



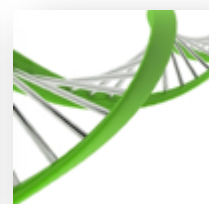
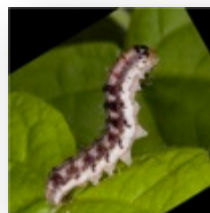
Insecticide Resistance Action Committee

49th Meeting IRAC International (2014)

Session 2 - IRAC International, Working Groups & Guest Presentations

Hamner Conference Center

RTP - North Carolina, US March 17-20



Antitrust Law Reminder

for all CropLife International meetings

“IRAC Committees and IRAC Members should be aware that 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.

All IRAC Members have a responsibility to see that topics, which may give an appearance of an agreement that would violate the antitrust laws, are not discussed during meetings, conference calls or in any other forum.

It is the responsibility of each member in the first instance to avoid raising improper subjects for discussion and the purpose of the Antitrust Guidelines is to assure that participants are aware of this obligation”

....

49th meeting – Marking the 30 years of IRAC



The 1st „IRAC“ Meeting was held in Brussels on March 13th, 1984 and hosted by GIFAP*

Inaugural meeting of IRAC on May 12th, 1984 with 6 company 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]

48th Meeting - Jealott's Hill (Syngenta)
March 2013 - with 13 members

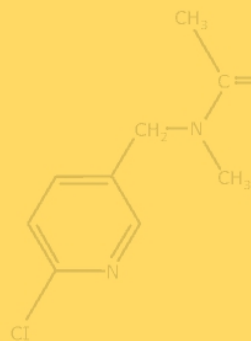
People attending: 45



49th Meeting – RTP North Carolina (BASF)
March 2014 - with 13 members

People attending: 50

30 years building a wealth of knowledge & education



IRAC

Resistance Management for Sustainable Agriculture and Improved Public Health

Login

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THE IRAC NEWSLETTER

FREE INDUSTRY NEWS ONCE A QUARTER, DIRECT TO YOUR INBOX ON ANY DEVICE

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ABOUT IRAC

IRAC is an international group of more than 150 members of the Crop Protection Industry organised by sector and region to advise on the prevention and management of insecticide resistance.

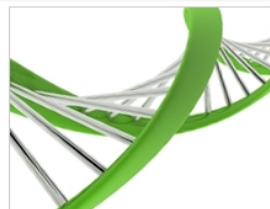
[Launch Presentation](#)

RESISTANCE MANAGEMENT RESOURCES

Resistance is 'a heritable change in the sensitivity of a pest population, reflected in the repeated failure of a product to achieve the expected level of control when used as instructed for



