**Studi Eksperimental dan Model Matematika Kinetika Proses Pengeringan Lapis Tipis Ubi Ungu** (*Experimental Study and Mathematical Model of the Kinetics of the Thin Layer Drying Process of Purple Sweet Potato)*

Ir. Didik Hermanuadi, M.T

**Farhan Rahmatullah**
***Study Program of Food Engineering Technology***
***Majoring of Agriculture Technology***
Program Studi Teknologi Rekayasa Pangan
Jurusan Teknologi Pertanian

## *ABSTRACT*

*Drying is the process of transferring or removing water content to inhibit spoilage, thereby extending shelf life. Thin-layer drying aims to reduce the moisture content of materials uniformly using air. This study aims to determine the most accurate mathematical model for the kinetics of the thin-layer drying process of purple sweet potatoes. The research was conducted using a tray dryer with four tray configurations. The observations will be tested against six drying kinetics models. The model selection is based on the analysis of the coefficient of determination (R2), sum of squared error (SSE), and root mean squared error (RMSE). The selected model for TR1 is the Modified Midili model, while for TR2, TR3, and TR4, the Lewis and Page models were selected the chosen one.*

***Keywords:*** *Drying kinetics, Mathematical models, Purple sweet potato*