

*Allium sativum*

		-		-		*
		-		2008- 2007		
		<i>Allium sativum</i>				
		2008/1/30				
		( M2 )				
		/ 2				
		73.7				
		/ 21.3				
		/ 8.9				
		402.4				
		/ 5.9				
		/ 4.5				
		/ 2.8 ( M0 )				
		Total ( M7 )				
		/ 1				
		/ 85.9				
		/ 1.7				
		% 5.5				
		/ 1.0 % 1.6				
		/ 1.8				
		/ 41.1				
		/ 6.6 ( M0 )				
		( M4 )				
		( M7 )				
		/ 0.8 ( M0 )				
		/ 2.5				
		( M3 )				
		/				
		. % 1.0 ( M0 )				
		% 3.3				
		/ 2.5				
		/ 2.5				
		( M6 )				
		/ 1				
		Total				
		% 0.5 ( M0 )				
		%				
		( M1 )				
		/ 1				
		Total				
		( M7 ) (				
		. % 0.8				

. 2010 / 12 / 23

. 2011 / 5 / 10

*Allium sativum* Garlic

( 1994 )

. ( 1995 )

( 1996 Stopes )

( 1989a)

( 2000 Heyland Werner)

. ( 2002 Martin )

)

( 2005

Koznitisov (2002) Togarinof

15

3-2

( 2003)

% 40 – 25

% 30 –

( 2005) Stall Morales

30 – 15

/ 3

( 2009 )

% 17

. / 1000 ( Fetrilon Combi2 )

- /

( )

2008-2007

3

75

2007/ 11/ 1

*Allium sativum*

30

10

( RCBD)

/30

2008/1

:

	.		.	M0-1		
	.	/	1.5	M1-2		
	.	/	2	M2-3		
	.	/	2.5	M3-4		
.	/	1.5	+	/	1.5	M4-5
.	/	2	+	/	2	M5-6
.	/	2.5	+	/	2.5	M6-7
.	/	1	.	/	1	Total
(Green Has Italian )						Poly amin
% 6			% 3			)
( Total)					% 22.4	% 13
/	1					

(RCBD)

( 2001 ) SAS

0.05

(L.S.D )

.					-
.				( )	-1
.				/	-2
.				10	
.				( )	-3
.				1	
.				( / <sup>2</sup> )	-4
10	5		30		
			48	°	75

( 1965 ) Dvomince

$$\frac{x \quad 30}{30} = f^2 \quad 10$$

		( )	-5
		10	
( 1989 a )	48	75	
		( )	-6
		10	
		( / )	-7
		10	
	.%	/	-8
	/		-
		( )	
		10	-2
	. 10		
		( )	-3
	. 10		
		( / )	-4
	( )		
$2 \times 10000$	$\frac{\quad}{\quad}$	$= ( / )$	
		10	-
48 ° 75			
( 1989 a )			

Jackson ) Mikrokjeldal

. ( 1958

882

Spectrophotometer

. ( 1982 Sommers Olsen )

.Flame Photometer

(M2 )						( / )	-
55.3( M0 ) , ( M5 )				73.7		1	
		(2010)					56.3
/ 11.3				(M7 )		1	/
(M0 )		( M4 )	( M3 )	( M2 )			
(2004)				6.6			
(2004 )		/ 1000		( Fetrilon Combi2 )			
						( )	
	/ 1.3	/ 1.7		( M7 )		1	
	1.2	1.2	1.4	( M6 )	( M4 )	( M3 )	( M2 )
		/ 1.0	0.9	( M0 )	( M5 )		
/ 1				( 1992) Rahi	Abid		
						( / <sup>2</sup> )	
( M2 )						1	
<sup>2</sup> 402.4				( M0 )		/ <sup>2</sup> 1084.9	
Vit – Oig				( 2009 )			/ 4

## . 1

$/^2$		/	/	
402.4	1.0	6.6	56.3	M0
508.9	1.1	8.7	63.3	M1
1084.9	1.4	10.3	73.7	M2
793.5	1.2	10.3	58.0	M3
572.0	1.2	10.7	60.7	M4
480.5	0.9	8.0	55.3	M5
654.4	1.2	8.7	65.3	M6
718.4	1.7	11.3	66.3	M7
<b>241.9</b>	<b>0.62</b>	<b>1.15</b>	<b>5.34</b>	<b>L.S.D</b>

( / )

2

21.3  
( M4 ) ( M3 )

( M2 )

8.9 ( M0 )

20.1 20.4 20.8 ( M6 )  
(2005)

( 2010 )

( 2009 )

/ 1000 ( Fetrilon Combi2 )

/ 3

( )

(M7 )

2

63.0 66.1 ( M6 ) ( M4 )

85.9

41.1

( M0 )

