



Insecticide Resistance Action Group

Agenda for the 51st meeting on Microsoft Teams

Monday 11th December 2023

10am – 1pm

Current members

*Green highlighting indicates the members present during this meeting.

Chris	Bean	(Zantra)
Chris	Parsons	(Bayer)
Don	Pendergrast	(Agrii)
Ed	Burks	(FMC)
Fiona	Highet	(SASA)
Francis	Wamonje	(NIAB East Malling)
Gareth	Martin	(BASF)
James	Cheesman	(Certis-Belchim)
Larissa	Collins	(Fera)
Marion	Self	(AICC)
Mark	Stevens	(BBRO)
Pat	Croft	(CRD)
Rebecca	Hilton	(Corteva Agriscience)
Reuben	Morris	(Frontier)
Rob	Graham	(SRUC)
Rosemary	Collier	(WCC) (Chair)
Russell	Slater	(IRAC)
Sacha	White	(ADAS)
Simon	Jackson	(Syngenta)
Siobhan	Hillman	(AHDB) (Secretary)
Stephen	Foster	(Rres)
Tom	Pope	(Harper Adams)
William	Lankford	(Adama)

1. Welcome

Ed Burks & Don Pendergrast.

2. Apologies

Russel Slater, James Cheesman, Don Pendergast, Mark Stevens (represented by Kate Orman).

3. Minutes of last meeting/matters arising (5 mins)

No comments from the group.

4. Actions raised at the previous meeting. (5 mins)

- ID to send SH full set of minutes. ACTION COMPLETE.
- RC to get in touch with Len. ACTION COMPLETE.
- ALL members to draft 50th anniversary article. RC to send a plan to group. ACTION COMPLETE.
- SW to send link to AHDB report (resistance database) to SH. ACTION COMPLETE.
- SH to circulate link to AHDB report to the group. ACTION COMPLETE.
- SF to check the rates used in testing pollen beetles (arable factsheets). ACTION COMPLETE.
- SH to ask Jason Pole if he knows the whereabouts of the original arable factsheet documents. ACTION COMPLETE.
- RC/SW to make amendments to the fact sheets and circulate to the group (highlight the changes). ACTION CARRIED OVER.
- ALL members to compare EPPO database references with those in the IRAG resistance matrix. Red cases to be circulated first to PC, then to all IRAG members, alongside their status in the EPPO database. The group will then vote over email in favour or against the cases. ACTION COMPLETE.
- SH to add discussion of which 'red tagged' species from the IRAG matrix can be added to the EPPO database to November meeting agenda. These are to be agreed during the winter meeting. ACTION COMPLETE.
- SH/RC to send an email for volunteers to look after the matrix. ACTION COMPLETE.
- SH to add the question over rates to the next meeting agenda. ACTION COMPLETE.
- RJ to circulate slides to SH. ACTION COMPLETE.
- RC to send link out about House of Lords consultation. Closing date was 6th April – so too late. ACTION REMOVED.
- No progress on IRAG basis module since last meeting. ACTION CARRIED OVER.
- SH to add to the housing of the matrix online to next meeting agenda. ACTION COMPLETE.
- SH to update AHDB website to say, 'see latest minutes for up-to-date membership list'. ACTION COMPLETE.
- ACTION RC/SH to send around a doodle poll. ACTION COMPLETE.

5. Biopesticide regulatory workshop update (PC) (10 mins)

At the BCPC Congress, Harrogate, in November, PC/CRD ran a regulatory workshop in which attendees went into breakout groups to discuss what regulatory updates for biopesticides people would like to see. Some feedback from participants wanted a separate regulatory scheme for biopesticides, while others wanted it incorporated into the scheme already available for conventional pesticides. CRD currently runs a regulatory scheme for biopesticides, which was set up prior to the low-risk scheme, but biopesticides don't always qualify for this lower risk scheme. Most biopesticides will be in the lower risk category but this might not always be the case and participants wanted some consideration on how these two schemes sit together. A question that was raised by one of the participants queried why countries such as Brazil could get biopesticides through to the market in a single year, when this is not the case in the UK. There is often criticism of the biopesticides scheme in that it takes too long to get approval but the issue with e.g., non-native species is that they are living material, and though in some respects they may be the safer option it can create more problems as you have to think about how the organism thinks, its biology etc. Participants questioned the EU IUCLID database and whether this should be adopted by the UK. There are however some user issues with the database, but it may be worthwhile for the UK to adopt a similar system in future. Some feedback from participants on the route to getting trials permits to test biopesticides suggested that the length of time CRD took to investigate the proposals was too long and could act as a deterrent, potentially resulting in fewer biopesticides getting tested for use in the UK. At the conference DEFRA gave an update and suggested that the national action plan was imminent. CRD will seek what they have to do to line up with DEFRA NAP.

