Insecticide Resistance Action Committee

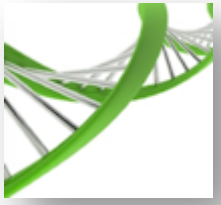
Lepidoptera Working Group
2017 Update

Luis Teixeira

Philadelphia

March 28th 2017




Lepidoptera WG Members

Representative	Company
Adeline Bertrand	ADAMA
Sebastian Coggiola	ADAMA
Paula Marcon	Agbitech
Werner Heck	BASF
Siddharth Tiwari	BASF
Nigel Godley	Bayer
Ralf Nauen	Bayer
Eric Andersen	FMC
Jim Dripps	Dow
Maria Torne	Dow
John Andaloro	DuPont
Luis Teixeira	DuPont
Nobuyuki Nonaka	Nihon Nohyaku
Brian Duggan	Nufarm
Jan Elias	Syngenta
SR Gha	Syngenta
Daniel Zommick	Valent
Total = 17	Total = 11

Lepidoptera WG SMART Objectives 2016

- Maintain currency of the global IRM guidelines based on new experiences, new active ingredients, and application methods.
- Improve Lepidopteran educational and communication tools
- Transition country diamide working groups to resistance action groups
- Initiate compliance process to align IRM recommendations among company product labels.
- Assess usability of “diamide” bioassay methods for lep products
- Conduct Tuta task team

Lepidoptera WG SMART Objectives 2016

- Maintain currency of the global IRM guidelines based on new experiences, new active ingredients, and application methods.
  - Update new global Lepidoptera insecticide IRM guidelines
    - rewrite to transition from diamide to insecticide IRM guidelines
    - clarify recommendations for lep products providing non-lep control
    - incorporate seed treatment application method
    - revise and include product label IRM language examples
  - Agree and disseminate IRM label criteria

IRAC Guideline for Management of Lepidopteran Resistance to Insecticides

Draft, Mar 2017 Version 2.5
IRAC Lepidoptera Working Group

Introduction

Resistance to insecticides is a 'heritable change in the sensitivity of a pest population' that is reflected in the repeated failure of a product to achieve the expected level of control when used according to label recommendations for that pest species. The aim of this guideline is to summarize strategies that companies, influencers and growers can use to slow the development of resistance and provide more effective and sustainable pest control.

IRAC Mode of Action Classification

Lepidoptera insects can be controlled by insecticide compounds with different mode of action (MoA). Repeated use of any insecticide can lead to resistance to that specific insecticide. In addition, if insects become resistant because of a change in the binding site of the insecticide, insects will become resistant to all insecticides with the same mode of action.

The IRAC MoA classification is intended to identify insecticides acting at specific target sites where mutations could confer cross-resistance to all compounds acting on the same site. It provides a guide to the selection of insecticides for use in an effective and sustainable insecticide resistance management (IRM) strategy.

A summary list of insecticide MoA and corresponding chemical groups is shown in Appendix 1. More details on insecticide Modes of Action can be found on the IRAC web site irac-online.org and the IRAC MOA App can be downloaded on to your cell phone.

The IRAC Mode of Action group numbers are now included on product labels in many countries. Additionally, statements providing insecticide resistance management guidance are also often given on the labels.

IRAC Lepidoptera Working Group

The guidelines presented here are designed by the Lepidoptera Working Group of the Insecticide Resistance Action Committee (IRAC). Our objective as industry technical experts and IRAC members is to provide a reference document for designing IRM strategies for lepidopteran pests. The information provided is based on published information and to the best knowledge of IRAC International at the time of writing (February 2017).

As pest problems and control practices differ considerably between countries, crops and climatic conditions, these guidelines are meant to be flexible and allow experts to develop, adapt and implement these options to take local conditions into account. However, exceptions will need to be addressed by experts on a case by case basis.

Guidelines for use of insecticides against Lepidopteran pests and resistance management

1. IRAC member companies are responsible for including IRM information in product labels.
2. Always use products at the recommended label rates and spray intervals with the appropriate application equipment.
3. Rotation of insecticide Mode of Action groups prevents rapid selection of resistant populations.

