

THE EFFECTS OF TEMPERATURE AND RAINFALL BY CLIMATE CHANGE TO ANNUAL CROP STRUCTURES IN VAN NINH DISTRICT, KHANH HOA PROVINCE

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Summary

In the context of climate change, the average temperature in Van Ninh district tends to increase, the rainfall in the dry season tends to decrease and the increase in rainfall in the rainy season leads to extreme phenomena such as drought, water shortage, saline water intrusion in the dry season and floods in the rainy season. The objective of this study is to identify the strengths and problems of each current annual crop structures to measure risks, or to consider in the production process. The result showed that the climatic conditions in the production area are suitable for the ecological requirements about the climate aspect of rice, peanuts, sesame, beans, maize and vegetables in the whole winter-spring, summer-autumn, autumn-winter, summer-spring crops. Also, in the context of climate change, the rainfall distribution in the summer months (from June to August) increases, so it is convenient for subsidiary crops cultivation in the summer-autumn crop on soils without irrigation. However, it also identified a number of weaknesses such as the autumn-winter rice crop of the structures that are at risk of crop failure due to floods at the present time as well as the forecast to 2030 due to climate change; regarding the structure of subsidiary crops, there is also the risk of depletion of coastal sandy soil and groundwater resources in the spring-summer and summer-autumn crops because the use of underground water to irrigate crops.

Keywords: *Annual crop, crop structures, climate change, temperature, rainfall.*