

Insecticide Resistance Action Committee

47th Meeting of IRAC International, Indianapolis, USA
March 27th – March 30th, 2012



at Dow AgroSciences Headquarters
9330 Zionsville Road, Indianapolis



Brief introduction by Dr. Bill Kleschick, Director of Discovery, DAS

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Session 3

IRAC International, Working Group & Country Group Reviews

47th Meeting of IRAC International, Indianapolis, USA

Thursday - March 29th, 2012





Insecticide Resistance Action Committee

Antitrust law reminder

ANTITRUST LAW REMINDER **for all CropLife International meetings**

While some activities among competitors are both legal and beneficial to the industry, group activities of competitors are inherently suspect under the antitrust laws. Agreements or combinations between or among competitors need not be formal to raise questions under antitrust laws, but may include any kind of understanding, formal or informal, secretive or public, under which each of the participants can reasonably expect that another will follow a particular course of action.

Each of you is responsible to see that topics, which may give an appearance of an agreement that would violate the antitrust laws, are not discussed at your meetings. It is the responsibility of each participant in the first instance to avoid raising improper subjects for discussion. This reminder has been prepared to assure that participants in meetings are aware of this obligation.



Insecticide Resistance Action Committee

Welcome to Indianapolis, Intl. Sister City of Cologne



Cologne Cathedrale
Commenced in 1248

IRAC – early days

The first „IRAC“ Meeting was held in Brussels on March 13th, in 1984 hosted by GIFAP*

Inaugural meeting of IRAC on May 12th, 1984 with 6 members:

Voss / Ciba Geigy (Chair)
Lindley / Cyanamide
Cronin / FMC
Davies / ICI
Knauf / Hoechst
Zoebelein / Bayer



*Groupement International des Associations Nationales de Fabricants de Produits Agrochimiques [*International Group of National Associations of Manufacturers of Agrochemical Products*]

Acknowledgement



A big

THANK YOU

to Alan Porter, for

- Meeting Organization
- Excellent Service all year
- Reminders
- >750 emails
- Numerous conference calls



**THANKS TO
Tom Sparks!**

The insider: Seeds of change

Yfke Hager takes a look at careers in agricultural chemistry and the scientists who are working to feed the world

'Innovative concepts developed by agricultural chemists really can change the face of agriculture,' says Thomas Sparks, research fellow at Dow AgroSciences, in Indianapolis, US. And he should know. Sparks will receive the 2012 International award for research in agrochemicals at the American Chemical Society's annual meeting later this year for important breakthroughs in the recently discovered spinosyn class of insecticides.

Agricultural scientists outsmart mother nature by finding ways to enhance crop yields and to control pests and weeds. 'With over 7 billion people on the planet, protecting our food from pests is more important than ever,' says Sparks. Steven Lehotay, lead scientist at the Agricultural Research Service of the US Department of Agriculture and winner of the 2012 AGRO Award for innovation in chemistry of agriculture, concurs. Agricultural scientists should be 'motivated by a sense of positive contribution



Thomas Sparks



THANKS TO Dow AgroSciences!

especially **Risa Spinks**

- **Excellent collaboration**
- **Meeting organisation**
- **Hotel organisation**
- **Lunches & WG dinners**
- **Simply everything**

Housekeeping

- Full day with many presentations – please try and stick to the 20 minute time slots as per the agenda as much as possible.
- Coffee/tea/juices/water should be available outside the meeting room at all times
- A buffet lunch with refreshments will be set up adjacent to the meeting room at approximately 12:30h
- Before lunch we will take a group photograph (12.20h)
- The afternoon session will start at 13:30h. Please return promptly
- The meeting is scheduled to finish at 17:30h
- An IRAC International Group dinner is scheduled for the evening at 19.30h at the Chef Joseph, Indianapolis downtown (Coach bus leaves at 18.50h)
- *Have all those attending the IRAC Intl Dinner completed the eSurvey?*



Insecticide Resistance Action Committee

IRAC Intl. dinner eSurvey

eSurvey Creator
Creation and evaluation of surveys.

IRAC International - Group Dinner

0%

Name (First/Last) *

Ralf Nauen

Will you be attending the IRAC dinner on Thursday night? *

☒ yes

☐ no

◀ ▶

Agenda Changes

- Latest agenda is version 1.6 (issued March 15th)
- Any changes?



