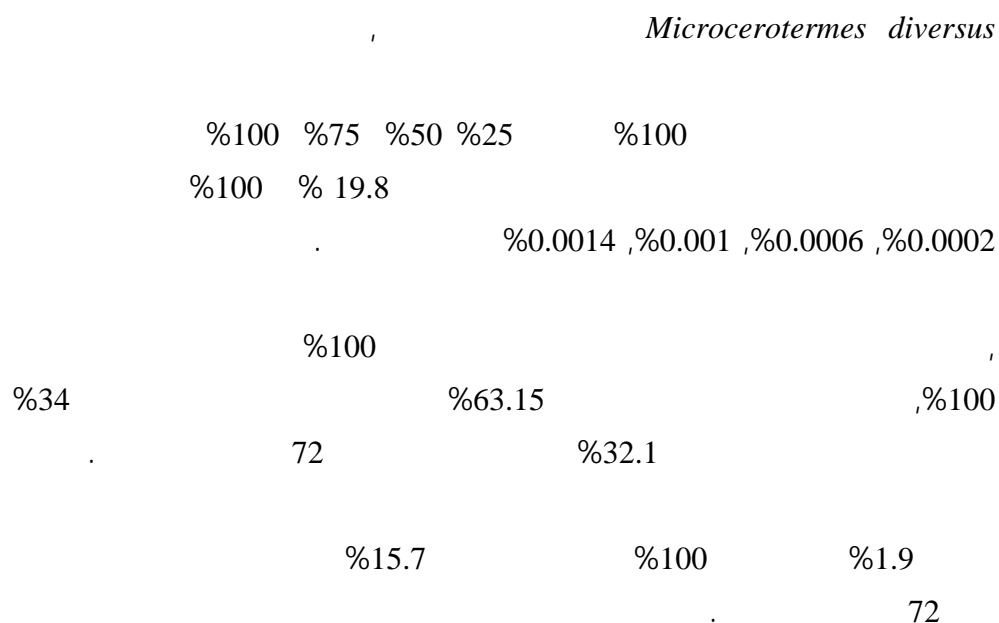


Microcerotermes diversus* Silvestri (1920)*(Isoptera :Termitidae)****effect of some plants water extracts on the workers of
subterranean termites*****Microcerotermes diversus silvestri* (1920)****(Isoptera:Termitidae)****Nassar Abd Ali Al-Mansur Kadhim Saleh Al-Hadlag Sanaa Jameel
Thamer****Abstract**

the activity of the water extractes of *Nicotiana tabacum* , *Nerium oleander* , *Ricinus communis* . , *Eucalptus* sp. , *Clerodendrum inerme* , *Piper nigrum* , *Melia azedarach* . , *Citrullus colocynthis* , and *Capsicum frutescens* were

...
 evaluated on the termites workers of *Microcerotermes diversus* in the laboratory with different concentrations .
 Result showed ,there are an effective on the mortality of termites.The most effective was the tabacum plant which cause 100% mortality rate when used on filter paper and spray in all concentration(25%,50%,75%.100%) and graduated between 19.8%- 100% in the lower concentration 0.0002%,0.0006%,0.001%, 0.0014% in both treatments.Other plants extracts varied in their effective with the different methods , water extract of *N.oleander* and *R.communis* were the high effect in 100% mortality rate for spray method in 100 %concentration, followed by *C. frutescens* with 63.15% and *Eucalptus* sp with 34% then *C. colocynthis* with 42.1% in the same conce. after 72 hours of treatments. while the extracts of *M. azedarach* and *P. nigrum* was the lowest effect causing 1.9% mortality in concentration 100% for peper method and 15.7% for spray method in the same concentration after 72 hours of treatment .

