



## EVALUATION OF WEATHER PARAMETERS ON MAIZE PRODUCTION IN OUINHI, SOU- THERN BENIN REPUBLIC

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### OBJECTIVE

The purpose of this study is to improve maize production by providing information on the influence of weather parameters on the performance of maize production in Ouinhi ( Benin).

### DATA ANALYSIS

- Weather and yield data were subject to analyse in Microsoft Excel 2013 for regression analysis
- Growth and yield data were subject to Genstat Discovery Edition 4 software .

### RESULTS

- The most variable weather parameters are: solar radiation, Annual ETp and rainfall
- There is no significant difference between varieties across sites for the measured parameters
- The increase in annual rainfall amount also trends to an increase in maize yield .

### MATERIALS AND METHODS

**Experimental design:** RCBD

**Site:** Two sites (Holi and Ahicon)

**Maize varieties:** 2000 SYN EE W and TZEE POP STR QPM W) collected from IITA- Benin

**Soil analysis:** Determination of Available P; Total N; K ; Ca ; Mg ; Na ; Soil pH ; Organic carbon and particle size

**Data collected from institutions:** Weather data and yield data over the last thirty years (1989-2018)

**Data collected during the field experiment:** Growth data and yield data

### CONCLUSIONS

- Weather parameters play a unique role in the growth, development and yield of maize.
- Results will help farmers and other stakeholders to have an understanding on the relationship between weather parameters and maize yield so as to adjust their managements and hence to increase yield and income.