

## Dedication

To \*\*\*\*

The Kindful in the world  
Mother soul of My Father

To \*\*\*\*

My sister and Brothers

To \*\*\*\*

My Friends

## **Acknowledgements**

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## ملخص البحث

أستخدم علف الذرة الشامي في تجربة حقلية في المزرعة التجريبية بكلية علوم الغابات والمراعي - جامعة السودان للعلوم والتكنولوجيا في سوبا ، خلال موسم ( 2007 - 2008 ) لدراسة استجابة علف الذرة الشامي لمعدلات مختلفة من سماد النيتروجين .

المعايير التي درست شملت كثافة النبات ، طول النبات ( سم ) ، عدد الأوراق / النبات ، عدد الأفرع / النبات ، مساحة الورقة ( سم<sup>2</sup> ) ، نسبة الأوراق للساق ، القيمة الغذائية ( محتوى البروتين و الألياف الخام ) بالإضافة إلى إنتاجية العلف بشقيه الرطب والجاف ( طن/ هكتار ) .

أظهرت النتائج عدم وجود فروقات معنوية بين المعاملات لمعظم المعايير التي درست في معظم القراءات .

أعلى معدل سماد أدى إلى زيادة الإنتاجية بشقيها الرطب والجاف وزيادة محتوى البروتين .

## Abstract

Forage maize (*Zea mays L.*) was used in a field experiment at the Demonstration Farm of the Faculty of Forestry and Range Sciences, Sudan University of Science and Technology at Soba during the season (2007-2008) to study the response of forage maize to different rates of nitrogen fertilizer.

Parameters studied included: plant density, plant height (cm), number of leaves/ Plant, number of branches/ plant, leaf area (Cm<sup>2</sup>), leaf to stem ratio (L.S.R.), nutritive value (C.P%, C.F%). In addition, forage yield (ton/ha) (fresh and dry) were studied.

The result showed no significant differences among the treatments for most parameters at different counts. The highest rate of nitrogen (2N) significantly increased forage fresh and dry yield and protein content (CP %).

# List of contents

	<b>Page</b>
Dedication .....	i
Acknowledgements .....	ii
Abstract ( Arabic) .....	iii
Abstract ( English) .....	iv
List of contents .....	v
List of tables .....	viii
<b>CHAPTER ONE : Introduction .....</b>	<b>1</b>
<b>CHAPTER TWO : Review of Literature .....</b>	<b>3</b>
2.1 General. ....	3
2.2 Fertilizer .....	3
2.2.1 Inorganic fertilizers .....	5
2.2.2 Organic fertilizers .....	6
2.2.3 Nitrogen fertilizer .....	7
2.3 Forage Resources .....	10
2.3.1 Genral .....	10
2.3.2 Types of forage .....	11
2.3.3 Grasses .....	11
2.4 Maize general .....	12
2.4.1 Family/ tribe .....	12
2.4.2 Common names .....	12
2.4.3 Morphological description .....	13
2.4.4 Ecological requirements.....	13
A. Moisture .....	14
B. Temperature .....	14
C. Light .....	14
2.4.5 Establishment .....	15
2.4.6 Fertilizers .....	15
2.4.7 Economic importance .....	15
<b>CHAPTER THREE : Materials and Methodes .....</b>	<b>18</b>
3.1 Side Description and Land Preparation .....	18
3.2 Treatments .....	18
3.3 Growth Measurement....	19
3.3.1 Plant density .....	19
3.3.2 Plant height (cm) .....	19
3.3.3 Number of leaves per plant .....	19
3.3.4 Number of branches per plant .....	19
3.3.5 Leaf area (cm <sup>2</sup> ) .....	20
3.3.6 Leaf to stem ratio .....	20
3.3.7 Fresh and dry forage yield (ton/ha) .....	20
3.3.8 Quality parameters .....	20

A. Crude protein (%) .....	20
B. Crude fibre (%) .....	21
3.4 Harvesting .....	21
3.5 Data analysis .....	21
<b>CHAPTER FOUR: Results and Discussion .....</b>	<b>22</b>
4.1 Effect of nitrogen fertilizer on growth attributes .....	22
4.1.1 Plant density .....	22
4.1.2 Plant height (cm) .....	22
4.1.3 Number of leaves/ plant .....	26
4.1.4 Number of Branches/ Plant .....	26
4.1.5 Leaf area (cm <sup>2</sup> ) .....	26
4.1.6 Leaf/ to stem ratio .....	27
4.2 Effect of nitrogen fertilizer on yield at tributes : .....	32
4.2.1 Fresh weight (ton/ha) .....	32
4.2.2 Dry weight (ton/ha) .....	32
4.3 Effect of nitrogen fertilizer on quality parmeters : .....	35
A. CP% .....	35
B. CF% .....	35
<b>CHAPTER Five: Conclusions and recommendations .....</b>	<b>37</b>
<b>References.....</b>	<b>38</b>

## List of Tables

<b>Table</b>		<b>Page</b>
1.	Effect of nitrogen fertilizer on plant density of Maize at different counts during 2007/2008 season .....	24
2.	Effect of nitrogen fertilizer on plant height (cm <sup>2</sup> ) of Maize at different counts during 2007/2008 season .....	25
3.	Effect of nitrogen fertilizer on number of leaves/ plants of Maize at different counts during 2007/2008 season .....	28
4.	Effect of nitrogen fertilizer on number of branches/ plants of Maize at different counts during 2007/2008 season .....	29
5.	Effect of nitrogen fertilizer on leaf area/ (cm <sup>2</sup> ) of Maize at different counts during 2007/2008 season .....	30
6.	Effect of nitrogen fertilizer on leaf/ to shoot ratio of Maize at different counts during 2007/2008 season .....	31
7.	Effect of nitrogen fertilizer on Fresh weight (ton/ha) of Maize during 2007/2008 .....	33
8.	Effect of nitrogen fertilizer on dry weight (ton/ha) of Maize during 2007/2008 .....	34
9.	Effect of nitrogen fertilizer on quality of Maize during 2007/2008 .....	36

