DIFFUSION MODEL OF PADDY DRYING BY FLUIDIZATION TECHNIQUE

The objective of this research was to develop diffusion model of paddy drying by fluidization technique using analytical solution equation that considers grain shape as a finite cylinder. Diffusion coefficient of paddy using four different models in form of Arrhenius equation was studied. The parameters in diffusion models were evaluated by regression analysis from experimental single kernel drying data. It was found that the predicted values using the model that gives Arrhenius factor in a function of moisture content could be improved for the entire drying period. Drying air temperature has greater effect on diffusion coefficient than moisture content.