

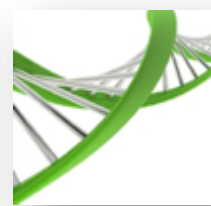


Insecticide Resistance Action Committee

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# SMART GOALS & OBJECTIVES 2016 - 2017

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# SMART Goals & Objectives

Specific Measurable Achievable Realistic (Resourced) and Time Bound

## IRAC International

The IRAC Network is made up of a series of inter-company Committees dedicated to prolonging the effectiveness of insecticides and acaricides by countering the development of resistance. The Committees operate at a global level (IRAC Executive) and at a regional or country level (IRAC Country Groups) and the whole network is termed IRAC International (abbreviated to IRAC).

The IRAC Executive Committee provides technical information, coordination and support for IRAC through a series of international Teams and Working Groups. Annual goals and SMART objectives for each of the teams are set in accordance with the overall IRAC Mission and should be reviewed periodically during the year within the teams to evaluate progress.

## The IRAC International Mission

- Facilitate communication and education on insecticide and traits resistance
- Promote the development and facilitate the implementation of insecticide resistance management strategies to maintain efficacy and support sustainable agriculture and improved public health

# IRAC Executive Goals 2016-17

## IRAC Executive – Goals

- Coordinate and facilitate the work of IRAC in accordance with the IRAC Mission
- Facilitate communication on the agronomic risks associated with insecticide resistance and the best practice for its management including insecticidal traits & public health pests.
- Prioritise insecticide resistance threats and develop an IRAC strategy aimed at minimising the impact of resistance either through IRAC international, IRAC country groups or organisational partnerships.
- Encourage and participate in the development and use of practical IRM recommendations which are communicated to individuals and organisations who make and influence pesticide application strategy.
- Assure alignment and mutual co-operation between the IRAC and CropLife organisations.
- Continue to promote IRAC as premier technical body for expertise in insecticide resistance.
- Facilitate an IRAC company decision on the voluntary adoption of MoA labelling on all insecticide products.

## Operational

- Approve and submit the IRAC annual budget to the CropLife Stewardship Committee
- Promote membership of IRAC at a country, regional and international level
- Strengthen links with the IRAC Country Groups, CropLife associations and other relevant partnerships.
- Encourage WGs to hold 4-6 audios and at least one F2F each year to review activities
- Emphasis to all IRAC members of the importance of following the IRAC Constitution including the Code of Conduct and Guidelines on Antitrust.

# IRAC Executive Deliverables 2016-17

## IRAC Executive – Deliverables

- Establish at least two new task teams with a maximum duration of 12 months in order to address prioritised insecticides resistance risks. Task teams will develop a strategy aimed at delivering practical IRM recommendations to a defined target audience.
- An assessment of opportunities to forge greater alignment across IRAC member companies in how they communicate resistance management internally and externally.
- Finalize IRAC statement on seed and soil treatment implications of IRM
- Deliver new IRM training materials to promote the use of IRM strategies in agriculture and public health. Training materials should be designed to reach a target audience of pesticide applicators or influencers.
- Seek opportunities to further attract new member companies to IRAC, based on their potential to actively contribute to resistance management globally.
- Work with local company representatives to re-establish a permanent active IRAC India country WG.

