



IRAC Team & Working Group SMART Objectives – 2012/13

Issued, September 2012

Version 2.8

IRAC SMART Objectives 2012/13

Specific Measurable Achievable Realistic (Resourced) and Time Bound

A full list of other acronyms, terms and abbreviations used in the documents are given in Appendix I

Introduction

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 measure progress.

The IRAC International Mission

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

IRAC 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 the Country & Regional Groups
- Facilitate cooperation and communication on insecticide resistance and IRM issues between groups, teams, and countries internally within IRAC, within member companies and with external stakeholders.
- Encourage all International Teams to hold 4-6 conference calls and at least one face-to-face meeting each year to establish and review progress of the team's SMART objectives.
- Work with CropLife International to ensure good communication and compliance as part of the CropLife Product Stewardship Project Team.
- Continue to remind all IRAC members of the importance of following the IRAC Constitution including the Code of Conduct and Guidelines on Antitrust.

Crop Protection Team

Goals	Objectives	Timeline
Identify potential, new or existing resistance issues. Set up, re-establish or disband Crop Protection Working Groups as necessary	<ul style="list-style-type: none"> • Monitor and report to the Executive on any potential, new or existing national, regional or global resistance issues that could 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. • Set up, re-establish (or disband) pest/crop complex or mode of action type WGs as deemed appropriate for the 2012/13 year. Each Crop WG should set goals and SMART objectives. • Work with the Biotech Team to develop a position on combined chemical insecticide and insecticide trait IRM strategy • Work with the MoA Team to lobby for MoA labelling 	<p>On-going</p> <p>On-going</p> <p>March 2013</p> <p>March 2013</p>
Develop IRM guidelines	<ul style="list-style-type: none"> • Work with the Country Groups and WGs to develop IRM guidelines for 3-4 key crop/pest complexes where there are resistance problems as identified. Draft/finalise versions for each complex targeted and circulate at least one example during each quarter 2012/13. 	<p>Q2, 3, 4, 2012 & Q1, 2013</p>
Develop an IRAC mixture position	<ul style="list-style-type: none"> • Work with EPPO on their strategy for use of mixtures in relation to resistance management and if acceptable propose this to the Executive as an IRAC position and recommendation. 	<p>Q4 2012</p>
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"> • Topics include but not limited to: <ul style="list-style-type: none"> ○ Should the use of beneficial insects for IRM be considered by IRAC ○ Development of a poster for alternative control methods e.g. biologicals 	<p>Q3 2012</p> <p>Q4 2012</p>

Coleoptera WG

Goals	Objectives	Timeline
To expand the remit of the team to include prioritised activities against a wider range of coleoptera pests.	<ul style="list-style-type: none"> To provide information (resistance monitoring, literature review, information posters, etc.) on key coleopteran pests other than OSR pest species. To encourage projects and information to be shared on other resistance concerns involving Coleopteran pests. 	CPB Poster Q3, 2012 MOA poster Q4, 2012
To provide researchers, validated methods for measuring the susceptibility of coleopteran pests.	<ul style="list-style-type: none"> To provide a draft method for assessing the insecticide sensitivity of CRW larvae and adults to a range of insecticides used for their control. Validate methodologies for testing susceptibility of <i>Psylliodes spp</i> and other OSR coleoptera to pyrethroids. 	Larvae Q3, 2012 Adults Q4, 2012 Q4, 2012
To provide summarised information to growers and influencers on available control options and strategies for controlling key coleoptera pests (posters, leaflets, etc.).	<ul style="list-style-type: none"> Review data generated by IRAC coleoptera team members on the neonicotinoid susceptibility of Apple Weevils in Europe. 	Q4 2012
To co-ordinate oilseed rape coleoptera sensitivity monitoring in European oilseed rape crops, using validated methodologies.	<ul style="list-style-type: none"> Collaborate as member team companies and cooperate with public labs, regulators and other bodies involved in resistance monitoring of pollen beetle in to assemble, share and interpret coordinated set of monitoring data for 2012 season. 	Q3, 2012
To provide oilseed rape pest sensitivity information to growers and regulators, so that informed decisions on oilseed rape pest control and resistance management can be made.	<ul style="list-style-type: none"> Review and incorporate new learning's from OSR pest research, including 2011 resistance monitoring, into IRAC IRM recommendations for oilseed rape. Present findings at international conferences. Provide summary poster of learning's from 2012 pollen beetle susceptibility monitoring. Update summary poster of OSR pest resistance management recommendations. 	Q2, 2012 Q2, 2012 Q2, 2013 Q2, 2012

