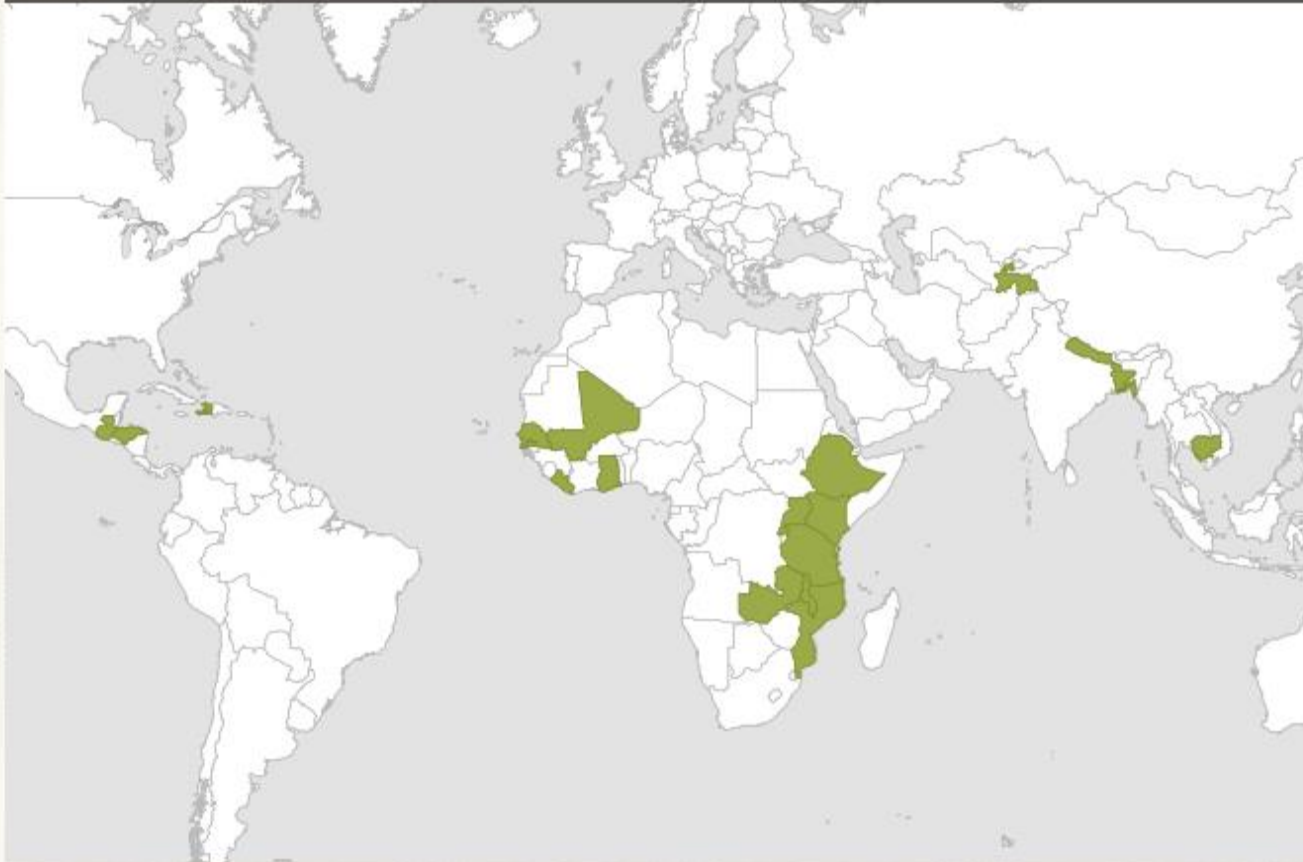


Feed the Future Innovation Lab for the Reduction of Post-Harvest Loss

FILTER BY

COMMODITY

ALL COUNTRIES



- More than 800 M people across the globe go to bed hungry every night
- World population is expected to reach 9 B by 2050
- Agricultural production will need to increase by 60%

Grab Samples from 2 Locations





Grain Storage Technologies -- Tanzania





Paddy Storage Technologies -- Bangladesh

Study of traditional and hermetic storage technologies (PICS bags, GrainPro) and dissemination of appropriate storage technologies at farm households.