(Pearce, 1997 ; Edwards & Mill, 1986 ; Mauldin *et al.*1982)

(Krishna & Weesner ,1970)

)

.(1999, ,1979, ,1987,

,(Pearce, 1997)

(1993 ; 1979)

(Pearce, 1997)

Addor, 1995)

Blaske & Hertel ; Cornelius *et al.*,1995; Gonzales- Coloma *e al.* ,1994;

) (,2001

. (Blaske & Hertel,2001 ;1993 ;1991 ;1979

M. diversus

(1987,)

2003/9/13 – 2003/6/25

/

M. diversus

20 × 35 × 50

5

Autocleave

. 35 – 25

:

/ 4 / 5

)

2003 / 10 / 15 2003

(

(2) ,(BSRA)

:(2)

	Solanaceae	<i>Nicotiana tabacum</i> L.		1
	Apocynaceae	<i>Nerium oleander</i> L.		2
	Euphorbiaceae	<i>Ricinus communis</i> L.		3
	Myrtaceae	<i>Eucalyptus</i> sp		4
	Verbenaceae	<i>Clerodendrum inerme</i>		5
	Piperaceae	<i>Piper nigrum</i> L.		6
	Meliaceae	<i>Melia azedarach</i> L.		7
	Cucurbitaceae	<i>Citrullus colocynthis</i>		8
	Solanaceae	<i>Capsicum frutescens</i> L.		9

:

(1995)

60

200

100

S/S Japan

National

Hera

/ 3000

Doman/FEC division Cu-5000

200

% 100 stock solution

%100 %75 %50 %25

%1 %0.25 %0.2 %0.15

Tween 20

100

Liquid paraffin

:

:

1

9

Whatman No. 1

9

1.4

0.5

3

°25

%0.1

Neutral red

0.5

(Blaske & Hertel, 2001)

()

Neutral red

3

:

9

1.4

0.5

30

0.5

°25

()

3

:

C.R.D.

Abbot Formula

Abbot, 1925)

Schneider and Orell Formula

Arcsine Transformation

(1980

(1993)

(0.01)

(R. L. S. D.) (. . .)

. (1980)

:

()

%2.5

Neutral red

1

(p =0.01)

%25

%100

(1998 1992)

(1993 1979)

%75 %5.12 %100 %50 %6.40 %10.25 %17.94 %14.09 %2.56 %8.97 %15.38 %25

%1.92 %100

(1981)

(2001) *Earias insulana*

Musca demestica , %44.08 %53.33

Badshah *et al* (2002)

Calotropis procera , %24, %16, %13.3, %9.30 , *Coptotermes heimi*

%56,%37.3, %32, %10.7

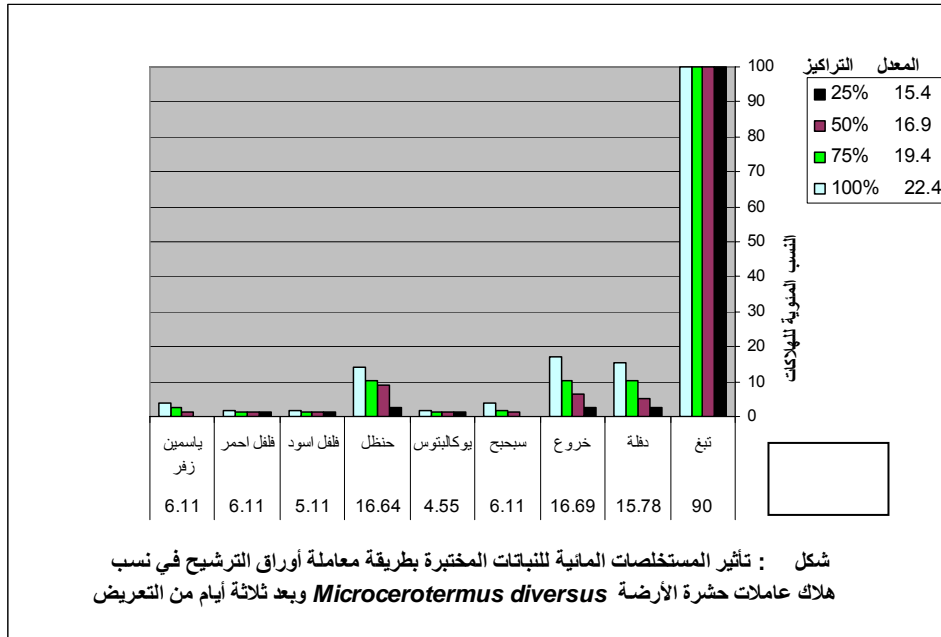
1.5%, 1%, 0.5% ,0.3%

(×)

