Moisture Sorption Isotherm of Instan Corn Flour from Four Variety of Corn

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Abstract	Instantiation of flour was expected to affect the equilibrium moisture content which changes the nature of the product. Instant corn flour as raw material of semi-moist foods should be determined of its equilibrium moisture content using the curve of moisture sorption isotherm. Curves of moisture sorption isotherm plays an important role in food drying system, particularly for predicting the shelf life of foods that have low water content. The research was aimed to obtain moisture sorption isotherm curve of instant corn flour from the four varieties of maize, and predicted using the BET (Brunauer-Emmett-Teller) and GAB (Guggenheim-Anderson-deBoer). Results of the study showed that the moisture sorption isotherm curve of instant corn flour had the sigmoid form (typeII) for all of variety. In most water activities, the moisture sorption isotherm curve of the instant corn flour were relevant to GAB model. BET model was more appropriate to estimate the value of water monolayer (primary bound water) and primary bound water in the instant corn flour; and the value obtained were 3.300 to 3.690 percent; respectively.
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