Significance and application of psychrometric chart in food processing: a review

ABSTRACT

The aims were to give a general review on the significance of psychrometric chart in food production and to discuss its applications in various food processing operations. For this purpose, the paper was written by bringing together information and findings from recent published articles as well as from some well-established food engineering textbooks, handbooks and university extensions. The review revealed that the psychrometric chart plays a vital role in the design, analyses and optimization of various food engineering systems and processing equipments. This review stressed the most common food processes where there is heat and moisture transfer between the food and the surrounding air. These processes are food drying, chilling, storage of grains and frozen storage of foods to draw the attention of industry in the overall understanding of the psychrometrics in food production and provide a positive insight to the literature of psychrometrics in those processes.

Keyword: Psychrometric chart; Food processing