**AGRO-METEOROLOGICAL PARAMETERS AND ITS SIGNIFICANCE IN INFLUENCING AGRICULTURAL ACTIVITIES IN KEBBI STATE.**

**Yahaya M. N1, Samaila B2 & Mahmud B3.**

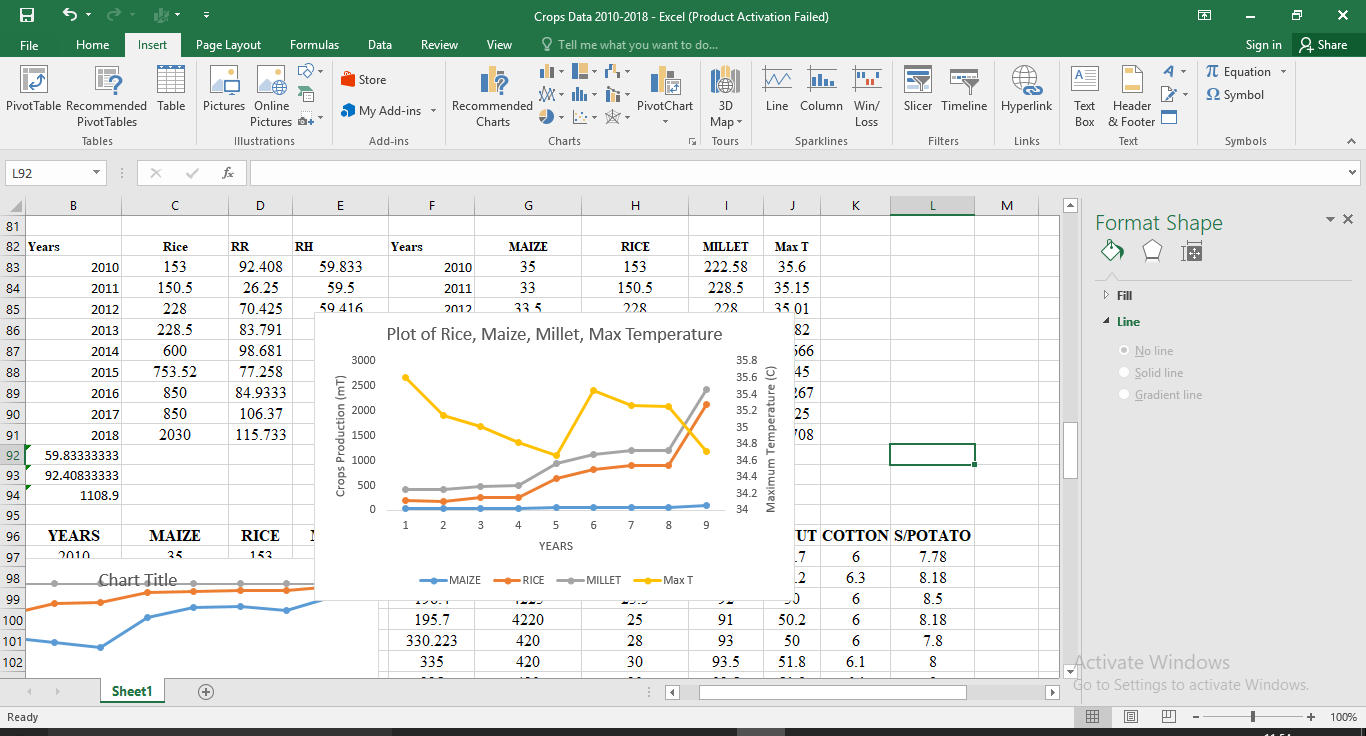
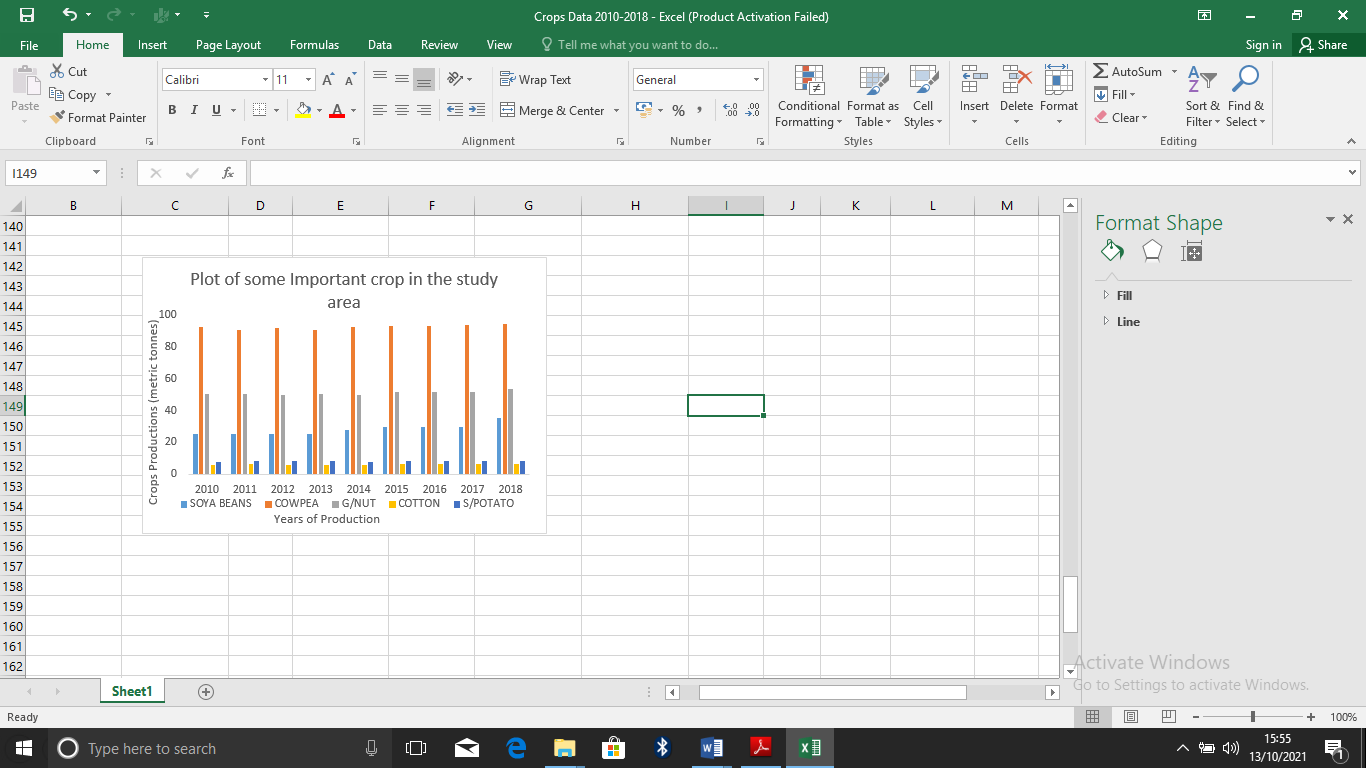
1,2&3Department of Physics with Electronics Federal University Birnin Kebbi, Kebbi State.

