

The IRRI Super bag makes the principle of hermetic storage available to farmers and processors at low cost. The IRRI Super bag is a farmer friendly storage bag that allows cereal grains and other crops to be safely stored for extended periods. The Super bag fits as a liner inside existing storage bags (e.g., woven polypropylene or jute bags)

## Why is a Super Bag important and how does it work?

Relative to traditional storage systems, Super Bags have the following benefits:

1. Extend the germination life of seed for planting from 6 to 12 months,
2. Control insect grain pests (without using chemicals),
3. Improve the head rice recovery of stored grain typically by 10%.

Super bags reduce the flow of both oxygen and water between the stored grain or seed and the outside atmosphere. When properly sealed, respiration of grain and insects inside the bag reduce oxygen levels from 21% to 5%. This reduction reduces live insects to less than 1 insect/kg of grain without using insecticides often within 10 days of sealing. The stability of controlled grain moisture inside the bag prevents wetting and drying of grain. This stability reduces the extent of grain cracking and so head rice recoveries are higher upon milling.

## How do you use a Super Bag?

The super bag is presently designed to store up to around 50 kg of grain or seed. (Other similar systems can store large quantities of grain). Six steps for setting up a Super bag

1. Make sure that the grains or seeds are properly dried:
  - Dry grain to less than 14%
  - Dry seed to less than 12%
2. Place the super bag inside an existing type of storage bag (e.g., woven polypropylene or jute bags).
3. Fill the super bag with dried seed or grain.
4. Remove excess air. Close the opening by twisting the free plastic portion above the grain and fold it in two.
5. Tie off the twist with a strong rubber band or adhesive tape
6. Close the outer bag, taking care not to puncture the Super Bag.

## Make sure that you

- Don't overfill.
- Don't puncture or damage.
- Never carry the grain by holding on to the Super bag, always use the outer bag for carrying.
- Seal properly.
- Check after some days. If there are insects inside the bag it is not sealed properly. Check for leaks and reseal.



1. Place the Super bag as a liner inside an existing storage bag



2. Fill bag with dry grain or seed  
3. Remove excess air and twist



4. Fold plastic over and seal with either strong rubber bands or tape.