

Sun drying rice grains

Sun drying is a traditional method of drying paddy and as the sun hits the paddy it increases the rate of water evaporation sun drying requires little investment and is environmentally friendly.

Thermometers and moisture metres may be used to measure temperature and moisture of the grains respectively. Also sun drying has several benefits to mention it is cheap, environmentally friendly since it uses sun as the source of heat and does not cause pollution.

Drying process

Spread grains 2-4 cm high on drying surface in well aerated areas as you mix the grains every 30 minutes for faster drying of the panicles, however monitoring of grain temperatures and moisture content should be done well as covering paddy if temperatures are above 50 degree celsius to avoid over heating.

To add on that collect grains when it threatens to rains and at night to prevent moisture absorption and grain cracking this is followed by reducing water from outer grain layer to 18% to ease storage for 2 weeks before using another drying system to further slowly reduce moisture finally always keep animals off the grain and avoid drying on public roads as this might cause dirt in grains.

Sun drying limitations

It delays drying since it is not possible to dry during rain or at night leading to excessive respiration and fungal growth furthermore its also labour intensive and difficult to control temperature as over heating lowers the quality.

Methods of sun drying

Field drying; this is done by placing cut plants on ground or on racks however it is limited since at night grains can get wet, limited air circulation and drying hence low grain quality.

Panicle drying; this is done by placing tied bundles of panicles on mats, pavements or frames this is limited by slow drying of the panicles.

Nets or mats drying; this applies to small and medium farmers it is done by placing grains on nets and mats however it is limited by costs to buy nets and mats, pollution from the ground.

Pavement drying; applies to medium and large scale farming by placing grains on pavements however it is more labour intensive and contamination from stones and dirt.