# IRAC Steering Team Objectives 2016-17

Goals	Objectives	Date
Update and maintain the IRAC administrative documentation and propose strategies for the effective management of IRAC	<ul style="list-style-type: none"> <li>Review and update as necessary the IRAC management documentation for 2014/15 (Constitution, Guides, Goals etc.).</li> <li>Develop strategies and proposals for the Executive Committee on how IRAC should evolve as an effective organisation, communicating, educating and advising on IRM. Allocate time on at least two calls or meetings during the year on how best to achieve this objective.</li> <li>Lobby CLI Stewardship Committee to improve engagement and support of the work of IRAC. An IRAC representative should attend at least one CLI Stewardship meeting during the year.</li> <li>Propose to the IRAC Executive, suggestions on format, duration, venue and location for the IRAC Spring Meeting and work with the various teams developing the meeting sessions and agenda.</li> </ul>	<p>Sept 2016</p> <p>Sept &amp; Mar 2016/17</p> <p>Mar 2017</p> <p>Sept 2016 &amp; ongoing</p>
In conjunction with CropLife, manage the IRAC finances and budget process	<ul style="list-style-type: none"> <li>Monitor and provide a detailed report on the status of the IRAC finances to the Executive and Steering Groups on at least two occasions, (spread out during the year) to each group.</li> <li>Develop the IRAC budget in conjunction with CLI for the coming year along with a long term 5 year forecast. Initial budget is required by CLI mid-June and finalised in September.</li> </ul>	<p>Sept &amp; Mar 2016/17</p> <p>May &amp; Sep 2016</p>
Maintain, develop and manage the IRAC Network and other stakeholder relations	<ul style="list-style-type: none"> <li>Promote and facilitate membership of IRAC International by companies not currently members. List potential target companies and approach at least 2 during the year to determine interest; ISHIHARA, NISSAN, PHILAGRO, MITSUI, ARYSTA, SIPCAM, NISSO.</li> <li>Encourage and facilitate the formation of new IRAC Country Groups, where appropriate this should be through the conversion of the Lep/Diamide CG into full IRAC CG. Strengthen the links between the CGs with IRAC International and the local CropLife Associations to ensure good communication and that the groups follow the IRAC Constitution including the Code of Conduct and Antitrust Guidelines. Each group should be contacted during the year to ensure that they are aware of these requirements and have access to the available IRAC administrative documents.</li> <li>Engage with stakeholders at a national, regional and global level to promote the work of IRAC and the importance of inter-company cooperation in the development of IRM strategies. To be covered by the crop IRM recommendations</li> </ul>	<p>Sept &amp; Mar 2016/17</p> <p>Sept &amp; Mar 2016/17</p> <p>Ongoing</p>
Maintain oversight of goals, objectives and activities of WG/ CGs to ensure effective/ efficient coordination of local/ global IRM	<ul style="list-style-type: none"> <li>Coordinate with CropLife on IPM educational material to ensure inclusion of relevant IRAC approved IRM content.</li> <li>Monitor the activities of the WGs and CGs and advise where possible on efficiencies and potential overlap of activities.</li> <li>In conjunction with the Executive Committee, work through member companies and CropLife to increase the number of countries adopting MoA and IRM information on the product labels.</li> </ul>	<p>Sept &amp; Dec 2016 on-going to March 2017</p>

