

***Chaetocnema tibialis* (Illiger)
(Chrysomelidae: Coleoptera)**

(2)

(1)

		.2009		2008	
%90.88	(cypermethrin) Cyperino				
(%49.35)	(diazinonn) Nimadol	%90.69	Cypermethrin		
	(Alpha-cypermethrin) Sopreen				
	(%60.81)		(<i>Melia azedaracht</i> L.)		
28.44	31.35		(<i>Styrax officinalis</i> L.)		
Sopreen	(<i>Capsicum annuum</i> L.)		%16.56		
			7	(%58.55)	
		10	% 51.80	3	% 63.19
10	%74.57	3	%41.67	Sopreen	

Chaetocnema tibialis :

30621 . . . (1)

(2)

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Efficacy Some Insecticide and Plant Extracts for Controlling, Beet Flea Beetle, *Chaetocnema tibialis* (Illiger) (Chrysomelidae: Coleoptera)

Z. Al-Nasser⁽¹⁾ and M.Y. Ibrahim⁽²⁾

ABSTRACT

The efficacy of insecticide and plant extracts were tested against beet flea beetle, *Chaetocnema tibialis* (Illiger) during 2008 and 2009 seasons. Six pesticides were evaluated against beet flea beetle, results showed that Cyperino gave the highest effective percentage (90.88) followed by Cypermethrin (90.69%), in comparison with Nimadol (49.35%) after two weeks of treatment. Four plant extracts were evaluated against beet flea beetle in comparison with Sopreen. Results showed that *Melia azedarach* L. extract gave the highest effective percentage (60.81) followed *Styrax officinalis* L. leaves and branches and *Capsicum annuum* L. extracts by 31.35, 28.44 and 16.57, respectively, in comparison with Sopreen (58.55%) after 7 days of treatment. Percentage of efficacy decreased gradually by increasing the period of exposure after treatment for plant extracts from 63.19% after 3 days to 51.80% after 10 days of *Melia azedarach* L. extract. Whereas the efficacy percentage of Sopreen increased from 41.67% after 3 days to 74.57% after 10 days of treatment.

Key words: Beet Flea Beetle, *Chaetocnema tibialis*; Chemical control, Plant extracts.

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5 %27 %22-16
110 10-7.5

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Chaetocnema tibialis
Coleoptera Chrysomelidae

(2008) Bukejs

Dancila (Haghshenas *et al.*, 2008)

(2006)
2003 2002

(Yaman, 2004)

.(2009)
/

30

280

400

.(Kocourek *et al.*, 2002)
(2007) Cagan *et al.*,

Dipelex,

(2004)

(*Beauveria bassiana*) Biofly (*Bacillus thuringiensis*)
ocellatello) (*Chaetocnema tibialis*)

(*Pegomia betae*) (*Scrobipalpa*

28.66) (%19.1 27.28) Dipelex

1998 (%38.42 15.82) (%27.10

Biofly 1999

1999 %29.65 24.42

2000

(2004) Keresi *et al.*,

thiamethoxam, carbofuran, fipronil, imidacloprid + pensicuron,)

Chaetocnema tibialis (carbofuran + bifenthrin
wireworms

(carbofuran + bifenthrin)

Melia azedarach L.

.(Arnason, *et al.*, 1989)

.*Styrax officinalis*

(Martinez and Emden, 2001)

(Mordue and Nisbet

.2000)

(Heberatt *et al.*, 2004)

(2007) Gokce *et al.*,

24 %0.56
%2.24 72 48 %3.29

24 %99.44 91.07 *Humulus lupulus*
48

(2009)

%42

%43.67

:

-

-

2009

2008

36.42

485

7

34.41

439

2 (6X4) (15) CRD
20 50

-1

(1)

()

5

()

(Henderson and

.Tilton, 1955)

$$100 \times \frac{\times}{\times} - 1 = \%$$

(1)