Paddy Storage Technologies -- Bangladesh

Traditional Storage Methods



Dole



Motka



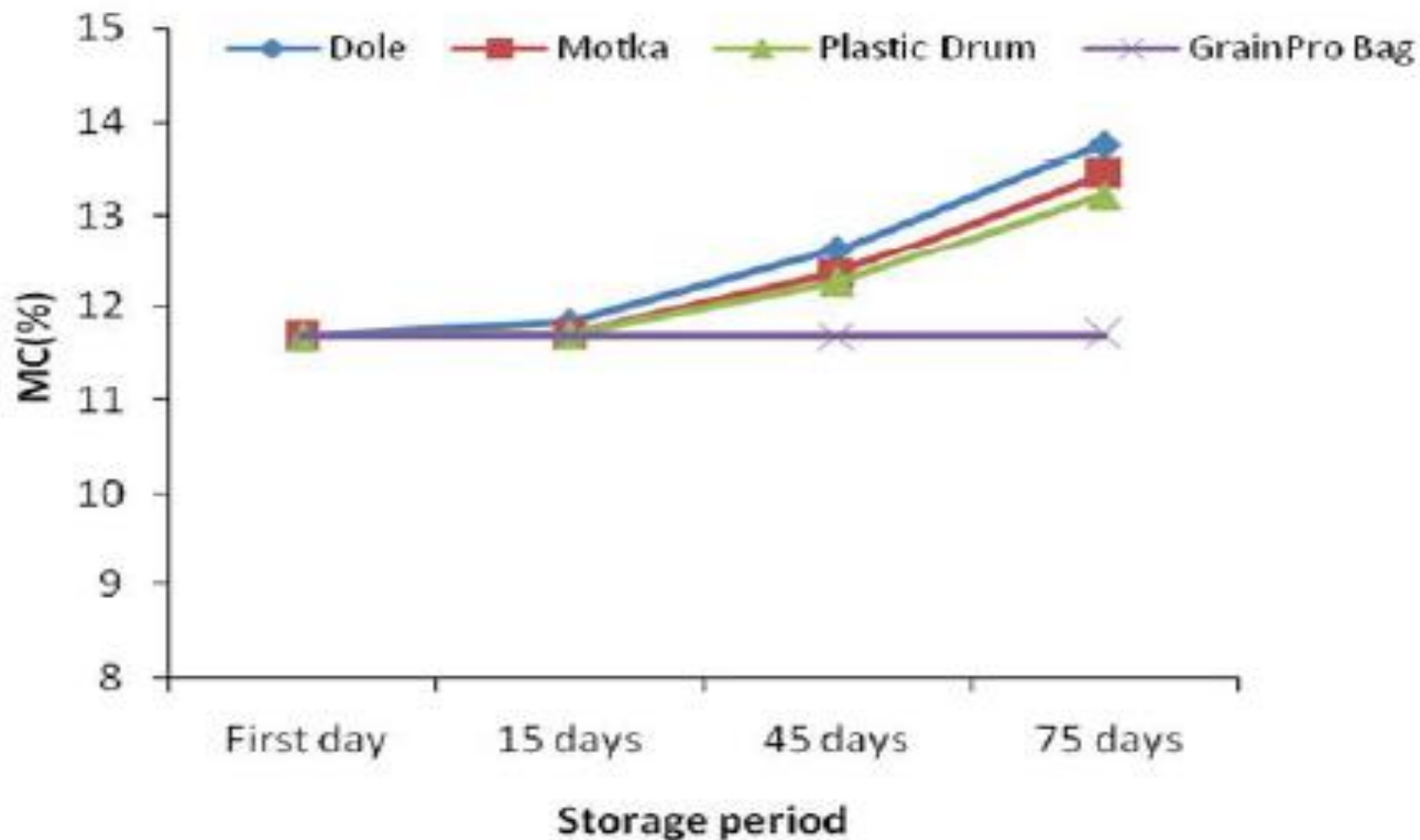
Plastic Drum



