

THE LAST POSITION OF OLD WORLD SCREW WORM IN IRAQ

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(Received 14 August 2011 ,Accepted 6 September 2011)

Keywords; Screw worm, Pesticides, OWS.

ABSTRACT

Fourteen years of study from September 1996 to September 2010 included all province of Iraq. This study showed behavior and outbreak of old world screw worm from first recoded in Iraq with signal to its epidemiology. Investigation show proliferation and spread of fly in areas and the ways of reach this fly to in. many cases recorded at 60c and zeroC. eradication study where occur by using new method of spraying chemical pesticides and used ivermectin as injection s/c for animals as prevention. This technique improved that no cases were recorded in all town of Iraq especially in Basra which have big problem of infestation of old world screw worm in animals at 2004-2005. Study improve that were good professional staff of veterinarian in Iraq can eradication old world screw worm without using of sterile male fly technique of *chrysomya bezziana*.

INTRODUCTION

Old world screw worm *chrysomya bezziana* belonged to Calliphoridae – Diptera caused myiasis to hot blood animals and human made tissue damaged or death in animals in heavy infestation (3). Myiasis is the infestation of any part of the body of living vertebrate by the larvae of Diptera caused damage to it (1,5,8,7,6,9). The old world screw worm fly *chrysomya bezziana* is an obligatory parasite(11). The first recorded of *chrysomya bezziana* in Iraq in animals at 1996(15) whereas it recorded in human at Basra province by (16) in same year. in Basra there were many cases of myiasis in animals by calliphoridae species (17). host recorded included cattle, sheep, goat, buffalo, chicken, cat, horse and man(18,19,20). This study show there were 120789 total infected cases by old world screw worm in Iraq till 2007 and their 22 cases in human. Many project were done in Iraq from FAO and IAEA in old world screw worm to produce infertile male technique to eradication *chrysomya bezziana* fly(OWS) from Iraq.

MATERIALS AND METHODS

After recorded of many infected animals with *chrysomya bezziana* larvae clinically then taken many larvae for taxonomy and identify by Baghdad natural museum and British natural museum which indicate that it belonged to Diptera- Calliphoridae – *Chrysomya bezziana*. Larvae was collected by medical forceps from deep injuries then put in screw tube contain 70% alcohol (10 larvae / tube), this done after put larvae in worm water. Many trap were took place in all town of Iraq. All information of trap was sent to central laboratory in Baghdad with chief of group dr muntasir alani collection of trap all 2-4 times in a weak from period 2006-2010.

RESULTS AND DISCUSSION

First case recorded in Iraq at 1996 in Altagi village in Baghdad by (22) , then the infestation were reported in other towns in Iraq with chrysomya bezziana (24),Table (1).the main thought of evidence of old world screw fly in Iraq it through Iran across Diyala governorate east of Baghdad, as well as, it sprated through Basra governate south of Iraq by shipping which transport animals through sea. Chrysomya bezziana (OWS) Diptera confirmed at Iraq by British natural museum picture 1. All injuries or wounds in animals or human exposed for invitation from OWS fly to lead its eggs to proliferation on it and take new numbers of fly caused myiasis. Study show many type of body myiasis(cutaneous,gastric,ophthalmic,urogenita myiasis) Picture 2. myiasis cases recorded in all animals(cattle,buffalo,sheep,goat,camel,donkey,horse,cat,dog,and chicken) (20,25,26) ,as well as, fox,badger,dessert rabbit, wolf and pig. Iraqi weather play good role for OWS fly activity at 22-26 C with 40-60% humidity (25). The highest number of infestation by OWS have been at September –December in Basra south of Iraq at 2004-2006 (26). With high number of myiasis case and study improved that OWS fly can resistant high temperature 60C and lower temperature zero (0-60 C). Average (30C) (23,26,20). The author (5) showed that the efficacy of incidence of OWS stopped at 40C and below of 10C. small river and green village surrounded of Basra area take good environment for OWS proliferation and spread widely in south of Iraq as well as the near of basra with Al-Muhammara province at Iran which had heavy infestation with OWS. Foot and mouth disease and tick above animals helped OWS fly to spreated among animals widely in Basra(23).Map(2) Table (2).accumulation of sheep at basra for export to Saudi Arabia and Kuwait with surrounded by silk wall lead to injuries and then myiasis occur with mild temperature and humidity in farm take place of fly to live there but used of new method to eradicate OWS fly successful with good result to eliminate its from south of Iraq by used spraying all farm and animals with chemical substance as well as used ivermectin injection for all animals in all farm S/C as prevention uses from farmer and veterinary team in study that made OWS fly decreased to zero at 2008-2009-2010 (23). The examination of serotype of OWS fly in Iraq Basra by British natural museum show that its similar to that which lived in Africa and Asia and gulf and some of its like in new genus (7). Old world screw worm fly taxonomy now as B of risk disease as OIE diagnosis.

