



Insecticide Resistance Action Committee

Methods Working Group

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Methods WG Members

- ❑ Tatjana Sikuljak, BASF (Interim Chair)
- ❑ Harald Koehler, Bayer Crop Science (Vice Chair)
- ❑ Magali Gravouil, DuPont
- ❑ Lixin Mao, BASF
- ❑ Frank Wessels, Dow AgroSciences
- ❑ ?, Syngenta (Russell Slater, interim member)

Team Goals

- Team Goals:
 - Develop a single point of contact for researchers to gain information on how to conduct insecticide resistance bioassays.
 - 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.
- What are we doing to meet these goals:
 - Constant update of a searchable database for finding both IRAC approved methods and those which are used by researchers but have not been approved by IRAC.
 - Increasing diversity and rate of validation of IRAC approved methods, including public health pests.
 - Aid in better understanding of confirmed methods by providing additional visual tools e.g. methods videos

eMethods Status

- Number of approved methods: 29 (26 in 2012)
 - Latest methods confirmed:
 - Pollen beetle (indoxacarb)
 - 2 stinkbug methods (topical and leaf dip bioassay)
- Current methods activities:
 - Colorado potato beetle – drafted and currently being reviewed
 - Diamides:
 - Rice stemborer, rice leaffolder – drafted, currently being reviewed
 - Whitefly – drafter and reviewed. Will be finalized soon.
 - Liriomyza – drafted
 - Bedbugs (deltamethrin) – to be confirmed by Syngenta
- 158 posted references cover:
 - Broad range of crop pests (aphids, thrips, cutworms, stinkbugs, leafminers, scales, mealybugs, weevils, flea beetles, wireworms and planthoppers), also
 - A number of public health pests (house fly and mosquitoes)

eVideo Status

- Methods video completed in 2012:
 - *Nilaparvata lugens* (suitable for all MOAs)
- Additional video facts:



Aphids - Test Method No. 019
From: December 2011 Viewings = 543



Tuta absoluta - Test Method No. 022
From: December 2011 Viewings = 718



Rice Planthoppers - Test Method No. 005
From: November 2012 Viewings = 95

- Method videos suggested to 2013:
 - *Meligethes sp.* (filming in preparation)
 - *Tetranychus sp.* or *Panonychus sp.*

Goals & SMART Objectives 2013/2014

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 confirmed 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 2013/ Q1, 2014
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 videos to be used at industry and academia events, and publications (e.g. Journal of Economic Entomology – forum section) • Initiate minimum 1 new procedural videos e.g. pollen beetle or mites 	Q4, 2013 Q4 2013/ Q1 2014
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 3 new crop IRAC approved methods • If needed confirm public health methods for inclusion in the IRAC methods series. • Liaise with Biotech Team to deliver Biotech SOPs. 	Q4 2013 Q4 2013 Q4 2013