   The recommended approach is to use products of the same MoA within a discrete period of time commonly called a "window". A window is defined by the duration of an insect generation or approximately 30 days. The period of residual activity provided by a single or sequence of product applications with the same mode of action should fit within a window.
4. Use Integrated Pest management (IPM) practices to protect crops from pest damage and reduce the risk of insecticide resistance.
5. Consider the systemic properties of some soil and seed-applied products.

5. Using insecticide mixtures.
6. The use of insecticides of the same Mode of Action against different pests in the same crop.
7. Never use insecticides from the same Mode of Action where resistance is known.
8. The use of non-specific mode of action products helps to prevent the development of resistance.
9. Monitor problematic pest populations in order to detect first shifts in sensitivity.
10. Where local information is known about cross-resistance between different MoA groups.
11. Never use a product of questionable origin or composition.
12. Make sure to follow appropriate country label instructions.
13. The use of the same insecticide to control different types of insect pests (Lepidoptera, Coleoptera, sucking insects).

IRAC GLOBAL IRM LABEL ALIGNMENT PROJECT

Minimal IRM Label Requirements for Insecticides
August 17, 2016
Version 11

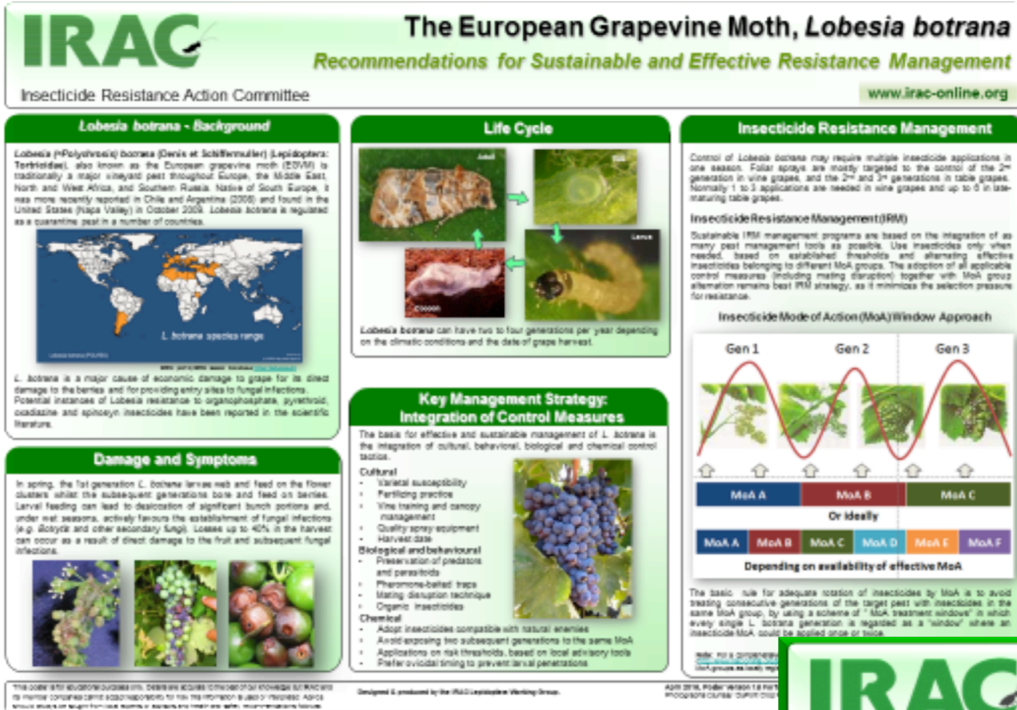
IRAC Lepidopteran Working Group
2016 -17 SMART Objective

LABEL IRM ALIGNMENT PROJECT: MINIMAL IRM LABELING RECOMMENDATIONS.

