

# **IMPACT OF CLIMATE CHANGE ON IRRIGATION REQUIREMENTS FOR TWO CROPS AND RUN OFF EFFECTS IN CONCORDIA, ENTRE RÍOS, ARGENTINA**

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## **ABSTRACT**

The effects of climate change since 1.967, were analyzed, for Concordia, Entre Ríos, Argentina. Evapotranspiration was calculated monthly with Hargreaves-Samani equation, effective precipitation with the USDA-SCS method, and crop evapotranspiration for citrus and blueberries, with FAO criteria under drip irrigation systems. An increase in medium, maximum, minimum temperature and monthly temperature were observed. In the case of precipitations and increase in medium values and standard deviation occurred during the period, water effectiveness were lower for both crops, due the torrential characteristics of events in the last years, generating bigger water irrigation requirements. On the other hand, run off effects must be observed and its effect prevent, to avoid environmental not desirable effects. Invest in irrigation facilities and equipments should consider greater irrigation requirements in some periods.

**PALAVRA-CHAVE:** water requeriments, climate change, evapotranspiration, runoff, citrus, blueberries