

*Solanum melongena*

/ -

. 2009 – 2008

( 500 ) ( 100 )

Jiffy7

CRBD

B (a<sub>2</sub> a<sub>1</sub> )

A

b<sub>2</sub>

/ 15

b<sub>1</sub>b<sub>0</sub>)

.( c / 45

b<sub>3</sub> / 30

2

0 . 1

( )

) EDTA 0 .09

(Ethylene Diemen Tetra amino Acetic acid

/

/

/ 15

/

/ 30

.( )

/ 45

/ 30

## Effect of spraying aqueous poultry manure extraction on quantity yield characteristics of *Solanum melongena* L. var. *Barcelona* (egg plants) cultivated in two types of plastic houses

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### Abstract

The experiment was conducted in two types of plastic house, small and big sizes, in Agriculture College, University of Diyala at season 2008-2009. The seeds of Barcelona was germinated in Jiffy<sub>7</sub> discs . When the seedling had been in convenient growth size transplanting to those two types of plastic house and then distributed by RCBD design, with two factors . (A) Type of plastic house (small  $a_1$  , big  $a_2$  ) and (b)-concentrated spraying solution extractions ( $b_0$  zero manure / liter water ,  $b_1$  15 gram / liter water ,  $b_2$  30 gram / liter water ,  $b_3$  45 gram / liter water and (C) without spraying).

The spray solutions were prepared by taken different weights of manure and mixed carefully with one litter of irrigated water, then added 0.09 gm EDTA per litter water and mixed again, then filtered carefully. The plants were sprayed with those concentrations for each treatment and control four times in the season growth. First was two weeks after transplanting the plants in permanent place, second at the begging of branching, third at the starter of flowering buds, and the fourth was directly at the first harvesting.

The results was showed significant differences between two houses, small and big one in early yield kg/plant. Whereas there was significant differences in total yield and number of fruit/plant. Nevertheless, the concentration 30gm/L aqueous manure extraction was given the highest significant differences in early yield, as well as number of fruit/plant. The interaction been type of plastic houses and concentration of extract showed the highest significant in concentration 30gm/L for big plastic house in all characteristics studied, except for mean fruit weight. Whereas the main fruit weight, showed insignificant differences for two type of houses, as well as concentrations of spraying solution. Therefore the fruits harvesting in different weights and sizes convenient to desire of consumers weighted between 100-120gm.

Solanaceae *Solanum melongena* , L .

(1)

(2) ( )

.... (3)

(4)

F<sub>1</sub> Night Queen Night King Long Purple Florida High Bush

(5) Imperial Hybrid

... ( ) White Sicilia

(6)

) (7)

(8)

)

(9) (

(10)

(11) . 1.5

15

(12)

0.6 (Hydro Flore Cloro Carbonate) HFCIC

-5

/ 7

/ 10

	2		/	15
			/	15
		(		)
			(13)	
		(		)
		) NADP		
		0.2	(Nitro Adenine Di-Phosphate)	
	/	0.1	(Sodum lorail ether solvide) SLES	(14)

(COOH)

		(Ethylene Diemen Tetra amino acetic acid) EDTA		(15)
		Aqueous		
		(		)
			kettle manure solution	
		NaEDTA		
		(		)
		Aqueous poultry manure solution		(
				)
		(Babilon		)
		(16)		(
				)

5

Barcelona F<sub>1</sub> hybrid

- 1

		(		)
		(	250	Jiffy <sub>7</sub>
				-2

	5	-	-3
	50	5	-4
	2 X 2		-5
50 )	100		-6
(	50	)	500
		(	
		(	
		5	-7
		5	-8
	( 15	10	)
		2	5
			-10
			EDTA
			- 11
		:	
		Jiffy 7	250
			- 1
		( 2 X 2 )	
	( 8 / 22 )		- 2
(%10 )			- 3
( 1.5 )		(	)
(	100	)	50
		(	)
			- 5
	10		

( A )		CRBD	( B )	
	( )			- 6
	( )	( )		
				- 7
	( )			
15 )		( )	( 45 30	- 8
	45 b <sub>3</sub> 30 b <sub>2</sub> 15 b <sub>1</sub> b <sub>0</sub> )			- 9
				/
	)			
	) /	(		- 10
		/	(	
ANOVA		( )		
(B × A)	(B A)		(17)	
		( / )		
			:	( )
	( 1 )	: <b>Early yield</b>		:
Barcelona F <sub>1</sub> hybrid	( / )			
	:			

( )					•
10 X	50 )		. 0 , 0 5		
20 )		(	2,90 X		
/ )		(	2,10 X	5 X	
	(			(	•
)		/	30		
	/	45		(	/
					•
			/	30	
/	30				
	/	15			
			/	15	
15	/	30		/	45
				/	•
			/	30	

( / ) (1)						
/						
		45	30	15		
1.068	0.65	1.01	1.88	0.95	0.88	100
1.140	0.71	1.07	1.84	1.10	0.96	500
0.031= LSD 5%	0.069= LSD 5%					
	0.662	1.043	1.865	1.028	0.922	
0.049 =LSD 5%						

( 2 ) : **Total yield** :

( / )

: ( a<sub>2</sub> a<sub>1</sub> )

•

/ 7 )

.0,05 ( 4

2,90 500

. 2,10 100

/ 30 •

/ 15 ( / )

/ 30

/ 45

/ 30

(12)

. ( )



/ 30

/ 15

( 290

210)

( / ) (2)

/						
		45	30	15		
4.342	2.05	3.55	6.23	5.30	4.57	100
7.177	3.29	5.75	10.69	8.05	7.44	500
LSD5% = 0.121	0.271 LSD5% =					
	2.67	4.98	8.46	6.67	6.00	
0.191 LSD 5% =						

( 3 ) : Number of fruit / plant :

:

9

/ 30

/ 15

/

/ 45

/ 30

/ 30

/ 15

/

/ (3)

/						
		45	30	15		
39.26	21.33	34.66	52.00	46.33	42.00	100
64.80	31.33	44.66	100.00	77.66	70.33	500
LSD 5% = 0.626	1.400 =LSD 5%					
	26.33	39.66	76.00	62.00	56.16	
	= 0.990 LSD 5%					

( 4 ) : Mean Fruit Wight

( )

/ 45

/ 30

		( ) (4)					
		/					
		45	30	15			
108.73	95.66	102.66	121.66	115.00	108.66	100	
109.86	105.00	128.33	106.66	103.33	106.00	500	
LSD 5% = 1.182		2.644 LSD 5% =					
		100.33	115.50	114.16	109.16	107.33	
		1.870 LSD 5% =					

1. ) .1989 .1  
/ - .(
2. ) .1987 .2  
- / (
3. / .1986 .3
4. ) .1980 .4  
- / .(
5. 44 - .2004 .5  
- /
6. .1982 .6  
- /
7. - / .1986 .7
8. / 6-( ) .1996 .8

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