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Maintaining Good Germination Percentage and Moisture Content of Dolichos Bean (*Dolichos lablab* L. var *typicus* Prain) Seed by using Chemical free Hermetic Triple Layered PICS bag against Attack of Bruchid Pest

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Abstract—*Dolichos bean (Lablab purpures L.) dried seeds contain protein (40%), carbohydrates (20.04%) and fat (1%). The crop suffers losses in the field as well as in the storage. If proper care was not taken, damage due to bruchids accounts up to 100%. Purdue Improved Crop Storage (PICS) bag is a simple and effective technology for reducing grain losses to insects during post harvest storage. Four different types of storage bags viz., (i) Jute bags (ii) Polythene bags (iii) Triple layered plastic bags (PICS) and (iv) Jute bags treated with Cholropyriphos were used for evaluating their efficacy in managing doichos bean bruchid. The initial germination percentage recorded was 95%. Among the different types of storage bags, highest germination per cent was recorded in triple layer PICS bag (93.3) followed by jute bag insecticide treated (88.7), polythene bag (86.4) and least in jute bag (84.0). In comparison of different set of storage periods, maximum germination percentage was recorded after 2 months storage (89.50) followed by 4 months storage (88.17) and 6 months storage (86.67). Among all interactions, triple layer PICS bag stored for 2 months (93.67) showed higher germination per cent followed by triple layer PICS bag stored for 4 months (93.33) and triple layer PICS bag with 2 months period (93.00), 4 months period and 6 months storage period has given better germination per cent compared with other interactions. The minimum was recorded in jute bag stored for 6 months (82.671). The best germination per cent was recorded in triple layer PICS bag (93.3%) compared to all other types of storage bags. As the infestation levels in the triple layer PICS bag was less and quality of seed was good, hence showed good germination percentage.*

Keywords*: Dolichos bean, PICS bag, Bruchid, Germination.*

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