



Insecticide Resistance Action Group

Minutes 45th meeting hosted on Teams Monday, 16 November 2020 10:30-13:15

Outstanding actions from 43/44th meeting:

- RC to speak to Toby Bruce again re the government enquiry.
 - On Hold- due to current situation there has been no progress on this.
- SW to contact RS about European-wide resistance database.
 - EPPO resistance group still working on database and waiting to be finalised.
- Add agenda item for seasonal messages in each meeting.
 - This was discussed at the end of the 45th meeting
- SW to confirm with members that they are content for emails to be sent without using BCC to aid in discussion. All members present at the last meeting were fine with this.
 - If anyone objects to having a public email please notify RC/BS.
- Group to invite relevant speakers to discuss crop traits when necessary. Potential speakers include Defra and Rothamsted.
 - This was raised at the end of the 45th meeting. Please can suggestions be sent to RC/BS for future speakers.
 - *What about some of the PhD students that are working on IRAG relevant topics which are reaching the ends of their projects?*

New actions from 45th meeting:

- CW to contact BASIS and NRoSo about the possibility of points being awarded after completion of IRAC training modules.
 - CW has emailed BASIS to inquire if this is possible. No response has been received to date- a response will be added once received.
- SC to highlight the training material available through IRAC on the AHDB website and, if the above is confirmed, the ability to collect BASIS/NRoSO points.
- ALL- keep an eye out for willow-carrot and lettuce-currant aphid for SF.
- If anyone wishes to take over from CW for the matrix please contact CW directly.
- BS to circulate doodle poll options for 46th meeting towards the end of April.

Attendees present

Bailey	Andrew	(Adama)
Bean	Chris	(Zantra)
Collier	Rosemary	(WCC) Chair
Collins	Larissa	(Fera)
Cowgill	Sue	(AHDB)
Denholm	Ian	(Herts Uni)
Evans	Andy	(SRUC)
Foster	Stephen	(Rres)
Hilton	Rebecca	(Corteva Agriscience)
Jones	Gareth	(FMC)
Martin	Gareth	(BASF)
Mattock	Sue	(CRD)
Morris	Reuben	(Frontier)
Newbert	Max	(Syngenta)
Parsons	Chris	(Bayer)
Pope	Tom	(Harper Adams)
Power	Laurence	(Certis)
Self	Marion	(AICC)
Shaw	Bethan	(EMR) Secretary
Sisson	Adrian	(Belchim)
Slater	Russell	(IRAC)
Stevens	Mark	(BBRO)
Wallwork	Chris	(Agrii)
White	Sacha	(ADAS)

* Please contact BS if your details are not shown on the above list.

1. Welcome

Michael Davis - CRD member joining for todays meeting

2. Apologies

None received

3. Minutes of last meeting/matters arising

Displayed at the beginning of this document. Those which have been completed have been removed leaving only those outstanding.

Please email BS/RC if any issues with last matters arising.

4. Feedback from IRAC (RS):

- Overview of the IRAC website and the 'News' function which shows a timeline of recent events (including alerts for resistance). <https://irac-online.org/news/>
- Through the above link you can also access training modules which can be circulated. This is free to use but please leave formatting as it is and reference IRAC.
- Anyone can sign up for a newsletter which sends updates by using the 'subscribe here' function.

- Please take the time to explore the training modules available and share.

5. Update on research

Many research organisations have been shut down/restricted in the work they have been able to execute in 2020 but a great deal has still been achieved. Full presentations attached to email.

Rothamsted (SF)

- EcoStack- looking at pyrethrum resistance in beneficials. Some parasitoids are resistant. Ladybirds are not.
- Still a need for *M. persicae* samples collected from protected environments for resistance testing.
- Neonic resistance in *M. persicae* not found in 2019 or 2020.
- Big aphid problems in beet this year- loss of Thiacloprid.
- Currant-lettuce aphid- interesting results when treated with Spirotetramat with delayed mortality after several days.
- *A. fabae* treated with lambda-cyhalothrin 54% mobile when treated with 3ppm (lower than field rate) and capable of offspring production. Will do a full dose response. Likely to be performed before the end of the year including the full field dose.
- Cereal aphid pyrethroid sensitivity testing in the UK funded by AHDB
- In CSFB a range of resistance levels to lambda-cyhalothrin have been found which is thought to be metabolic (p450) but needs to be confirmed. None detected in Scottish samples but this is based on limited samples
- Still on the hunt for susceptible willow-carrot aphid.

