

## **Awareness on safe grain storage practices among rural women**

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### **Abstract**

*Women play an important role in sustaining and improving food security at global, national, community and household levels in various ways. Majority of women are involved in some agricultural activities and earning for their family among the food grains. Pulses are widely grown throughout the world and their dietary and economic importance is globally appreciated and recognized. The present study was conducted in Gonada district during 2012-13. Multistage random sampling technique was adopted for the study. Total 80 respondents were selected from the village namely Rasoolpur. The data were analyzed and tabulated according to statistically. Further, after studying safe grain storage, it was found that 48.75% women respondents engaged to their family forms. Whereas 22.50% women's were facing problems to lack of education.*

**Keywords:** Storage, Practices, food grains

### **Introduction**

The storage of food grains has been an age long practice with cultivators and traders. More pest-free storage is needed for handling crops at harvest time and to carry over reserves from year to year. Considerable losses both in quality and quantity of food grains take place in storage due to a number of factors. Organisms directly responsible for causing loss in stored products are insects, mites rodents, fungi and bacteria. Among them, insects and mites are the most important hazards to the safe storage of grains. The insects that attack stored grains are rather general feeders, but some of them prefer certain grains. It is estimated that 5-10 per cent of the stored grain is lost every year due to insect damage in India.

Pulses are playing an important role in Indian agriculture: Pulses are reported to be cultivated in about 158 countries (FAO Production Year Book).

Rani *et al.* (2013) safe storage guidelines are needed for all common grains at expected moisture contents and temperatures during storage. The present study aimed to investigate the effect of storage temperatures, seed moisture content and storage period on biochemical, microbial and physical changes in the Pinto beans at several moisture contents. The Pinto beans at higher moisture contents (16, 18 and 20 % w.b) must be due to lower levels 8, 5 and 3 weeks, respectively for prolong period storage.

Singh *et al.* (2012) cereals and pulses have great biological and nutritional value in human diet. The losses during growing crops and post harvest handling, processing, storage and distribution system vary between 20-60 per cent. Three major groups of storage enemies are fungi, insects and rodents, oils from plant origin are one of them, which have been found to possess insecticidal properties an advantage is that they are easy to apply.

### **Objective**

To study the knowledge and practices about the safe grain storage practices in pulses among rural women.

### **Materials and Methods**

To complete the above objective the research methodology employed and the study was conducted in Gonada district during 2012-2013. Multistage random sampling technique was adopted for the selection of respondents. Gonda district divided into many blocks, one block selected randomly and one block divided into various villages, from this one village was selected randomly. After this total 80 respondents were selected randomly for the present study. The collected data were subjected to statistical analysis for which statistical tools, percentage, weighted mean, correlation coefficient and chi-square test were used.

### **Results and Discussion**

It is evident from the Table 1 that the reference of pre-storage practices, 100.0 per cent of respondents doing the drying of grains before storage with mean score 2.00, whereas 97.50 per cent of women

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Table 1 Distribution of rural women according to pre-storage practices

S. No.	Categories	Yes	No	Mean score
1.	Drying of grains before storage	100.00	0.00	2.00
2.	Removal of moisture content	56.25	43.75	1.56
3.	Not storing old red gram with new red grams	40.00	60.00	1.40
4.	Using new bags	56.25	43.75	1.56
5.	Cleaning red gram before storage	87.50	12.50	1.88
6.	Removal of broken and infested grains stones and other forging bodies	81.25	18.75	1.81
7.	Protection of grain from insects-pests, rodents, birds.	97.50	2.50	1.98

Table 2 Distribution of respondents according to care required during storage

S. No.	Categories	Yes	No	Mean score
1.	Use of red dust to protect red gram from insect-pest	2.50	97.50	1.03
2.	Use of cow dung to avoid attach of insects	75.00	25.00	1.75
3.	Removal of damaged grains	1.25	98.75	1.01
4.	Drying in between storage	81.25	18.75	1.81
5.	Proper staking of bags	75.00	25.00	1.75
6.	Keeping bags away from the walls	87.50	12.50	1.88
7.	Treatments of red gram with insecticides in case of spoilage	85.00	15.00	1.85

Table 3: Distribution of respondents according to post storage practices

S. No.	Categories	Yes	No	Mean score
1.	Closing doors and windows in rainy season	100.0	0.00	2.00
2.	Cleaning and disinfecting bags after use	87.50	12.50	1.88
3.	Not using very old containers or torn bags	75.00	25.00	1.75

respondents were aware of protection of grain from insect-pests, rodents, birds with mean score 1.98, while 87.50 per cent of respondents do remove of broken and cleaning infested grain before storage of pulse grains with mean score 1.88. whereas 81.25% of women respondents protect the red gram from insects, birds and rodents with mean score 1.81. Remaining 56.25% respondents using new bags for the storing of red gram with mean score 1.56, and rest 56.25 per respondents were involved in removal of moisture content from red gram with mean 1.56 respectively.

#### Care required during storage

Table 2 shows that the majority of the respondents 87.50% were keeping bags away from the walls during storage practices with mean score 1.88, whereas 85.00 per cent of respondents were found to use insecticides in condition of spoilage of red gram with mean score 1.85, While 81.25% of respondents were found to do the drying of grains between storage with mean scores 1.81. 75.00 per cent of respondents belonged to proper staking of bags with mean score 1.75, whereas 75.00% of respondents were found to use cow dug to avoid attach of insects with mean scores

of 1.75. While 2.50% of respondents use red dust to protect the red gram with mean score of 1.03. A very small percentage of respondents 1.25 were found to removal of damaged grain with mean score 1.01.

#### Care required during storage

It is revealed from the Table 3 that 100% of respondents were aware about protection of red gram in rainy season. They closed the doors and windows in rainy season during post storage practices and have mean score 2.00. Whereas 87.50% of women respondents were doing cleaning and disinfecting bags after use with mean score 1.88, while one third of the respondents 75.00% of women have not using very old container or torn bags for storage of red gram with mean score 1.75.

#### References

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