# IRAC Outreach Team Objectives 2016-17

Goals3	Objectives	Date
Prioritization, development, and delivery of IRAC IRM outreach material taking account of but not necessarily being restricted by the IRAC budget. Leverage Outreach through the IRAC & CropLife network	<ul style="list-style-type: none"> <li>• Prioritize IRAC IRM advice for our target audiences. This should include but not be limited to growers, grower advisors and extension workers etc. Information, messaging and the best method of delivery (e.g. SMS, leaflets, videos etc.) should be appropriate for the target audience.</li> <li>• Coordinate with the Steering/Executive Teams as well as with the other IRAC WGs and CropLife to develop educational material:               <ul style="list-style-type: none"> <li>○ Request WGs to review/update any poster more than 4 years old</li> <li>○ Coordinate with the Methods WG to publish at least 1 methods video during 2016/17</li> <li>○ Organise printing/re-printing of outreach material as this becomes available from the WGs</li> <li>○ Progress distribution of the new IRM Grower leaflet through IRAC representatives, member companies and CropLife</li> <li>○ Promotion of the new IRM video and translation to further languages (e.g. LATAM Spanish, Portuguese and Chinese Mandarin)</li> <li>○ Development of a second video e.g. importance of MoA in IRM</li> <li>○ Inclusion of IRAC IRM information within CLI Stewardship IPM training modules</li> </ul> </li> <li>• Finalise the Outreach 2016/17 budget. Approach CropLife for additional support where and when required.</li> </ul>	<p>Ongoing Ongoing</p> <p>July 2016</p>
Maintain and improve the website as main IRAC Outreach vehicle for resistance and IRM information	<ul style="list-style-type: none"> <li>• Continue the technical upgrade of the IRAC website:               <ul style="list-style-type: none"> <li>○ Resolve any bugs that arise</li> <li>○ Build in new enhancements and additions as required</li> <li>○ Optimise the site for newer version of search engines</li> <li>○ Review and report on site visitor traffic as required</li> </ul> </li> <li>• Continue to add and improve on the website content and linked documents               <ul style="list-style-type: none"> <li>○ Information added directly into the web pages e.g. Team, Pest, Method MoA pages etc.</li> <li>○ New documents, poster, publications etc. and updates to Events, News and Contacts</li> </ul> </li> <li>• Ensure IRAC documents are marked Copyright IRAC</li> </ul>	<p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p>
Communicate IRM & IRAC news through the circulation of newsletters.	<ul style="list-style-type: none"> <li>• Find and/or prepare appropriate articles and resistance alerts and distribute as the IRAC eConnection at least 1-2 issues a year.</li> <li>• Continue to manage distribution of newsletters via the MailChimp system:               <ul style="list-style-type: none"> <li>○ Monitor and maintain subscribers, track user statistics on deliveries and openings</li> </ul> </li> <li>• Set up an IRAC Twitter account as a trial and determine during the year if this should be continued in the longer term.</li> <li>• Customize an IRAC YouTube Channel which provides access to all the IRAC videos</li> </ul>	<p>Q1/2 2016 &amp; Q3/4 2016</p> <p>July 2016 July 2016</p>
Maintain and improve the MoA Mobile App.	<ul style="list-style-type: none"> <li>• Maintain the MoA App. for both Apple and Android devices such that it is aligned with the MoA Classification and the interactive searchable MoA page on the website.</li> </ul>	Ongoing
Continue to upgrade, update and maintain the MSU Database	<ul style="list-style-type: none"> <li>• Work with the MSU IRAC focal point:               <ul style="list-style-type: none"> <li>○ To monitor and ensure the MSU technical upgrade continues as proposed</li> <li>○ Ensure that data from new resistance reports is added in a timely manner</li> <li>○ Present annual reports from MSU of progress achieved during the year</li> </ul> </li> <li>• Work with the IRAC Executive and CropLife to determine longer term proposals for a resistance database</li> </ul>	<p>Ongoing</p> <p>Q1, 2017</p>

# IRAC Crop Protection Objectives 2016-17

Goals	Objectives	Date
Identify potential, new or existing resistance issues. Set up, re-establish or disband Crop Working Groups as necessary	<ul style="list-style-type: none"> <li>• Monitor and report to the Executive any potential, new or existing national, regional or global resistance issues that may require action by IRAC. Research the issues and report to the Executive with a recommended plan of action including the extent of the problem and whether a Country/Regional Group or a Crop Protection WG should be established.</li> <li>• Set up, re-establish (or disband) pest, crop pest complex or other WGs as required for 2016/17.</li> </ul>	On-going
Increase IRAC footprint	<ul style="list-style-type: none"> <li>• As much as possible work with the respective teams to convert Lep/Diamide country groups into IRAC Country Groups. Establish likely contenders</li> </ul>	On-going
Develop IRM guidelines	<ul style="list-style-type: none"> <li>• Work with the Country Groups and WGs to develop IRM guidelines for 1-2 key crop/pest complexes where there are resistance problems.. Aim to publish one example during each 6-month period</li> </ul>	Sept 2016 March 2017
Investigate and make recommendations on the extent that IRAC should be involved in other IPM activities that impact IRM	<ul style="list-style-type: none"> <li>• Topics include but not limited to:               <ul style="list-style-type: none"> <li>○ Should the use of beneficial insects for IRM be considered by IRAC</li> <li>○ Development of a poster for alternative control methods e.g. biologicals</li> </ul> </li> </ul>	Q4 2016 Q4 2017
Continue to produce high quality educational material and IRM educational tools	<ul style="list-style-type: none"> <li>• Work with the respective Crop WGs, Outreach Team and where possible CropLife to develop IRM educational material e.g. the new IRM mini-booklet</li> </ul>	On-going

