Methods of Handling, Storage and Inventory Management
Presented by Dr. H. B. Singh
Causes of Damage to Fertilizer and Seed Bags

- Use of hooks while handling
- Dragging bags along the floors
- Improper stacking and dropping of bags
Causes of Damage (cont’d)

- Exposure to the sun
- Mixing of damaged material and good bags
- Non use of dunnage
Objectives of Handling and Storage

- Reduction in storage and delivery losses.
- Keeping the contents in the original shape.
- Maintenance of required moisture level.
- Prevent mixing of dust/foreign material.
- Minimize leakage and hardening.
- Maintain the product quality.
Handling is the efficient method of shifting of Products from place of delivery to a store or a sale point.
Guidelines on Handling

1. Shift the bags carefully
2. Use a wheel burrow/trolley
3. Do not allow the use of hooks

Hooks pierce the bags, letting the contents flow
4. Repair damaged bags immediately

- If hole is small, repair bags by stitching.
- If badly damaged, re-bag good content in new bags.
- Adulterated/substandard material should be separated and sold at a low price.
- Do not sell bags in damaged condition.
Storage

- The safe placement of products at a secure place for future use, maintenance of up-to-date records of incoming and outgoing stocks, product quality, and identification.
What is Inventory Management?

An accurate and easily accessible method of record keeping and reporting of stored goods.
Guidelines on Safe Storage

1. Always store in a leak proof building
2. Do not store in a low lying area
5. Always use dunnage--

- Wooden planks and polyethylene sheets prevent the dampness of the floor from seeping into the bags.
- The best protection is provided by wooden pallets or planks because these allow air to circulate underneath the stacks.
6. Adopt right methods of storage
Dunnage is anything that will break the direct contact and keep the bags off the floor.

Always use dunnage
Select a Leak Proof Building

- Always store in a leak proof building
- Inspect roof regularly and repair
3. Store should be well ventilated, when it is warm and dry outside.

4. When humidity is high, close the windows and doors.
Prefer Criss-Cross Method

- Follow a proper method of stacking—criss-cross method is the best way.
- Do not simply put one bag on top of another.
- Do not stack bags too high.
- Bags that are not stacked properly may fall and break open.
Cover Stacks With Plastic Sheets

- Cover the stacks with plastic sheets to protect against dirt.
- Covering the stacks is essential in open stacks in rainy season.

Source: FAO.
Make Stack of Right Height

- In small stores, stack bags up to shoulder high and in big stores up to 15 bags high.
- Low stacks are better for the bags and the fertilizer and also make lifting easier.

Source: FAO.
## SUMMARY

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<tr>
<th><strong>Do</strong></th>
<th><strong>Don't</strong></th>
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<tbody>
<tr>
<td>Do make sure you can supply enough fertilizer of the right types to meet the needs of your farmers at the time they need it.</td>
<td>Don't order so much that you have to keep lots of fertilizer in stock for a long time.</td>
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<td>Do work closely with your local extension workers and with banks that provide credit to farmers.</td>
<td>Don’t give farmers advice without being sure that you are giving them the right information.</td>
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<td>Do make sure that your shop is clean, well-stocked, attractive and secure.</td>
<td>Don’t leave your store unlocked when there is no one around to guard it.</td>
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<td>Do stock all products necessary for farmers to get high yields.</td>
<td>Don’t store agro-chemicals carelessly. Keep them in separate areas. Don’t open and repackage containers.</td>
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<td>Do reduce your costs by avoiding wastage of fertilizer.</td>
<td>Don’t allow workers to use hooks with bags or to throw bags to the ground.</td>
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<td>Do put pallets or some other protection between the bags and the floor.</td>
<td>Don’t store fertilizer in stacks above shoulder height. Don’t expose bags to rain or sun.</td>
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<td>Do control your stock by keeping records of its movement into and out of your store.</td>
<td>Don’t accept damaged bags or caked fertilizer from your supplier.</td>
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<td>Do always sell old stock before new stock.</td>
<td>Don’t put new deliveries on top of old stock.</td>
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<td>Do learn about the different fertilizers and nutrients (plant foods) so you can better give advice to farmers.</td>
<td>Don’t ignore your local extension officer. He can be a valuable source of information and you should work closely with him.</td>
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<td>Do learn the recommended applications rates.</td>
<td>Don’t advise the farmer to use more fertilizer than he can use economically.</td>
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Inventory Management