

Management of post harvest pests of maize in India through enhanced hermetic storage

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SUMMARY :

Effectiveness of hermetic storage in combination with botanical *Ageratum conyzoides* for the control of post harvest pests of maize *Sitophilus oryzae* (L.) and *Sitotroga cerealella* (Oliv.) was evaluated under artificial infestation by different packing materials. It was observed that High density polythene (HDPE) bag and Double Layered Polythene (DLP) bag with *A. conyzoides* are most effective in controlling *S. oryzae* and *S. cerealella*. The number of F₁ progeny of *S. oryzae* and *S. cerealella* emerged in treatments ranged from 7.75 to 21.70 and 8.70 to 25.50, respectively with each mean being significantly different from each other. Both HDPE and DLP bag in combination with *A. conyzoides* recorded lowest adult emergence, minimum grain damage and weight loss when infested by *S. oryzae* and *S. cerealella*. HDPE bag and double layered polythene bag with *A. conyzoides* recorded per cent damage of 4, 5.70 and 5.0, 7.0 and minimum losses of 0.61, 0.94 and 0.37, 0.52 by *S. oryzae* and *S. cerealella*, respectively. The results demonstrated that it is technically feasible to control post harvest pests of maize in India through enhanced hermetic storage by utilizing locally available botanicals.

KEY WORDS : Botanicals, Hermetic storage, Maize, Post harvest loss, *Sitophilus oryzae*, *Sitotroga cerealella*

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