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Subscription

Czech J. Food Sci.

Chayjan R.A., Esna-Ashari M.:

Effect of moisture content on thermodynamic characteristics of grape: mathematical and artificial neural network modelling

Czech J. Food Sci., 29 (2011): 250-259

Artificial neural networks (ANNs) and fou empirical mathematical models, namely Henderson, GAB, Halsey, and Oswin were used for the estimation of equilibrium moisture content (*EMC*) of th dried grape (black currant). The results showed that the *EMC* of the grape were more accurately predicted by ANN models than by the empirical models. Th heat and entropy of sorption of the grape have separately been predicted by two mathematical models as a function of EMC with desirable coefficient of determination ($R2 \approx 0.99$). At the EMC above 7% (d.b.), the heat and entropy of the grape sorption were smoothly

decreased, while they were the highest a
the moisture content of about 7% (d.b.).