Table (1): Represent the date of recording the infestation in all governorate except Ninawa & Karkuk which dose not suffer from infection untile day.

NO	Name of governorate	Date of infection
1	Diyala	12-9-1996
2	Karbala	17-9-1996
3	Babel	23-9-1996
4	Wasit	25-9-1996
5	Diwania	29-9-1996
6	Anbar	14-10-1996
7	Najaf	27-10-1996
8	Salah aldeen	1-10-1997
9	Muthana	12-1-1997
10	Di Qar	11-11-1997
11	Missan	20-11-1997
12	Basra	14-12-1997

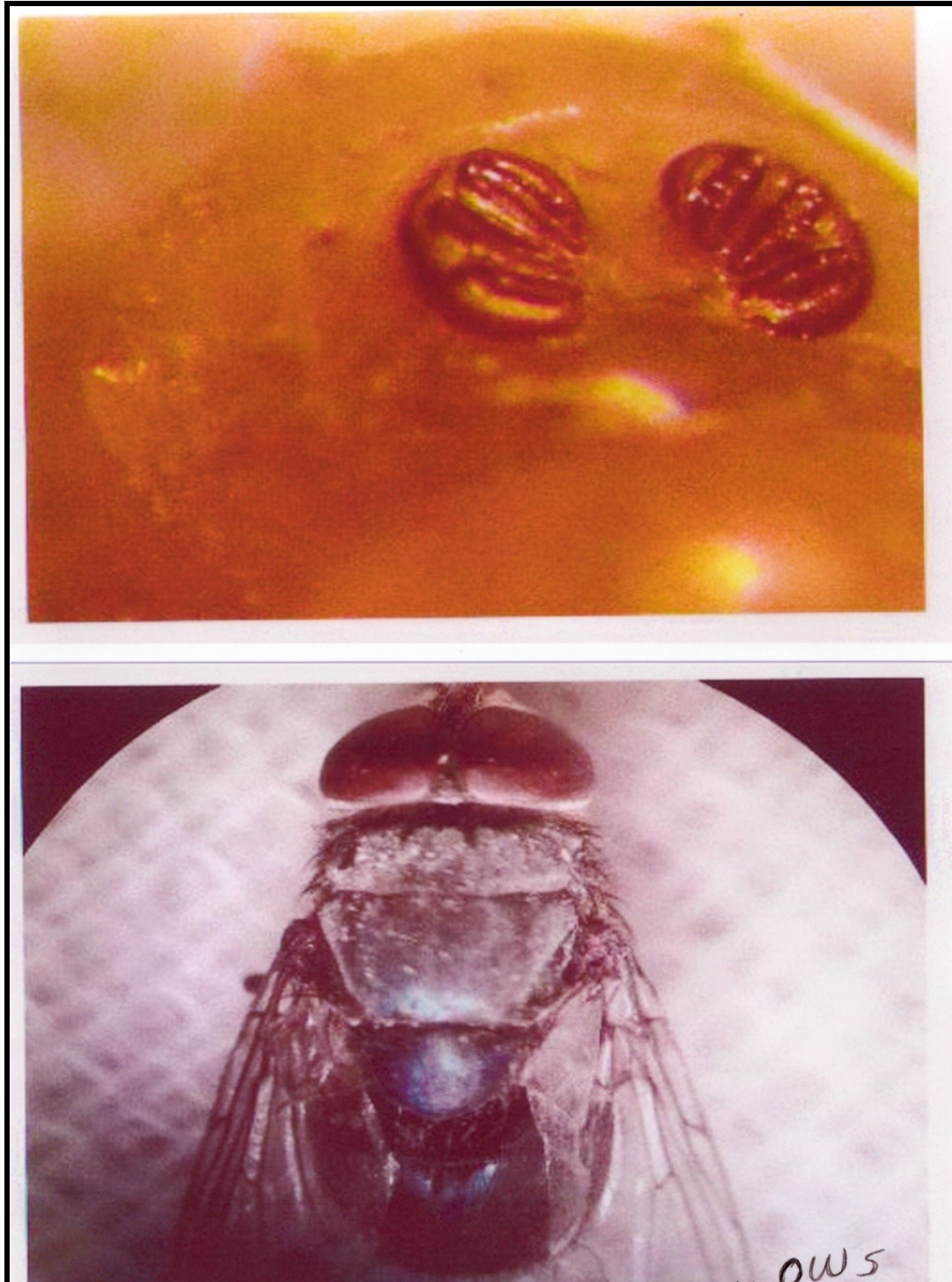


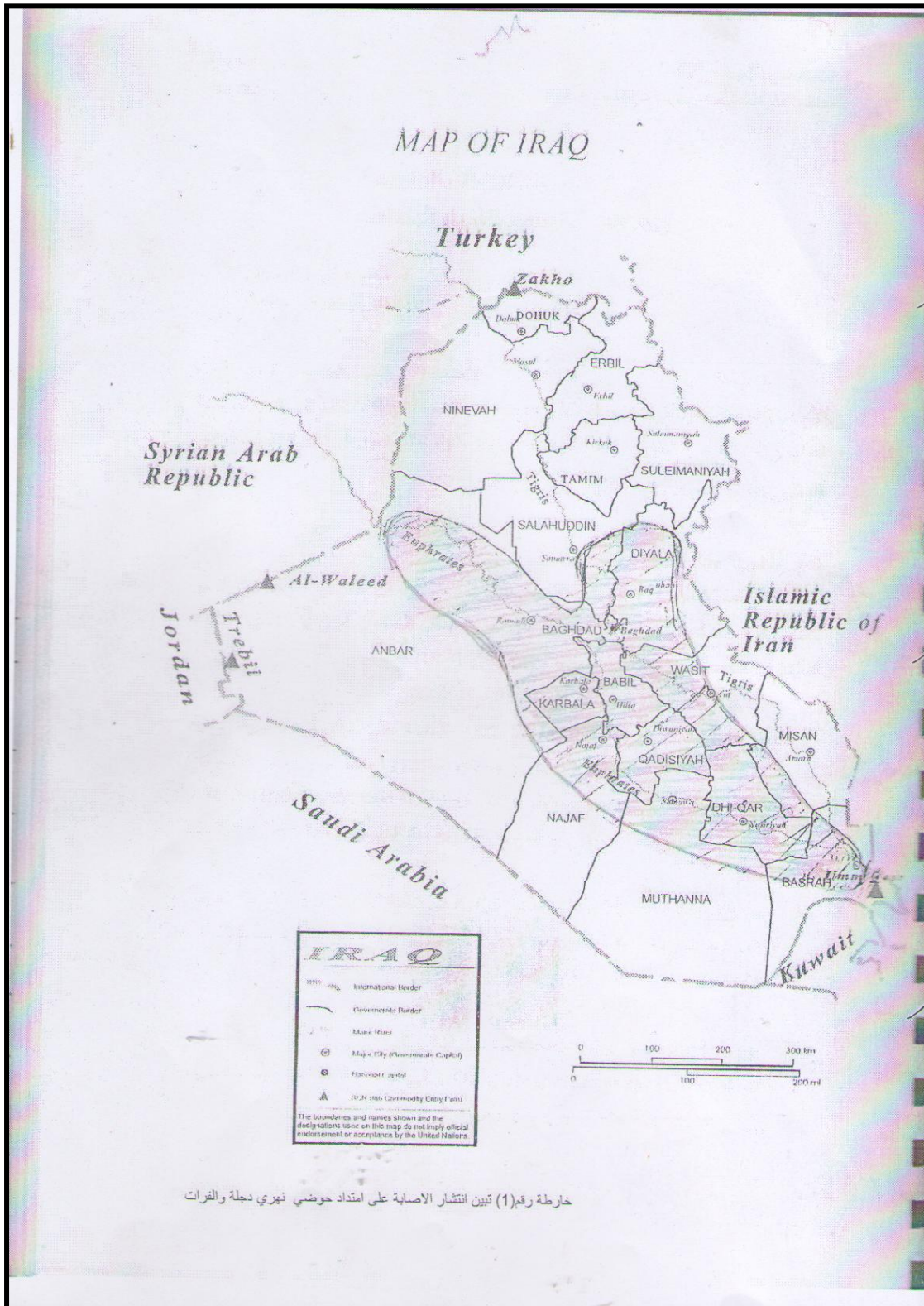
Figure (1): Old world screw worm fly and its posterior respiratory opening