100/ 25	SC	/ 480	Thiacloprid	Calypso
100/ 150	EC	/ 212+ / 278	chlorpyrifos Ethyl +dimethoate	Sanunit
100/ 125	EC	/ 600	Diazinonn	Nimadol
100/ 150	EC	/ 400	Dimethoate	Dimethoate
100/ 120	EC	%10	cypermethrin	Cyperino
100/ 40	EC	%25	cypermethrin	Cypermethrin

: :

Melia azedarach L.)
officinalis *Capsicum frutescens*. L.
 .Sopreen (Styrax
 200 (%95)
 24 5 ()
 600

(Rotary evaporator)

.° 40

25

RCBD

1/3 1 ()

(2)

(2)

100/		
³ 100	(Duke 1985)	
³ 100	(Benzoin, Benjamin) (Duke 1985)	
³ 100	(Perry,1980)	
/ 275	10% Alpha-cypermethrin EC	(Pesticide) Sopreen

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5

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10 7 3

.(Henderson and Tilton, 1955)

:*C. tibialis*

Sanunit Calypso) (3)
(Cypermethrin Cyperino Dimethoate Nimadol

C. tibialis

(3)

.2008

	3	2		
71.72	65.08 a,b	81.62 a	68.46 a	Calypso
51.34	25.60 c,d	69.97 a,b	58.45 a	Sanunit
37.70	6.50 d	49.35 b	57.25 a	Nimadol
60.09	43.79 b,c	69.60 a,b	66.88 a	Dimethoate
85.62	87.99 a	90.88 a	78.00 a	Cyperino
79.52	88.51 a	90.69 a	59.35 a	Cypermethrin
-	30.033	26.033	36.80	L.S.D 0.05
-	21.9%	19.41	21.95%	C.V

%78 Nimadol %57.25
.05

Cyperino

%90.68 90.88
%81.62 Calypso Cypermethrin Cyperino
%69.60 Dimethoate %69.97 Sanunit

(L.S.D= 26.03)

0.05

(%49.35) Nimadol

.05

Calypso Cypermethrin Cyperino

%65.08 87.99 88.51

Calypso Cyperino Cypermethrin

%25.60 43.79 Sanunit Dimethoate 0.05

%6.50

Nimadol

85.62 Cypermethrin Cyperino
 %60.09 71.72 Dimethoate Calypso %79.52
 .%37.70 Nimadol %51.34 Sanunit

Nimadol cypermethrin
 .%37

(Lukashyk and Ladewig, 2008; Keresi *et al.*, 2004)

) (4)
 (*Chaetocnema tibialis* Sopreen
 Sopreen 0.05 3
 (L.S.D.= 6.901)
 34.90 41.67 %63.19
 %32.58
 .%24.59
 7
 %60.18
 %31.35 %16.18
 Sopreen %58.55
 (L.S.D.= 8.77) 0.05
 %51.80 10
 0.05
 (L.S.D.=19.096)

...

%74.57

%21.98 14.98 %11.71

%58.26 58.60 Sopreen

.%17.62

Sopreen **(4)**

	10	7	3	
27.08 b	14.98 c	b31.35	b, c34.90	
27.67 b	21.98 c	b28.44	c32.58	
17.62 b	11.71 c	c16.57	d24.59	
58.60 a	51.80 b	a 60.81	a63.19	
58.26 a	74.57 a	a58.55	b41.67	Sopreen
18.02	19.096	8.770	6.901	LSD 0.05
26.2	29.69	12.31	9.62	Cv%

(2009)

.%58.18

(2009) Dimethoate

) Alpha-cypermethrin ((2005)

cypermethrin -

Nimadol Cyperino %85.62 -

.%37

Sopreen -

.%58.60

10 -

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 .2009 4-3 . -
- (2005) .
 .190 -175 :(2) (27)
 .(2009) .
 Phytophthora spp ()
 4-3 . - .2009
- (2009) .
Cacopsylla pyri L. (Hemiptera: Psyllidae)
 - 2009 13 - 11 .
- (2009) .
Prays oleae
 .2009 4-3 . -
- (2004)
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