( 2005 )

( 2010 )

3

8.9 ( / )  
 ( M7 ) 2  
 7.2 7.4 ( M3 ) ( M2 )  
 ( 2004 ) 1.8 ( M0 )  
 . % /  
 / ( M7 ) 2  
 2.9 2.9 ( M3 ) ( M2 ) % 5.5  
 ( 2004 ) . % 1.6 ( M0 )  
 ( 2008 ) /  
 . 2

/ %	( / )	( / )	( / )	
1.6	1.8	41.1	8.9	M0
4.1	3.9	43.1	15.7	M1
2.9	7.4	61.5	21.3	M2
2.9	7.2	56.0	20.8	M3
2.2	6.2	66.1	20.1	M4
4.4	3.7	54.3	16.1	M5
3.9	4.8	63.0	20.5	M6
5.5	8.9	85.9	17.4	M7
<b>1.23</b>	<b>1.40</b>	<b>6.03</b>	<b>2.80</b>	<b>L.S.D</b>

% 98

( 1989)a

( M7 )

( M2 )

( 2005 )

(2009)  
 .Vit- org.

( )

5.9 ( M2 ) 3  
 4.8 4.9 ( M6 ) ( M1 )  
 ( 2009 ) 3.5 ( M0 )  
 / 1000 ( Fetrilon Combi2 )  
 3 ( 2010 ),

( )

38.6 / ( M2 ) 3  
 26.0 ( M0 )  
 ( 1998) Fayed  
 N.P.K. ( 2005), N.P.K.

( )

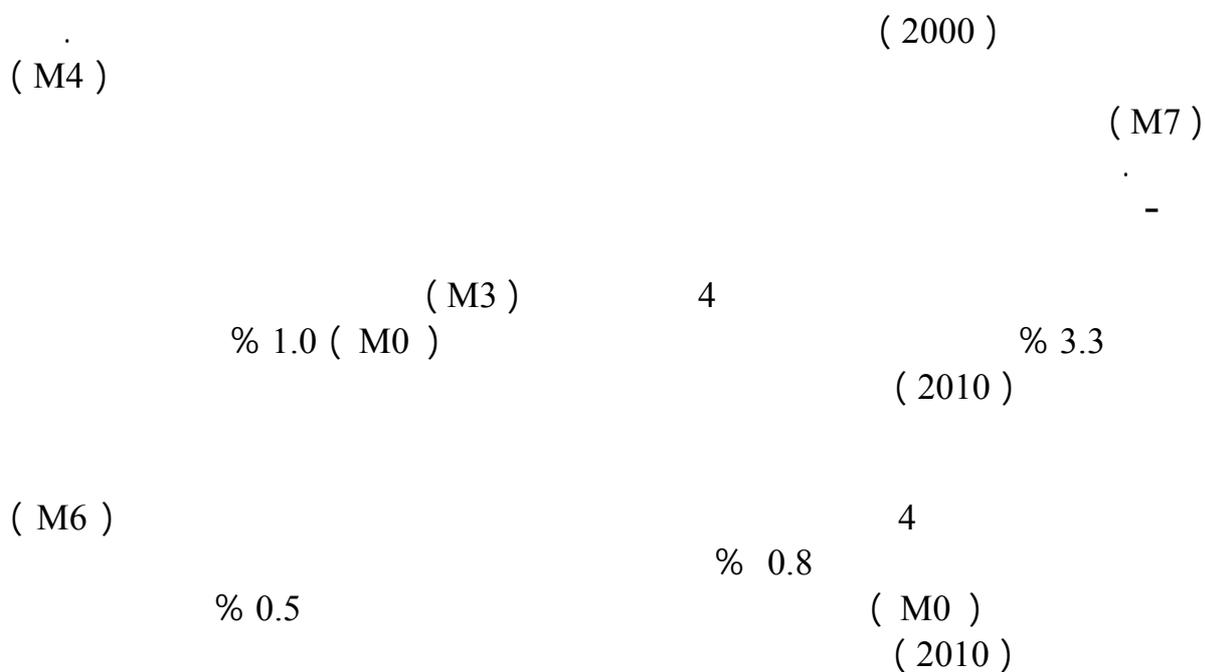
( M7 ) ( M4 ) . 3  
 ( M0 ) 1.1 1.1  
 ( 2000) 0.8

( / )

( M2 ) 3  
 / 2.8 ( M0 ) / 4.5  
 ( Fetrilon Combi2 ) ( 2009 )  
 / 1000  
 ( 2010 )

