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Article Title	The Entomotoxic assay of Nano aluminum oxide and Nano zinc oxide against <i>Sitophilusoryzae</i> as a promising insecticide.
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The Journal	<i>Egyptian journal of zoology.</i>

SUMMARY:Rice is one of the most important food crops for more than half of the world's population. The rice weevil, *S. oryzae* (L) (Coleoptera: Curculionidae) is a major pest of stored rice in Egypt. The use of nanoparticles as pesticide could be promising alternative strategy to affect pests which have become resistant to pesticides. Two nano- materials Nano aluminum oxide and Nano zinc oxide were tested against rice weevil under laboratory and store conditions. Nano aluminum oxide was found to be highly effective against *S. oryzae*and Zinc Oxide has lowered moderately effective against the weevil. Results showed that mortality % of *S. oryzae* were 65.34 ± 8.9 and 58.58 ± 8.3 % after investigated with $0.5 \text{ gm} / \text{kg}^{-1}$, 100.00 ± 9.6 and 81.81 ± 4.2 with $1 \text{ gm} / \text{kg}^{-1}$. And the mortality scored with $2 \text{ gm} / \text{kg}^{-1}$ 100.0 ± 0.0 and 80.80 ± 2.3 after 14 days, treated with Nano aluminum oxide and Nano zinc oxide, respectively as compared to 0.0 ± 0.0 in the control and 59.4 ± 3.2 with Deltamethrin at $LC_{50\%}$. The emergence of emerged adults was studied 20, 40, 60, 80, 100 and 120 days after treatment with $2 \text{ gm} / \text{kg}^{-1}$ Nano aluminum oxide or Nano zinc oxide and compared to Deltamethrin at $LC_{50\%}$. The Original Activity Remaining % was calculated and it was clearly that either Nano aluminum oxide or Nano zinc oxide gave 13.14 and 13.57OAR

% more than Deltamethrin where it gave 12.15 OAR%. These findings recommend either Nano aluminum oxide or Nano zinc oxide as a promising control tool if bio-safety further studies were concerned.