Diamide WG

Goals	Objectives	Timeline
Identify potential, new or existing diamide resistance issues.	<ul style="list-style-type: none"> Monitor and report to the Diamide team on any potential, new or existing national, regional or global diamide resistance issues. Research the issues and recommended plan of action for the Country/Regional Group. Set up, re-establish (or disband) pest/crop complex or mode of action type WGs as deemed appropriate for the 2012/13 year. Each Crop WG should set goals and SMART objectives. 	Ongoing Q4 2012
Increase global participation in Diamide IRM by creating more country diamide working groups to address the risk of insect resistance.	<ul style="list-style-type: none"> Start Diamide WGs in Morocco (Andrea), Italy (Andrea), Turkey (Robert), Taiwan (Robert), Israel (Andrea), South Africa (Luis) 	Q3 2012
Hasten company participation and compliance within country diamide working groups to communicate MoA, implement IRM strategies, and align IRM label language.	<ul style="list-style-type: none"> Move the existing WGs from planning stage (develop recommendations) to action stage (implementation of IRM recommendations and educational plans). Increase participation of Global Diamide WG members in Country WG meetings. Improve compliance of the labels with the IRM guidelines. Start with implementation and training part based on Philippine model 	Q4 2013
Coordinate creation of assay methodologies for insects at high risk to developing resistance to diamide chemistry for future susceptibility comparisons.	<ul style="list-style-type: none"> Re-prioritize key insect pests targeted by diamide insecticides (by country) in order of resistance risk and commercial importance. Support the use of appropriate IRAC methodologies to assess the susceptibility of pests to diamide insecticides. Identify the need for baselines in markets with upcoming registrations of new products. Discuss for which pests new methods should be developed and critically review and validate newly developed methodologies. 	Q4 2012

Sucking Pest WG

Goals	Objectives	Timeline
Short term actions to minimise spread of resistant pests	<ul style="list-style-type: none"> • Focus on Neonicotinoid resistance management in <i>Myzus persicae</i> in peaches in Southern Europe • Develop and agree 2012 recommendations for <i>Myzus</i> IRM in Europe at Jan. Barcelona meeting • Distribute E-Newsletter with <i>Myzus</i> IRM recommendations in English • Translate E-Newsletter with <i>Myzus</i> IRM recommendations into French, Italian and Spanish with help from local IRAC representatives and distribute to IRAC member organisations & authorities • Publish 2011 monitoring results – (Rothamsted Research, Ian Denholm) • Check new areas in peaches for <i>Myzus</i> resistance – e.g. Greece, Valencia (Bayer, others) • To study the spread of resistant <i>Myzus</i> from peaches to neighbouring crops <ul style="list-style-type: none"> ○ Collect <i>Myzus</i> from crops other than peaches in summer 2012, Fr, It, Es (all members) ○ Screen for NNI target site resistance in <i>Myzus</i> (Bayer, Syngenta) • Based upon the above findings compile <i>Myzus</i> recommendations for the 2013 season in collaboration with IRAC Spain and other National WGs. (SPWG meeting in S. Europe) 	<p>2012</p> <p>Q1 2012 done</p> <p>Q1 2012 done</p> <p>Q2 2012 done</p> <p>Q3 2012</p> <p>Q3 2012</p> <p>Q3 2012</p> <p>Q3 2012</p> <p>November 2012</p>
Prepare IRM guidelines for pests with, or at risk of developing resistance in the mid term	<ul style="list-style-type: none"> • <i>Myzus persicae</i> (update poster) to reflect new NNI findings (Ralf Nauen) • Mites (new poster) (Fergus Early (MOA team) with & Ralf Nauen/Michael Klueken) • <i>Nilaparvata lugens</i>, Brown Plant Hopper (new poster) (Russell Slater + IRAC SE ASIA) • <i>Diaphorina citri</i>, Asian Citrus Psyllid (new poster) (Alejandro Arevalo + IRAC Brazil) • <i>Euschistus heros</i>, Brown Stink Bug (new poster) (Russell Slater) 	<p>Q3 2012</p> <p>Q3 2012</p> <p>Q3 2012</p> <p>Q3 2012</p> <p>Q4 2012</p>
Prepare for future Sucking Pest problems long term	<ul style="list-style-type: none"> • Action plans for specific key pests/chemistries that may be developing resistance. <ul style="list-style-type: none"> ○ <i>Sitobium avenae</i> (pyrethroid target site resistance, UK) <ul style="list-style-type: none"> ▪ Obtain monitoring results from UK (Dewar) and Germany (JKI-Heimbach) ▪ Collaborate with IRAG (UK-20.11.2012) and JKI (DE) to establish IRM guidelines ○ <i>Diaphorina citri</i> (neonicotinoids, pyrethroids, Florida, USA, Brazil) <ul style="list-style-type: none"> ▪ Elaborate specific methodology for <i>Diaphorina</i> (Tatjana Sikuljak – MOA group) ▪ Obtain results of monitoring in Florida (Lucas Stelinski Univ Florida) ▪ Establish baselines for AIs using agreed method (IRAC members responsibility) ○ <i>Aphis gossypii</i> (neonicotinoid target site resistance, Korea) <ul style="list-style-type: none"> ▪ Publication expected in Korean Congress of Entomology (Russell Slater) ▪ Vigilance for field complaints (all members) 	<p>Q4 2012</p> <p>Q4 2012</p> <p>Q3 2012</p> <p>Q4 2012</p> <p>Ongoing</p> <p>Q3 2012</p> <p>Ongoing</p>

