

PROBABILITY AND TEMPORAL VARIATION OF REFERENCE EVAPOTRANSPIRATION IN TELÊMACO BORBA – PR

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- *ABSTRACT: The aim of this study was to determine the parameters of statistical probability density functions (pdf's) Normal, Gamma, Exponential, Triangular and Uniform adjusted to decennial observed values of reference evapotranspiration (ET_o), determine their values of being equaled or exceeded at 25% of probability, with the best fit pdf and decompose the serie of ET_o for Telêmaco Borba, Parana State. To check the adjustment of the pdf's to data Kolmogorov-Smirnov test was applied at 5% of probability. The time serie was decomposed to obtain trend (T), cyclicity (C), seasonality (S) and irregularity (I). Were used the methods of moving averages, reason for moving average and removal of trend component for obtaining the T, S, C and I, respectively. The Normal pdf showed predominantly the best fit for decennial ET_o and the other pdf's used were important to enable the achievement of probable values for all ten-days periods of the year. The series of ET_o showed no significant T increase or decrease over the year, but was influenced by S, C and I. The S exerted great influence on ET_o.*
- *KEYWORDS: Probability density functions; water relations; time series.*

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