

What is a dryer?

A dryer is a mechanical device or machine that removes the water from wet grains by forcing either ambient air or heated air through the grain bulk.

Why is proper usage of a dryer important?

Any delay in drying of wet paddy leads to rapid deterioration of quality. A dryer that does not perform well or is not operated properly can cause several problems:

Extended drying time due to inefficient air delivery or low temperature
 Uneven drying of grains due to uneven airflow or very high temperature (batch dryers)
 High fuel consumption due to ineffective air distribution or very high airflow rate
 Low germination rate due to very high drying air temperatures
 High number of broken grains due to mixing of dry with wet grains or due to moisture gradient
 Fire hazard and danger of CO poisoning of operators from using unsafe burners

What is the proper way of drying?

For optimum drying, apply proper pre-drying management and operate the dryer according to the manual.

Before drying

- Prevent any delay in drying after harvest. If you cannot dry the paddy to the desired moisture content, at least pre-dry it to 18%, which is safe for temporary storage for up to 2 weeks.
- Clean the grains before drying to avoid uneven drying and wet spots.
- Do not mix grains with different moisture contents to avoid cracking.
- Read the operator's manual and familiarize yourself with the dryer operation.

Using the dryer

- * Load the dryer with wet paddy, considering the minimum load. Do not overload.
- * With very wet paddy or when paddy lots with different moisture contents are mixed, aerate or circulate the grains for 15-30 min before turning the heater on to reduce broken grains.
- * In a batch dryer with more than 30 cm grain depth, mix the grains at least once for more even drying.
- * Monitor grain temperature and moisture content to prevent excess temperature and over drying.
- * Dry paddy after harvest to 18% moisture content for storage up to 2 weeks.
- * Dry paddy for milling to 14% moisture content. Drying below 14% reduces weight and milling yield.

For 8-12-month storage, dry to 13% or less; for long-term storage exceeding 1 year, dry to 9%.



Safety precautions

- Always operate the dryer following the steps given in the manual.
- Check burners or furnaces regularly to prevent fire hazards and excess CO production. Always have a fire extinguisher at hand.
- Make sure that fuel cut-off valves that disconnect the fuel supply in case of power cuts are functioning.
- Ensure proper ventilation in the working area to prevent CO poisoning.

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