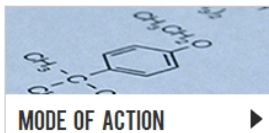
CROP PROTECTION ▶



BIOTECHNOLOGY ▶



PUBLIC HEALTH ▶



MODE OF ACTION ▶



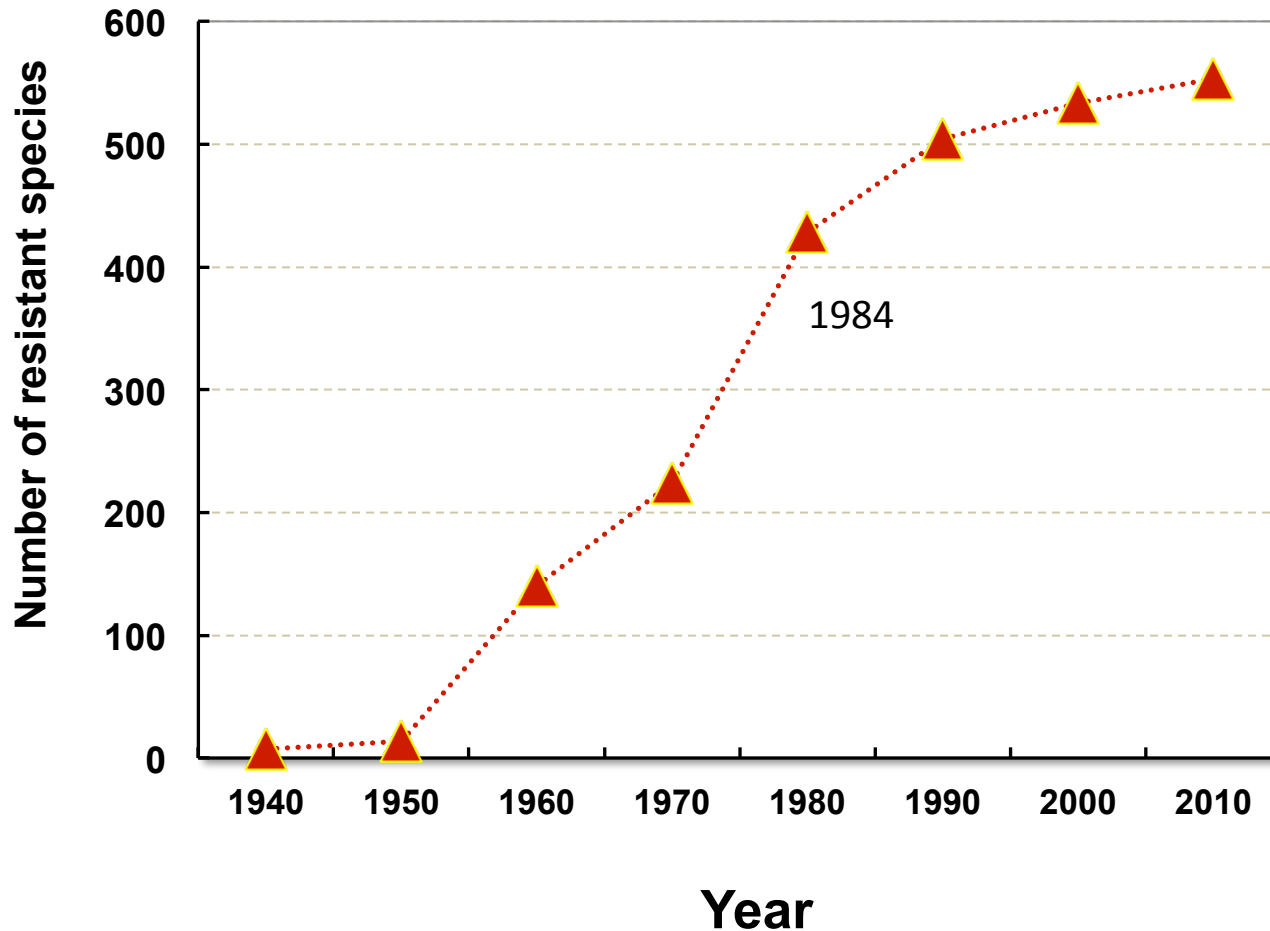
METHODS ▶



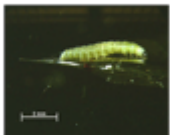
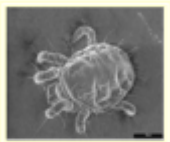
PEST LIBRARY ▶



Since 1984, 4-5 new resistant species every year *



583
(2014)



