

DEDICATION

To my great love mother

To my dear father

members To my brother , sisters and all my family

To my friends, and all who hepeal

Acknowledgement

I am most grateful to Allah to have been give me to complete this work. I wish to express my deep thanks to my supervisor

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Abstract

This study was designed to determine the effect of fertilizer types and microdosing on the growth and yield component of chickpeas

The experiment was conducted at the Demonstration Farm of the Faculty of Agricultural Sciences, Sudan University of Science and Technology, Sudan, shambat, During the winter season 2018/2019.

The applied experimental method was a split plot in complete randomized block design with four replications. The main plot

composed of three types of fertilizers (mono ammonium phosphate, NPK and superphosphate). Sub-plots consist of five doses (0, 1, 2, 3, 4g) of each of the three fertilizer types. Growth parameters included plant height, plant leaves, fresh weight, dry weight, 100 grains weight, yield per plant, and yield per hectare.

In this study, the general trend was that growth increases with the amount of fertilizer. Plant height, fresh weight, dry weight, yield per plant, yield per hectare were non significant, plant height and weight of 100 seed. Were significant in general, the results showed that there were non significant differences in the growth and production parameters between the types of fertilizers and doses.

المستخلص

تم التخطيط لهذه الدراسة لتحديد تأثير أنواع الأسمدة والجرعات الصغيره على نمو و مكونات إنتاجية الحمص. أجريت التجربة في مزرعة العرض التوضيحي لكلية العلوم الزراعية ، جامعة السودان للعلوم والتكنولوجيا ، السودان ، شمبات ,خلال موسم شتاء 2018/2019 كانت الطريقة التجريبية المطبقة عبارة عن تجربة عامليه مجزأة على أربع نسخ متماثلة .المعاملة الرئيسية تتألف من ثلاثة أنواع من الأسمدة(أحادية آمونيا الفوسفات MAP ، NPK وسوبر فوسفات) تتألف المعاملات الفرعية من خمس جرعات (0 ، 1 ، 2 ، 3 ، 4 جرام)من كل نوع من أنواع المركبات الثلاثة .شملت معاملات النمو التي تم بحثها ارتفاع النبات ، وأوراق النبات ، والوزن الرطب ، والوزن الجاف ، ووزن 100 حبة ،إنتاجية كل نبات ، وإنتاجية كل هكتار .في هذه الدراسة أوضحت النتائج التحليل أن الزيادة في كمية الأسمدة لم تؤثر بشكل كبير على ارتفاع النبات ، الوزن الرطب ، الوزن الجاف ، أنتاجية للنبات ، إنتاجية لكل هكتار كما أوضحت النتائج فورقات بسيطة في طول النبات ، ووزن 100 حبة وبشكل عام ، أظهرت النتائج عدم وجود فورقات ذات دلالة إحصائية في معايير النمو والإنتاج بين أنواع الأسمدة والجرعات.

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كلية الدراسات العليا

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Effect Of Fertilizer Types And Microdosing On Growth And Yield

Components Of Chickpea(*Cicer Arietinum L*).

تأثير الأنواع الأسمدة والجرعات الصغيرة على نمو ومكونات إنتاجية الحمص

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