IRM ELEMENTS	MINIMAL LABEL RECOMMENDATION	LABEL CRITERIA TO DETERMINE UPGRADE	MEETS MINIMAL EXPECTATIONS
1). MODE OF ACTION NUMBER AND CHEMICAL CLASS	The IRAC MoA icon is on the first page… BUT if prohibited, then the MOA icon is placed in the Resistance Management label text….BUT if prohibited then state the MoA number and chemical class for active ingredient(s) in label text. **GROUP 28 INSECTICIDE**	If the MoA number or icon or chemical class appears on the label unless prohibited by country regulators	**YES**
		No MoA number or icon or chemical class appear on the label but country regulators allow.	**NO**
2). MAXIMUM NUMBER OF APPLICATIONS	States the maximum number of product applications for each crop on the label per cropping season or per year	States the maximum number of product applications per cropping season or per year	**YES**
		No statement of maximum number of product applications per cropping season	**NO**
3). QUALITY LABEL IRM STATEMENT	**Contains at least the 3 "REQUIRED" components for a quality label IRM statement.** 1. State the IRAC MoA Number 2. Rotate products with different Modes of Action 3. Provide guidance to avoid treating consecutive generations with the same MoA.	Contains the 3 "REQUIRED" components for a quality label IRM statement or country regulators do not allow.	**YES**
		Does not contain the 3 "REQUIRED" components for a quality label IRM statement.	**NO**

Lepidoptera WG SMART Objectives 2016

- Improve Lepidopteran educational and communication tools
  - Finalize Lobesia and FAW poster
  - Decide future poster needs
  - Assist in completion of IRAC/Crop Life Grower Benefit Brochure
  - Complete an IRM training slide set using new Lepidoptera insecticide IRM guidelines with examples and visuals


IRAC
Insecticide Resistance Action Committee
The European Grapevine Moth, Lobesia botrana
Recommendations for Sustainable and Effective Resistance Management
www.irac-online.org
Lobesia botrana - Background
Life Cycle
Insecticide Resistance Management
Insecticide Resistance Management (IRM)
Insecticide Mode of Action (MoA) Window Approach
Gen 1
Gen 2
Gen 3
MoA A
MoA B
MoA C
Or ideally
MoA A
MoA B
MoA C
MoA D
MoA E
MoA F
Depending on availability of effective MoA
Damage and Symptoms
Key Management Strategy:
Integration of Control Measures
Cultural
Biological and behavioural
Chemical


IRAC
Insecticide Resistance Action Committee
Strategies for Sustainable Control of
Fall Armyworm, Spodoptera frugiperda
www.irac-online.org
FAW - Background
FAW IRM example – Spray windows for conventional maize, Brazil
Pre-Planting Window
Window 1
Window 2
Window 3
Window 4
Pre-Planting
Planting
Vegetative
Reproductive
Known insecticide resistance in FAW
FAW Resistance Management

IRAC
Insecticide Resistance Action Committee

Insecticide Resistance Managment Recommendations for Diamondback Moth Mexico Brassica

December 2016

Provided by:

COTECO

Mexico Resistance Action Group

Insecticide Resistance Action Committee (IRAC)

CropLife

Lepidoptera WG SMART Objectives 2016

- Transition country diamide working groups to resistance action groups
  - Choose new global liaisons to communicate to country teams
  - Lep team companies identify country reps to participate in local meetings
  - Update country resistance action group membership and emails

Representative	Company	Country groups by company	Country	Country2	Country3	Country4	Country5
Adeline Bertrand	ADAMA	2	France	Israel			
Sebastian Coggiola	ADAMA						
Werner Heck	BASF	0					
Siddharth Tiwari	BASF						
Nigel Godley	Bayer	3	India	Philippines	Turkey		
Ralf Nauen	Bayer						
Eric Andersen	FMC	2	Chile	Mexico			
Jim Dripps	Dow	3	Korea				
Maria Torne	Dow		Spain	Italy	Morocco		
John Andaloro	DuPont	7	Argentina	Indonesia	Japan	Malaysia	USA
Luis Teixeira	DuPont		Brazil	S Africa			
Nobuyuki Nonaka	N.Nohyaku	0					
Brian Duggan	Nufarm	1	Australia				
Jan Elias	Syngenta	4					
Robert Senn	Syngenta		China	Thailand	Vietnam	Taiwan	
Daniel Zommick	Valent	0					

