



**2ip**

***Phoenix dactylifera* L.**

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/ ( 1000 500 250 100 50 0)  
 / 250 . / ( 1 0 ) 2ip  
 2ip  
 1 2ip / 50  
 /  
 . / (1000 500)  
 2ip

## **STUDY THE EFFECT OF YEAST EXTRACT AND CYTOKININ 2ip ON EMBRYOGENIC CALLUS GROWTH OF DATE PALM**

***Phoenix dactylifera* L. cv. Ashkar**

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### **Abstract**

The effects of yeast extract on embryogenic callus growth of date palm cv. Ashkar were studied. Various concentrations of yeast extract were used ( 0 , 50 , 100 , 250 , 500 and 1000 ) mg/L with two concentrations of the cytokinin 2ip (0 , 1) mg/L. Results showed that the conc. 250 mg/L in the absence of the cytokinin 2ip gave maximum fresh weight and length of somatic embryos , but this was not significantly differed from the control in dry weight. The conc. 50 mg/L in the presence of the cytokinin 2ip gave the highest number of somatic embryos. In addition, it was observed a browning in embryogenic callus at high concentrations of yeast extract (500 and 1000)mg/L. Thus, it is possible to use the yeast extract for growth of the embryogenic callus, while it is preferred to use yeast extract and cytokinin 2ip together for induction of somatic embryos.

[2,1 ]

(organogenesis)

25 180x25 5.7 somatic [3] embryos

. [4]

120 2 / 1.5 Autoclave 15 °

100 Growth ) :

6 ° 1±27 (Chamber / 16

. [5]

.1 [6]

.2 [7]

.3 [8]

.4 . [9] [8]

. [8]

2ip

(C.R.D)

. [11] %5 R.L.S.D Embryogenic callus

8 (MS)

(1) 2ip [10] MS

60 / 10

(1.869) 2ip / 250 :( / )

/ 1000 NaH<sub>2</sub>PO<sub>4</sub>·2H<sub>2</sub>O (30000)

2ip (0.584) (40) (100) (170)

/ 50 / 1 . (8000) (3000) (0.5)

(1.185) 50 0)

250 NAA / ( 1000 500 250 100

. (0.417) / / 30

(2) / ( 1 0) 2ip

2ip / 250 pH

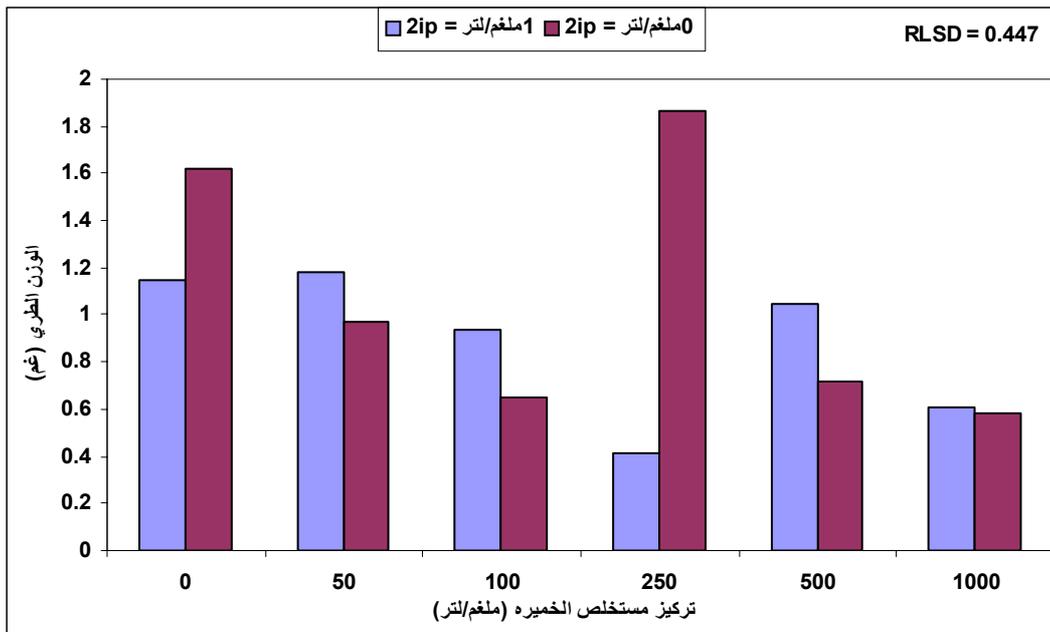
/ 50  
 ( 0.175 0.15)  
 2ip 1000  
 NAA . (0.058) /  
 ( / 1) 2ip  
 [15] (0.125) / 50  
 (0.054) / 250  
 .[16 13]  
 2ip  
 2ip  
 / 100 / ( 250 50)  
 (0.67)  
 2ip . %45  
 2ip  
 .2ip  
 [12]  
 2ip  
 [13]  
 [7]  
 -6 2ip  
 Kn BAP  
 . ( )  
 (4)  
 2ip / 250 2ip  
 (17) tRNA  
 2ip / 100 2ip  
 . (2) tRNA  
 2ip .[14]  
 (1)  
 2ip / 50 (3)  
 / 1000 500 2ip (8.67)  
 500 / 1000 / 250 / 500  
 . / 1 2ip . (1) /

