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كل الحقوق محفوظة للمدرسة الوطنية العليا للري.

**Abstract:** The decrease in rainfall and the decrease in rainy days are also accompanied by a poor distribution of rainfall especially during the period of growth of the rain crops which usually extends from October to May. The Cheliff is under the influence of a semi-arid climate with precipitation that ranges from about 600 mm year<sup>-1</sup> to the northeast and 300 mm year<sup>-1</sup> to the west and south of the basin. The daily rainfall data used in this study concern eleven stations covering varying periods representative of different rainfall regimes in the Cheliff basin. The results obtained showed that the monthly dry sequences encountered during the rainy season decrease when the number of dry days increases, and the maximum values have been observed for the number of 1 to 7 consecutive dry days and the values were observed for a number greater than or equal to 21 consecutive dry days. It is important to say that the month of February recorded the lowest value of consecutive dry days for all stations. Also, the western stations of the study area display the largest values of the lengths of the dry sequences. Most of the stations are more correlated with the MO and AMO climatic indices than the other indices. These are the stations located west of the study area that are strongly correlated with AMO. It also appears that the total number of dry days of the stations located west of the study area is negatively correlated with SOI.

**Key words:** Drought ; Climate change ; Cheliff ; Sequences ; Climatic indices ; Correlation ; Algeria

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