## Research Paper



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## Estimation of onion production in India using structural time-series model

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**ABSTRACT :** A univariate structural time series model based on the traditional decomposition into trend, seasonal and irregular components is defined. Purpose of present paper is to discuss STM methodology utilized for modelling time-series data in the presence trend, seasonal and cyclic fluctuations. Structural time series models are formulated in such a way that their components are stochastic, *i.e.* they are regarded as being driven by random disturbances. A number of methods of computing maximum likelihood estimators are then considered. These include direct maximization of various times domain likelihood function. Once a model is estimated, its suitability can be assessed using goodness fit statistics and model used to predict for five leading years. In present study the model was developed for onion production, from the forecasting available. The results showed that forecastd area and production increased in the next five year.

Key Words : Structural time series model, Forecast, Kalman filter, Goodness of fit

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