Questions from the group:

a) What is the time scale?

CRD can't make decisions until they have seen the national action plan and following DEFRA's guidance. There are questions over whether the UK should align with Europe, or stay independent, and there are political complexities involved in any decision making too. Europe is currently changing some of its regulations regarding low risk biopesticides, should the UK follow suit or create our own guidelines? There may be some small gains to be had more immediately, but it could be a long time before things are fully finalised. One of the more immediate gains for new applicants, CRD will accept an applicant's reduced efficacy data package for the future product submission, ahead of the new active gaining low risk status, compared to the current model where organisations are informed we require a full Efficacy data package for the product when submitting the active. It is a common question from applicants at active submissions as they have often already generated their first product data. In future, a reduced efficacy data package may be used, only asking applicants to submit the full data package if the active fails to get low risk status. An ebulletin will be released soon on HSE website.

b) What about the process for existing permits?

Until told otherwise CRD is carrying on as they are, nothing is on hold.

c) Corteva asked about the fact that there is currently no difference in permit uses between field and glasshouses. If biopesticides could be tested in the glasshouse ahead of field trials then this would potentially hinder the process less.

CRD is currently updating the glasshouses permit.

6. Resistance matrix (45 mins)

- Which 'red tagged' species from the IRAG matrix can be added to the EPPO database?

CRD have currently entered 10 entries into the EPPO database. On the EPPO database currently there are entries for pyrethroid resistance plus many older cases of known resistance. CW previously cross checked the information on the EPPO database and the IRAG matrix to identify what differences existed between both. There is not the necessity to update the older cases of resistance at the moment, but this can be considered if and when they become a problem again. There was some debate within EPPO over what to do about these older cases of resistance as well. France is the only country so far to have uploaded the older cases of resistance onto the EPPO database. The group discussed which cases from the table (attached in the email) that CW produced could be uploaded to the EPPO database. Some cases from the IRAG matrix are already uploaded to the EPPO database. For the fungicide resistance database entries EPPO require published scientific papers as evidence before any case is uploaded. For insecticides then CRD/EPPO only require agreement from members of IRAG and IRAC, based on several sources of information, that the case should be uploaded to the EPPO database. There were questions from the group about whether to add known cases of resistance if the compounds are no longer available, as there could be new chemistry emerging with the same MoA for which this information would be useful to know. IRAG had previously agreed to keep all old cases of resistance in the IRAG matrix so it was agreed by the group that for the moment only the current cases of resistance would be added to the EPPO database, with older cases added if required at a later date. A summary of which cases will be added to the EPPO database can be found on the next page.

Species	Resistance	EPPO status	Notes from discussion
<i>Aleyrodes proletella</i>	3A Pyrethroids	Add to database	To be flagged up as pyrethroids still used.
<i>Aphis gossypii</i>	3A Pyrethroids	Add to database	Only the resistance to pyrethroids to be added to the database as this is the most relevant. SF hasn't tested the species for pyrethroid resistance for a number of years, but this is to be flagged up as pyrethroids are still being used.
<i>Cavariella aegopodii</i>	3A Pyrethroids	Add to database	To be flagged up as pyrethroids still used in carrot crops.
<i>Macrosiphum euphorbiae</i>	Any updates from the group	Not to be added to the database	The group are not aware of any new resistance for this species.
<i>Nasonovia ribisnigri</i>	1A Carbamates	Add to database	To be flagged due to EAMU authorisation for this pesticide on this pest. EAMU 20191178 (to 15/09/2027) lists Angelica, baby leaf crops, many herbs and lambs lettuce as crops with authorisation to use carbamates to control <i>N.ribisnigri</i> and <i>A.gossypii</i> .
<i>Nasonovia ribisnigri</i>	3A Pyrethroids	Add to database	To be flagged up as pyrethroids still used.
<i>Psylla pyricola</i>	Any updates from the group	Not to be added to the database	The group are not aware of any new resistance for this species.
<i>Trialeurodes vaporariorum</i>	3A Pyrethroids	Add to database	To be flagged up as pyrethroids still used.
<i>Plutella xylostella</i>	3A Pyrethroids	Add to database	To be flagged up as pyrethroids still used.
<i>Oryzaephilus surinamensis</i>	3A Pyrethroids	Add to database	To be flagged up as pyrethroids still used. FERA did some testing on this species a few years ago and found that there was resistance.
<i>Sitophilus granaries</i>	3A Pyrethroids	Add to database	To be flagged up as pyrethroids still used.
<i>Frankliniella occidentalis</i>	5 Spinosyns	Add to database	To be flagged up as spinosyns still used.
<i>Thrips tabaci</i>	5 Spinosyns	Add to database	To be flagged up as spinosyns still used.
<i>Tetranychus urticae</i>	3A Pyrethroids	Add to database	To be flagged up as pyrethroids still used. Noone from the group has worked on this, though SW mentioned that from the old database there was pyrethroid resistance noted in the 70s.
<i>Tetranychus urticae</i>	21A METI acaracides	Add to database	There have been previous resistance issues in the past so this is to be flagged.

