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**Effect of packaging method and initial moisture content on germination capacity of seed paddy during storage**

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Nearly 100,000 t of seed paddy are used by farmers in Sri Lanka annually. The loss in germination capacity of seed paddy has been a major problem in Sri Lanka. The recommended germination percentage for seed paddy is 85% or more and usually most paddy stored for seed purposes lose their germination capacity below this level within six months of storage. Farmers & major seed suppliers often store seeds in woven polypropylene bags (poly sacks) normally at 13% moisture content. Seeds stored under these conditions are often exposed to moisture fluctuations, insects and rodents. As a result, seeds fail to germinate after about 5 to 6 months of storage.

In order to overcome this problem, a study was conducted to determine the effect of packing method and initial moisture content on seed germinability by storing paddy variety of BG 300 at four different moisture levels, 14, 13, 11 and 10%. The seeds of each moisture level were packed in 5 kg woven poly-sacks and stacked separately. Each stack was then covered with a low-density polyethylene (LDPE) sheet of gauge 200, which is relatively low cost compared to other kinds of moisture proof materials on conservation of germination capacity and the edges of the sheet touching the floor were sealed using sand snakes. In addition, seeds of each moisture level were packed in woven Polypropylene bags (only for comparison) as the control.

The paddy was stored for a period of 12 months under ambient conditions (30±3 °C and 65±5 % RH) the standard germination test and moisture test were carried out in triplicates initially and at intervals of four weeks during the storage period.

The results revealed that the germination capacity of paddy with initial moisture content of 10%, stored in polypropylene sacks and covered with a low-density polyethylene (LDPE) sheet of gauge 200 remained at 93% level even after 12 months of storage.

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