## . 3

/	( / )	/		
2.8	0.8	26.0	3.5	M0
3.4	0.8	31.0	4.9	M1
4.5	0.8	38.6	5.9	M2
2.4	0.8	29.0	4.6	M3
3.6	1.1	26.0	4.7	M4
3.1	0.8	30.0	3.9	M5
2.9	0.8	26.3	4.8	M6
4.1	1.1	29.6	5.2	M7
<b>0.32</b>	<b>0.24</b>	<b>5.17</b>	<b>0.72</b>	<b>L.S.D</b>



( M1 )

1.4 1.4 1.4  
% 0.8

( M0 )

4

( M7 ) ( M6 )

( 2010 )

. 4

%	%	%	
0.8	0.5	1.0	M0
1.4	0.6	2.7	M1
1.1	0.7	2.4	M2
1.2	0.6	3.3	M3
1.2	0.6	2.8	M4
1.1	0.7	2.4	M5
1.4	0.8	2.8	M6
1.4	0.7	2.4	M7
<b>0.37</b>	<b>0.04</b>	<b>0.12</b>	<b>L.S.D</b>

% 98

( 1989a)

. ( 2006 ) Zeiger Taiz

.2010.

. 1989a .

. 2000.

- . 2005 .  
 - . *Allium sativum L.*  
 . 1990 .  
 . 488 .  
 . 2004 .  
 - - ( )  
 ( Fetrilon Combi2 ) . 2009 .  
 . *Allium sativum L.*  
 - - -  
 . 1994 .  
 -  
 . 2000 .  
 -  
 . 2009 .  
 -229 : ( 37 ) - . Vit – Oig  
 . 239  
 . 1995 .  
 - - -  
 . 2005 .  
 . *Solanum tuberosum L.*  
 . 100 -91 : (2) ( 27) -  
 . 2008 .  
 - - - . *Allium sativum L.*

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## **EFFECT OF SPARYING FOLIAR NUTREINT ON GROWTH AND YIELD OF GARLIC *Allium sativum*L .**

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### **ABSTRACT**

The study was conducted in the field of Horticulture. Dept ., college of Agriculture ,University of Baghdad- Abu Gharaib in growing season 2007- 2008 to in vestigate the influence of a foliar sprays of organic fertilizer , calcium and Total in growth and composed yield of garlic plants were sprayed three times starting from 30/1/2008 and period between them are two weeks .The treatment as arranged in ( RCBD ) with 3 replicate using ( L.S.D) to compete the differences between the treatment the experimental recruits was as follows : -

The cloves of the superior treatment poly amine at a rate 2 g / 1 and Total fertilizer at a rate 1 g / 1 (M2) which gave the highest value plant highest (73.7cm / plant ) ,leaf area a per plant ( 1084.3 cm<sup>2</sup>) and dry weight of vegetative parts ( 2t,2 g / plain) as compared with the control treatment which gave lowest value (56.3c m / plant) , (402.+cm<sup>2</sup>) and (8.8g / plant ) respectively. A significant increases in this treatment ( M 2) bulb diameter ( 5.9cm / bulb) , number of bullbat per bulb ( 38. 7 bulble / bulb ) as compared with the control treatment (M0) ( 3.5 cm/ bulb ), (26.0 bulble/ bulb ) respectively. A significant increased influenced the yield which gave the highest total yield (4.8ton /ha) as compared with the control treatment (M0 ) which gave lowest ( 2.g ton / ha ) .

The results showed that foliar sprays fertilizer Total at 1 g /1 (M7) significantly increased the number of leaves per plant ( 11.3 leave / plant ) , fresh weight of vegetative parts ( 85.9g / plant ) , dry weight of roots ( 8.9 g / plant ) percentage of vegetative part /root ( 5. 5 %) and increased diameter of bulb neck ( 1.7 cm ) as compared with the control treatment which gave lowest ( 6.6 leave / plant) , 41.1 g /plant) ,( 1.8 g/ plant) , ( 1.6 %) and ( 1.0c m / bulb ) respectively and did not differ significant treatment ( M7) with treatment ( M4) which gave highest average weight of bulblet ( 1.1g / bulblet) as compared with the control treatment ( M0 ) which gave the lowest ( 0.8 g / bulblet ) .

Foliar sprays with poly amine at a rote of 2 .5 g /1 and, Total fertilizer at a rate of 1 g / 1 significant increases leaves connect of nitrogen upto (3.3% ) as compared the control treatment (M0 ) which gave lowest value of (1.0% ) . A significantly foliar with poly amine at a rate of 2.5 g /1 and calcium at a rate 2 .5 g / 1 and Total fertilizer at a rate 1 g /1 (M6 ) leave contact of phosphor up to ( 0.8 %) as compared with the control treatment( MO) which gave lowest value of ( 0.5 %) between treatments prays poly amine at a rate of 1.5g / 1 and Total fertilizer at rate 1 g / 1 ( M 1 ) as compared with ( 0.8 % ) in the control treatment.