

Issue 21

March 2010

www.irac-online.org

About This Issue

Welcome to the Issue 21 of eConnection, the first of our newsletters for 2010. After the holiday period the IRAC Working Groups and Country Groups are as busy as ever. There have been a number of audio calls and face-to-face meetings and of course plans are well advanced for the annual IRAC International Spring Meeting to be held this year at the CropLife America headquarters in Washington DC at the end of April.

In this issue we include the normal updates on IRAC membership, news snippets and upcoming conferences but we can also announce the launch of the new IRAC website, an update on the European pollen beetle monitoring results from 2009, two new IRAC methods, a report on a recent IRM seminar held in Malaysia by the IRAC SE Asia group in conjunction with CropLife and the outcome from an EPPO meeting attended by Ralf Nauen, the IRAC Chairman. Remember if you have any news or resistance topics of interest please let us know so that we can inform others in the IRAC Network. We hope you enjoy the issue.

Launch of the New IRAC Web site

IRAC is pleased to announce the launch of their new website which provides a new look and redesigned interface with improved navigation to key information. The work of IRAC is carried out by working groups and country groups and the IRAC IRM information, guidelines, recommendations and educational material can now be accessed via the team pages from the main menu. In addition to many other features the website now includes news posts which can be received directly via our RSS feed. The website url address is unchanged at www.irac-online.org.



The screenshot shows the IRAC website homepage with a green header and navigation menu. The main content area features a 'LATEST NEWS' section with a news item about the IRAC Pollen Beetle WG meeting. To the right, there are subscription options for an RSS feed and a newsletter. Below the news section, a large green banner contains the text: 'IRAC is an international group of 150+ members of the Crop Protection Industry organised by sector and region to advise on the prevention and management of insecticide resistance.' At the bottom, there are three image-based links: 'Learn more about IRAC' (with a mosquito image), 'IRAC Mode of Action' (with a diagram of AChE and vesicles), and 'IRAC Test Methods' (with a microplate image).

IRAC Resistance Management for Sustainable Agriculture and Improved Public Health

HOME ABOUT NEWS EVENTS TEAMS COUNTRIES TOOLS

WELCOME TO THE INSECTICIDE RESISTANCE ACTION COMMITTEE WEBSITE

LATEST NEWS

JAN 21 IRAC Pollen Beetle WG schedule meeting to review 2009 monitoring data and plan work for 2010

The date of February 22nd has been set for the next face-to-face meeting of the IRAC Pollen Beetle WG. For full details of the agenda, [read more >](#)

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[Learn more about IRAC](#)

[IRAC Mode of Action](#)

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IRAC Membership News

Company membership of the IRAC Executive remains at 15 (see the end of the newsletter for company names) but there has been interest expressed from further international crop protection companies in joining IRAC.

The new Lepidoptera WG has now been formed bringing the number of International WGs to 13 again. The first audio call was in December with 8 participants representing four of the IRAC companies (Bayer CropScience, BASF, DuPont and Syngenta). New members are welcome. Initial focus will be on *Plutella xylostella* and *Tuta absoluta*.

Desiree van Heerden, Syngenta has taken over the Chair of the IRAC S. Africa group following the retirement of Johann Brits. Maria Torné, Dow AgroSciences has taken over from José-Ramón Soler as Chair of IRAC Spain although José-Ramón will remain with IRAC Spain as coordinator of the local Communication and Mode of Action WGs. The IRAC International Chairman thanked both Johann and José-Ramón for all their hard work in the past and welcomed the new Chairs on behalf IRAC.

IRAC News Snippets



Bemisia Workshop, Guangzhou, China

◆ The IRAC Chair, Ralf Nauen gave a presentation at the 5th International Bemisia Workshop on November 9th-12th, 2009. The presentation was well received and it was an opportunity to promote the important work of IRAC in China where we don't currently have a formal presence.

◆ Ralf Nauen and one of the Vice-Chairs, Russell Slater have been invited to present at the Inaugural Conference on Research and Development for Crop Protection Products in Barcelona on May 18th and 19th, 2010. This will be an opportunity to raise awareness of IRAC and the importance of insecticide resistance management and possibly attract new members to IRAC.

