BASIC CONCEPTS IN POST-HARVEST STORAGE TECHNOLOGY

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BASIC CONCEPTS IN POST-HARVEST STORAGE TECHNOLOGY

Harvesting of crops is seasonal, but consumption of the food grains is continuous

Necessary to store the produce for different periods for different reasons– marketing, home consumption…etc

Estimated post-harvest losses per annum is approximately 10%

A GRAIN SAVED IS A GRAIN PRODUCED

Essential to produce, preserve and market grains by retaining their quality and reducing losses

Grains are unique as they can withstand transport and have long – term storage capacity, thus retaining their quality

Grain storage is a man made ecological system in which a living organisms and their non-living environment interact with each other

When stored, the important factors to be considered are:

❖ **Temperature**

❖ **Moisture**

❖ **Oxygen**

❖ **Carbon dioxide concentration**

Important storage insect pests

❖ **Rice weevil – Make grains hollow by biting**

❖ **Flour beetle – infest milled products**

❖ **Saw tooth grain beetle – feeds on grain of rice and flour**

❖ **Rice moth - feeds on broken grains**

❖ **Pulse beetle – pulse grains almost hollow , not fit to consume**

Storage

❖ **A storage temperature greater than 15deg.centigrade is ideal for good storage**

❖ **Rate of respiration of grain increases with an increase in temperature**

❖ **Reduction in moisture is the key to longer shelf life of grain**

Remember before storage……

❖ **Dry and clean the grain to 10-13%moisture – bite a grain to test moisture content. Excess moisture will result in fungus infestation**

❖ **A hard, smooth and crack-free floor is good for drying**

❖ **Clean and disinfest the storage structure**

❖ **Remove broken grains from the whole grains**

**Seed quality does not improve in storage
i.e inferior quality seeds remain inferior……**

Good quality seeds are those which……

❖ **Germinate well**

❖ **Disease free**

❖ **Free from dirt and other plant materials**

DON'T WASTE FOOD GRAINS

BEHIND EVERY GRAIN ARE MANY

HOURS OF HARD WORK OF THE

FARMER