

**“EFFECT OF CARBON DIOXIDE TREATMENT AGAINST ANGOUMOIS  
GRAIN MOTH *SITOTROGA CEREALLELLA* (OLIVIER) IN MAIZE”**

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**ABSTRACT**

During storage, maize grains are severely destroyed by insects and other pests. One of the most important causes of grain loss in stored maize is the damage caused by Angoumois grain moth, *Sitotroga cerealella* (Olivier). A study was conducted to evaluate the effect of carbon dioxide treatment against Angoumois grain moth *Sitotroga cerealella* (Olivier) in maize at Seed Research and Technology Centre (S.R.T.C), Rajendranagar, Hyderabad, Telangana during February 2015 to September 2015. The effect of different concentrations of CO<sub>2</sub> viz., 20, 40, 60 and 80 per cent against the Angoumois grain moth *Sitotroga cerealella* in maize seed stored for a period of six months was observed. The result revealed that the percentage of seed damage was found to be nil in 60 and 80 per cent concentrations of CO<sub>2</sub> up to six months of storage. Exposure of seeds at 20 and 40 per cent CO<sub>2</sub> concentrations could able to protect the seed from infestation and development of the moth up to four months of treatment but the infestation and progeny development were noticed after five months of treatment. Higher CO<sub>2</sub> concentrations viz., 60 and 80 per cent not only protected the seed from infestation and development but also maintain good storability.

**KEYWORDS:** Carbon Dioxide, Concentrations, Infestation, Maize, Exposure