

*Zea* )

*(mays L.*

					(GA3)	
(5)					( <i>Zea mays L.</i> )	
/	( 19.7	14.2	10	4.3	1.9 )	
	( 200	100	50 )			(3)
					(24)	
						Control
	(60)		( )			
(2)	/	(19.7-1.9)			RNA	-1
(2)					DNA	-1
						-3
						-4

**Abstract**

A green house experiment was designed to investigate the effect of soil salinity and gibberellic acid (GA3) on the leaf content of nucleic acid .

Seeds of *Zea mays L.* (synthetic variety) were soaked separately for 24 hr in (50,100 and 200) ppm solution of gibberellic acid (GA3) while seeds which were soaked in distilled water served as control .

Ten seeds from each treatment and the control were sown in each pots of (30×25) cm containing soil of the following electrical conductivities (1.9 , 4.3 , 10 , 14.2 and 19.7) mmoh/cm).

The leaf content of RNA and DNA were determined by using the method which described by Cherry.

The results showed that :

1- DNA content in leaf increased significantly by increasing salinity up to 4.3 mmoh/cm and decreased non significantly by increasing salinity more than 4.3mmoh/cm.

2- RNA content increased significantly with increasing salinity up to 4.3 mmoh/cm and decreased significantly by increasing salinity from (10.0 to 19.7) mmoh/cm over the control (1.9 mmoh/cm).

3- GA3 increased the leaf content DNA and RNA in different level of soil salinity.

(*Zea mays* L.)

%50

(1)

(4) Buringnh

(10) Kahn

(12) Odegbare

(13) Bakova (2)

(30- )

(ECs)

/ (19.7 14.2 10.0 4.3 1.9)

(5)

(<sup>5</sup> 4 3 2 1)

(30×25)

(1)

( ) . / /

/ (5)

(200 100 50)

(24)

(60)

/ (10)

(5) Cherry

DNA RNA

-1

DNA (2)

5 4 3

2 \_ 1

$2 \text{ } _{-} \text{ } 1$   
 8 2) (P) RNA  
 (18 14)  
**-2**

(200 100) DNA (3)  
 RNA (200 100 50)  
 (100)  
 . (11)  
**-3**

(200 100) (4) DNA RNA

(50)  $5 \text{ } _{-} \text{ } 1$   
 (200 100) . (  $5 \text{ } \text{ } 3$  )  
 (50) ( ) RNA  
 . (  $3 \text{ } \text{ } 2 \text{ } \text{ } 1$  )

(6)

(17 15)  
 . (15)

(16) DNA (2 )  
 (19) RNA

---

(4 )

(100)

(1)

5	4	3	2	1		
19.7	14.2	10.0	4.3	1.9		
/	/	/	/	/		
47.3	40.1	27.9	19.9	12.2	SO <sub>4</sub> <sup>=</sup>	)
151.3	110.2	80.6	55.5	22	Cl <sup>-</sup>	
42.0	22.2	14.1	8.3	7.9	HCO <sub>3</sub>	
1.0	0.9	0.6	0.3	0.2	CO <sub>3</sub> <sup>=</sup>	
89.9	72.2	50.1	34.3	10.2	Na <sup>+</sup>	
5	5	3	2.8	2.2	K <sup>+</sup>	
76.0	42.5	34.0	25	19.7	Ca <sup>++</sup>	
73.2	52.7	36.1	22.7	12.3	Mg <sup>++</sup>	
7.5	7.4	7.6	7.5	7.5	pH	
27.19	27.15	27.13	27.01	27.02	%	
13.94	13.90	13.91	13.80	13.81	%	
13.25	13.25	13.22	13.21	13.21	%	
		17	36	47		

(2)

/			
DNA	RNA	/	
2.76	10.3	1.9	1
3.54 *	10.99 *	4.3	2
3.28	9.33 *	10.0	3
2.74	6.05 **	14.2	4
2.70	5.45 **	19.7	5

\* معنوي عند احتمالية 5%.

\*\* معنوي عند احتمالية 1%.

(3)

/		
DNA	RNA	
2.44	6.76	
2.74	8.58 *	50
3.56 **	9.54 **	100
3.11 *	8.66 *	200

\* معنوي عند احتمالية 5%

\*\* معنوي عند احتمالية 1%

(4)

/			
DNA	RNA		
2.25	8.2		
2.30	10.4 **	50	1
4.20 **	12.1 **	100	
2.30 **	9.4 **	200	
3.10	9.20		
3.85 **	11.75 **	50	2
3.70 **	11.60 **	100	
3.60 *	11.40 **	200	
2.70	6.20		
3.20	10.20 **	50	3
3.6 **	10.80 **	100	
3.6 **	10.1 **	200	
2.30	5.30		
2.50	5.60	50	4
3.30 **	7.00 **	100	
2.85 *	6.30 **	200	
1.90	4.9		
2.90 **	4.9	50	5
3.00 **	5.9 **	100	
3.00 **	6.1 **	200	

\* معنوي عند احتمالية 5%

\*\* معنوي عند احتمالية 1%

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