50

2ip /

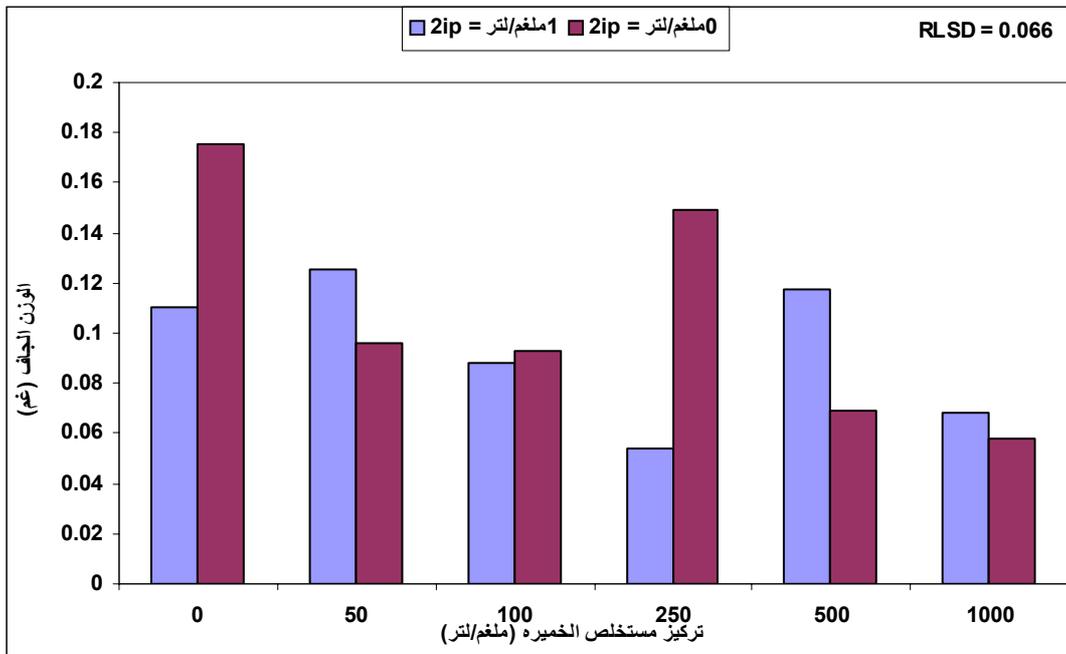
2ip .[17]