Lepidoptera WG

Goals	Objectives	Timeline
Provide information on Lepidoptera pest resistance issues globally	<ul style="list-style-type: none"> • Identify IRM needs for <i>Plutella xylostella</i>, <i>Spodoptera frugiperda</i>, and <i>Spodoptera exigua</i>: <ul style="list-style-type: none"> ○ Monitor resistance status ○ Analyse findings ○ Compile relevant recommendations ○ Share information with relevant Working Groups and Country Groups. 	Draft Q3/4 2012 /Finish Q1 2013
Develop educational materials on Lepidoptera pest IRM	<ul style="list-style-type: none"> • Prepare “Principles of IRM in Lepidoptera control” materials (e.g. Poster, Booklet, Slides) • Finish <i>Spodoptera exigua</i> and <i>Lobesia botrana</i> posters • Prepare <i>Spodoptera frugiperda</i> and <i>Helicoverpa zea</i> posters 	Outline Q3/4 2012 / Finish Q1 2013 Q3 2012 Draft Q3 2012 / Finish Q4 2012
Develop a plan for increased outreach activities of the Lepidopteran WG	<ul style="list-style-type: none"> • Identify specific international and national and meetings related to lepidoptera pest management where the Lep WG and IRAC should be represented. • Represent IRAC on relevant international meetings dealing with lepidopteran pests (in co-operation with other WGs/CGs) 	On-going On-going
Support other IRAC WGs and CGs	<ul style="list-style-type: none"> • Work to ensure consistency of IRM messages across Working Groups and Country Groups • Increase exchange of information and joint review of documents with Diamides WG and other Working Groups and Country Groups 	On-going On-going

Public Health Team

Goals	Objectives	Timeline
Identify potential, new or existing resistance issues. Set up Team Working Groups or Focal Points as necessary	<ul style="list-style-type: none"> 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 2012/13 year. 	On-going
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"> Set up a schedule of IRAC PH Team conference calls, meetings for 2012/13. 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. Maintain, and build on, the role of Liaison Officers to report back to the Public Health Team on the activities of other groups active in the area Coordinate activities more closely with CLI VCPT Participate in relevant meetings and provide input into the WHO IR project as required and report back to the PH Team and the IRAC Executive. Organise workshop with third parties to update team on latest status of insecticide resistance in Anopheline vectors 	On-going
Formulate the IRAC position on ongoing questions and issues as these arise	<ul style="list-style-type: none"> Formulate position on mosquito larvicides Consider insecticide resistance risk assessment approach for VC interventions Formulate position on the use of mixtures in VC 	Q4 2012 Q4 2012 Q3 2012
Preparation of Public Health communication material	<ul style="list-style-type: none"> Update posters, with particular emphasis on hygiene pests Production of educational presentations, based on VM, that can be used by third parties Production of poster on IRM in mosquito larvicides 	Q3 2012 Q4 2012 Q3 2012

Biotechnology Team

Goals	Objectives	Timeline
Promote practical approaches to resistance management for Bt crops	<ul style="list-style-type: none"> • Develop IRM recommendations for small-holder biotech crop growers • Develop technical position on fit of seed blends for refuge deployment • Deliver method for less-than-high-dose pests, such as Helicoverpa • Develop peer-reviewed paper(s) and training module on proper use of monitoring programs and data 	Q3 2012 Q2 2012 Q4 2012 Q4 2012
Provide assistance to local and regional industry associations	<ul style="list-style-type: none"> • CropLife Asia – Bt maize in Vietnam • Bt cotton in India • Agro BIO Mexico 	Q3 2012 Q3 2012 On-going
Coordinate messaging around resistance incidents	<ul style="list-style-type: none"> • Develop internal and external understanding of field-relevant resistance including practical definitions of resistance • Promote appropriate interpretations of and responses to resistance reports 	Q2 2012 On-going
Continue to deliver practical IRM messaging through workshops, conferences	<ul style="list-style-type: none"> • Presentations to key audiences in geographies developing IRM guidelines • Refine slide deck for audiences with biotech grounding • Coordinate with CropLife International workshops involving IRM education, training 	On-going Q2/3 2012 On-going
Promote IRM considerations as integral component of Bt crop development by public and private sectors	<ul style="list-style-type: none"> • Work with CropLife to find ways to ensure IRM is fundamental to the stewardship of Bt crops by member companies • Work with public sector scientists and groups to promote responsible, practical IRM programs 	Q3 2012 On-going

