USE OF PROBABILITY DISTRIBUTIONS IN THE MODELING OF DROUGHTS INTENSITY OCCURRED IN LARANJEIRAS DO SUL, PR

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- *ABSTRACT: Droughts are recurring natural phenomena that affect much of the planet, causing negative impacts on various branches of agriculture, industrial and urban, reflecting directly on the quality of life. Thus, different models have been proposed in an attempt to better understand and predict this phenomenon. In this study, it was evaluated the potential of exponential, gamma, log-normal, Pareto and Weibull distributions modeling of the intensity of droughts in Laranjeiras do Sul in Paraná state. Droughts data referring to a series of 30 years. Adherence to the estimated probabilities of observed frequencies was verified by means of Kolmogorov-Sminorv test. Except for the Pareto distribution, all distributions analyzed were adherent. However, the results indicated that the gamma model was adjusted more adequately to the observed data.*

- *KEYWORDS: Akaike information criterion; exponential distribution; Gamma distribution; lognormal distribution; Weibull distribution; standardized precipitation index.*

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