

Some Studies on Drying Characteristics of Potato Slices

M Padma, K Kishan and Ch Sudhakar

College of Agricultural Engineering, Bapatla 522 101, Andhra Pradesh

ABSTRACT

The drying characteristic of potato slices were studied by using sun drying, solar drying, tray drying and microwave oven drying. Dried potato powder characteristics were studied. Drying is widely used in a variety of thermal energy applications. Generally, the term drying refers to the removal of a relatively small amount of moisture from solid or nearly solid material by evaporation. In order to improve the quality, the traditional sun drying technique should be replaced with industrial drying method such as hot air and solar drying. The moisture content of potato slices decreased from 87.81% (w.b). The time taken for drying the potato slices was 55 min in microwave oven drying, 4h in tray drying, 8h in solar drying and 14h in open sun drying. The microwave drying took very short period of time (55min) for complete drying of potato slices compared to the all other three methods. The potato slices dried in microwave oven have better colour followed by open sun drying, solar cabinet drying and tray drying. Comparing different driers, the solar dryer produced better quality having more quantity of total soluble solids; total carbohydrates, vitamin- C and reducing sugars.

Key words: *Microwave oven drying, Potato slices, Solar cabinet dryer, Sun drying, Tray drying.*