1Corresponding author**:** [mnaziru.yahaya@fubk.edu.ng](mailto:mnaziru.yahaya@fubk.edu.ng)., contact**:** +2348135499471

**1.0 Introduction**

Agro-Meteorological variables gathered and analyses gives accounts for fluctuations in such parameters, however analysis of such parameters, would help to get better yield and quality of agricultural products and also in predicting the future evolutions of a regions. The main objective of this study is to evaluate the significance of meteorological parameters in the implementation of agricultural activities in the state. Meteorological data used was collected for the periods nine (09) years spanning from 2010-2018, and the production data of important crops in the state were obtained from the Kebbi state Ministry of Agriculture and rural development. The effect of each parameter on productivity of the selected crops was studied using statistical tools. The approach used in this study is mainly analytical and statistical. Two level of significant test at 1% (0.01) and 5% (0.05) were selected. The wheat and rice production in Kebbi state was found to be increasing with time and it indicates a linear correlation with positive mean all over the years. With the positive temperature correlation of 0.59, this shows that temperature is a determining factor in crops production. Climatic parameters as the independent variable while production data as the dependent variable. Wheat, Rice, maize and millet are major and leading crops in the study area. The study reveals that among all the meteorological parameters, temperature, precipitation (rainfall) and relative humidity greatly influences the production of crops being produces in Kebbi State, the study and analysing of this seasonal or annual variation of this variable can gives an idea about climatic conditions in the future [4]. The Intergovernmental Panel on Climate Change, IPCC’s Fourth Assessment Report summary for Africa describes a trend of warming at a rate faster than the global average, and increasing aridity in many countries. Climate change exerts multiple stresses on the biophysical as well as the social and institutional environments that underpin agricultural production [1]. According to [2], the patterns of impact of climate change on agriculture can be classified into biophysical and socio-economic impact. Corroborating this submission [3] opined that grain yields have remained stagnant in Africa because of high temporal variability and inconsistency in rainfall pattern which is evident in 2012 when many, maize, rice, yam and cassava farms were flooded.

**2.0 Results**



Plot of some specific crops Plot of Rice, Maize, Millet & Max. Temperature

The effect of variations in the meteorological parameters in the production of some important crops in the study area is examined. Kebbi State being a region of high temperature, low rainfall, relative humidity become one of the important factors affecting the growth and yield of various crops.

**3.0 References**

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[3]D Love, U Stefan, Gerald C. P Steve, & T. P. van der Zaag (2010). *Hydrological Sciences Journal* 55(5), 687-703

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