

بسم الله الرحمن الرحيم



HOSSAM MAGHRABY



شبكة المعلومات الجامعية التوثيق الالكتروني والميكرو فيلم



HOSSAM MAGHRABY

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

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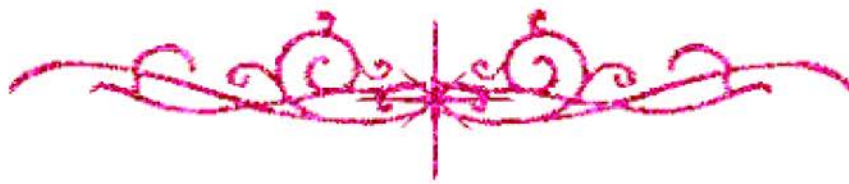
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لم ترد بالأصل



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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قالوا سبحانك لا علم لنا إلا ما علمتنا
إنك أنت العليم الحكيم

« صدق الله العظيم »

IN THE NAME OF ALLAH, THE BENEFICENT,
THE MERCIFUL

They Said « Be Glorified, We have no Knowledge
except that which YOU have taught us.
Indeed YOU are the KNOWER, the WISE.»

B 18818

**EFFECT OF FERTILIZATION ON GROWTH, YIELD
AND SOME TECHNOLOGICAL
CHARACTERISTICS OF SOME NEW BREAD
WHEAT CULTIVARS**

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I feel always indebted to God,
the most beneficent and merciful.*

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CONTENT

	Page
INTRODUCTION.....	1
REVIEW OF LITERATURE.....	2
I. Effect of N levels.....	2
II. Varietal Differences.....	9
III. Effect of foliar application of micronutrients.....	13
MATERIALS AND METHODS.....	19
RESULTS AND DISCUSSION.....	25
I. GROWTH CHARACTERS.....	25
A. Effect of N-levels:.....	25
1. Chlorophyll content.....	25
2. Plant height.....	27
3. Flag leaf area.....	28
B. Varietal difference.....	28
1. Chlorophyll content.....	28
2. Plant height.....	30
3. Flag leaf area.....	31
C. Effect of foliar application.....	32
1. Chlorophyll content.....	32
2. Plant height.....	34
3. Flag leaf area.....	34
D. Interaction effect.....	35
Interaction effect between nitrogen level and wheat cultivars.....	35
D.1. Effect on chlorophyll content.....	35
D.2. Effect on plant height.....	39
D.3. Effect on flag leaf area.....	39
II. YIELD AND YIELD COMPONENTS.....	39
A. Effect of N-levels:.....	39
1. Peduncle length.....	39
2. Spike length.....	40
3. Weight of grains/spike.....	42
4. Number of grains/spike.....	43
5. Number of spikelets/spike.....	43
6. 1000-grain weight.....	44
7. Number of spikes/m ²	45
8. Grain yield kg/feddan.....	48
9. Straw yield kg/feddan.....	49
B. Varietal difference.....	50
1. Peduncle length.....	50
2. Spike length.....	52
3. Weight of grains/spike.....	53
4. Number of grains/spike.....	53
5. Number of spikelets/spike.....	54
6. 1000-grain weight.....	55
7. Number of spikes/m ²	55
8. Grain yield kg/feddan.....	56
9. Straw yield kg/feddan.....	59
C. Effect of foliar application.....	60
1. Peduncle length.....	61
2. Spike length.....	61
3. Weight of grains/spike.....	63
4. Number of grains/spike.....	63

5. Number of spikelets/spike	64
6. 1000-grain weight	64
7. Number of spikes/m ²	65
8. Grain yield kg/feddan	65
9. Straw yield kg/feddan	68
D. Interaction effect	68
D.a. Interaction effect between nitrogen level and wheat cultivars	68
D.a.1. Peduncle length	69
D.a.2. Spike length	69
D.a.3. Weight of grains/spike	72
D.a.4. Number of grains/spike	72
D.a.5. Number of spikelets/spike	75
D.a.6. Number of spikes/m ²	77
D.a.7. Grain yield kg/feddan	77
D.a.8. Straw yield kg/feddan	80
D.b. Interaction effect between nitrogen level and foliar application	80
D.b.1. Peduncle length	82
D.b.2. Spike length	82
D.b.3. Number of grains/spike	82
D.c. Interaction effect between wheat cultivars and foliar application	84
D.c.1. Peduncle length	84
D.c.2. Spike length	86
D.c.3. Weight of grains/spike	86
D.c.4. Number of grains/spike	86
D.d. Interaction effect between nitrogen level, wheat cultivars and foliar application	88
D.d.1. Peduncle length	88
D.d.2. Spike length	88
D.d.3. Weight of grains/spike	90
D.d.4. Number of grains/spike	90
D.d.5. Grain yield kg/feddan	92
III. CHEMICAL COMPOSITION	92
A. Effect of N-levels:	92
1. Zn content	92
2. Mn content	94
3. Fe content	94
B. Varietal difference	97
1. Zn content	97
2. Mn content	97
3. Fe content	100
C. Effect of foliar application	100
1. Zn content	100
2. Mn content	103
3. Fe content	103
V. TECHNOLOGICAL PROPERTIES	103
A. Effect of N-levels:	103
1. Crude protein percentage	106
2. Protein yield (kg/feddan)	106
3. Carbohydrate content	108
4. Ash content	109
5. Wet and dry gluten	109
B. Varietal difference	112
1. Crude protein percentage	112
2. Protein yield (kg/feddan)	112
3. Carbohydrate content	116
4. Ash content	117
5. Wet and dry gluten	117
C. Effect of foliar application	118
1. Crude protein percentage	118
2. Protein yield (kg/feddan)	122

