

الآية

قال تعالى:

أَتَا صَدَبْنَا الْمَاءَ هُمْ يَلْدَقُونَا الْأَرْضَ شَقَّ قَلْبًا أَذْبَتْنَا فِيهَا حَبَّاءُ عَيْنًا وَقُضُوبٌ يَنْثُونَا وَنَخْلًا *
وَحَدَائِقَ غُلًّا وَهَاجِهَةً وَأَبًّا فَكُنْتُمْ عَوَالًا نَعَامَكُمْ

صدق الله العظيم

سورة عبس الآيات (25-32)

DEDICATION

This thesis is dedicated to my wife, Nadia Abaker, and our beloved baby girl, Tuga Mubarak, for their time and understanding during the long hours I was away from home to work on this thesis. Also to my parents, Mr. Musa Haroun and Mrs. Khadiga Haroun for the parental guidance and support they gave me during the time I was being brought up. As well as to my brothers and sisters.

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ABSTRACT

Field experiments were conducted for two consecutive seasons (2011/12 and 2012/13), under the rain-fed area of ELGeneina, West Darfur State, Sudan. The three pearl millet cultivars were; Dembi (V1), Bauoda (V2) and Local Hariri (V3) were sown at four sowing intervals namely: S1 = first sowing date on July 19th in season one and July 5th on season two, S2 = second sowing date on July 25th in season one and July 10th in season two, S3 = third sowing date on July 31th in season one and July 16th in season two, S4 = fourth sowing date in August 6 on season one and July 22th in season two. The objective of the work was to study the effect of sowing dates on growth and yield of three pearl millet (*Pennisetum glaucum*) cultivars

Results showed significant difference for the majority of growth and yield parameters, except for stem diameters during the two seasons. Among cultivars (Hariri) showed almost the weakest growth, meanwhile, (Dembi) and (Bauoda) had better growth and yield attributes. The best sowing dates for all parameters were S1 first sowing date (first July), while, V1S1 and V2S1 showed the greatest values for the two seasons.

Under this condition early sowing dates (first and mid-July) are the most optimum dates for growth and yield of millet, on the other hand, Dembi and Bauoda cultivars may be recommended as optimum cultivars in that area.

ملخص الاطروحة

أجريت تجربة ميدانية لمدة موسمين متتاليين (2012/11 و 2013/12) تحت الزراعة المطرية في مدينة الجنية في ولاية غرب دارفور. الهدف من هذه الدراسة هو دراسة تأثير مواعيد الزراعة على نمو وانتاجية ثلاثة اصناف من الدخن. كانت أصناف الدخن الثلاثة هي أصناف (ديمبي)=(V1)، بيوضة = (V2) وحريري البلدي =(V3) في اربعة مواعيد مختلفة كالآتي:

(S1)=ميعاد الزراعة الاولى في 19 يوليو في الموسم الاول و5 يوليو في الموسم الثاني،(S2) = ميعاد الزراعة الثاني في 25 يوليو في الموسم الاول و10 يوليو في الموسم الثاني، (S3) = ميعاد الزراعة الثالث في 31 يوليو في الموسم الاول و16 يوليو في الموسم الثاني، (S4) = ميعاد الزراعة الرابع في 6 أغسطس في الموسم الاول و22 يوليو في الموسم الثاني.

أظهرت النتائج التي تم الحصول عليها اختلافا كبيرا بالنسبة لغالبية معايير النمو والانتاجية ما عدا في قطر الساق في الموسمين. بشكل عام الصنف حريري أظهر ضعف في النمو، اما أصناف ديمبي و بيوضة اظهرت نمو وانتاجية جيدة. يعتبر S1 ميعاد الزراعة الاول (أول يوليو) أفضل ميعاد للزراعة. أظهرت الاصناف ديمبي وبيوضة V1S1 و V2S1 عند زراعتها في اوائل يوليو أعظم قيم لمدة موسمين.

يعتبر تاريخ الزراعة المبكر (الأول ومنتصف يوليو) هو الامثل لفترة النمو والانتاجية لمحصول الدخن، وان الصنفين ديمبي وبيوضة كانا افضل من الصنف البلدي.