◆ The IRAC Sucking Pest WG held their latest conference call at the end of

January. A number of new posters are under development (a copy of the *Myzus persicae* poster was included in the last issue of eConnection) but the next initiative of the team is to survey *Myzus persicae* resistance by requesting completion of a questionnaire which will be sent out to local company representatives, and experts in relevant countries. Watch out in eConnection for initial results.

◆ The IRAC Public Health Team met at the Sumitomo offices in London at the end of November to review progress during 2009 and plan work for the coming year. The main focus of the meeting however was a working session to update the text of the "IRAC Vector Manual" in preparation for a reprint later this year.

◆ Congratulations are in order for Tom Sparks, Insect Management Group advisor for Dow AgroSciences and the leader of the IRAC MOA team who recently won the coveted honour of 44th Annual Scientist of the Year, as voted by readers and editors of the global research and development magazine R&D.



Recent Public Health Team Meeting

Resistance Management Newsletter

The most recent issue of the no nonsense, straight ahead biannual Resistant Pest Management Newsletter is vol 19, no. 1, Fall 2009 (U.S.), completing 20 years of publishing and global sharing of well over 500 included articles. The periodical's clear goal is to inform involved personnel and agencies worldwide regarding ongoing change and advances in the all important realm of pesticide resistant management. The effort is a product of collaboration between the Centre for Integrated Plant Systems (CIPS) at Michigan State Univ. (USA) and two concerned committees, with input and coordination from the Dept of Entomology at Michigan State Univ. The file for the current issue, as well as several years of archival issues, can be freely downloaded from <http://tinyurl.com/ycn74cb>.



IRAC SE Asia Seminar “Bringing Science & Technology To Farmers In Insect Resistance Management.”

Invited speakers Dr. Siva (centre) and Prof. Dzol (right) with a participant

This event was organized by IRAC South East Asia with the assistance of the Malaysian CropLife and Public Health Association. The objectives were to introduce IRAC to the Malaysian agricultural community, to get feedbacks from the crop protection industry on current strategies of resistance management and also to recruit potential new members to join IRAC. It was a highly successful event with 52 people attending from industry, the Department of Agriculture and Regulatory Affairs, University and Research Institutions and an NGO.

It was a one day event with the morning taken up by presentations from a number of invited speakers:

- Introduction to IRAC SEA and sharing IRAC International Initiatives in IRM (S. Amit, Dow AgroSciences)
- Insect Resistance Mechanisms and Management Strategies (O. Kok Eng, DuPont)
- New Technologies and Approaches for IRM (Prof Dr Dzolkipli Omar, University Putra Malaysia)
- Experiences of IRM in Malaysia (Dr A. Sivaprasagam, Malaysia Agriculture R&D Institute)

In the afternoon “The World Café” was facilitated by Dr Martin Gibson from CropLife South East Asia. A brief summary of the discussions and feedback is copied below:-

- The resistance issue is well recognized especially in the *Plutella* and vegetable market.
- There are programs by AgChem industry and Government Department and Institutes on resistance management but the strategies need to be synchronized and implemented effectively and timely.
- Educating and transferring the knowledge on insect resistance management to the farmers through Extension Workers and Working Groups is suggested to be implemented more often.
- In the future, product labeling should include Mode of Action classifications and IRM statements so that the relevant authorities can make the right recommendations to the end-users .



One of the World Café Discussion Groups

IRAC Methods WG – New Methods for *Plutella xylostella* & *Cydia pomonella*

Cydia pomonella larvae

The availability of standard, validated and easy-to-run, ‘IRAC-approved’ methods for resistance detection in the world’s major pests is crucial for successful monitoring of resistance problems. The methods team is responsible for ensuring that IRAC has available a suite of up-to-date methods to meet this need and are responsible for coordinating the development and validation of new methods and for preparing them for inclusion on the website



Plutella xylostella larvae

and eMethods. The eMethods tool also includes a large number of journal references which describe various other methods that have been used by other groups although not validated by IRAC.

Two new IRAC methods have recently been validated and approved: Method No. 017 for *Cydia pomonella* and No. 018 for *Plutella xylostella*. Both are for use at the larval stages of the pest and are suitable for a wide number of product classes including the Diamides.

