

Insecticide effects of non-toxic inorganic powders against bean weevil (*Acanthoscelides obtectus*)

Insecticide effect of ZnO, TiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub> and zeolite powders were studied on bean weevil (*Acanthoscelides obtectus* Say, 1831). Mortality of both male and female adults was significantly higher for zeolite and Al<sub>2</sub>O<sub>3</sub> powders than ZnO and TiO<sub>2</sub>, while females were less susceptible than male. SEM analysis of the insects treated with Al<sub>2</sub>O<sub>3</sub> revealed that disability and mortality of bean weevils can be related to degree of powder coverage of the insects exoskeleton. All powders showed similar effect to development of F<sub>1</sub> progeny with reduction in larvae number over 50%, and can be considered for use in organic production.