Steering Group

Goals	Objectives	Timeline
Propose strategies for the effective management of IRAC	<ul style="list-style-type: none"> • Develop a workable succession plan for appointing Elected Officers • Prepare a job description for the Elected Officer positions as an aid to potential new officers • Develop proposal on how members can best promote the benefits of active IRAC membership to their companies and track progress • Update and re-issue the IRAC management documentation (Constitution, Guides, Goals etc.). • Continue to 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. • 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 • Develop and implement a plan on how IRAC should identify, select and approve new projects and how projects should be managed from initial proposal to final completion and report. 	<p>Sept. 2012 Sept 2012</p> <p>Sept. 2012 Aug. 2012</p> <p>Sept & March 2013</p> <p>June 2012</p> <p>Oct. 2012</p>
In conjunction with CropLife, manage the IRAC finances and budget process	<ul style="list-style-type: none"> • 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 • 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. • Develop and update scenarios and proposals to manage financial income and expenditure such that IRAC is able to work within the available budget to obtain best value from funds without under or over spend. 	<p>Sept & March 2013</p> <p>June & Sept 2012</p> <p>Sept & March 2013</p>
Maintain, develop and manage the IRAC Network and other stakeholder relations	<ul style="list-style-type: none"> • 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. • Encourage and facilitate the formation of new IRAC Country Groups. Work with the Country Groups, CLI and local CropLife Associations to ensure 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. • Support the Diamide WG to help broaden their most active country teams into IRM groups and eventually into full IRAC Country Teams where appropriate • 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 	<p>Sept & March 2013</p> <p>Sept & March 2013</p> <p>Review Jan 2013</p> <p>Review Jan 2013</p>

C&E Team

Goals	Objectives	Timeline
Development of C&E material for the coming year	<ul style="list-style-type: none"> • Formalise C&E 2012/13 budget and timeline incorporating joint projects with the various WGs. • Liaise with the WGs, updating/developing new C&E material e.g. posters, videos etc. <ul style="list-style-type: none"> ○ Ensure no poster is more than 3 years old without review or updating ○ Work with the Methods WG to publish at least 1 methods video during 2012 ○ Organise printing/re-printing of C&E material as this becomes available from the WGs ○ Develop mini-booklets outlining the principles of Crop & Biotech IRM (as per Mini-VM) • Liaise between UNL and Executive Committee on the Educational modules being developed • Investigate production of IRAC branded memory stick or other give-away 	<p>June 2012</p> <p>December 2012</p> <p>December 2012</p> <p>Ongoing</p> <p>February 2013</p> <p>Ongoing</p> <p>October 2012</p>
Maintain and improve the website as main IRAC C&E vehicle for resistance and IRM information	<ul style="list-style-type: none"> • Continue the current round of improvement to the website and CMS: <ul style="list-style-type: none"> ○ Update the WordPress CMS and associated plug-ins ○ Introduce the new taxonomies (pest, crop, country etc.) and tag all documents ○ Upgrade Team and Country Group web pages as requested by teams ○ Develop new pages for Resources (with advanced search functions), Events and Contacts ○ Investigate options for introducing resistance fact sheets & pest centric information • Continue to add website content and documents as this becomes available: <ul style="list-style-type: none"> ○ Information added directly into the web pages e.g. Team Pages ○ New documents, poster, publications etc. ○ Updates to Events, News and Contacts • Improved site security and investigate the introduction of individual passwords 	<p>April 2012</p> <p>April 2012</p> <p>Aug. 2012</p> <p>Aug. 2012</p> <p>Sept. 2012</p> <p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p> <p>December 2012</p>
<p>eTools</p> <p>Issue the eConnection Newsletter</p> <p>Upgrade MailChimp eClassification, eMethods</p>	<ul style="list-style-type: none"> • Find and/or prepare appropriate articles for the IRAC eConnection and publish 3-4 issues a year: <ul style="list-style-type: none"> ○ Issue 28 ○ Issue 29 ○ Issue 30 ○ Issue 31 • Set up a paying MailChimp account to handle 2000+ eConnection distribution/issue • Continue to update as required 	<p>March 2012</p> <p>August 2012</p> <p>November 2012</p> <p>February 2013</p> <p>September 2012</p> <p>Ongoing</p>

