Title Effect of indigenous and modern packaging materials, temperature and dressers on onion (*Allium cepa* L.)

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Abstract

Onion seeds, harvested in 2002, were treated with ten dressers viz. bavistin (0.2%), captan (0.2%), dithane M-45 (0.3%), thiram (0.3%), 1-2 dibromoethane (480g /m^3), nimbicidine (0.3%), ash (dusting), cow urine (2 times V/W), cow dung (2 times W/W) and control (sprinkled water). These seeds were then packed in polythene bags (200 gauge), polyjars and cloth bags which were stored from October 2002 to October 2004 at the proposed temperatures viz. room temperature, refrigerator (4°C) and deep freezer (-20°C). The observations on pathogens infestation were made at quarterly interval up to two years of storage period. Variable infestation of fungi was recorded in different treatments which were statistically significant to one another. Dressing with thiram revealed the lowest infestation of *Rhizopus* (3.63%) and *Aspergillus* (1.85%) in *Allium* seeds. Among the temperature treatments, the lowest infestation of *Rhizopus* (8.18%) was found at room temperature while *Aspergillus* (6.75%) was reduced in deep freezer. The poly jar seed packing proved effective in containing *Rhizopus* (6.38%) while seed packing in polythene bag reduced *Aspergillus* (5.67%). Hence packing in polyjars + storing at room temperature or packing in poly bags + storing in deep freezer, after treating with thiram, have been found effective for two years fungal free storage of onion seeds.