



## Seasonal abundance of the corn leaf aphid, *Ropalosiphum maidis* (Fitch) and Coccinillid beetles on sorghum cultivars

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### Abstract

Field studies were conducted at the college of Agriculture/ Abu-Ghraib, Baghdad during the spring season/ 2008 to evaluate the Seasonal abundance and susceptibility of three sorghum cultivars (Inkhad, Rabih, Kafir) and hybrid money maker against the infestation by the leaf corn aphid, *Ropalosiphum maidis* (Fitch) and its relationships with the predator Coccinillid beetles. Results indicated the susceptibility of all sorghum cultivars & the hybrid money maker to infestation by aphid to a varying degrees , Infestation by the leaf corn aphid, *R. maidis* had started after germination during April and population density has increased gradually and reached its peak of 301,117.75 ,107.75 and 33.5 individual /10 plants for cultivars Rabih, Inkhad, Kafir and money maker respectively, While the general means of Seasonal abundance aphids were, 108.60, 64.20, 47.38 and 30.08 individual/10 plants for the cultivars above respectively during the spring season. Coccinillids beetles began to arrive to sorghum fields early in few numbers (3-4) beetle/plot during April, then began to increase gradually to reach its peaks of, (49.50, 43.50,40.50and 37.75) beetle/plot on cultivars Inkhad,Rabih, kafir and money maker respectively during May. This increase coincide with aphid peaks and the arrival of sorghum plants to flowering. Results indicated an association under a high significant level of 0.01 between numbers of *R. maidis* and the Coccinillids, (a value of  $r= 0.964$ ). Mainly, two species of coccinillids were observed feeding on aphid, *R.maidis*, The seven- spot ladybird, *Coccinella septumpunctata* L. and 11-spot ladybird, *Coccinella undecimpunctata* L. The role of the hybrid money maker , and the importance of leaving a low level of corn leaf aphid as food for the Coccinillid predators in sorghum field also discussed .

45	(2)						101 (1)
	<i>R. maidis</i>		12				
			11				(3)
	(4)						
			( 10 9 8 )		(7)	(6)	(5)
	(11)						
B37							<i>R. padi</i> OH45 A16

14	( 12)		B73 W153
		57	26
(Coccinillidae)			(13)
		<i>Coccinella undesempunctata</i> L.	11
		<i>Orius albidipennis</i> (Reut.)	
			(14) .(Spiders )
		<i>Schizaphis graminum</i> R.	
2008 /	/		
	/		4 × 3
2008/3/22			(RCBD)
10	75		
	(15)		
		:	
-	/		/
	(16)		
	<i>Rhopalosiphum maidis</i>		
		/	
(10-7)			12
	2008 /		
Coccinillidae			

*R. maidis*

12 (10-7) / /

( )

**R. maidis**

(1)

10 / 27.25  
10 / 19.50 – 18.00

(1)

10 / 62,75  
10 / 29.75 34.75 37.00  
(1) (1)

