

Title Drying characteristics of corn in fluidized bed dryer.
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Citation Drying Technology. Vol. 15, no. 5, pp. 1603-1615. 1997.
Keywords corn; drying; fluidized bed

Abstract

A batch fluidized bed dryer was carried out for corn drying. Drying characteristics of corn were investigated. The experimental results indicated that moisture transfer inside a corn kernel was controlled by internal diffusion by the following conditions: inlet hot air temperatures of 120 - 200 degree C, superficial air velocities of 2.2- 4 m/s, bed depths of 4 - 12 cm, fraction of air recycled of 0.5 -0.9 and initial moisture content of corn of 43% dry-basis. The Wang and Sing equation could describe in accordance with the results. Inlet hot air temperature and specific air flow rate were independent variables for drying constant model in the Wang and Singh equation.