

Title            Development of a rapid immunoassay for the detection of storage mite pests in cereals.  
Authors        Dunn, J. A., Danks, C., Thind, B. B., Banks, J. N. and Chambers, J.  
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#### **Abstract**

The detection of mites in grain and its derivatives by sampling and sieving is very subjective and dependent on the operator. Present alternatives are expensive or time-consuming, and do not lend themselves to "real-time" measurement or field application. To overcome this problem, we are investigating the potential of immunoassays. In this paper, we report for the first time on the sensitivity of an existing antibody to live and dead adult mites, to their different life stages and to their faeces. To overcome a lack of sensitivity in the presence of grain, we have raised new antibodies by a careful screening programme, using *Acarus siro* as the model species. These antibodies show very promising sensitivity and selectivity even in the presence of grain.