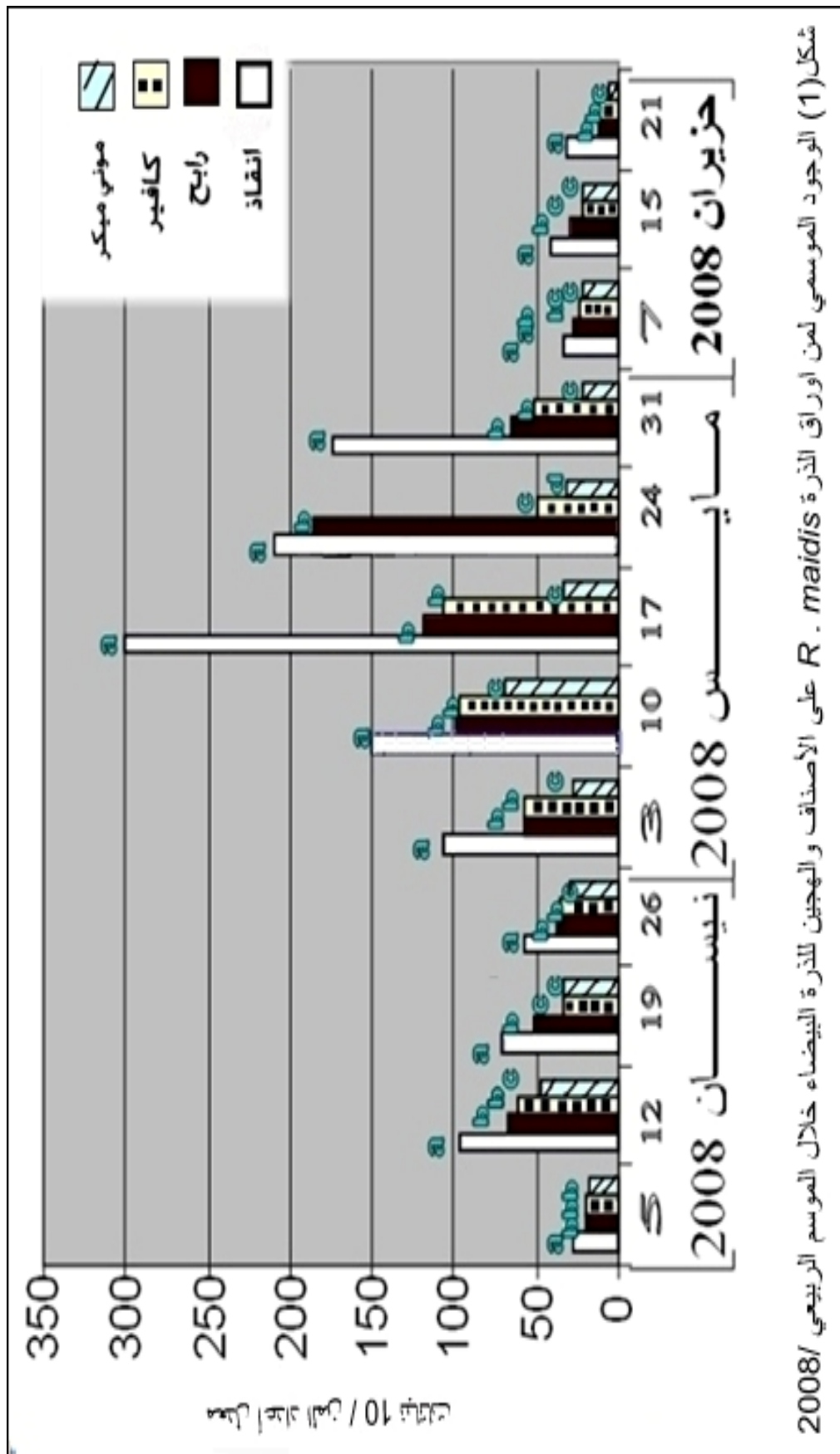
/ 33.50 107.75 117.75 301

10

%11

5.25

10 / 31.50



شكل (1) الوجود الموسمي لمن أوراق الذرة البيضاء *R. maidis* على الأصناف والهجين للذرة البيضاء خلال الموسم الربيعي /2008

(17)

*R. maidis*

(10)

2008

*R.maidis*

(1)

	10 /			
108.60 a	35.33a	188.60a	64.20a	
64.20 b	23.33b	105.05b	43.81b	
47.38 c	18.92bc	64.91c	37.44c	
30.08 d	15.83cd	36.85d	32.31d	
3.51	7.41	3.70	4.28	<b>LSD</b>

LSD

( )

0.05

*R.**maidis*

/ 4 - 3

2

.(1)

43.50 49.50

/ 37.75 40.50

(2)

(1)

(2) 2 1  
*R. maidis* 0.01  
 11 *Coccinella septumpunctata*L. 7  
 0.946 = r *C. undecimpunctata* L.  
 (8) *C. undecimpunctata* (L.) 11

2008/

(2)

	10 /			
19.07a	9.50a	32.80a	9.00a	
15.56 b	8.69ad	25.65b	7.89ab	
13.18 c	6.13 b	22.50c	7.08ab	
11.68 d	5.75b	19.80d	6.07b	
1.16	1.31	1.34	2.26	<b>LSD</b>

LSD

( )

0.05

*C. undecimpunctata* 11 *Coccinella septumpunctata* L. 7  
 L.