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Agenda Session 3

Agenda:

- 0900 Introduction and Antitrust reminder. Overview – Members & Structure, Role of Executive and Steering group, Importance of the IRAC Mission, Constitution, Goals & SMART Objectives {RN}
- 0930 Communication & Education Overview {AP}
- 0950 Public Health Update {MH}
- 1010 Biotech Update {NS}
- 1030 Coffee/Tea**
- 1040 Coleoptera {RS}
- 1100 Sucking Pests {JH}
- 1120 Lepidoptera {RN}
- 1140 Diamides {VC}
- 1200 Resistance Database {GT}
- 1220 Group Photograph
- 1230 Lunch**



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Agenda Session 3

1330 Methods {LM/RS}

1350 MOA {TS}

1410 IRAC-US {GH}

1430 IRAC Country Groups & IRAG EU Groups – Brief overview {RN}

1500 UNL Education Module Project - (possible audio call-in) {GT & G. Hein}

1530 Coffee/Tea

1545 Team Leaders Panel Discussion - topics and questions arising from team presentations

- Key resistance problems where IRAC Teams should be focusing attention
- IRAC International/IRAC-US cooperation & interactions

1645 Other discussion topics

- IRAC Mixture Statement
- Process for identifying, submitting and approving IRAC supported projects
- Need for greater team member participation, team leaders & deputies

1730 Close

Evening: IRAC International Group Dinner – Chef Joseph (By coach to downtown Indianapolis)

Some further thanks

- **To You - as always!**
 - For your commitment and continued support for IRAC
 - For your time and effort to be here this week
 - For the substantial amount of pre-work
- **To Dow AgroSciences**
 - For advice, local arrangements and hosting the meeting
- **To CropLife Intl.**
 - Particularly Susanne Maise and staff
- **To your companies**
 - For continuing to support IRAC
 - For funding your travel and attendance here



Insecticide Resistance Action Committee

And welcome to first time attendees etc.

First attendance at an Annual IRAC International Meeting, e.g.

- Tamar Danon (Makhteshim Agan; Executive, WG)
- Lixin Mao (BASF; Methods WG)
- Anna Armstrong (Nichino America; Diamide WG)
- Tessa Knox (VF; PH WG)
- and others

Welcome to our guests

- Jim Steffel (LABServices; 2nd time)
- Gary L. Hein (University of Nebraska)
- David Mota-Sanchez (MSU)
- IRAC US Members



Insecticide Resistance Action Committee

Networking at F2F Meeting



47th Meeting IRAC International March 27-30th, 2012

Introductory statement

- **Insecticide Resistance Action Committee (IRAC)**
 - Formed in 1984 – now in its 28th year and still growing
 - Specialist technical expert group of the agrochemical industry
 - Association with CropLife International (Formal part of CLI's Stewardship Committee since June 2010)
 - Provides a coordinated industry response to the development of resistance in insect and mite pests
 - Around 70 industry representatives and specialist members in different working groups
 - 7 Country/Regional Groups with a further 70-80 representatives





Insecticide Resistance Action Committee

IRAC Mission

IRAC Mission:

- Facilitate communication and education on insecticide and acaricide resistance.
- Promote development of resistance management strategies to maintain efficacy and support sustainable agriculture and improved public health.
 - Pool expertise
 - Cross-industry advocacy and lobbying group
 - Industry commitment to product stewardship and sustainability
 - Foster communication and education on IRM
 - Provide regional support by IRAC CG liaison



