

Title Development and validation of prediction model for O₂ and CO₂ concentration of fresh tropical vegetables under modified atmosphere packaging (MAP)

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Abstract

A mathematical model was developed to predict O₂ and CO₂ gaseous concentrations for fresh vegetables under modified atmosphere packaging (MAP). Mathematical models were developed by the assumption that the sides of the packing basin were permeable and the bottom was impermeable. Model verification was done by using the experimental data of red chili, carrot, and tomato. The models were generally significant enough to predict the gaseous conditions inside of the packaging for fresh vegetables under MAP.