# IRAC Coleoptera WG Objectives 2016-17

Goals	Objectives	Target completion date
Strengthen the WG and expand its remit by increasing membership and adding a wider range of coleopteran pests, respectively	<ul style="list-style-type: none"> <li>• Seek for new (recent) WG member companies and representatives actively contributing to WG goals</li> <li>• Complete Colorado potato beetle IRM poster</li> <li>• Adjust Coleoptera MoA poster to latest MoA classification version 8.1</li> <li>• Seek collaboration opportunities with Biotech WG by addressing WCR resistance issues and IRM</li> <li>• Constantly monitor situation on coleopteran pest resistance outside OSR and decide on actions</li> </ul>	<p>Q4 2016 Q2 2016 Q3 2016 Q4 2016 ongoing</p>
Provide and validate methods for measuring the susceptibility of coleopteran pests	<ul style="list-style-type: none"> <li>• To finalise the insecticide sensitivity testing method of CRW larvae and adults to a range of insecticides used for their control (e.g. vial tests)</li> <li>• Update the IRAC method n°27 on indoxacarb with regards to test kit storage (DuPont)</li> <li>• Continuously monitor for weaknesses in OSR pest susceptibility testing methods</li> </ul>	<p>Q3 2016 Q2 2016 ongoing</p>
Provide summarised information to all stakeholders on IRM strategies for key coleoptera pests	<ul style="list-style-type: none"> <li>• Summarise current status and impact of target-site resistance in CSFB in European OSR by drafting a scientific paper</li> <li>• To produce a electronic (and print) version of a tri-fold which provides information on resistance, IRM advice and susceptibility monitoring assays for European oilseed rape pests.</li> <li>• Draft scientific paper on pollen beetle pyrethroid resistance monitoring results and impact 2010-2015</li> </ul>	<p>Q4 2016 Q3 2016 Q4 2016</p>
Coordinate oilseed rape coleopteran pest sensitivity monitoring in EU	<ul style="list-style-type: none"> <li>• Collaborate with public labs, regulators and other bodies involved in resistance monitoring of pollen beetle to prepare, share and interpret a joint set of monitoring data for 2015 season.</li> <li>• Collect CSFB samples to monitor the spread of kdr (and s-kdr) resistance in selected countries and provide data to the public</li> <li>• Provide AVT test kits to support resistance monitoring activities</li> </ul>	<p>Q1 2017 Q1 2017 Q1 2016</p>
Provide information to all stakeholders for coleoptera pest control in an IRM context	<ul style="list-style-type: none"> <li>• Review and incorporate new learning's from OSR pest research, including 2015 and recent resistance monitoring, into IRAC IRM recommendations for oilseed rape.</li> <li>• Provide summary poster of learning's from 2015 pollen beetle susceptibility monitoring.</li> <li>• Update summary poster of OSR pest resistance management recommendations.</li> <li>• Update Coleoptera WG website content</li> <li>• Provide information on coleopteran pests for IRAC pest pages on website by adding new species</li> </ul>	<p>ongoing Q2 2016 Q4 2016 Q2 2016 Q4 2016</p>

# IRAC Lepidoptera WG Objectives 2016-17

Goals	Objectives	Timeline
1. Maintain currency of the global IRM guidelines based on new experiences, new active ingredients, and app methods.	<ul style="list-style-type: none"> <li>Update new global insecticide IRM guidelines (for leps)                             <ul style="list-style-type: none"> <li>- rewrite to transition from diamide to insecticide IRM guidelines</li> <li>- clarify recommends for lep products providing non-lep control</li> <li>- incorporate seed treatment application method</li> <li>- revise and include product label IRM language examples</li> <li>- disseminate to ISK and use in Goals #2 and 5</li> </ul> </li> <li>Disseminate label criteria</li> </ul>	ongoing  Q3 2016
2. Improve Lepidopteran educational and communication tools	<ul style="list-style-type: none"> <li>Determine Lobesia poster status and finalize FAW poster</li> <li>Decide future poster needs (Liriomyza, Heliothines)</li> <li>Assist in completion of IRAC/Crop Life Grower Benefit Brochure</li> <li>Complete an IRM training slide set using new insecticide IRM guidelines with examples and visuals</li> </ul>	Q3 2016 ongoing ongoing ongoing
3. Transition country diamide WGs to resistance action groups	<ul style="list-style-type: none"> <li>Choose new global liaisons to communicate to country teams</li> <li>Lep team companies identify country reps to participate in local mtgs</li> <li>Update country resistance action group membership and emails</li> </ul>	3Q 2016 3Q 2016 ongoing
4. Initiate compliance process to align IRM recommendations among company product labels.	<ul style="list-style-type: none"> <li>Each company assesses 2 product labels/country to include:                             <ul style="list-style-type: none"> <li>- max # of apps, quality IRM language, mode of action icon</li> <li>- focus - key lep labels in USA, Brazil, China, India, Italy, Spain,</li> <li>- create process to collect, review, and audit progress</li> </ul> </li> </ul>	ongoing
5. Assess usability of "diamide" bioassay methods for lep products	<ul style="list-style-type: none"> <li>Assess bioassay methods developed for Diamide products vs leps if they can be used to assess non-diamide products.</li> </ul>	ongoing
6. Tuta task team	<ul style="list-style-type: none"> <li>Review and update Tuta educational materials</li> <li>Setup core team</li> <li>Implementing a workshop</li> <li>Complete Tuta IRM BMP package</li> </ul>	2Q 2016 2Q 2016 3Q 2016 4Q 2016

