

# **Radio Frequency Drying Kinetics of Paddy Grain**

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## **ABSTRACT**

The drying characteristics of a paddy grain (NLR 33 892) were studied using Radio Frequency Dryer (RFD). The drying chamber of the RFD consisted pair of electrodes of size 75 cm X 55 cm and a grain holding cell of 36 L X 25.5 W X 5.5 H, cm<sup>3</sup>. The cell was filled with grain for three levels of bed thickness (2, 3 and 4 cm) to study the drying and drying rate curves. The weight of the drying grain was recorded at every 1 min interval to calculate the moisture loss. The obtained data was plotted and analyzed for moisture loss and drying rate. It was observed that the drying curve followed the falling rate period for all the bed thickness experiments conducted in Radio Frequency drying. The longest time of drying 9 min was observed in the experiment where the grain bed thickness was 3 cm whereas the shortest time of drying 6 min was observed in the experiment where the grain bed thickness was 4 cm.

Key words: Drying curve, Drying rate, Radio Frequency drying, Paddy.