Mode of Action WG

Goals	Objectives	Timeline
Continue to review and update the MOA scheme as required.	<ul style="list-style-type: none"> Update as needed the current Version 7.2 to include any changes and / or new actives. Clarify sub-grouping statement 	1Q 2012 3Q 2012
Develop new versions of the MOA Structure Poster as needed	<ul style="list-style-type: none"> Using the new version of the scheme (v7.2) update the MOA Structure poster Work with the C&E WG to print copies (v7.2) for distribution 	1Q 2012 1Q 2012
Continue to review & update MoA Booklet	<ul style="list-style-type: none"> Update MoA booklet (3rd ed) 	1Q 2012
Develop non English versions of the MOA Structure Poster – with C&E WG	<ul style="list-style-type: none"> Develop non English versions of the MOA Structure Poster – with C&E WG 	1Q-2Q 2012
Update other MOA posters	<ul style="list-style-type: none"> Work with C&E Team to incorporate any updates from new versions of the MoA Scheme into Pest MOA posters Update General MoA Poster 	1Q 2012 2Q 2012
Develop MoA Diagrams.	<ul style="list-style-type: none"> Provide MoA diagrams for the different broad MoAs (IGR, vs. neural, vs. respiration) for use in MoA publications and presentations – <i>based on UNL output</i> 	4Q 2012
Develop MoA WG presentation	<ul style="list-style-type: none"> Develop a general MoA oral presentation that can be used at scientific meetings – dependent on UNL output 	4Q 2012
MoA page – IRAC Website	<ul style="list-style-type: none"> Update e-classification on IRAC website Update MoA WG page – more interactive 	2Q 2012 3Q 2012
Develop Resistance mechanisms Poster	<ul style="list-style-type: none"> Develop a general poster on mechanisms of insecticide resistance 	4Q 2012
Provide additional information on topics important to MoA and IRM	<ul style="list-style-type: none"> Listing of target-site mutations Listing of key references for each MoA group 	3Q 2012 3Q 2012

Methods WG

Goals	Objectives	Timeline
Develop single point of contact for insecticide and acaricide resistance monitoring methods (core activities)	<ul style="list-style-type: none"> • Populate e-methods tool with a range of methods used to measure insecticide susceptibility against key agricultural, horticultural and public health pests. Methods sourced from literature, companies and external contacts • Continue to maintain and improve confirm methods e.g. indicate suitability of each confirmed method for base line determination in the method description, review older IRAC approved methods • Populate e-methods with additional references 	Q4 2012/ Q1, 2013
Develop single point of contact for insecticide and acaricide resistance monitoring methods (promotional activities)	<ul style="list-style-type: none"> • Promote eMethods tool through e-connection, posters and method videos to be used at industry and academia events • Initiate minimum 1 new procedural videos e.g. brown planthopper, mites or pollen beetle 	Q4, 2012 Q4 2012/ Q1 2013
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 6 new crop IRAC approved methods • Commission appropriate internal or external studies and validate as required to finalise public health methods for inclusion in the IRAC methods series • Liaise with Biotech Team to deliver Biotech SOPs 	Q4 2012/ Q4 2013 Q4 2012

Resistance Database WG

Goals	Objectives	Timeline
Identify and track the scope and nature of insect resistance issues.	<ul style="list-style-type: none"> Annual International industry expert survey on the occurrence and impact of insect resistance. 	Prior year update by 1 st July 2012
Inclusion of the IRAC expert survey into the on-line MSU database	<ul style="list-style-type: none"> Mostly accomplished. However we need to communicate the accomplishment via editing of the introduction on the Database and with additional communications 	Completed by 2012
Improve utility of survey	<ul style="list-style-type: none"> Development of standard reports and mapping functionality. Some feasibility study still needed for mapping. 	Make decision by 2012
Expand geographical coverage of survey and number of human vectors	<ul style="list-style-type: none"> Australia added for the 2011 survey. Attempt to add at least one additional geography for 2012 report The addition of more human vectors such as bedbugs is highly desirable. Will need to investigate continuity going forward. 	Before 2013 Spring Meeting
Expand Member participation	<ul style="list-style-type: none"> We need more active member reviews. GT to work with Brad & Tessa on Best Practices/Methods Manual 	2012/13