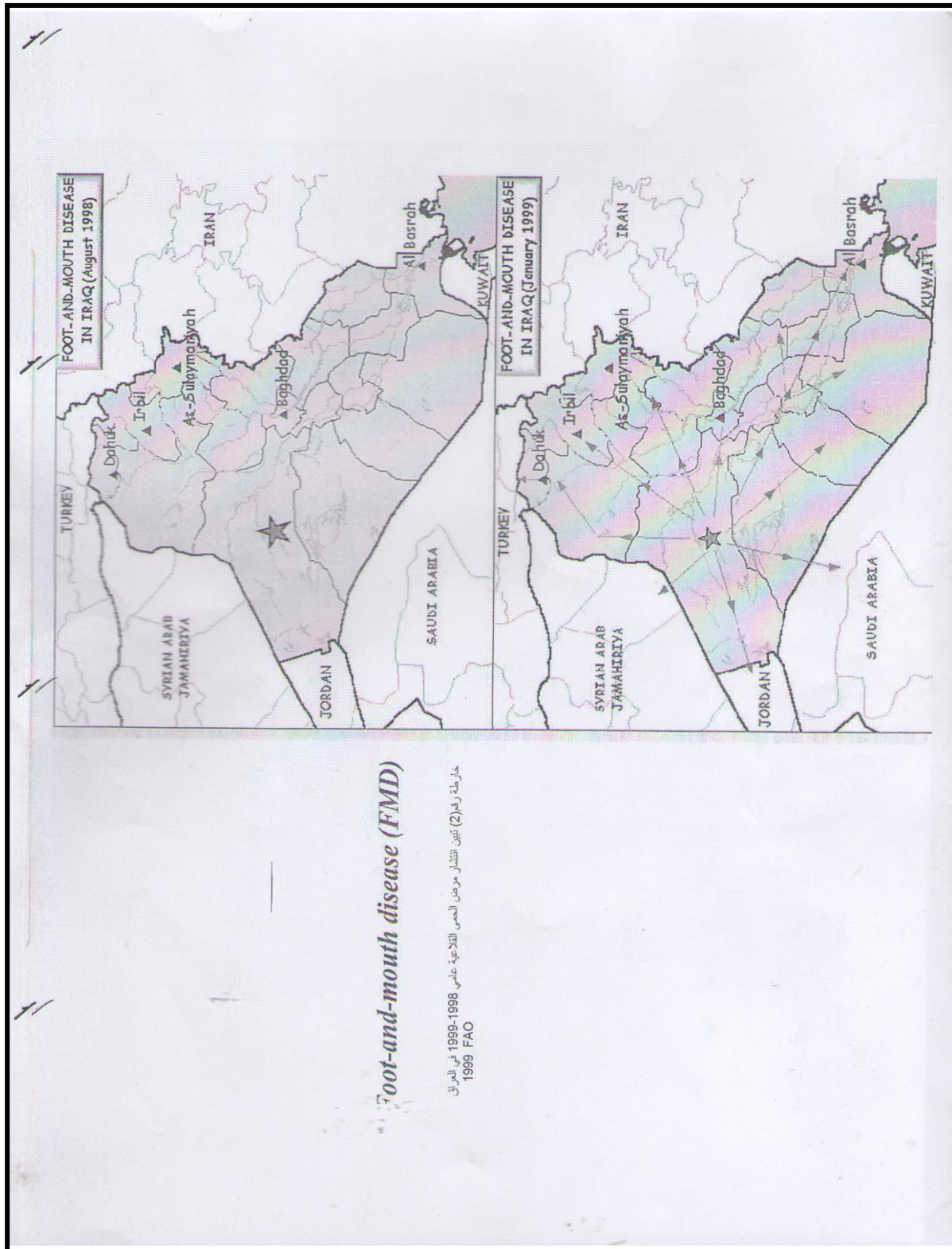


Figure(2): Represent the site of infection by chrysomya bezziana (OWS) in different area of animal

