Tray drying of button mushroom (*Agricus bisporus*)

AMIT SAKHARAM PATIL AND A.B. KUBDE

**ABSTRACT**

Dehydration of button mushrooms (*Agricus bisporus*) were carried out with various pretreatments like blanching, soaking in different combination of sodium metabisulphite, potassium metabisulphite, citric acid, sugar and sodium chloride in tray dryer. The dehydration experiments were carried out at different temperature of 40, 45, 50 and 55°C. The moisture loss data and drying characteristics such as drying rate, diffusivity, moisture ratio, during the drying process were determined. The qualities of dehydrated mushroom slices were evaluated on the basis of colour, appearance, rehydration ratio and veil opening by sensory evolution. The diffusion coefficient evaluated were $1.01 \times 10^{-8}$ m$^2$/s to $9.82 \times 10^{-9}$ m$^2$/s in tray dryer. The sample treated with combination of potassium metabisulphate, citric acid, sugar and NaCl at 55°C temperature were better accepted by consumer panel. The minimum and maximum rehydration ratio found 1.84 to 2.1, respectively.

**Key words**: Drying, Mushroom, Pretreatments, Tray dryer, Diffusivity