# IRAC Sucking Pest WG Objectives 2016-17

Goals	Objectives	Timeline
<p><b>Short term (“alert”)</b> actions to minimise spread of resistant pests</p>	<ul style="list-style-type: none"> <li>• <i>Myzus persicae</i> Follow-up with “implementation” of IRM Guidelines in Southern EU</li> <li>• <i>Bemisia tabaci</i> monitoring program (PROMIP/IRAC-BRA): how to design IRM strategies?</li> <li>• <i>Sitobium avenae</i> review last year’s alert for Mainland EU for PYR-resistance (in view of few MOAs)</li> <li>• <i>Aphis gossypii</i> (neonicotinoid target site resistance) <ul style="list-style-type: none"> <li>▪ Develop IRM recommendations for Korea as template for future use</li> <li>▪ Finalize / review poster: globally &amp; local Korean language version</li> </ul> </li> </ul>	<p>2016</p> <p>Q2 2016</p> <p>Q2 2016</p> <p>Q2 2016</p> <p>Q3 2016</p>
<p>Prepare IRM guidelines for pests with, or at risk of developing resistance in the <b>mid term</b></p>	<ul style="list-style-type: none"> <li>▪ <i>Euschistus heros</i>, check on MOA IRAC 01, 03, 04, with PROMIP/IRAC-BRA <ul style="list-style-type: none"> <li>▪ Follow up with monitoring efforts: how to design IRM strategies?</li> <li>▪ Method validation and implementation (review vial test to IRAC approved methods)</li> </ul> </li> <li>• <i>Bathycoelia distincta</i> Support research efforts in RSA (suspected PYR-resistance)</li> <li>• <i>Diaphorina citri</i> Validate &amp; publish a Flush tube systemic test for IRAC Groups 23&amp;28, poster update</li> <li>• <i>Bactericera cockerelli</i> Activate monitoring, validate and publish a method, notably for IRAC 04</li> <li>• <i>Myzus persicae</i> <ul style="list-style-type: none"> <li>▪ updated IRM Guidelines for new cases (Andalusia, ESP)</li> <li>▪ the poster, incl. new MOA with IRAC ESP</li> </ul> </li> <li>• <i>Bemisia tabaci</i> (<i>T. vaporariorum</i>) updated poster version, incl. new MOA</li> <li>• <b>Fruit fly species</b> (pyrethroids-resistant olive fly suspected, Greece): 1. Summarize current resistance situations, 2. Exchange about methodology and 3. Pro-actively release recommendations (highlight value of current options / prevent use restrictions)</li> </ul>	<p>Q2 2016</p> <p>Q3 2016</p> <p>2016</p> <p>2016</p> <p>2016</p> <p>Q2 2016</p> <p>Q3 2016</p> <p>Q3 2016</p> <p>2016</p>
<p>Prepare for future Sucking Pest problems <b>long term (avoidance)</b></p>	<ul style="list-style-type: none"> <li>▪ <i>Tetranychus sp.</i> (mites), <i>Nilaparvata lugens</i>, bugs/stinkbugs (<i>Dichelops melacanthus</i>) <ul style="list-style-type: none"> <li>▪ Collect reports on monitoring studies and publications, follow up field failures</li> </ul> </li> <li>▪ <i>Aphis gossypii</i>, <i>Myzus persicae</i>, <i>M. nicotianae</i> (neonicotinoid target site resistance) <ul style="list-style-type: none"> <li>▪ Monitor complaints globally and report liaise with researchers</li> </ul> </li> </ul>	<p>2016</p> <p>2016</p>

