

CARACTERIZAÇÃO DOS RISCOS CLIMÁTICOS PARA A CULTURA DO MILHO NO ESTADO DE SERGIPE.

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RESUMO: O milho (*Zea mays* L.) é considerado a mais importante planta comercial com origem nas Américas. A produtividade do milho na região Nordeste tem aumentado devido à importância econômica desse cereal e de programas de melhoramento de variedades. No entanto, ainda não atende a demanda do estado e em geral é cultivado com baixa tecnologia. Neste trabalho o zoneamento de risco climático foi efetuado em duas etapas: i) cálculo dos balanços hídricos diários, usando o programa computacional SARAZON; ii) espacialização dos ISNAs utilizando o programa computacional SPRING, v.4.3.2. Os dados de entrada do balanço hídrico (BH) foram: precipitação pluvial, evapotranspiração potencial diária e capacidade de água disponível no solo (CAD). A partir do BH foram estimados a ETR e o ISNA (ETr/Etm). Os riscos climáticos foram estabelecidos a partir da frequência ocorrência dos valores de ISNAs considerando os seguintes critérios: i) $ISNA > 0,55$ – baixo risco ; ii) $0,45 < ISNA < 0,55$ – moderado risco; iii) $ISNA < 0,45$ – alto risco. As datas favoráveis à semeadura do milho foram aquelas em que o ISNA foi superior a 0,55 na fase crítica da cultura para uma frequência de ocorrência de 80%. Concluiu-se que as áreas no estado com menor risco climático para a cultura do milho varia de acordo com disponibilidade hídrica do local, o tipo de cultivar, tipo de solo e época de semeadura.

PALAVRAS-CHAVE: Milho (*Zea mays* L.), Zoneamento de Risco Climático, Sergipe.

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CHARACTERIZATION OF CLIMATIC RISKS MAIZE FOR THE CULTURE OF THE STATE OF SERGIPE.

ABSTRACT: The maize (*Zea mays* L.) is considered the most important commercial plant with origin in the Americas. The productivity of maize in the Northeast has increased due to the economic importance of this cereal and programmes for the improvement of varieties. However, still does not meet the demand of the state and is often grown with low technology. In this work the zoning of risk climate was conducted in two stages: i) calculation of water balances daily, using the computer program SARAZON ii) spatialization of ISNAs using the computer program SPRING, v.4.3.2. The data input of the water balance (BH) were: rainfall, potential evapotranspiration and daily capacity of available water in the soil (CAD). From BH were estimated to ETR and ISNA (ETr / Etm). The climatic risks were established from the frequent occurrence of the values of ISNAs considering the following criterion: i) $ISNA > 0,55$ - low risk; ii) $0,45 < ISNA < 0,55$ - moderate risk; iii) $ISNA < 0,45$ - high risk. The dates favorable to sowing maize were those in which the ISNA was over 0,55 in the critical phase of the crop to a frequency of occurrence of 80%. It was concluded that the areas in the state with less risk climate for the cultivation of corn varies according to water availability of the site, type cultivar, type of soil and sowing date. maize (*Zea mays* L.) is considered the most important commercial plant with origin in the Americas. The productivity of maize in the Northeast has increased due to the economic importance of this cereal and programmes for the improvement of varieties. However, still does not meet the demand of the state and is often grown with low technology. In this work the zoning of risk climate was conducted in two stages: i) calculation of water balances daily, using the computer program SARAZON ii) spatialization of ISNAs using the computer program SPRING, v.4.3.2. The data input of the water balance (BH) were: rainfall, potential evapotranspiration and daily capacity of available water in the soil (CAD). From BH were estimated to ETR and ISNA (ETr / Etm). The climatic risks were established from the frequent occurrence of the values of ISNAs considering the following criteria: i) $ISNA > 0.55$ - low risk; ii) $0,45 < ISNA < 0,55$ - moderate risk; iii) $ISNA < 0,45$ - high risk. The dates favorable to sowing maize were those in which ISNA was over 0.55 in the critical phase of the crop to a frequency of occurrence of 80%. It was concluded that the areas in the state with less risk climate for the corn crop varies with the type of cultivar, type of soil and sowing date.

KEYWORDS: Maize (*Zea Mays* L.), Zoning of risk climate, Sergipe.