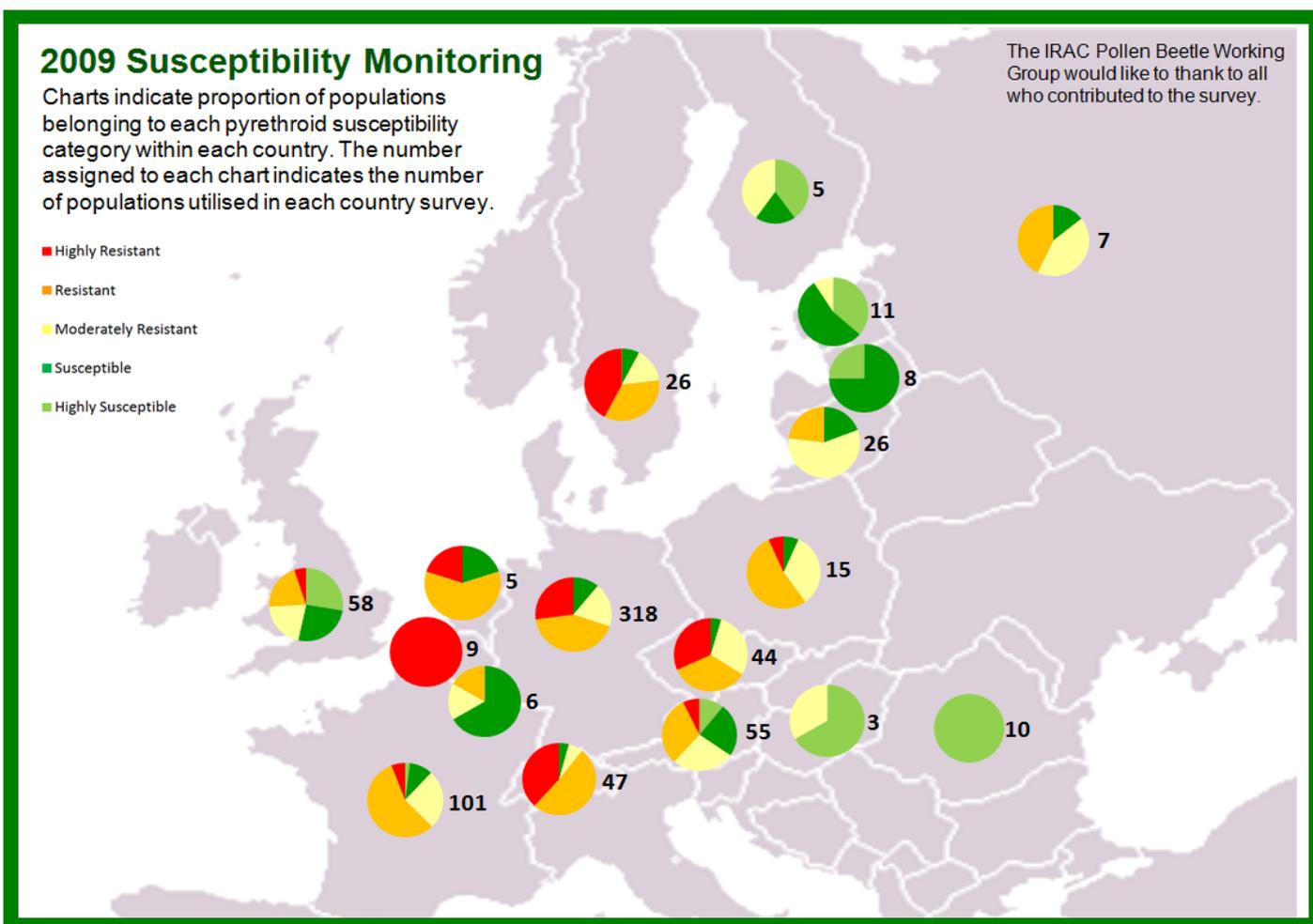
IRAC Pollen Beetle WG - Monitoring Results from 2009 Season

Pyrethroid resistance has been recorded in European populations of the pollen beetle (*Meligethes aeneus*) since 1999, when it was first reported in Eastern France. An IRAC Pollen Beetle Working Group was established to bring together expertise from agrochemical companies and independent researchers in order to monitor the development of insecticide resistance in oilseed rape pests and to provide guidance and advice on the best practices to prevent further insecticide resistance development.

In order to monitor the spread of pyrethroid resistance, an insecticide coated glass vial assay was developed by members of the working group. This method has been used to determine the pyrethroid susceptibility of European populations of pollen beetle and the results of the 2009 monitoring program are presented below. More details of the method utilised in this survey can be found on the IRAC website (www.irac-online.org).