3. Carbohydrate content.....	122
4. Ash content.....	123
5. Wet and dry gluten.....	123
D. Interaction effect.....	123
D.a. Effect of the interaction between N-levels and wheat cultivars.....	123
D.a.1. Crude protein percentage.....	123
D.a.2. Protein yield (kg/feddan).....	125
D.a.3. Carbohydrate content.....	127
D.a.4. Ash content.....	127
D.b. Effect of the interaction between N-levels and foliar application.....	130
D.b.1. Protein yield/feddan.....	130
D.b.2. Ash content.....	131
D.c. Effect of the interaction between wheat cultivars and foliar application.....	131
D.c.1. Ash content.....	131
D.d. Effect of the interaction between N-levels, wheat cultivars and foliar application.....	133
D.d.1. Ash contents.....	133
IV. CORRELATION COEFFICIENT.....	133
IIV. STABILITY ANALYSIS FOR GRAIN YIELD.....	140
SUMMARY.....	141
LITERATURE CITED.....	151
ARABIC SUMMARY.....	

INTRODUCTION

INTRODUCTION

Wheat is one of the main cereal crops all over the world and one of the most important winter cereal crops in Egypt.

In Egypt, wheat under irrigation, covers about 2.0 million feddans* in winter growing season and the productivity increased to about 15-16 ardab**/feddan in old land (Nile Valley). In the new lands either under regular irrigation or rainfed condition the area exceeded 0.5 million feddans with the average grain yield of 6.4 ardab/feddan. This resulted to a total production to about 5 million ton of wheat grain which meets about 50% of local needs.

The total annual national production of wheat can be increased by increasing the wheat area and by introducing high yielding varieties showing great response to the increase in N fertilization and micronutrients application. Also, the newly cultivated sandy soil needs to verifying the proper doses of nitrogen and micronutrients to give the maximum yield as possible.

The shortage of macro- and micro-elements in clay or sandy soil decreased the yield of crops.

The target of this research is to investigate and revealed the response of some new wheat cultivars to different levels of nitrogen and application of foliar at the two region i.e. Bahtim and Nobarria on growth characters, yield and yield components, chemical content and technological properties of wheat grains.

* One feddan = 4200 m²

** One ardab = 150 kg

REVEIW OF LITERATURE

REVIEW OF LITERATURE

The review of literature in the present study will discuss the effect of nitrogen levels, foliar application of micronutrients and wheat cultivars on growth, yield and yield components as well as chemical contents and technological properties of wheat grains.

I. Effect of N levels

Gandhi and Nathawat (1968) in sandy loam soil, found that higher doses of nitrogen (201.7 kg N/ha) increased the protein and gluten content in wheat grains and decreased the hardness of the kernel, interrelationship of quality factors as evidenced by simple correlation coefficient reveal that Gluten and kernel hardness are positively correlated with the grain yield, kernel hardness is inversely related to gluten and seed weight.

Fuehring (1969), on calcareous soil showed that grain yield of Mexican semi-dwarf wheat (*Triticum aestivum* L. pitic 62) was increased economically by N application up to 300 kg/ha.

Eweida et al. (1971), mentioned that application of 40 kg N/fed., on poor soil, produced more than double grain and straw yields as compared with the control treatment (without nitrogen). Raising the nitrogen level up to 60 kg N/fed., increased significantly straw yield than 40 kg N/fed. Whereas application of 40 or 60 kg N/fed, in fertile soil did not significantly affected grain as well as straw yield.

Gupta and Singh (1971) indicated that nitrogen application up to 200 kg N/ha increased the number of grains per ear, ear length and grain yield of wheat, but reduced the 1000-grain weight.

Sharma et al. (1972) on silt loam soil of Pantnagar, studied six level of nitrogen (0, 40, 80, 120, 160 and 200 kg N/ha) and six varieties (Kalyan Sona, Sonalika, UP 301, EA 222-1, HD 1944 and HD 1949) in the first season and 4