11 :

%45

%13

7

9

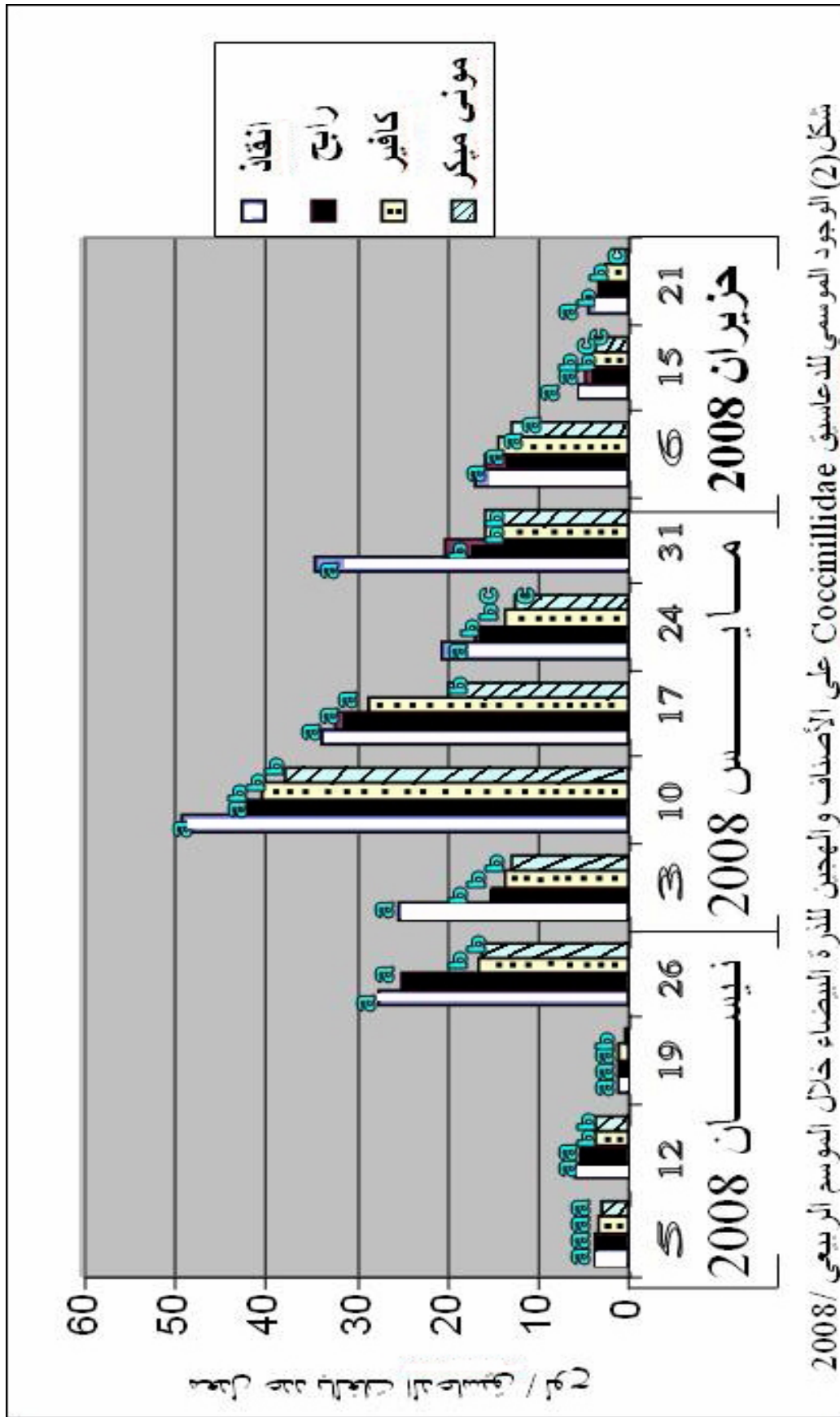
% 10

13

7

% 32

.(18)





*S. cretica*

7

11

(10)

(13)

11

*R. maidis*

(19)

11

/

(20)

/ *R. maidis**Schizaphis**graminium*

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