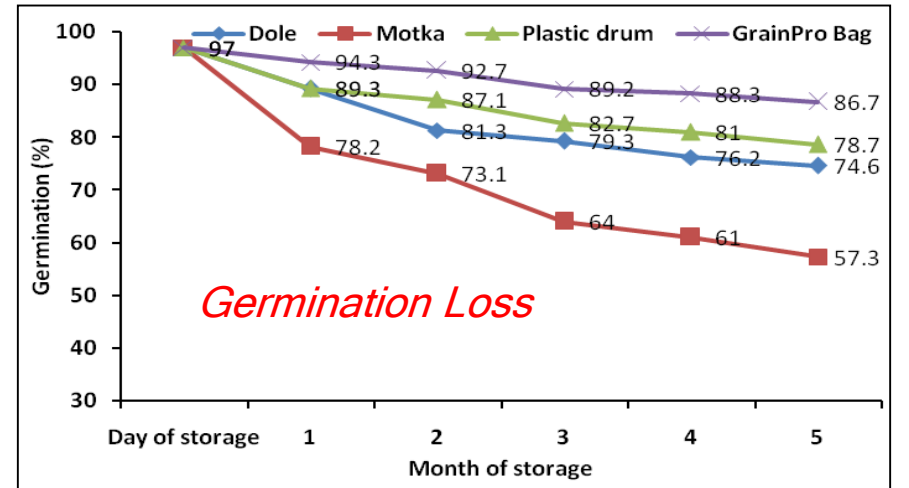
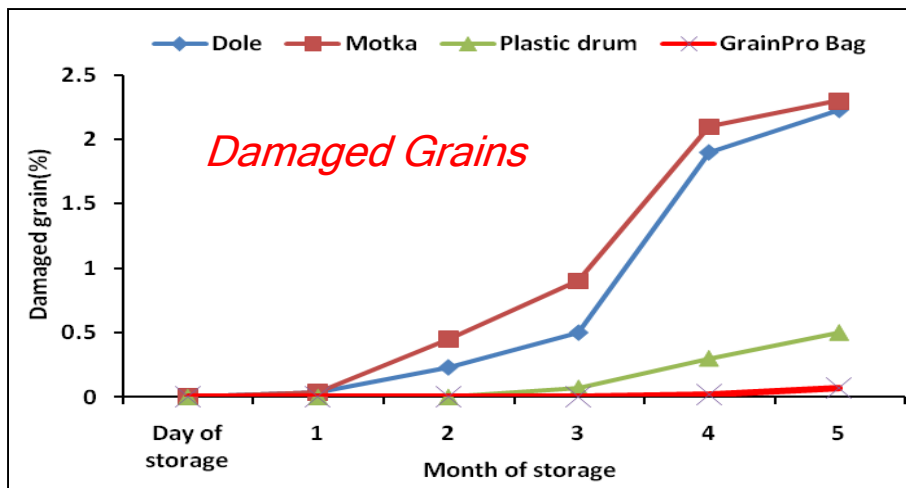
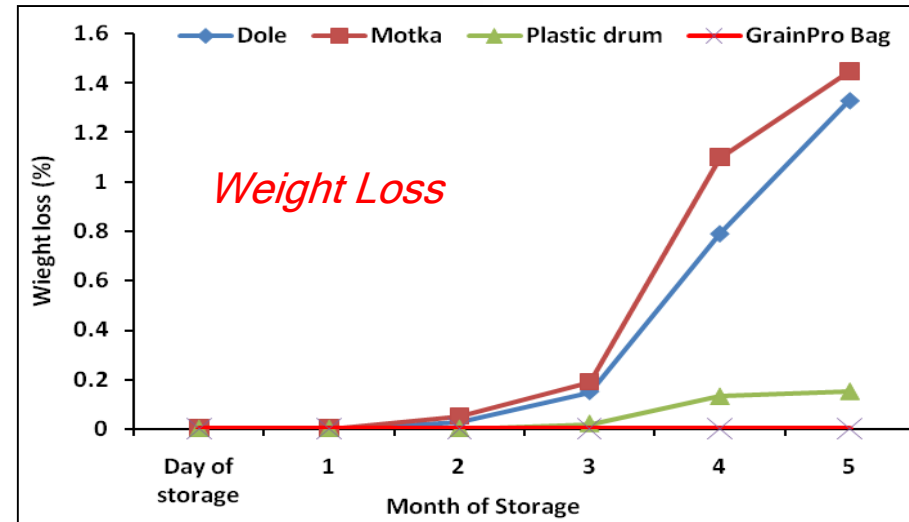
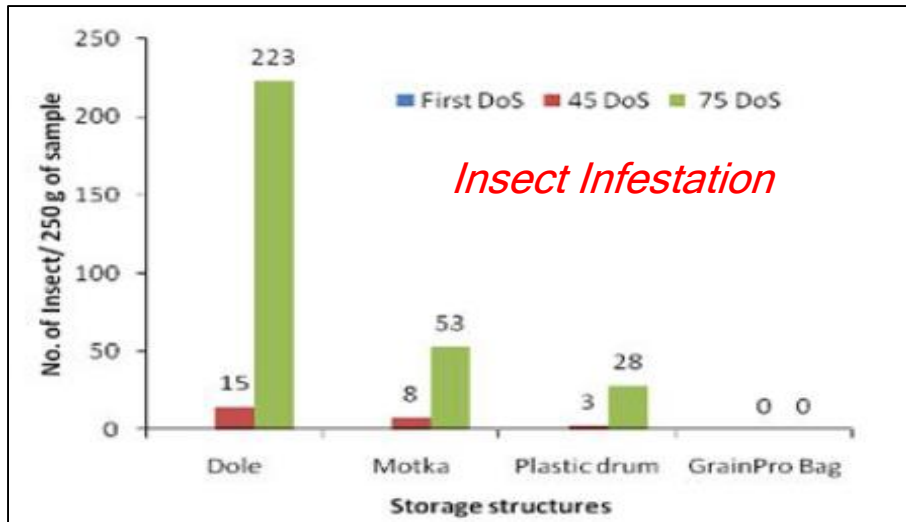
GrainPro Bags