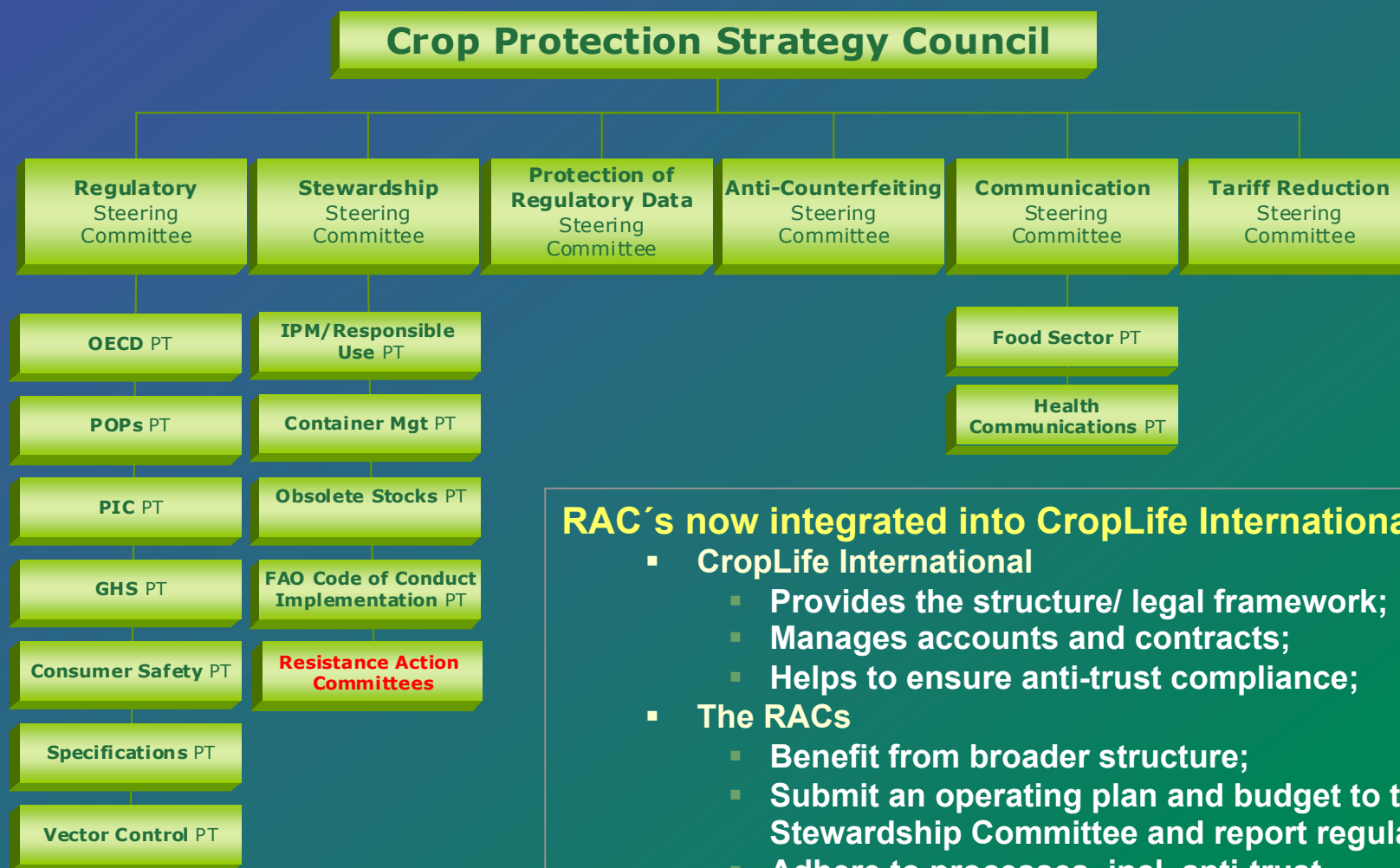
Insecticide Resistance Action Committee

IRAC and CLI “merger”

*45th IRAC Annual Meeting,
Washington DC, April 2010*



CLI Crop Protection Structure



RAC's now integrated into CropLife International

- **CropLife International**
 - Provides the structure/ legal framework;
 - Manages accounts and contracts;
 - Helps to ensure anti-trust compliance;
- **The RACs**
 - Benefit from broader structure;
 - Submit an operating plan and budget to the Stewardship Committee and report regularly;
 - Adhere to processes, incl. anti-trust compliance.



