Arenipses sebella: Hamps (Lepidoptera: Pyralidae) Batrrachedra amydraula: Meyr (Lepidoptera: Mumphidaon) Phoenix dactylifera L.

* * *

.()

· ·

.1

.

.2007/10/28 2007/4/19

. / 2007 © -504-

```
.2003 /10/25
                         3/21
     )
                            (CRBD
       18
                                                                       (2006
                                                                                         )
                                                                         Hamp
                  90
                                                  Arenipses
                                                                                  (Lepidoptera:
                                                               sebella:
                                                  Batrrachedra amydraula:
                                                                                     Pyralidae)
                                                              Meyr (Lepidoptera: Mumphidaon)
                :(
                            )
                                                             %90
                                                                     %20
                                     )
                                                                                              )
                                                                            (2005
                                                                  (1984
                                                                             )
                             )
                             :(
                                                                              (Mohamed, 2000)
                                     )
                                         70
                                                                              2001
                                                                                       1999
               :(
                            )
: (
                                                                               .2
                                                        (2005
                                                                                  0.4x0.4
                                                                 120×60
               .(Abdul Haq and Akmal, 1972)
                                                               2002/10/22
                                                                               3/15
                                                        3/20
                                                                                    2003/10/24
                                                               2002/10/23
                                                                              3/18
```

···

.3 2002 2003 2002 2002 2003 .2002 2003 2002 2003 2002 .4)) (1983 (1996 (Kranz et al., 1978) 1999

(1985) 2002

.(Mohamed, 2000)

.(2006) .(Venezian and Blumberg, 1982)

2003 2002

```
( 2006
                                                15
                                          22
                                          20
                                          1
                                                                        15
                                                   (Southwood, 1975)
                                            10
                                                     25
                                                  )
                                                                        2006
                                       (1990)
                                                                   2006)
)
          (1987
                      (2000
                        (1991
                               )
                                             )
                                                                        (
```

···

```
.(
20
                      300
                                 40
                                               .2002
                                )
      . (1999
                                                (Anon,1982)
)
                        :(2005
                                                                                     )
                                                   (1991 )
                                                                              60
                      .(1983
                                                 (Mohamed, 2000)
                                                                    2006
                                                                                     )
                     (1985
                                                        )
                                )
                                                                                (1994
                                                   (Michael, 1970)
                                                                        ( 2006
   (Elmer, 1966)
                                                    (2000
```

-508-

.2003 2002

:(1)

2003	2003	2002	2002	
65.2A	37.36B	21.36B	33.61B*	1
50.3B	27.5C	16.9C	29.6BC	2
3.9C	2.7D	2.0D	3.0DE	3
0.6D	0.41E	0.2E	1.0E	4
59.9AB	65.6A	28.4A	49.4A	5

.%5 LSD

.2003 2002

:(2)

		.2000 2002	_	
2003	2003	2002	2002	
19.7B	32.2AB	25.4B	44.2AB*	1
16.9BC	20.2C	20.2BC	22.3B	2
3.6C	2.8D	5.2DE	7.3C	3
0D	0E	2.3E	1.3D	4
38.5A	43.2A	48.5A	49.4A	5

.%5 LSD *

.2003 2002

:(3)

2003	2003	2002	2002	
28.6B	73.2A	29.4AB	88.7A*	1
26.1B	71.8AB	20.2 BC	62.0C	2
1.2C	1.8 C	1.7CD	2.0DE	3

...

2003	2003	2002	2002	
0D	0D	2.2D	1.2E	4
33.1A	79.3AB	34.9A	80.0AB	5

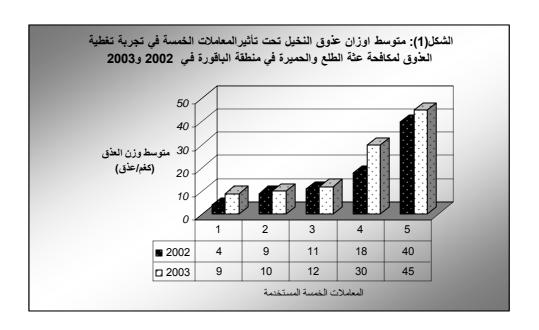
.%5 LSD

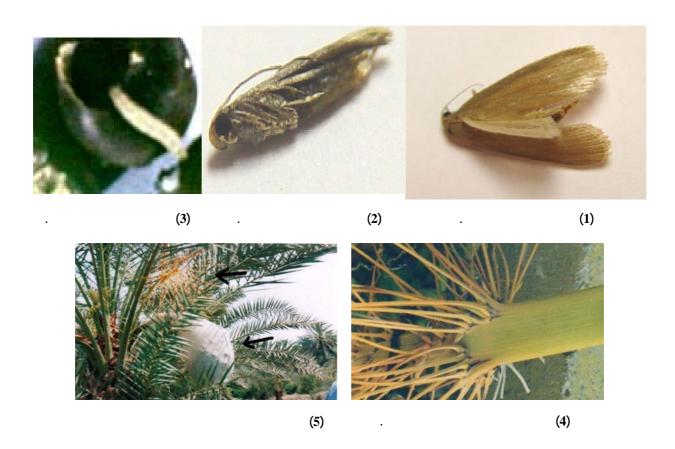
:(4)