- Dole is most commonly used storage container (47.6%).
- Plastic bags becoming popular among farmers due to low cost, light weight and availability.

Paddy Storage Technologies -- Bangladesh



Paddy Storage Technologies -- Bangladesh



Paddy Storage Technologies -- Bangladesh

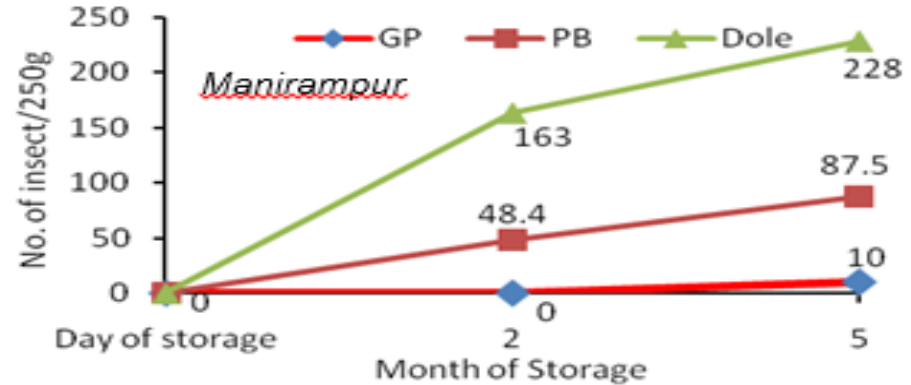
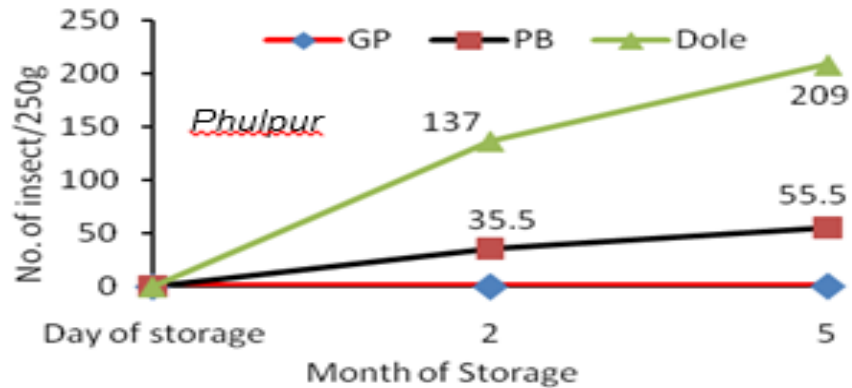