*Denholm, Devine & Williamson (2002) Science 297, 2222

Since 1984, big changes in landscape / fewer new MoA *

IRAC mission more challenging than ever

R&D Firms *	1995	2012
Europe	8	4
US	11	3
JP	15	10

New AI * (F, H, I)	1999	2012
Dev.	65	28
Launch	15	8

R&D spent* (USD Bn)	2007	2012
Chemicals	2.5	3.2
Traits	2.0	3.5

GM crops*	2000	2012
Million Acre	100	400

* Phillips McDougall

Intensification / "green bridge" for pests

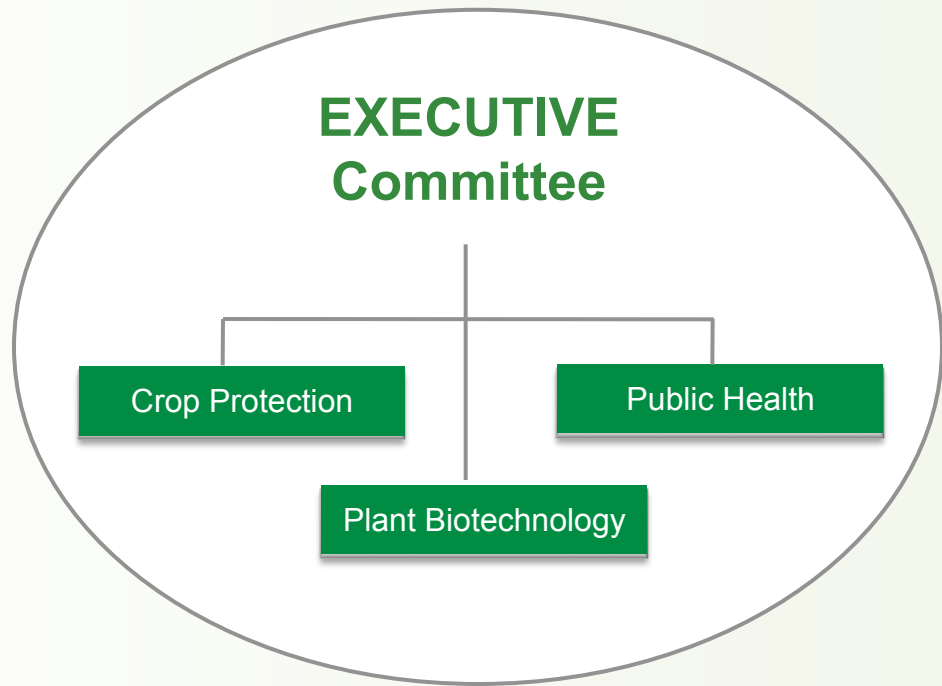


70 million acres of BT soya to come in next years (LATAM)

New invasive species

Complex production environments

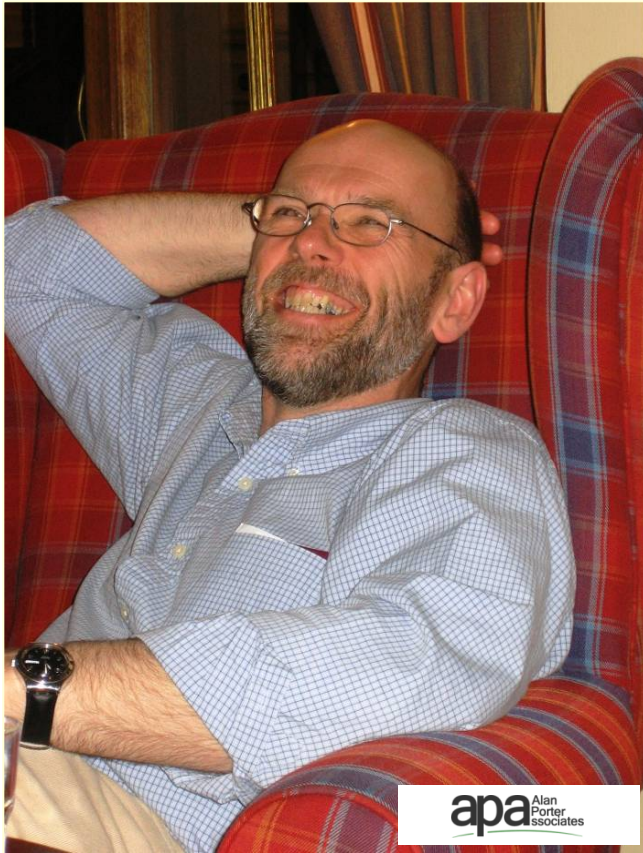




- Steering Group
- Public Health
- Biotechnology
- Methods
- Mode of Action
- Comm./Education
- R. Database (MSU)
- Coleoptera
- Sucking Pest
- Lepidoptera
- Diamide



Acknowledgements



A big

THANK YOU

to Alan Porter, for

- Meeting Organization
- Excellent Service all year
- Reminders, Minutes
- >1000 emails
- Numerous conference calls

Local organization at RTP

Thanks to our IRAC colleagues / Your precious time!

Lixin Mao (BASF)

Tim Dennehy (BCS)

and assistance from Diane Cook (BASF)

- **Excellent collaboration**
- **Meeting organisation**
- **Hotel organisation**
- **Tour visit, Dinners**

Some further thanks

To All of You

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 BASF

For advice, local arrangements and hosting the meeting

To CropLife Intl.

Particularly Keith Jones, Susanne Maise, Rolando Zamora

To your companies

For continuing to support IRAC
For funding your travel and attendance here

A special welcome to our guests

Harold Coble	NCSU* US
Jules Silverman	NCSU US
Mike Roe	NCSU US
Celso Omoto	ESALQ/USP** BR
Rolando Zamora	CropLife Intl

* North Carolina State university

** Escola Superior de Agronomia Luiz de Queiroz – Universidade de São Paulo

Housekeeping

- **Follow Lixin** in case of fire alarm
- Many presentations – please try and stick to the allocated time slot.
- All speakers would appreciate to have your full attention, so please try to check emails and phone calls during coffee/lunch break
- Refreshments will be supplied morning (10.30h) and afternoon (15.00h)
- Group photograph followed by Lunch (12.15h – 13.15h)
- The afternoon session - 4 presentations / Starting sharp at 13:30h.
- Travel to Duke Gardens at 16:30h
- Return to Hotel at 18.00h
- Group Dinner at Maggino's - We will walk from the hotel at 19.00h