RC was asked about whether there was any resistance to pyrethroids in silver Y moth. SF hasn't looked at this under the current project. SW checked his old database and there weren't any cases for the UK.

- Publishing the resistance matrix online.

The matrix will be published on the AHDB website (IRAG page) in its entirety, including colour coding.

- Looking after the resistance matrix.

SH will look after the pests of cereals and oilseeds; the rest of the group will discuss pests of horticulture/potatoes etc at each meeting and any updates made accordingly. An agenda item for this purpose will be added to all future meetings. AHDB will upload any updates to the matrix onto the website.

7. Update on research.

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8. IRAG output (30 mins)

- IRAG 50TH anniversary paper.

RC drafted a paper with input from SF and ID which was circulated to the group. The article will be published. The paper starts with the history of IRAG and then follows with some cases studies on *Myzus* and CSFB. The group deadline for comments will be sometime after Christmas. RC is particularly keen about getting feedback about the contribution IRAG has made towards resistance management.

ACTION ALL – Provide feedback for 50th anniversary paper.

- IRAG training module for BASIS points.

TP/SW/RC to continue progressing this. ACTION CARRIED OVER.

- IRAG fact sheets update.

SW has done some work on the cereals, oilseed rape and potatoes facts sheets. These have been shared with RC/SH/SF. There was a question about testing the susceptibility of CSFB larvae to pyrethroids. Testing has been done in the past and the 1st/2nd instar larvae were still susceptible to pyrethroids at this time. ADAS have done some work earlier in the year which suggests that the 1st/2nd instars were no longer susceptible and that they were particularly resistant to pyrethroids applied at the time. Testing was using lambda-cyhalothrin. Previous work was done using a leaf dip and ADAS directly sprayed the larvae with the pyrethroid, so the difference in results may be due to the different methodologies. SF/SW to discuss this.

RC to work on the edible brassica fact sheet.

ACTION SW/RC – complete the edits of the fact sheets by the end of January. Send these to SH to circulate.

ACTION SH – Circulate edited fact sheets to group before publishing online.

9. AOB

- Membership:
 - Don Pendergrast has replaced Chris Wallwork as Agrii representative.
 - Ed Burks has replaced Gareth Jones as FMC representative.
 - RM – At the AHDB Agronomy conference earlier this month the DEFRA talk raised the use of the pesticide load indicator which runs off the University of Hertfordshire database. What impact might this have on insecticide use? RC said this was mentioned at the AAB meeting. It seems to be an equivalent of the EIQ. The one DEFRA has is working from the Danish tool looking at the environmental impact. EIQ doesn't take into proper account of what growers are using, it seems to be having some rather odd impacts including on resistance management. No deadline mentioned. When it's mentioned at meetings such as the agronomy conference then it seems likely that it will become policy. Biopesticide usage could skew the data as these are applied more regularly than conventional chemicals. Will DEFRA consult on industry viewpoint? The rate of things being done will be influenced by the election.
 - RC – stepping down as chair as 5-year term is up. The chair has to be from one of the independent organisations. RC to consult with those from independent organisations to see if someone will volunteer to take over the chair.
- Date for next meeting – April meeting to be in person?

SH to send out a doodle poll for dates. Next meeting will be in person.

SH to check if AHDB can host.