

**Title** Effects of heating media and operating conditions on drying kinetics and quality of germinated brown rice

**Author** Naruebodee Srisang, Warunee Varanyanond, Somchart Soponronnarit and Somkiat Prachayawarakorn

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### **Abstract**

Drying of germinated brown rice (GBR) by hot air (HA) in a fluidized bed causes a large amount of fissured kernels. The superheated steam (SHS) drying technique may be an alternative method that can improve quality attributes, but it may affect the other qualities of GBR. The effects of drying media and drying temperatures on the drying kinetics and quality of GBR, i.e. kernel fissuring, glycemic index, textural properties,  $\gamma$ -aminobutyric acid (GABA) content and microorganisms were therefore investigated. The experimental results show that the heating media and drying temperature affected the drying rate and some quality attributes of GBR. The number of fissured kernels was significantly lower in SHS than in HA drying. The drying media and drying temperature did not significantly affect the GABA content and textural properties of cooked GBR, except at 130 °C for HA drying, but affected the glycemic index. After drying with SHS or HA, the number of microorganisms was in the range of acceptable level for food safety.