Insecticide Resistance Action Committee

IRAC in Brussels 2011



IRAC Annual Meeting in Brussels, April 2011



Companies



EXECUTIVE Committee

Crop Protection

Public Health

Plant Biotechnology

14 Companies

11 International Working Groups

Working Groups

Steering Group

Public Health

Biotechnology

Methods

Mode of Action

Comm./Education

R. Database (MSU)

Coleptera

Sucking Pest

Lepidoptera

Diamide

Country/Regional Groups

IRAC Spain

IRAC US

IRAC S.E. Asia

IRAC Australia

IRAC Brazil

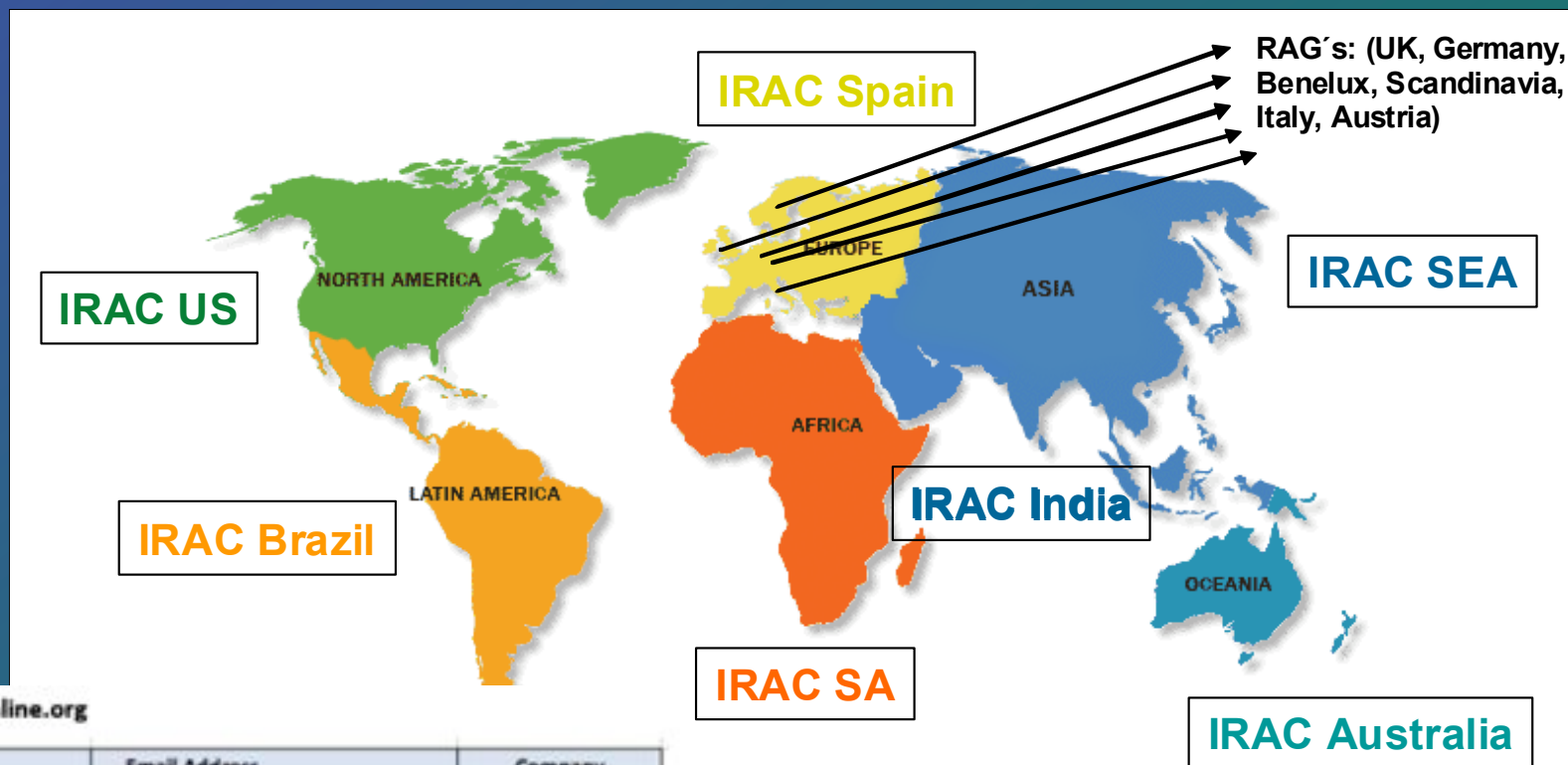
IRAC India

IRAC S. Africa



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Regional RAC's and RAG's



cg-chairs@irac-online.org

Names	Email Address	Company
Paul Downard	Downard@dow.com	Dow
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Maria Torne	mtorne@dow.com	Dow

Goals & SMART Objectives

IRAC Executive Committee Team & Working Group SMART Objectives – 2011/12

Issued, August 2011

Version 1.5

- 12 Teams and WGs with Goals & SMART* objectives
- 15 page document
- Reviewed and updated every year by WG's

*SMART: **S**pecific, **M**easurable, **A**chievable, **R**ealistic and **T**ime-bound