Fig. Insect infestation at different storage Technologies at farmers' level

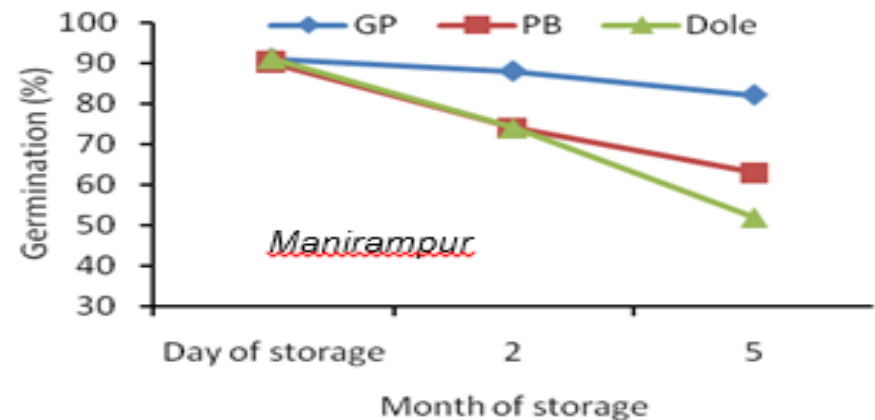
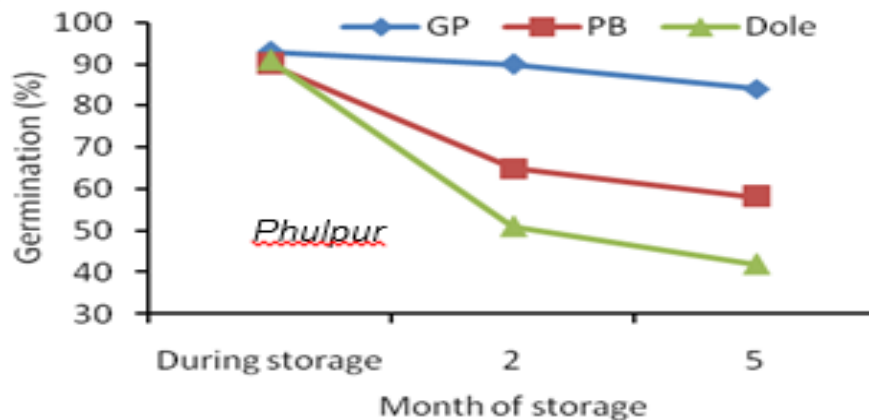


Fig. Germination (%) of stored paddy at different storage Technologies at farmers' level

Challenges

- **Damage by rodents is a big challenge**
- **Few insects can also puncture the bag and penetrate inside**
- **User training is necessary to properly seal the bags**
- **Availability and HIGH COST**



Damaged GrainPro bag at farmers household.

