

IRRI Super Bag

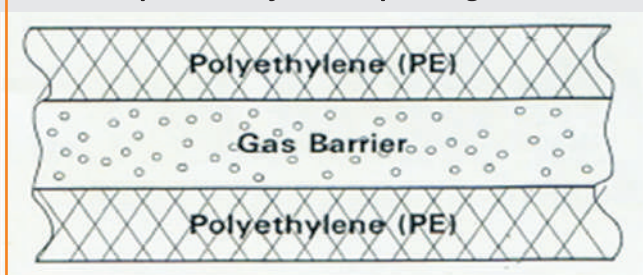


- The World Bank is the funding agency of APART
- Department of Agriculture, Govt. of Assam is the nodal department for APART
- ARIAS Society is the State level coordinating and monitoring agency for APART
- Assam Agricultural University is one of the implementing agencies of APART, imparting scientific support.
- International Rice Research Institute (IRRI) is the rice global leader providing technical support for paddy value chain in APART



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 grains of cereal & other crops to be safely stored for extended periods. Super bag is a food grade polyethylene of 60μ(micron) thickness with gas barrier coating. The Super bag fits as a liner inside existing storage bags (e.g., woven polypropylene or jute bags).

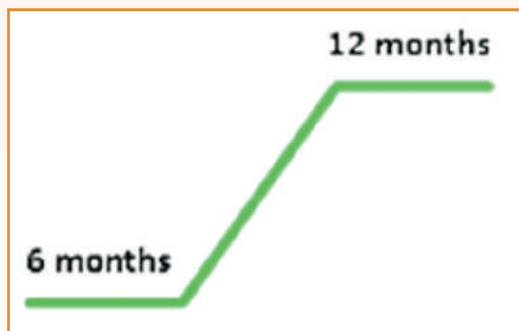
Components of IRRI Super bag Plastic



Importance of Super bag and its working principle

Super bag has the following benefits:

1. Extends the germination life of seed for planting from 6 to 12 months.



2. Controls storage grain pest (without using chemicals).
3. Improves the head rice recovery of stored grain 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 grains and insects inside the bag reduces oxygen level from 21% to 5% and it helps to bring down the number of insects to 1 insect/kg of grain 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, so head rice recovery becomes higher.

How to use a Super bag?

The super bag is designed to store up to around 50 kg of grain or seed. The steps for setting up a Super bag are -

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 storage bag that farmer generally uses (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 and fold it.
5. Tie the bag with a strong rubber band or by adhesive tape.
6. Close the outer bag. Make sure that the Super bag does not puncture.

Precautions to be taken

- Don't over fill.
- 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 it is not sealed properly, there may be insects inside the bag. Check for leaks and reseal if found.