2ip / 250



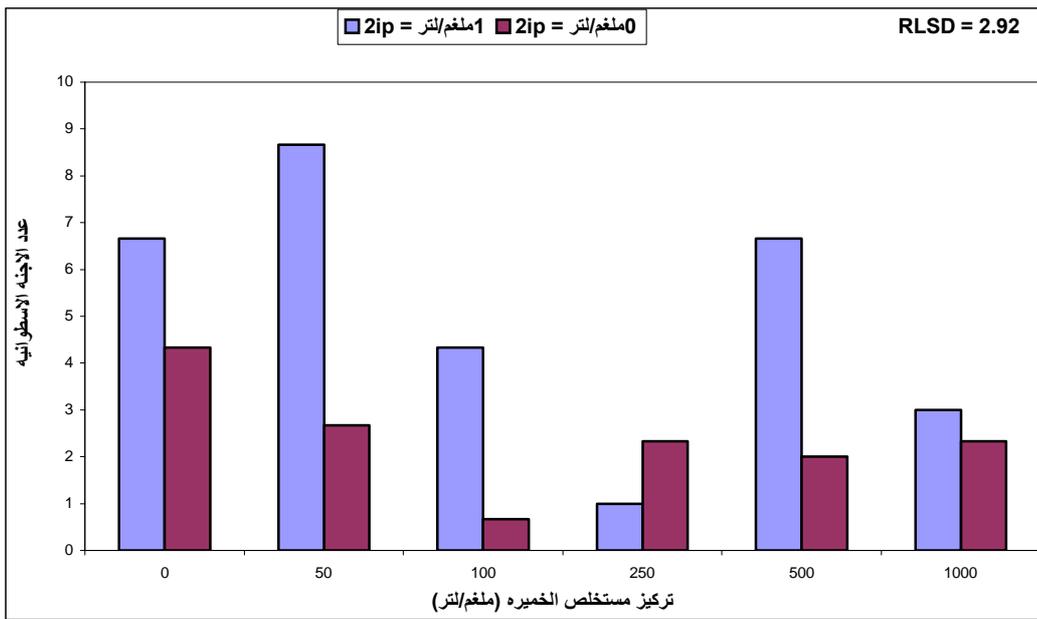
6

:1

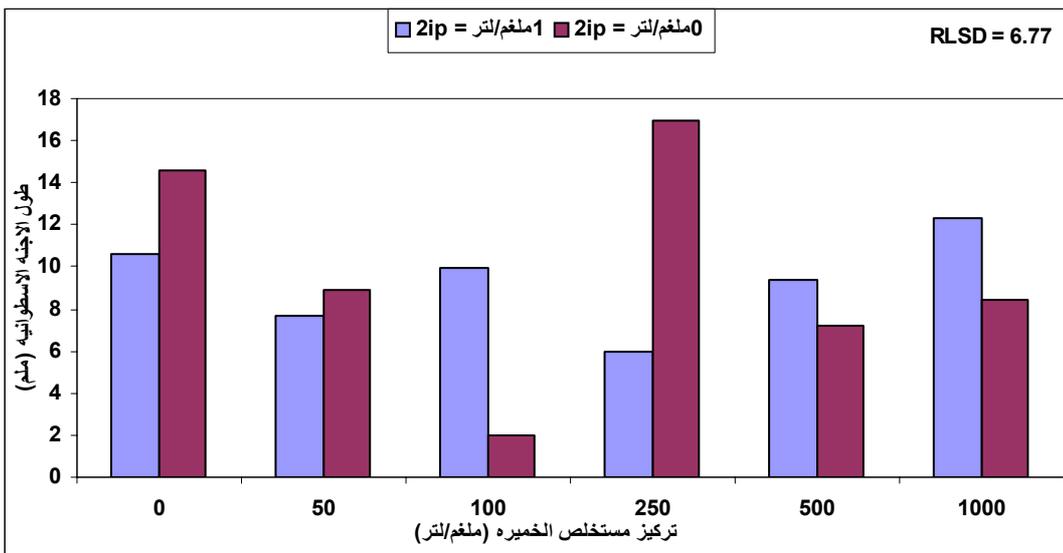


6

:2



6 :3



6 :4

		2ip ( / )
1	0	( / )
-	-	0
-	-	50
-	-	100
-	-	250
+	+	500

6 :1

+ +	+	1000
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