






# Post-Harvest Technologies: Storage Options



CSISA Factsheet | www.CSISA.org

|   | Details  | Positives    | Negatives   |
|---|--|---|--|
|    | <p><b>Painted Pots</b><br/>Less than Rs. 100</p> <ul style="list-style-type: none"> <li>• Earthen pots smoothed and painted by water retarding liquid paint/burnt oil and sealed</li> <li>• Capacity: 2 - 50 kg</li> <li>• Target: <u>Very poor</u> subsistence farm families</li> </ul> | <ul style="list-style-type: none"> <li>• Easy to make</li> <li>• Very low cost</li> <li>• Available in remote regions</li> </ul>  | <ul style="list-style-type: none"> <li>• Difficult to carry or move</li> <li>• Breakable, cannot be repaired</li> <li>• Requires insect inhibiting chemicals</li> <li>• <b>Allows for transfer of oxygen and moisture (non-hermetic)</b></li> </ul>  |
|   | <p><b>Sealed Local Plastic Drums</b><br/>Rs. 100 - 250</p> <ul style="list-style-type: none"> <li>• Capacity: 50 - 200 kg</li> <li>• Relatively long usage life: 5 - 7 years</li> <li>• Target: <u>Marginal</u> farmers</li> </ul>   | <ul style="list-style-type: none"> <li>• Low cost</li> <li>• Good quality containers easily available from scrap markets</li> <li>• Low maintenance</li> <li>• Easy to transport</li> <li>• Can be sealed with threaded lid or silicon gum</li> </ul> | <ul style="list-style-type: none"> <li>• Cracks are generally not repairable</li> <li>• Requires insect inhibiting chemicals</li> <li>• <b>Allows for transfer of oxygen and moisture (non-hermetic)</b></li> </ul>  |
|  | <p><b>Sealed Metal Drums</b><br/>Rs. 400 - 2500</p> <ul style="list-style-type: none"> <li>• Capacity: 100 - 1500 kg</li> <li>• Long usage life: 8 - 10 years</li> <li>• Target: <u>Small to large</u> farmers</li> </ul>  | <ul style="list-style-type: none"> <li>• Medium cost</li> <li>• Low maintenance</li> <li>• Rat bite proof</li> <li>• Easy to repair at local shops</li> <li>• Can be sealed with metal lid or silicon gum</li> </ul>                                  | <ul style="list-style-type: none"> <li>• Not easy to transport once filled</li> <li>• Requires careful care and maintenance (paint) once the shine starts to wear off</li> <li>• Tilting might crack or damage bottom</li> <li>• Requires insect inhibiting chemicals</li> <li>• <b>Allows for transfer of oxygen and moisture (non-hermetic)</b></li> </ul> |

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| <p style="text-align: center;"><b>Super Bag</b><br/>Rs. 85</p> <ul style="list-style-type: none"> <li>• Hermetic storage</li> <li>• Food - grade polythene bag with gas barrier coating</li> <li>• Used as liner in traditional storage such as plastic or jute sacks</li> <li>• Capacity: 60 kg</li> <li>• Medium usage life: 2 - 3 years</li> <li>• Target: <u>Small to medium</u> farmers</li> </ul> | <ul style="list-style-type: none"> <li>• <b>Does not require insect inhibiting chemicals. Removes threat from insects without use of chemicals or fumigants</b></li> <li>• Lowers oxygen content. Insects and micro-organisms consume up oxygen till it is depleted and then die or become inactive</li> <li>• Maintains moisture content, no reabsorption of moisture from ambient air</li> <li>• Retains seed germination potential and vigour</li> <li>• Rats are not able to smell stored grains</li> <li>• Can be used to store seeds or grains of cereals (paddy, wheat, maize), pulses (lentils, mung), peanuts, sorghum, soya bean and other agriculture commodities dried to recommended moisture percentage before storage</li> </ul> | <ul style="list-style-type: none"> <li>• Cannot be repaired if punctured</li> <li>• Requires training for safe handling</li> </ul>   |
| <p style="text-align: center;"><b>Hermetic Cocoon</b><br/>Rs. 25,000</p> <ul style="list-style-type: none"> <li>• Hermetic storage</li> <li>• Light weight UV resistant PVC material</li> <li>• Capacity: 1000 kg (capacities from 1 - 10,000 tons are available)</li> <li>• Long usage life: 10 - 15 years</li> <li>• Target: <u>All types</u> of farmers</li> </ul>                                   | <ul style="list-style-type: none"> <li>• For cocoons:               <ul style="list-style-type: none"> <li>- Rodent resistant design</li> <li>- Is repairable if punctured</li> <li>- Higher capacity for providing contract services</li> </ul> </li> </ul>  | <ul style="list-style-type: none"> <li>• Requires a platform as base</li> <li>• Requires protection from sun and against pilferage</li> <li>• Requires training for safe handling</li> </ul> |