

IMPROVEMENT TO FARM LEVEL GRAIN STORAGE METHODS
IN SRI LANKA

M.D. Fernando, K.B. Palipane and T.B. Adhikarinayake
Rice Processing & Development Centre, Anuradhapura

Six indigenous on-farm storage bins, namely, Outdoor Atuwa, Outdoor Straw Bissa, Outdoor Waruwa, Outdoor Clay Bissa, Indoor Atuwa and Indoor Peha identified by conducting a field survey were evaluated for their suitability for storage of grains. Also, two new indoor storage bins, namely metal bin and indoor brick bin were designed and evaluated for their performance.

Since no appreciable difference was observed in the cost of storage among different outdoor indigenous storage bins, their suitability for on-farm storage was dependant upon the ability to preserve grain. Rectangular bins and also, structures of straw walls are not suitable for indoor on-farm storage. The barrel shaped Clay Bissa performed best among the outdoor indigenous bins from the point of view of grain preservation. The loss in grain weight of 2.6% in the Clay Bissa after a storage period of 180 days, on an average, 26% less than the losses that occurred in other outdoor indigenous storage bins. The results also showed that 88% of the total dry matter loss during storage was due to insect infestation. The cost of storage in indoor bins was appreciably higher than in outdoor bins. In the indoor metal bin there was a rapid deterioration of seed viability probably due to accumulation of carbon dioxide through grain respiration.

This was funded by a NARESA grant.

10th Dec. 1987 (Thursday) 02.30 p.m. - 02.45 p.m.