%1 %0.25 %0.20 %0.15

%0.15 %100 %1
, %100 %34.61

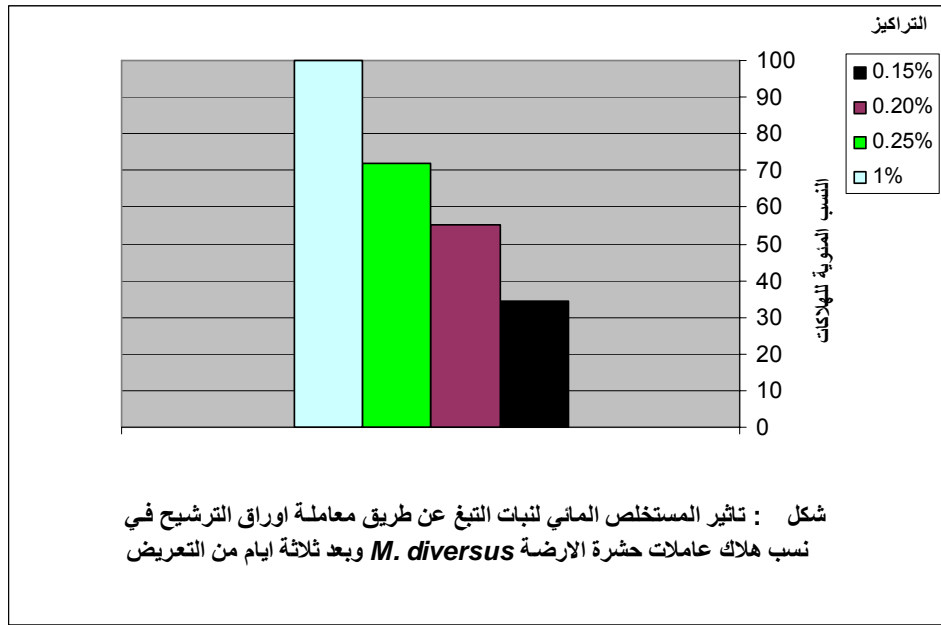
(1979)



(P <0.01) 3.25 = R.L.S.D

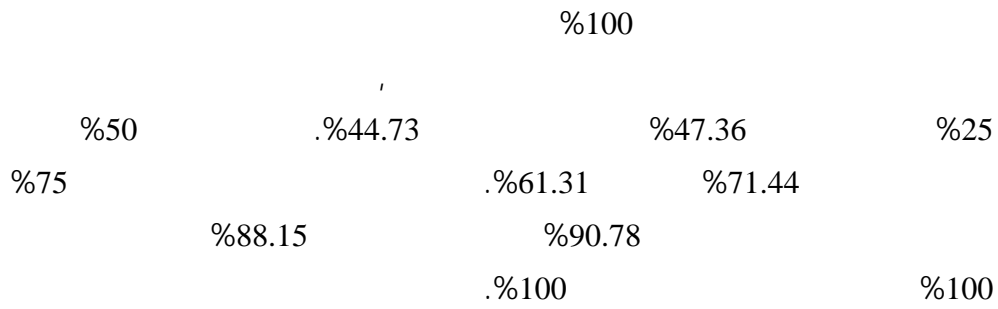
(P <0.01) 8.99 = (×) R.L.S.D

(P <0.01) 2.71 = R.L.S.D



(P <0.01) 4.04 = R.L.S.D

3)



...			
%25	%63.15	%36.04	31.57 %17.09
			%100 %75 %50
		%42.10	%31.57,%21.04 ,%11.83
%21.04,%14.46,%6.57		%34.20	%15.78,% 10.52,%1.31
			%27.62
	%25		
2.63		%7.89	0
			%15.78
		(P = 0.01)	
		(×)	
			4
%1	%0.25	%0.20	%0.15
		%1	
	%25	%47.36	%100

Chemoreceptor

Spiracles

(Taniguchi *et al.* 1979)