PICS triple layer poly bag



Paddy Storage Technologies -- Bangladesh

On Going and Future Activities

- Evaluation of financial parameters of identified storage technologies
- Options for manufacturing hermetic bags in country
- Scaling up of selected storage technologies during Boro season













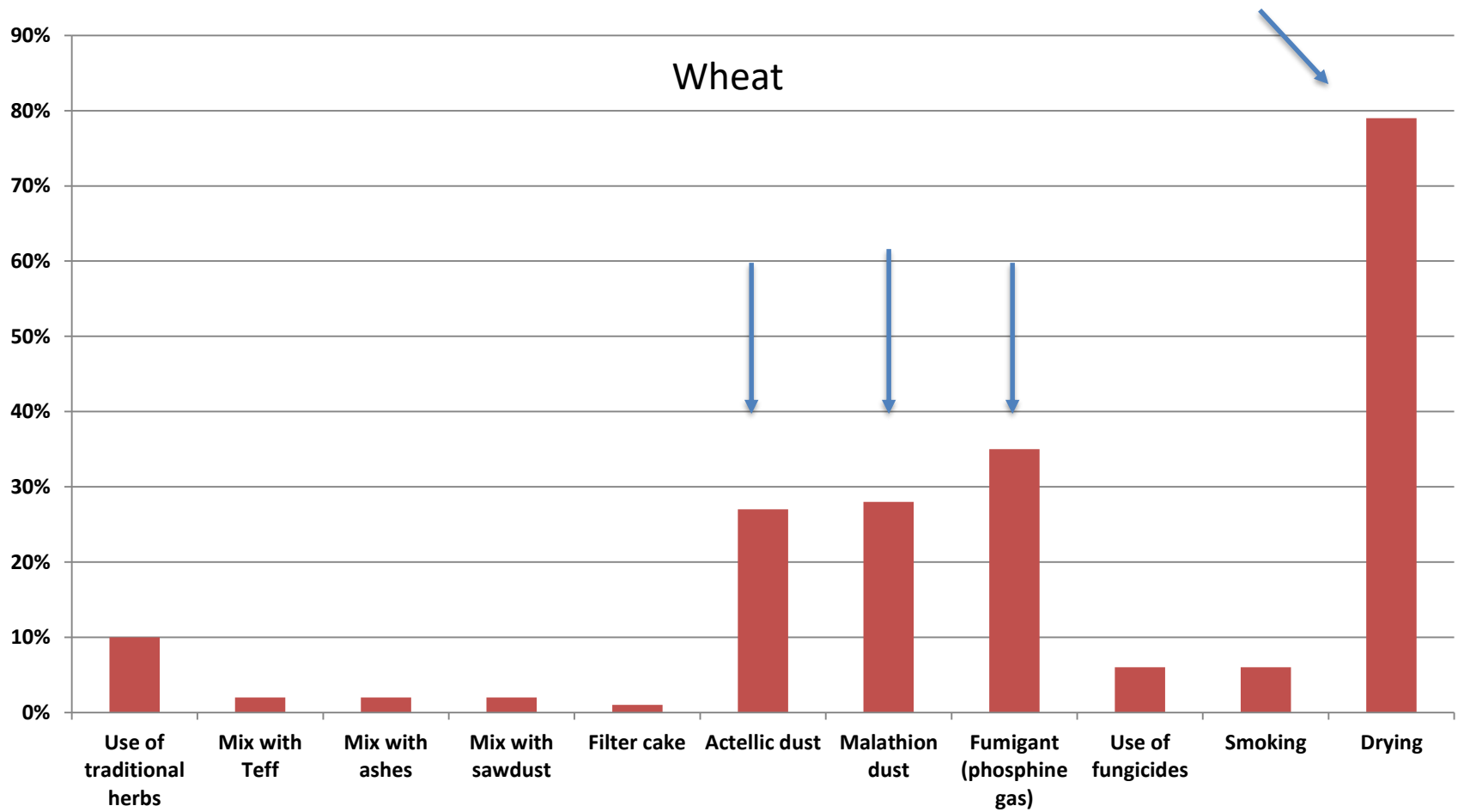




Gotera: outdoor grain storage



Control methods used in storage



Estimated postharvest losses in wheat

Harvest and postharvest stage	Wheat losses (%)*	n	Calculated estimates under two scenarios**	
			No rain at harvest	Rain at harvest
Harvesting	6.8	183	6.8	16.3
Threshing	3.5	178	3.5	3.5
Cleaning	2.1	175	----	----
Packaging/bagging	0.2	168	----	----
Transportation (farm to storage)	1.1	165	1.2	1.2
Farm Storage	2.7	180	2.7	2.7
Transportation (storage to market)	0.2	165	1	1
Market storage	0.1	166	2.7	2.7
Milling/Crushing/Grinding	0.4	172	-	-
Total	16.1		17.9	24.6

*Calculated by SPSS; **Calculated by APHLIS calculator.