Methods WG		
Goals	Objectives	Timeline
Develop single point of contact for insecticide and acaricide resistance monitoring methods.	• Review “old” approved methods to make improvements to method description and if necessary add additional information.	Q4 2011
	• Populate e-methods tool with a range of methods (sourced from literature, companies and external contacts) used to measure insecticide susceptibility against key agricultural, horticultural and public health pests.	Q4 2011
	• Populate e-methods with additional references.	Q4 2011
	• Once established with new methodologies, promote new e-methods tool through e-connection and design of a poster to be used at industry events.	Q2 2010
	• Finish a procedural video for <i>Tuta absoluta</i> method and initiate new procedural video for a different method.	Q4 2011
To provide IRAC approved methods in order to steer researchers to use these validated methods, so that data generated by independent researchers can be compared directly.	<ul style="list-style-type: none"> • Deliver minimum of two new crop IRAC approved methods. • Work with PH Team on possibility of approving additional PH method (e.g. bedbugs). Commission appropriate internal or external studies and validate as required to finalise method for inclusion in the IRAC methods series. • Liaise with Biotech Team to deliver SOP for Biotech methods. 	Q2,3,4 2011 & Q2 2012

And a good example as well, because all main objectives were accomplished!



IRAC Executive (n=24)

Insecticide Resistance Action Committee

Names	Email Address	Company	Exec.
Alan Porter	aporter.apa@gmail.com	IRAC	✓
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Veronica Companys	veronica.companys@bayer.com	Bayer	✓

Quarterly conference calls (one F2F per year)

One vote per member company

Approvals need 2/3rd majority

In 2012 we lost Chemtura as IRAC Intl member company!



Insecticide Resistance Action Committee

Executive Goals

- Coordinate and facilitate the work of IRAC in accordance with the IRAC Mission
- Encourage formation of new Country Groups to address local IRM issues
- Promote membership of IRAC at a country, regional and international level
- Provide direction and support to IRAC including Country & Regional Groups
- Facilitate cooperation and communication on insecticide resistance and IRM issues between groups, teams, and countries internally within IRAC, within member companies, within CLI SC and with external stakeholders.
- Encourage all Executive Teams to hold quarterly conference calls and if possible one face-to-face meeting each year to set, review and progress their SMART objectives.

Steering Group

- **Team members:**

- Chair, Vice-Chair(s), Treasurer, Coordinator, CG Representative, Core Team Leaders (Crop, PH, Biotech), but open to all members
- Total of 5 conference calls April 11 to Feb 12 – approx. bi-monthly

- **Key topics:**

- Finances
- IRAC Membership
- IRAC Structure and nomenclature
- Constitution (with CLI)
- IRAC Executive team organisation and workplans
- Internal interactions and communications
- External interactions – e.g. CropLife
- Planning for meetings – e.g. this meeting
- These days in conjunction with C&E conference call



Insecticide Resistance Action Committee

IRAC Constitution: updated in 2011 by IRAC & CLI

IRAC Constitution

Revised, August 2011

Version 6.3.4

Prepared by: IRAC Steering Group

Approved by: IRAC Executive Committee

Composition of the Committees

The committee members of the IRAC Executive and related Working Groups represent companies, which are generally members of CropLife International. If they represent companies, which are not members of CropLife International, they are still able to participate in IRAC committees (gaining the status of associated committee members under CropLife International). Their participation in the IRAC Executive or Working Groups needs to be confirmed by the relevant CropLife International Committee (Stewardship Steering Committee).

Steering Group – What and Why?

- **Team developed to handle day-to-day running of IRAC**
 - Originated from discussion at 2007 IRAC meeting (Rothamsted)
 - Need for a core team to run basic business and admin in IRAC
 - Especially these days with theoretically up to 24 participants in IRAC Executive conference calls
- **Avoids the need for involvement of everyone**
 - Especially important as IRAC membership increases
- **Concept: Team prepares ideas and proposals for review, discussion and agreement by the Executive**
- **Meets approximately every two months**
 - Allows Executive meetings to occur around once a quarter (with one F2F per year)
- **Aim to improve overall efficiency**
- **Budget plan proposal to Executive (→ CLI)**

- **IRAC representation at:**
 - ESA Meeting, December 2009
 - Japan PPA, January 2010
 - R&D Conference, Barcelona, 2010
 - EPPO Resistance Panel, Oeiras, 2010
 - ES of Israel, Beit Dagan, 2010
 - ASTM Conference, USA, 2010
 - ESA Meeting, San Diego, 2010
 - Beltwide Cotton Conference, USA, 2011
 - Intl. DBM Workshop, Thailand, 2011
 - Resistance 2011, UK, 2011
 - Tuta Symposium, Agadir, 2011
 - ESA Meeting, Reno, 2011