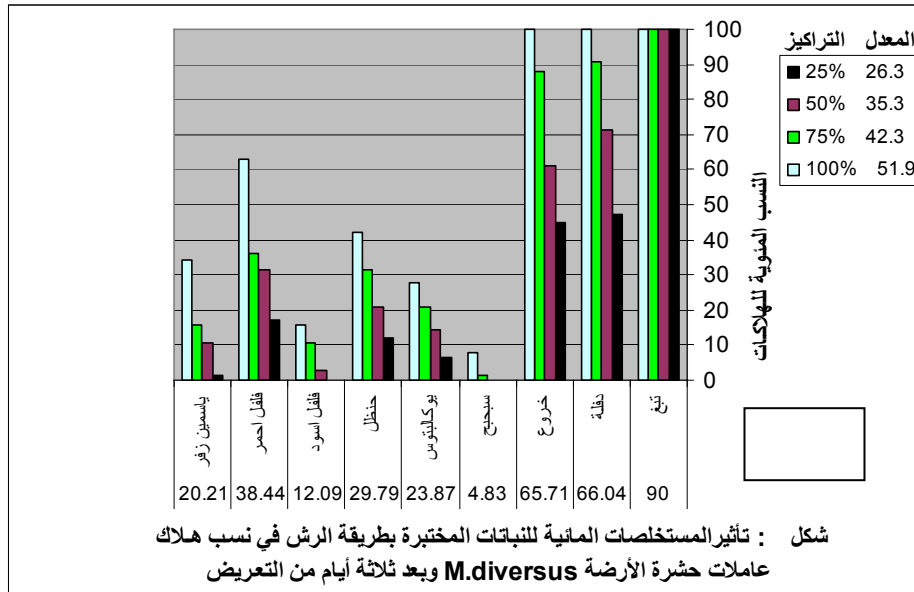
(Stipanovic 1983 ; Beck & Reese, 1976) *protenase*

(Pederson *et al.* 1976)

(1989)

(1999) , *Culex molestus*

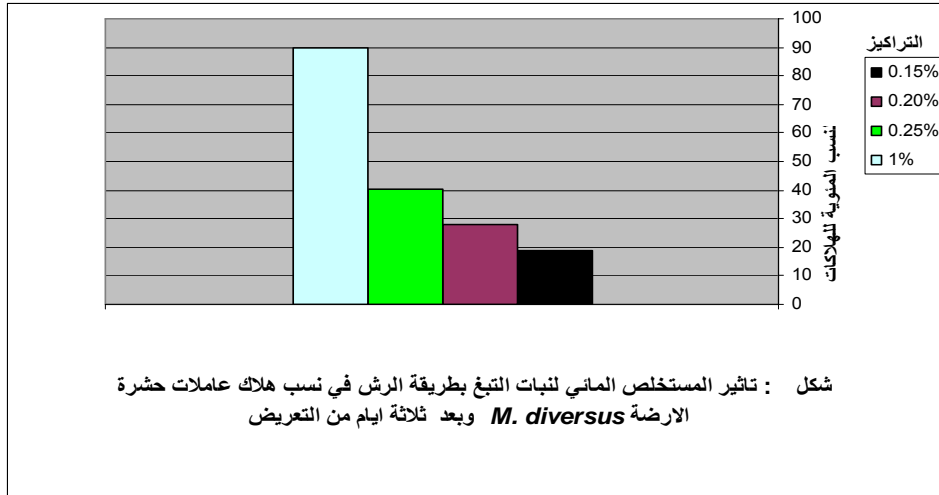
Tetranychus urtica



($p < 0.01$) 3.05 = R.L.S.D

($p < 0.01$) 6.48 = (×) R.L.S.D

($p < 0.01$) 2.49 = R.L.S.D



$(p < 0.01) 5.41 = \text{R.L.S.D}$

.(1999)

.72-61 11-9

Myrtus communis .(1991)

111

.(1992)

ommatissus binotatus lybicus De Berg.

87 . - - .(Homoptera:Tropiduchidue)

.(1980)

488 .

Convolvulus arvensis L.

.(1998)

Ipomoea cairica (linn) sweet

Schizaphis

- - . *grarainum* (Rond) (Homoptera:Aphididae)

111

.(1979)

314 .

(Insecta : Isoptera)

.(1987)

323 .

.(2001)

. *Musca domestica* L. (Diptera : Muscidae)

107 .

Ibicella

.(1995)

(Martyniaceae) *lutea* (stoph) VBan Esist

Bemisia

126 .

- . *tabaci* (Genn)

(1999)

Tetranychus

urticae (kock) (Acari : Tetranychidae)

126 . - .

520 . . (1993)

66 (1979)

(1981)

117 . - .

Culex (1989)

114 . - . (Diptera : culicidae) *molestus*

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