Country Resistance Action Groups (formerly Diamide) Contact Details

Country	Participant	Company	Email	Global Contact	Last Update	Comments
Argentina	Ruben Meoni	Bayer	ruben.meoni@bayer.com	John Andaloro	28 March 2014	Team Leader
Argentina	Jorge Barrionuevo	Bayer	jorge.barrionuevo@bayer.com	John Andaloro	28 March 2014	
Argentina	Prats Fabio	DuPont	Fabio.Prats@dupont.com	John Andaloro	28 March 2014	
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Argentina	Alejo Costa	Syngenta	Alejo.Costa@syngenta.com	John Andaloro	28 March 2014	
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Australia	Robert Vitelli	Bayer	robert.vitelli@bayer.com	John Andaloro	25 January 2016	
Australia	Luke Collins	Adama	luke.collins@adama.com	John Andaloro	25 January 2016	
Australia	Heard Avin	BASF	avin.heard@basf.com	John Andaloro	25 January 2016	
Australia	Glenville Tucker	Crop Care	glenville.tucker@cropcare.com.au	John Andaloro	25 January 2016	
Australia		Dow	rannetts@dow.com	John Andaloro	25 January 2016	
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Australia	Kristen Knight	Monsanto	kristen.m.knight@monsanto.com	John Andaloro	25 January 2016	
Australia	Dug Paton	Sumitomo	doug.paton@sumitomo-chem.com.au	John Andaloro	25 January 2016	
Australia	Ken Mckee	Syngenta	ken.mckee@syngenta.com	John Andaloro	16 May 2011	
Australia	Alison Beattie	Government	alison.beattie@agric.wa.gov.au,	John Andaloro	16 May 2011	
Australia	Chris Monsour	Consultant	cmonsour@peracto.com.au,	John Andaloro	16 May 2011	
Australia	David Carey	Government	David.Carey@deedi.qld.gov.au,	John Andaloro	16 May 2011	
Australia	Greg Baker	Government	Greg.Baker@sa.gov.au,	John Andaloro	16 May 2011	
Australia	Stewart Learmonth	Government	stewart.learmonth@agric.wa.gov.au,	John Andaloro	16 May 2011	
Brazil	Fabio Andrade Silva	DuPont	fabio-m-andrade.silva@dupont.com	Luis Teixeira	13 July 2015	Team Leader
Brazil	Cristiane Stecca	Adama	cristiane.stecca@adama.com	Luis Teixeira	13 July 2015	
Brazil	Fabricio Borges Ruzafa	Arysta	fabricio.ruzafa@arysta.com	Luis Teixeira	13 July 2015	
Brazil	Ronaldo B. Rodrigues	BASF	ronaldo.rodrigues@basf.com	Luis Teixeira	13 July 2015	
Brazil	Felipe Sulzbach	Bayer	felipe.sulzbach@bayer.com	Luis Teixeira	25 January 2016	
Brazil	Francisco Lozano	Bayer	francisco.lozano@bayer.com	Luis Teixeira	13 July 2015	
Brazil	Rosana Serikawa	DuPont	rosana.serikawa@dupont.com	Luis Teixeira	25 January 2016	
Brazil	Luis Antonio Pavan	Dow	lapavan@dow.com	Luis Teixeira	13 July 2015	
Brazil	Alisson F. Celmer	FMC	Alisson.Celmer@fmc.com	Luis Teixeira	13 July 2015	
