

**FORECASTING OF CAYENNE PEPPER PRICES (*Capsicum frutescens L.*)
IN JEMBER REGENCY USING HOLT-WINTERS EXPONENTIAL
SMOOTHING METHOD**

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ABSTRACT

The price of cayenne pepper in Jember Regency has a sharp fluctuating pattern, which can affect the household shopping expenses for the community as well as the planting schedule of cayenne pepper in Jember Regency. This research is a descriptive quantitative study that aims to forecast the price and identify factors that influence the changes in cayenne pepper prices in Jember Regency. The methods used in this research are Holt-Winters Exponential Smoothing and simple regression. The forecasting calculation resulted in optimal parameter values with alpha (α) of 0.5, beta (β) of 0, and gamma (γ) of 0.22, and produced an MAPE value of 34%. The factors that influence changes in cayenne pepper prices in Jember Regency are the price of substitute materials (red chili) and rainfall.

Keywords: *cayenne pepper, Forecasting, Regression, Jember.*