Warehouse Storage

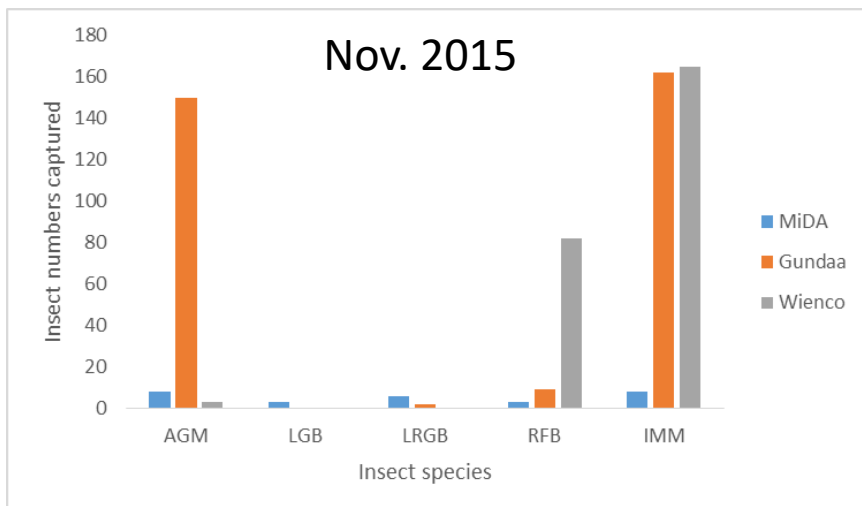
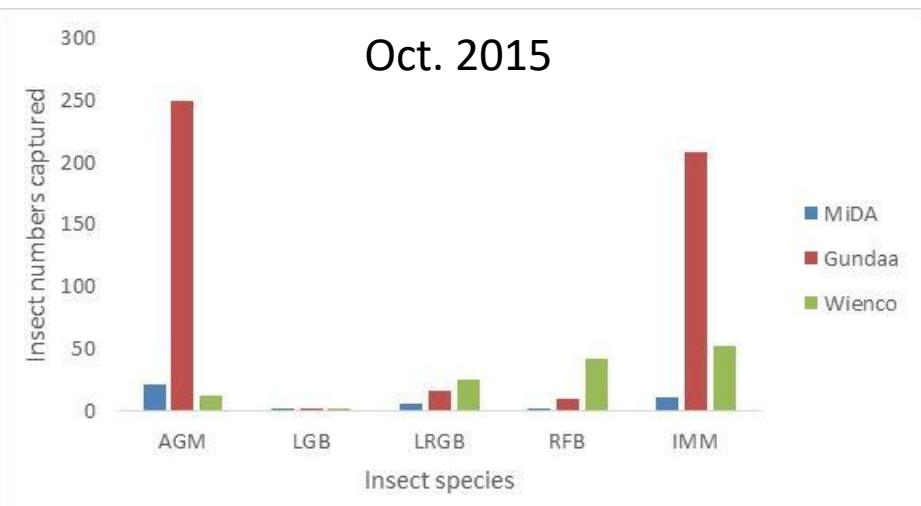


Gundaa warehouse in Tamale (500 MT).

Weinco warehouse in Tamale (3750 MT).

MIDI warehouses in Ejura (1500 MT).

Sticky and dome traps in warehouses



Monitor Warehouse Conditions



Measuring ambient temperature & relative humidity conditions during storage



Warehouse Storage



Warehouse Storage



Storage Tanks/Bins





PHL-IL/PENS SILOS

PHL-IL/PENS SILOS

PHL-IL SILOS