.2003 2002

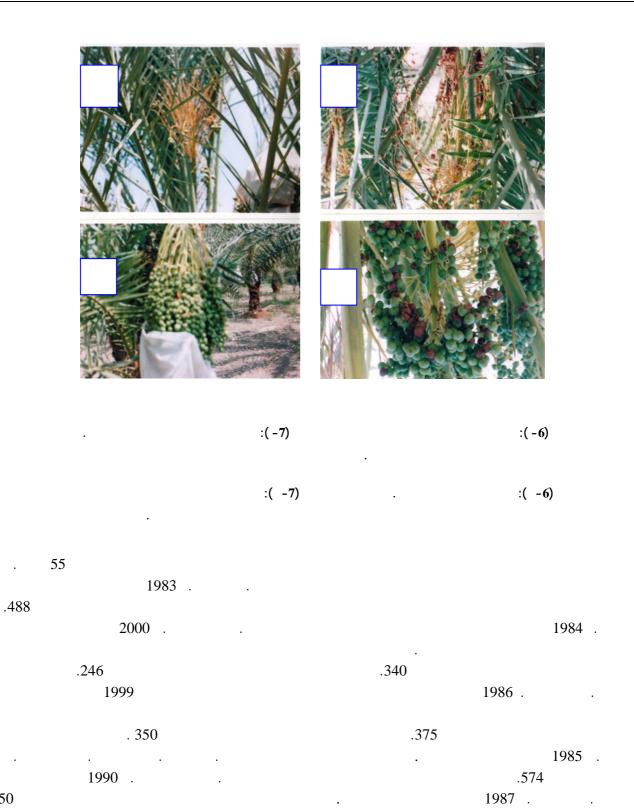
2003	2003	2002	2002	
45.7A *	32.5 A *	13.3B*	38.8BC*	1
21.9B	19.7BC	12.9B	37.8C	2
2.1C	1.53C	1.2C	1.2DE	3
0.0D	0.0 DC	0.0D	0.0D	4
55.6A	33.1A	25.6A	55.1A	5

.%5 LSD *





-511-



.488

.150

Abdul Haq, K. and Akmal, M. 1972 .Insect Pest of Date Palm and their Control. *The Punjab Fruit Journal*, 33: 208-212.

Anon, I.1982. Pests and Diseases of the Date Palm. in: Date Production and Protection. Food and Agriculture Organization of the United Nations, Rome, Italy, 187-227.

- Elmer, H. 1966. Date Palm Insects and Mites in the United States. *Date Growers Inst. Resm.*, 43, 9-14.
- Kranz, J., Schutterer, H. and Koch, M. 1978. Diseases, Pests and Weeds in Tropical Crops, John Wiley and Sons, New York, 666p.
- Michael, I. F. 1970. Economic Importance and Control of *Batrachedra amydraula* Meyr. (The Lesser Date Moth)

in the U.A.R., Date Growers Inst. Rep. 47: 9-10.

- Mohamed, S. H. 2000. Integrated Control of the Key Insect
 Pests of Date Palm Fruits in the New Valley
 Governorate. M. Sc. Thesis, Department of Plant
 Protection, Faculty of Agriculture, Assiut University,
 Assiut, Egypt.
- Southwood, I. 1975. Ecological Methods with Particular Reference to the Study of Insect Populations. 4th edn., Chapman and Hall, Ltd., London, 391p.
- Venezian, A. and Blumberg, D. 1982. Phenology, Damage and Control of the Lesser Date Moth *Batrachedra* amydraula Meyrick, in Date Palms. Alonha Notea, 63, 785-788.

. .

Effect of Muslin Bagging Technique on the Control of Greater Date Moth: Arenipses sebella (Hamps.) Lepidoptera: Pyralidae and Lesser Date Moth Batrrachedra amydraula (Meyr) Lepidoptera: Mumphidaon on Date Palm Phoenix dactylifera L. in Jordan.

Muna Mashal*, Basil Abeidate* and Naser Romea*

ABSTRACT

A bagging technique experiment was conducted in two sites in the Jordan valley; Ghour kibed in the mid Ghour and Bakoura in Al-Showna Al-Shamalia. The experiment started in March and ended at the fruits harvesting day in both seasons of 2002 and 2003.

The experiment was conducted by using CRBD with three blocks and five treatments. The 1st treatment (Cascade treatment) was induced by spraying Cascade insecticide bimonthly in March, May, July and September. The 2nd treatment (reiterated bagging with Cascade spraying) was applied by spraying Cascade at blooming stage and bagging the treated branches with muslin bags for two weeks. Then bags were pulled out for 70 days, the same procedure was repeated in June for the same treatment. The 3rd treatment (muslin treatment) was carried out by bagging the branches in March until harvesting date. The 4th treatment (Cascade spraying and muslin bagging treatment) was applied by spraying branches with Cascade then bagging the treated ones to harvesting date. The last and fifth treatment was a control with no application.

Results showed that the lowest infestation and intensity percentages of the fruits by the two lepidopterous insects; greater and lesser date moths were in the fourth treatment, then in the third one. On the other hand, infestation and intensity percentages were not significantly different from control, first and the second treatments.

Fruits weight of the yield under the effect of these five treatments was highest with significant differences in the fourth one. While the lowest yield weight was under the effect of the first treatment and the control then the second one. On the other hand, the whole caging of date branches prevented infestation of the fruits by the most serious fruit pests which normally attack the fruits as storage insects, wasps, house flies, birds and rats.

Keywords: Date Palm, Bagging Technique, Muslin, Infestation, Greater and Lesser Date Moths.

^{*}National Center of Agricultural Research and Technology Transfer (NCARTT), Jordan. Received on 19/4/2007 and Accepted for Publication on 28/10/2007.