Warwick (RC)

- Pest bulletins have been released throughout the year.
- Swede midge trapping network established with one organic crop having major problems.
- The diamond back moth citizen science found significant influx in June in some areas of UK. Scotland and Lincs had high catches. Few in Cornwall.
- In suction traps aphid numbers have been high for several common species.
- Information gathered for growers on the aphid issues of 2020 in brassica, carrot and potatoes for AHDB workshop on 25th November.
- General control of aphid in crops is reducing due to the loss of several key products over recent years.
- Extensions will be granted to SCEPTREplus and AMBER projects due to covid delays.
- H2020 Smart project started in Jan 2020-Dec 2022 to focus on cross regional knowledge and sharing IPM solutions.
- IPM system for aphids on brassica in collaboration with Harper Adams (TP will discuss more), ADAS, Keele and Durham.
- Involved with several IRAG relevant PhD projects.
- Upcoming meetings of interest:
 - AHDB aphid workshop 25th November: <https://ahdb.org.uk/events/ahdb-aphids-day>
 - AHDB IPM for field veg webinar- 26th November: <https://ahdb.org.uk/events/integrated-pest-management-for-field-vegetables>
 - Bean seed fly meeting- 9th December- contact RC for more information.

ADAS (SW)

- AHDB-funded BYDV project is in second year. Aiming to enhance management by improving monitoring for the vectors and decision making tools. Are what is being detected in the traps representative of local farms and how far does that zone of reliability stretch? Using

modified decision support tool. A spray decision support tool has also been developed. Can be used weekly with up to date factors to make these decisions.

- 'P2005346: AHDB Research Call – Reducing the impact of cabbage stem flea beetle on oilseed rape in the UK' started in August 2020. Led by ADAS in collaboration with Harper Adams. Found big variation in CSFB numbers between farm locations. The second part of the project investigates IPM methods which can be used to target the pest and these are being tested on farm. Growers will be asked to trial methods independently and will be asked to feedback their results.
- Testing insect resistance management strategies to validate results of a resistance model in *M. persicae*.
- A few projects looking at the use of decision support systems - there seems to be very little uptake of these in farms.

Harper Adams (TP)

- CSFB project screening biopesticides on adults and larvae and how these can be used in conjunction with conventional chemistry. So far good efficacy of some nematode species. FLIPPER and a coded product also show promise at recommended field rates. Entomopathogenic fungi will also be explored.
- Aphid management (in conjunction with Warwick and others) - improving IPM of aphid through partial host plant resistance and biocontrol to slow down aphid establishment. Brassica lines that have various levels of resistance identified. Also trying to encourage parasitoid foraging behaviour with semio-chemical volatiles.
- Wheat BYDV vectors- exploiting heritage wheat as a trap crop for vectors and also improving bio-control by habitat enhancement with floral strips for natural enemies. Identified that cv Maris Huntsman had more aphid landing events but they did not perform any better than other varieties.

6. Regulatory issues (SM)

- MOA labelling- coming to completion. Issuing an e-bulletin to give companies some lead time to prepare.
- EPPO are setting up a database to record validated resistance reports. This is an ongoing process and may be discussed at future IRAG meetings.
- Summary of a review of active withdrawals - 2008 56 actives listed, 50% were withdrawn by 2018. This also includes some of the 'old' chemistry. Some were the only UK representative for their group. We did gain a new group (Diamides) and biopesticides have increased (4 new actives) during this 10 year period.

7. IRAG output

- Seasonal messages to be included in outputs
- Matrix - nothing new added. CW has been maintaining this:
Does anyone wish to volunteer to take over from CW- if so please contact BS/RC.
- Can pest bulletins be linked to IRAG information?

8. AOB

Invited speaker (Michael Davis- HSE, biocides)

- Biocides include a range of products from repellents to disinfectants.
- In the last 15 years only 1 rodenticide has been available- obvious resistance issues.
- Berkshire and Hampshire have the highest levels of resistance resulting in food web issues.
- A new rodenticide MOA has been recently added which will aid in resistance management.

Please contact BS and RC with any suggestions for external speakers. This could also include crop resistance to a pest.

- RC/Rothamsted have a student that may be willing to speak once he has progressed with his project.

9. Date for next meeting:

- Towards the end of April - Action BS to circulate doodle poll with minutes. Agreed that it will be a virtual meeting and we may continue with virtual meetings in the future.