Summary & Recommendations:

- Pyrethroid resistant populations of pollen beetle dominate in France, Belgium, Netherlands, Germany, Sweden, Switzerland, Czech Republic and Poland.
- Resistant populations can also be found in the UK, Luxemburg, Austria, Lithuania and Russia.
- Only Romanian and Latvian populations remain fully susceptible to pyrethroids in this survey, although susceptible populations dominate in the UK, Finland, Hungary, Luxembourg and Estonia.
- Susceptibility surveys conducted between 2007 and 2009 suggest that in general pyrethroid resistant populations are continuing to increase in Central Europe and spread into Eastern Europe.
- In order to prevent further insecticide resistance development, it is recommended that insecticides with different modes of action are utilised in a effective resistance management program, dependant on local insecticide availability and national use guidelines. IRAC guidelines for resistance management in oilseed rape can be found on the IRAC web-site.



EPPO Resistance Panel Meeting

The 4th meeting of the EPPO Resistance Panel on Plant Protection Products was held in conjunction with the 9th meeting of the EPPO Panel on General Standards on Efficacy Evaluation at the Austrian Agency for Health and Food Safety (AGES) in Vienna, 27-29 October 2009. The most interesting part from an IRAC perspective was on day one when the Resistance Panel met. The meeting was attended by 23 participants from 12 different countries, including representatives from all RAC's, i.e. Ralf Nauen for IRAC, Andy Leadbeater for FRAC and Maria Salas for EHRAC. All three RAC Chairs gave an overview of the respective Committee activities since the last meeting.

The major topic was a discussion on harmonization procedures concerning guidance on resistance risk analysis in conjunction with comparative assessment. Based on the recommendations of a recently held EPPO Workshop on Comparative Assessment in May 2009 in Brussels, the Panel discussed a guidance document drafted by Ton Rotteveel (Plant Protection Service, NL) and Nico van Opstal (EPPO, Paris, F). ECPA (Andy Leadbeater) proposed that all the proposed text from the new draft needs to come out of the resistance risk standard and parts of it should be integrated into the General Standard document. Finally it was agreed that there will be only a reference in the resistance risk analysis standard PP213 to the general standard on Comparative Assessment. Several questions concerning comparative assessment in terms of resistance risk were defined (e.g. MoA, cross-resistance, IRM importance in crop/pest etc.) and included in a draft flowchart in the General Guidance document on Comparative Assessment (EPPO).

Furthermore the PSD Guideline on Insecticide Mixtures was discussed again, since it is something EPPO wants to turn into a European standard. It was agreed that Heimbach (Germany) will lead the project with the support of Nauen (IRAC) and Richardson (PSD, UK). A draft should be prepared for the next meeting (Lisbon, 28-30 September, 2010) and reviewed by the Panel.

Conferences & Symposia

- American Chemical Society, San Francisco, March 21-25th, 2010
- IRAC International Spring Meeting, CropLife America, Washington DC, April 26-29th
- 76th Meeting American Mosquito Control Assoc, Lexington, Kentucky, US, March/April 28-1, 2010
- Intl. EDEN Conference (Vector-borne Diseases in a European Environment), Montpellier, May 10-12, 2010
- R&D for Crop Protection Products, Barcelona, Spain, May 18-19, 2010
- IUPAC Pesticide Chemistry, Melbourne, Australia, July 4-8, 2010
- 55th Am. Assoc. Veterinary Parasitologists, Atlanta, GA, August 8-13th, 2010
- IXth European Congress of Entomology (ECE2010), Budapest, Hungary, August 22-27, 2010
- XIII International Congress of Acarology, Recife, Brazil, August 23 - 27, 2010

Feedback

The eConnection is prepared by the IRAC Communication & Education WG and supported by the 15 member companies of the IRAC Executive. If you have information for inclusion in the next issue of eConnection or feedback on this issue please email aporter@intraspin.com.

IRAC Executive Member Companies**Disclaimer:**

The Insecticide Resistance Action Committee (IRAC) is a specialist technical group of CropLife. Information presented in this newsletter is accurate to the best of our knowledge but IRAC and its member companies cannot accept responsibility for how this information is used or interpreted. Advice should always be sought from local experts or advisors and health and safety recommendations followed.