Thermal and pluviometric indicators of climate change in Anguil: trends of the period 1961-2016 Belmonte, M.L.

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Summary

During the last decades, climatic changes have been observed in South America, with more frequent extreme events, increase of warm nights and decrease of cold nights. In the central Argentine region the days with frost diminished and the precipitation tends to increase. The objective of this work was to analyze annual and seasonal temperature and precipitation trends, based on climate change indexes proposed by the World Meteorological Organization, using daily data from Anguil in the central region of Argentina. In the period evaluated (1961/2016), there were positive annual trends in the number of warm and tropical nights, hot periods, minimum daily temperature, days with more intense rainfall and amount of annual precipitation. Negative trends were found in number of days with frost and cold nights, in daily thermal amplitude, and in number of consecutive dry days. Characteristics that have been attributed to climate change, such as temperature increase, changes in precipitation behavior and increase in extreme events, have been found in this work. Analyzes with longer time series should be continued. Further work should assess how these changes have a positive or negative impact on the crop cycle in the region.

Key words: temperature, precipitation, extreme events