

**DeDication**

**To my FaTher**

**To my moTher**

**To all my Teachers**

**Azjed**

**2017**

## **Acknowledgements**

Acknowledgements to All who help me to present this work in this form.

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## **Abstract**

This study was conducted in winter season 2017 at the Experimental Farm of Shambat Research Station, Agriculture Research Corporation, Khartoum, Sudan, to investigate the effect of different source of nitrogen (Urea, NPK and Ammonium Sulfate) on yield and quality of onion variety “Baftaim (s)”. The experimental design was complete randomized block design arranged in split plot with three replications. The vegetative growth was evaluated as plant height, number of leaves and leaf length, the yield and quality as total, marketable yield and other bulb characteristics (bulb diameter, length, neck diameter, number of rings, total soluble solids and dry matter).The results reflect existed significant effects on number of leaves and plant height after three and four months from planting, respectively, by using NPK fertilizer and they gave highest bulb weight and bulb diameter. No significant difference was noticed of other nitrogen sources and control.

## المستخلص

اجريت هذه الدراسة في موسم الشتاء 2017 بالمزرعة التجريبيه لمحطة البحوث شمبات,هيئة البحوث الزراعيه ,الخرطوم,السودان,لاختبار تأثير مصادر النتروجين (يوريا,NPK وامونيوم سلفيت )على انتاجية والجوده لصنف البصل بافطيم (S). نفذت الوحدات التجريبيه في تصميم قطاعات كامله العشوائيه في قطع منشقه بثلاث تكررات.تم تقييم الفو الخضري وفقاً لطول النبات,عدد الاوراق وطول الورقه والانتاجيه والجوده وفقاً للانتاجيه الكليه, وصفات الجوده الاخرى(قطر وطول البصله,قطر العنق,عدد الحلقات ونسبة المواد الصلبه الذائبه والماده الجافه).اوضحت النتائج وجود تأثير معنويّ على عدد الاوراق وطول النبات بعد ثلاثه و اربعة شهور من الزراعه على التوالي باضافة سماد NPK واعط اعلى وزن وقطر البصله . لم تؤثر معنوي بقيت مصادر النتروجين والشاهد.

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