Brazil	Ives Massanori Murata	Ihara	ives@ihara.com.br	Luis Teixeira	13 July 2015	
Brazil	Renato A. Carvalho	Monsanto	renato.a.carvalho@monsanto.com	Luis Teixeira	13 July 2015	
Brazil	Christian Scherb	Nufarm	christian.scherb@br.nufarm.com	Luis Teixeira	13 July 2015	
Brazil	Helvio Campoy Costa Junior	Ouro Fino	helvio.costa@ourofino.com	Luis Teixeira	13 July 2015	
Brazil	Eric Ono	Sipcam Nichino	eono@snbrasil.com.br	Luis Teixeira	13 July 2015	
Brazil	Diogo Togni	Sumitomo	dtogni@sumitomo-chem.com.br	Luis Teixeira	13 July 2015	
Brazil	Giorla Moraes	Syngenta	giorla.moraes@syngenta.com	Luis Teixeira	25 January 2016	
Brazil	Henrique Ferreira	Syngenta	henrique.ferreira@syngenta.com	Luis Teixeira	25 January 2016	
Brazil	Julio Fatoretto	Syngenta	julio.fatoretto@syngenta.com	Luis Teixeira	13 July 2015	
Brazil	Florindo Orsi Júnior	UPL do Brasil	florindo.orsi@uniphos.com	Luis Teixeira	13 July 2015	
Chile	Luis Agurto	Syngenta	luis.agurto@syngenta.com	Robert Senn	28 March 2014	Team Leader
Chile	Jeovanny Rodriguez	DuPont	jeovanny.rodriguez@dupont.com	Robert Senn	28 March 2014	
Chile	Rodrigo Olivares	Bayer	rodrigo.olivares@bayer.com	Robert Senn	28 March 2014	
China	Quansheng Hu	Bayer	quansheng.hu@bayer.com	Robert Senn	25 January 2016	Team Leader
China	Wen Wu	DuPont	wen.wu@dupont.com	Robert Senn	25 January 2016	
China	Yafeng CHEN	DuPont	Yafeng.Chen@dupont.com	Robert Senn	25 January 2016	
China	Chuxin SHI	Syngenta	chuxin.shi@SYNGENTA.COM	Robert Senn	25 January 2016	
China	Rong SONG	Syngenta	rong.song@SYNGENTA.COM	Robert Senn	25 January 2016	
China	Xiangqing MENG	Syngenta	xiangqing.meng@SYNGENTA.COM	Robert Senn	25 January 2016	
China	Zhiwei DU	Nihon Nohyaku	duzhiwei@nichino.com.cn	Robert Senn	25 January 2016	
China	Changrui SU	Daguangmin	panda2003@126.com	Robert Senn	25 January 2016	
China	Xuesong ZHENG	SinoChem	zhengxuesong@sinochem.com	Robert Senn	25 January 2016	
China	Yu CHEN	SinoChem	chenyu3@sinochem.com	Robert Senn	25 January 2016	
China	Jianghua CHEN	Sino-Agri	chenjinghua@sino-agri.com	Robert Senn	25 January 2016	
China	Rich Tan	Rantom	richtan@rotam.net.cn	Robert Senn	25 January 2016	
France	Amadine Picard	DuPont	amandine.picard@dupont.com			
France	Gwenael Champroux	DuPont	Gwenael.L.Champroux@dupont.com		25 January 2016	
France	Jean-Robert Roos	DuPont			25 January 2016	
France	Patrick Bergougnoux	DuPont			25 January 2016	
France	Aurelie Morin	DuPont			25 January 2016	
France	Sebastien Vautrin	Syngenta	sebastien.vautrin@syngenta.com),		25 January 2016	
France	François Sénéchal	Syngenta			25 January 2016	
France	Céline Thibault	Syngenta			25 January 2016	

