



## Seasonal pattern of prices of Banana (1970/2014) in the São Paulo State, BR.

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### INTRODUCTION

The banana crop is an extremely important activity for the Brazilian economy. In 2008, the data show, for the São Paulo State, a total area of 59,065 ha, of which 35,000 ha are concentrated in the Vale do Ribeira Region (SP, Brazil) where its main economic activity is banana crops. Seasonal price studies patterns are useful as they allow us to understand the trend of prices of a particular culture over time.

### MATERIAL AND METHODS

The present study aimed analyzes the seasonal pattern of prices for banana cultivars "Nanica" (Musa sp.) marketed in the São Paulo State. Information on the time series were obtained from the Agricultural Economics Research Institute covering the period 1970 to 2014, with the corrected data of the general price index based at April 2014. A series of price was decomposed with the objective to eliminate systematic and random variations movements, based on the analysis using moving average, and with the seasonal rates tested by Kruskal-Wallis statistics. The results showed two distinct phases throughout the series.

### RESULTS

The results showed two distinct phases throughout the series. The first phase, between 1970 and 1994, in which prices exhibit a strong seasonal pattern (p-value <0.001). In this phase, the seasonal indices have amplitude of approximately 24.2% between the periods of lowest and highest prices corresponding respectively July and December. The second period, beginning in 1994, has an abrupt change in pattern, with prices failing to present a pattern of seasonality (p-value 0.289).

### CONCLUSION

**The causes for the lack of seasonal pattern after 1994 are related to increased product offering from several regions of Brazil, which contribute to maintain adequate supply of this product to your demand. In this case, the use of agricultural techniques aimed at using seasonal variations as productive advantages are no longer effective.**

