Forecasting Wine Crops: an Application to the Herault's Department

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Abstract: In order to forecast the 2005 year crop, this paper compares three econometric technics to forecast the wine's crops in the Herault's department. We applied the three models to data from 1950 to 2004.

Firstly, the Box and Jenkins methodology improved by the unit root test with trend break is implemented.

Secondly, a regression model is applied with three climatic variables: the average temperature, the sunshine's duration, and the precipitation.

Then, we compare our results with those of prior works. We can notice the deterioration of the obtained forecast using the regression upon the climatic series.

Finally, a VAR model is applied in order to measure the impact of climatic conditions on wine crops. This methodology allows us to observe the reaction of the crops to shocks on each climatic variable. Thus, the current debate on climatic change is integrated in the forecasting of wine crops.