IRAC

2017: Country "R" Action Groups Established and Status

#	Global Liaison	Country	Relative to the Steps in the Country Guidance Tutorial												
1	DuPont- John Andaloro	Australia	0	1	2	3	4	5	6	7	8	9	10	11	12
2	DuPont- John Andaloro	Argentina	0	1	2	3	4	5	6	7	8		10	11	12
3	DuPont- Luis Teixeira	Brazil	0	1	2	3	4	5	6	7	8	9	10	11	12
4	DuPont-Eric Andersen	Chile	0	1	2	3	4								
5	Syngenta- Gha Seung Ryul	China	0	1	2	3	4	5	6	7	8	9	10	11	12
6	ADAMA – Adeline Bertrand	France	0	1	2	3	4								
7	Bayer- Nigel Godley	India	0	1	2	3	4	5	6	7	8	9	10	11	12
8	DuPont- John Andaloro	Indonesia	0	1	2	3	4	5	6	7	8	9	10	11	12
9	DuPont – Maria Torne	Italy	0	1	2	3	4	5	6	7	8	9	10	11	
10	DuPont- John Andaloro	Japan	0	1	2	3	4	5	6	7	8	9	10	11	12
11	Syngenta- Jim Dripps	Korea	0	1	2	3	4	5	6	7	8	9	10	11	12
12	DuPont- John Andaloro	Malaysia	0	1	2	3	4	5	6	7	8	9	10		
13	DuPont-Eric Andersen	Mexico	0	1	2	3	4								
14	DuPont- Maria Torne	Morocco	0	1	2	3	4	5	6	7	8	9	10	11	12
15	Bayer- Nigel Godley	Philippines	0	1	2	3	4	5	6	7	8	9	10	11	12
16	Bayer- Maria Torne	Spain	0	1	2	3	4	5	6	7	8		10	11	12
17	Syngenta- Gha Seung Ryul	Thailand	0	1	2	3	4	5	6	7	8	9	10		
18	Syngenta- Nigel Godley	Turkey	0	1	2	3	4	5	6	7	8	9	10		
19	DuPont- john Andaloro	USA	0	1	2	3	4	5	6	7	8	9	10	11	12
20	Syngenta- Gha Seung Ryul	Vietnam	0	1	2	3	4	5	6	7	8	9	10	11	
21	Syngenta- Gha Seung Ryul	Taiwan	0	1	2	3	4	5	6	7	8	9	10	11	12
22	DuPont-Luis Teixeira	South Africa	0	1	2	3	4	5	6	7	8		10	11	12
23	DuPont- Adeline Bertrand	Israel	0	1	2	3	4	5							

0. Haven't met yet
1. Understand Objectives
2. Meet and Organize
3. Review Antitrust
4. Review Global Guidelines
5. Select High Risk Insects & crops
6. Develop Plan to Communicate MOA
7. Develop IRM Guideline Plan by Crop
8. Develop Communicate & Educate Plan
9. Act if "R" Occurs
10. Implement 6, 7, & 8-Train/Apply
11. Work on more pests & crops
12. Transition from Diamide to IRM WG

IRAC

2016-17 (South Africa) CRAG

TEAM STATUS

1. Number of meetings in 2016 and 1st Q 17: 6

2.CRAG members:

jan.vanvuuren@bayer.com, wilbri.vorster@bayer.com; Riaan.Vd-Merwe@dupont.com; Tanya.Joffe@SYNGENTA.COM; desiree.van_heerden@syngenta.com, albert.deklerk@philagro.co.za, andrew.bennett@monsanto.com, ANDRIES.FOURIE@dupont.com

TRANSITION TO BROADER INTER-COMPANY IRM TEAMS

Please comment on your current meeting structure. Have You:

- invited non-diamide company members to attend your country meetings? YES

- merged with your country IRAC or Crop Life organization? YES

- if you have done any of these….how is the new structure/process working out??

Workgroup functions separately and report back into CRAG meetings, do planning of projects, road trips, etc. in workgroup, general discussions on relevant topics in CRAG

2016-17 (Brazil) CRAG

TEAM STATUS

1. Number of meetings in 2016 and 1st Q 17: 3 meetings (March 18th, July 15th and March 22th)
2. List the CRAG members and their email addresses.

- ✓ Dow AgroSciences - Cristiane Muller – muller2@dow.com
- ✓ DuPont - Eduardo Picelli - eduardo.picelli@dupont.com
- ✓ Bayer - Daniela Okuma - daniela.okuma@bayer.com
- ✓ Syngenta – Patrick Bonani - jean.bonani@syngenta.com
- ✓ Basf – Fernando Gava - fernando.gava@basf.com
- ✓ Monsanto – Renato Carvalho - renato.a.carvalho@monsanto.com
- ✓ UPL – Florindo Orsi - florindo.orsi@uniphos.com
- ✓ Adama – Cristiane Stecca - cristiane.stecca@adama.com

TRANSITION TO BROADER INTER-COMPANY IRM TEAMS

Please comment on your current meeting structure. Have You:

- Invited non-diamide company members to attend your country meetings? Yes
- Merged with your country IRAC or Crop Life organization? Yes, Crop Life organization is invited to all the meetings. All the activities are developed during the regular meetings an when necessary, we schedule extra meetings.
- If you have done any of these….how is the new structure/process working out?? This structure has been working well, since all the companies are involved in the discussion and contributes for the management strategies.