Table (2): Represent the Number of Chrysomya bezziana infection from the beginning in 1996 until 2010 in all governorate

10	09	08	07	06	05	04	03	02	01	2000	99	98	97	1996	Gov.
0	--	--	00	4	3	10	00	1	139	2646	7527	1412	9488	1641	Baghdad
0	--	--	00	5	2	108	3	88	2	303	3408	132	953	1550	DIyala
0	--	--	00	383	2	36	2	33	2	3067	5945	2835	1822	2535	Karbala
0	--	1	00	00	00	00	00	00	00	921	9137	1454	18101	549	Babel
0	--	--	00	00	00	00	00	00	00	59	2124	404	2147	35	Qadisiya
0	--	--	5	00	00	00	00	00	00	693	8936	1929	3056	318	Najaf
0	--	--	00	00	00	00	00	00	00	419	5735	588	1863	11	Anbar
0	--	--	00	00	00	00	00	00	00	339	654	245	871	119	Wasit
0	--	--	00	00	00	00	00	00	00	00	56	77	463	00	Muthana
0	--	--	00	00	00	00	00	00	00	22	146	37	30	00	Salahdin
0	--	--	00	3	1	6	00	00	00	2	257	97	148	00	Thiqar
0	--	--	4	6	1	6	00	00	00	00	10	9	3	00	Missan
0	--	--	2	1465	406	515	00	00	00	00	17	18	1	00	Basra
0	--	--	00	00	00	00	00	00	00	00	00	00	00	00	Ninawa
0	--	--	12	1866	414	675	5	122	143	8471	43952	10425	47946	6758	Total





Foot-and-mouth disease (FMD)

خارطة رقم(2) تبين انتشار مرض الحمى القلاعية عامي 1999-1998 في العراق
1999 FAO

Map(2)

الوضعية الحالية للإصابة بذبابة الدودة الحلزونية للعالم القديم (OWS) في العراق

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الخلاصة

امتدت الدراسة لمدة أربع عشر عام من ١٩٩٦/٩/١٢ ولغاية ٢٠١٠/٩/١٢ وشملت كافة محافظات العراق للتعرف على سلوكية ووبائية دودة الذبابة الحلزونية للعالم القديم OWS منذ تاريخ تسجيلها لأول مرة في العراق وقد توصلت الدراسات الى طرق وصول هذه الحشرة للعراق ووبائيتها ومعالم بيئتها المفضلة للتكاثر والانتشار ومقاومتها للتغيرات المناخية حسب الطبيعية الطوبوغرافية لكل محافظة وأسباب الانتشار وانواع الإصابات لكافة الحيوانات والإنسان مع الإشارة لدور خبراء الطب البيطري في التصدي لهذه الآفة التي أضرت بالعديد من الثروة الحيوانية احد أعمدة الاقتصاد الوطني مع تضافر الجهود الجبارة للدوائر الساندة لوزارة الزراعة والمنظمات العربية والعالمية في رقد العراق بالإجراءات السريعة لمواجهة الحشرة والحد من انتشارها بتقديم الدعم اللوجستي والعلمي للمكافحة والرصد وكانت نتائج الدراسة أن هذه الآفة تقاوم درجات الحرارة المرتفعة ٦٠ م إضافة الى طرق مكافحتها بالمواد الكيماوية العلاجية المستخدمة بطريقة الحقن تحت الجلد والرش العمودي والأفقي واستخدام المصائد المستوردة (سبرادبري) والمحلية لمتابعة الرصد والتحري لهذا الوباء الحشري.

هذا الإجراء أدى إلى عدم تسجيل أي حالة جديدة ببرقات ذبابة العالم القديم *Chrysomya bezziana* في كافة المحافظات ومنها محافظة البصرة التي كانت قد سجلت اعلى الإصابات سابقا (عام ٢٠٠٤-٢٠٠٥) أعطى دليل على قوة، خبرة ودقة عمل أعضاء الفريق الوطني لمكافحة الذبابة الحلزونية والعاملين معهم في مختبرات الشركة العامة للبيطرة / وزارة الزراعة العراقية في التصدي والسيطرة على آفة الذبابة الحلزونية للعالم القديم OWS .

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