# IRAC Public Health WG Objectives 2016-17

Goals	Objectives	Date
Identify potential, new or existing resistance issues. Set up Team Working Groups or Focal Points as necessary	<ul style="list-style-type: none"> <li>• Monitor and report to the Executive on any potential, new or existing national, regional or global resistance issues that could require action by IRAC e.g. Vectors and Hygiene Pests. Research the issues and report to the Executive on a recommended plan of action including the extent of the problem and whether and how it should be best tackled. Set up appropriate PH Team WGs as deemed appropriate for the 2016/17 year.</li> <li>• Investigate the viability of a US “Specialty” IRAC country group (PH/PPM plus other non-ag insecticide uses), support such a group if sufficient interest is found to create it</li> </ul>	Ongoing Q4 2016
Provide expert input into IRM initiatives with identified partners, interact with groups working in the same field and participate/organise relevant meetings.	<ul style="list-style-type: none"> <li>• Set up a schedule of IRAC PH Team conference calls, meetings for 2016/17. Identify and invite relevant experts and observers from groups interested in Public Health IRM e.g. vectors, hygiene pests (WHO, Gates Foundation, IVCC) to participate and ensure that IRAC as an expert group provided input into relevant IRM initiatives.</li> <li>• Promote routes of communication with third parties, to disseminate IRM information, e.g. LinkedIn group</li> <li>• Coordinate activities more closely with CLI VCPT</li> <li>• Support WHO, VCAG, etc., with IRM activities, in liaison with CLI VCPT as appropriate</li> </ul>	Ongoing
Formulate the IRAC position on ongoing questions and issues as these arise	<ul style="list-style-type: none"> <li>• Promote the rational use of mixtures/combinations and synergists in VC</li> <li>• Participate with third parties to identify and promote best practice insecticide resistance monitoring, and results interpretation</li> </ul>	Ongoing
Preparation of Public Health communication material	<ul style="list-style-type: none"> <li>• Review and maintain educational material so that it remains up to date and relevant</li> <li>• Production of educational presentations, based on VM, that can be used by third parties</li> <li>• Develop training modules that can be used for continual education credits in PPM industry</li> <li>• Produce articles on IRM for trade journals, etc.</li> </ul>	Ongoing Q4 2016 Q4 2016 Ongoing

# IRAC Crop Biotechnology WG Objectives 2016-17

Goals	Objectives	Date
Drive the coordination of integrated initiatives between trait & chemistry organizations	<ol style="list-style-type: none"> <li>1) Develop criteria with Lepidoptera WG on what minimum standards we should hold companies accountable for regarding IRM and use of best management practices (IPM)                             <ul style="list-style-type: none"> <li>- Determine process by which companies are audited against certain standards</li> </ul> </li> <li>2) Work with CropLife Stewardship to establish cross-discipline accountability for IRM across the IRAC WGs and RACs</li> <li>3) Achieve focus on critical role of Business and especially Sales in successful implementation of IRM</li> </ol>	<p>Q4, 2016</p> <p>Q4, 2016</p> <p>Q1, 2017</p>
Drive Continued Latin America IRM Development	<ol style="list-style-type: none"> <li>1) Work with Latin American countries to achieve saltatory advancements in IRM and refuge implementation                             <ul style="list-style-type: none"> <li>- Evaluate plan to advance Brazil commitments: seed supply, AGROBIO pilot project, technical positioning and training, grower agreement/alignment, seed distribution, role of regulation, cross-industry coordination &amp; communication</li> <li>- Work with Argentina to advance the “New Industry Plan” – Work with Juan to ensure implementation</li> </ul> </li> <li>2) Interest in developing a regional Latin America approach</li> <li>3) Identify effective incentives and penalties for driving implementation of IRM and BMPs</li> </ol>	<p>Q3-Q4, 2016</p> <p>Q4, 2016</p> <p>Q4, 2016</p>
IRM Principles Industry White Paper	<ol style="list-style-type: none"> <li>1) Develop an integrated best practices document based on white papers already created and procedures used to build local best practices (i.e. IRAC-BR)</li> </ol>	<p>Q1, 2017</p>
IRM Framework for India and Asian countries	<ol style="list-style-type: none"> <li>1) Build technical alignment for SE Asia IRM plans and India/Pakistan</li> <li>2) Develop needed documents for CropLife Asia and associated country organizations</li> <li>3) Identify effective incentives and penalties for driving implementation of IRM and BMPs</li> </ol>	<p>Q4, 2016</p> <p>Q1, 2017</p> <p>Q2, 2017</p>
ETS	<ol style="list-style-type: none"> <li>1) Build on ETS program to expand transparency of companies’ IRM program implementation at the commercial level (e.g. measures of refuge seed sales and distribution; tracking against goals for grower awareness and adoption of refuge and BMPs)</li> </ol>	<p>Q4, 2016</p>

