

# **“Influence of Diatomaceous Earth in Combination with Spinosad to Control *Sitophilus Oryzae* (Linn.) (Curculionidae: Coleoptera)”**

**K Anil Kumar Yadav, T Madhumathi, P V Krishnayya and V Manoj Kumar**  
Department of Entomology, Agricultural College, Bapatla 522 101, Andhra Pradesh

## **ABSTRACT**

The efficacy and persistence of Diatomaceous earth (DE) alone and in combination with spinosad as grain mixture treatment was studied under the laboratory conditions. Maize kernels were tested against *Sitophilus oryzae*. The mortality of *S. oryzae* in DE alone and spinosad alone treatments decreased over 150 DAT and the combined application treatments enhanced the mortality rate of the test insects *S. oryzae* compared with DE alone or spinosad alone treatments. At 150 DAT by 14 DAR the highest cumulative mortality (100.00 %) of *S. oryzae* was observed in the DE in combination with spinosad treatments viz., DE + spinosad @ 750 mg/kg + 1.0 mg/kg and @ 1000 mg/kg + 1.0 mg/kg. All the DE alone @ 750 mg/kg and 1000 mg/kg and spinosad alone treatments @ 0.5 mg/kg and 1.0 mg/kg found to be decreased in their efficacy by 14 DAR at 150 DAT against *S. oryzae* on maize kernels.

Key words: Diatomaceous earth (DE), DAR (days after release), DAT (days after treatment), Spinosad, *Sitophilus oryzae*.