation, it is essential to establish their presence and monitor their populations accurately, cheaply and reliably. However, conventional pest management practices are largely geared towards the prevention and control of insects; they are not necessarily appropriate or adequate for mites, hence sources of mite infestation may be overlooked. We have shown that a simple, rapid flotation method accurately detects low levels of mites and other contaminants in various samples. It uses two immiscible solvents to separate mites and other contaminants from the samples by means of an overflow method. The technique is very versatile. It allows analysis of a variety of food, feed, dust and debris samples for a diverse range of mites. Importantly, the recovery of contaminants is very high. The other technique uses a purpose designed device, the BT Trap, which incorporates a food-based lure, to detect low numbers of live mites *in situ* in various premises engaged in the production of food and feedstuffs. Over fifty species of mites have been detected using the trap. The diversity of different species and the frequencies at which they are detected by the trap, enables an early and accurate estimate to be made of the extent and duration of an infestation. This in turn allows resources to be targeted. These two techniques complement each other and together constitute an effective and powerful aid to control mite numbers, thus reducing contamination of the environment and products.