Country Group Review tomorrow

- Argentina ✓
- Australia ✓
- Brazil ✓
- Chile ✓
- China ✓
- France✓
- India✓
- Indonesia✓
- Israel✓
- Italy✓
- Japan ✓
- Korea ✓
- Malaysia✓
- Mexico ✓
- Morocco✓
- Philippines✓
- South Africa ✓
- Spain ✓
- Taiwan✓
- Thailand✓
- Turkey✓
- USA✓
- Vietnam✓

Lepidoptera WG SMART Objectives 2016

- Initiate compliance process to align IRM recommendations among company product labels.
  - Each company assesses 2 product labels/country to include:
  - Max # of apps, quality IRM language, mode of action icon
  - Focus - key lep labels in USA, Brazil, China, India, Italy, Spain,
  - Create process to collect, review, and audit progress

Lepidoptera WG SMART Objectives 2016

- Assess usability of “diamide” bioassay methods for lep products
  - Assess bioassay methods developed for Diamide products vs leps if they can be used to assess non-diamide products.

Lepidoptera WG SMART Objectives 2016

- Conduct Tuta task team
  - Review and update Tuta educational materials
  - Setup core team
  - Implementing a workshop
  - Complete Tuta IRM BMP package

Core team and participants

Cesar Blanco Ruiz cesar.blanco-ruiz@basf.com

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Maria Torne mtorne@dow.com

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DRAFT VERSION 2.0, 24-MAR-17

Tuta absoluta **IRM Technical Exchange**

Wednesday October 25 2016

8:00 Welcome, purpose and expectations, and reminder of antitrust guidelines (Luis)

8:30 Expert Presentations (20 min each + questions)
Update on country resistance problems and management practices; focus on risks, products available for rotation; crop production practices; why growers must implement

- Monserrat
- Bielza

9:30 Draft IRAC Tuta best management practices for IRM (Maria/Stefano/Cesar/Stefano)
Country recommendations; training materials; grower adoption; BMP gaps

- BMP slide deck

10:30 Coffee/Tea

11:00 Interactive session
Introduce interactive session; IRM recommendation development, applicability of IRM BMP for respective countries; ID challenges; who implements.

12:30 Lunch

14:00 Interactive session (Cont'd.)
Group feedback on IRM recommendations, open discussion

15:30 Coffee/Tea

16:00 Implementation and audit plan Outline of country implementation and audit plan

17:30 Wrap-up Closing remarks and next steps

Insecticide Resistance Action Committee

Best Management Practices to Control *Tuta absoluta* and Recommendations to Manage Insect Resistance

IRAC Tuta IRM Task Team – 2017 (v6)

1

CropLife INTERNATIONAL
JTA 2017

Best Management Practices to Control Tuta and Manage Insect Resistance

TABLE OF CONTENTS

IRAC ITA 2017

IRAC

Lepidoptera WG meeting agenda (Wed)

IRAC

Final, 24-Mar-17

Agenda
Wednesday March 29 2017
IRAC Lepidoptera WG
Session 2D
Betsy I

Session Chair: Luis Teixeira

Agenda:

13:00 Welcome, introductions and reminder of antitrust guidelines (Luis)

13:10 Review 2015/16 Lepidoptera WG activities (Luis)

13:20 Country updates: The liaison presents summary slides. (Liaisons/All)
- Group status, meetings, reports of resistance, label alignment, proposed IRM strategies
- Challenges/highlights, requests from country WGs to the Lepidoptera working group
- Guidance/communications to country WG
- Country group impact discussion (liaison alignment, projects, funding)

15:00 Coffee/Tea

15:30 Lepidoptera WG discussion (Contd.)
- Label Review Compliance project – audit process (John A.)
- Review Tuta task team and Mexico effort and key learnings (TTT core team)
- Review and finalize Lepidoptera IRM guidelines (Nigel G.)
- Review/Edit SMART objectives (Luis)
- Other topics? Research findings?

18:00 Session closed

18:30 Group Dinner (location tbd)

Thank you

- Five conference calls
- Multiple revisions of posters and guidelines
- Multiple Tuta task team audioconferences