# IRAC Methods WG Objectives 2016-17

Goals	Objectives	Date
Establish single contact point for insecticide and acaricide monitoring methods (core activities)	<ul style="list-style-type: none"> <li>• Populate IRAC website with a range of methods used to measure insecticide susceptibility against key agricultural, horticultural, and public health pests.</li> <li>• Methods sourced from literatures, companies, and external contacts.</li> <li>• Continue to maintain and improve confirmed methods. Review older methods for suitability.</li> <li>• Populate eMethods with additional references.</li> </ul>	Q1-Q4, 2016
To provide IRAC approved methods, so that data generated by independent researchers can be directly compared	<ul style="list-style-type: none"> <li>• Deliver 1 new IRAC approved methods.</li> <li>• Complete thrips eVideo</li> <li>• Initiate new methods video (subject TBD)</li> </ul>	Q4, 2016
Improve communication to our target audience (promotional activities)	<ul style="list-style-type: none"> <li>• Publish eConnection article</li> <li>• Publish White Paper to promote Methods Team resources to target audience</li> </ul>	Q1, 2016 Q3, 2016

# IRAC MoA WG Objectives 2016-17

Goals	Objectives	Date
Review and update MoA Classification Scheme as required.	<ul style="list-style-type: none"> <li>Evaluate classification of etoxazole as chitin synthase inhibitor</li> <li>Reassess classification of Group 10 - Mite growth inhibitors.</li> </ul>	Q2 2016 Q3 2016
Complete key MoA reference document	<ul style="list-style-type: none"> <li>Provide key references for Groups 8a, 11, 14, 15, 16, 17, 18, 19, 23,24.</li> <li>Format reference as hyperlinks for ease of use</li> <li>Add document to IRAC website.</li> </ul>	Q2 2016 Q2 2016 Q2 2016
Update target site resistance table	<ul style="list-style-type: none"> <li>Add new publications annually.</li> <li>Convert references to hyperlink format.</li> <li>Upload to IRAC website</li> </ul>	Q2 2016 Q3 2016 Q3 2016
Develop new MoA posters and update existing posters	<ul style="list-style-type: none"> <li>Work with Outreach Team to update all language posters for consistency with v8.0 classification</li> <li>Complete general resistance poster.</li> </ul>	Q3 2016 Q2 2016
Communicate major changes to Classification Scheme v8.0	<ul style="list-style-type: none"> <li>Prepare eConnection article on changes to Groups 9, 10, 20, &amp; 29</li> <li>Establish website link for "pushing" major classification changes to list of interested individuals</li> </ul>	Q2 2016 Q4 2016
Develop MoA training presentation	<ul style="list-style-type: none"> <li>Explore use of modified BASF slides.</li> <li>Develop a general MoA presentation (organized into broad categories: nerve &amp; muscle, growth &amp; development, respiration, midgut) that can be used at scientific meetings</li> </ul>	Q2 2016 Q1 2017