

1.20 OECD GD 239 Honey bee larvae in vitro testing and solvents: on the job training

Stefan Kimmel, Magdaléna Cornement

Innovative Environmental Services (IES) Ltd, Benkenstrasse 260, 4108 Witterswil, Switzerland; corresponding author: s.kimmel@ies-ltd.ch

DOI 10.5073/jka.2018.462.020

Abstract

With adopting the OECD guidance document 239 for in vitro bee larvae repeated exposure testing in the laboratory, a new guidance became final without taking into account several pending issues and unsolved problems still to take care of. Important aspects to be taken into account is the use of solvents when testing practically insoluble compounds (e.g., during active substance testing), as well as confirmed homogeneity of substance within the final feeding solutions.

Testing of the active ingredient as technical instead of the corresponding formulation for registration purposes is requested from, but not only limited to US and Canadian authorities, several other authorities around the globe seem to follow that approach. Having in mind the high sensitivity and susceptibility of the young larvae reared in the test, this leads to quite some problems in the practicability of the test itself.

The here presented results and methodology shall share experience and lessons learned from the past years for this specific test, further on a technical approach to make the use of solvents helpful but not harmful. Further on, adaptations and modifications on the analytical verifications required for this study are shown and being put on discussion. Overall a feasible way of adaption and modification for this highly discussed and still criticized test system is presented, the improvements shall be seen as turning this setup into a more reliable and reproducible study design helpful for assessing potential risks during the process of registration of plant protection products and chemicals.

1.21 Improving pesticide regulation by use of impact analyses: A case study for bees

Mark Miles¹, Anne Alix², Roland Becker³, Mike Coulson⁴, Axel Dinter⁵, Laurent Oger⁶, Ed Pilling², Amanda Sharples⁷, Gabe Weyman⁸

¹Bayer Crop Science Division, Cambridge, CB4 0WB, UK. ²Dow AgroSciences, Abingdon, OX14 4RN, UK. ³BASF SE, Limburgerhof, Germany. ⁴Syngenta, Jealott's Hill, RG42 6EY, UK (Exponent Harrogate, HG2 8RE, UK from May 2017). ⁵FMC Agricultural Solutions, Frankfurt/Main, Germany. ⁶ECPA, Brussels, Belgium. ⁷FMC, Harrogate, HG3 1RY, UK. ⁸ADAMA Thatcham, Berkshire, RG19 4LW, UK.

DOI 10.5073/jka.2018.462.021

Abstract

When changes to regulatory guidance for risk assessment are proposed it is necessary to undertake an impact analysis to assess whether they bring the desired improvement to a risk assessment and reliability of the outcomes to inform decision making. In particular impact analyses should estimate the chances of getting both false negative (concluding low risk where more research is needed) and false positive outcomes (concluding high risks where the product is of low risk). Such analyses are also used to inform on future product development costs and workload for regulatory authorities.

In this paper, we present the findings from an impact analysis conducted on the proposed EFSA bee guidance document (2013) and discuss whether the proposed guidance would provide for a cost effective and tiered approach toward the protection of bees due to the potential risks posed by the use of plant protection products. Following on from this a second impact assessment is presented based on new data generated by ECPA member companies regarding the assessment of chronic risk to bees. Critical areas are discussed and suggestions for the improvement of assess the risk assessment for plant protection products (PPP) to bees are presented.

Keywords: Honeybee, risk assessment, impact analysis, pesticide

462

Julius-Kühn-Archiv

Pieter A. Oomen, Jens Pistorius (Editors)

Hazards of pesticides to bees

13th International Symposium of the
ICP-PR Bee Protection Group

18. - 20. October 2017, València (Spain)

- Proceedings -



Julius Kühn-Institut
Bundesforschungsinstitut für Kulturpflanzen

History ICPPR-Bee Protection Group conferences

- 1st Symposium, Wageningen, the Netherlands, 1980
- 2nd Symposium, Hohenheim, Germany, 1982
- 3rd Symposium, Harpenden, UK, 1985
- 4th Symposium, Řež, Czech Republic, 1990
- 5th Symposium, Wageningen, the Netherlands, 1993
- 6th Symposium, Braunschweig, Germany, 1996
- 7th Symposium, Avignon, France, 1999
- 8th Symposium, Bologna, Italy, 2002
- 9th Symposium, York, UK, 2005
- 10th Symposium, Bucharest, Romania, 2008
- 11th Symposium, Wageningen, the Netherlands, 2011
- 12th Symposium, Ghent, Belgium, 2014
- 13th Symposium València, Spain, 2017
- 14th Symposium scheduled, Bern, 2019

Organising committee 13th conference

- Dr. Jens Pistorius (Julius Kühn-Institut, Germany)
- Dr. Anne Alix (Dow Agrosciences, United Kingdom)
- Dr. Carmen Gimeno (Trialcamp, Spain), local organiser
- Dr. Gavin Lewis (JSC, United Kingdom)
- Dr. Pieter Oomen (Wageningen, The Netherlands)
- Dr. Veronique Poulsen (ANSES, France)
- Dr. Guy Smagghe (Ghent University, Belgium)
- Dr. Thomas Steeger (US Environmental Protection Agency, USA)
- Dr. Klaus Wallner (Hohenheim University, Germany)

Editors

- Dr. Pieter A. Oomen, Wageningen, The Netherlands
- Dr. Jens Pistorius, Braunschweig

Group photo of all symposium participants, standing in front, from left:

- Thomas Steeger (new board member),
- Jens Pistorius (new chairman),
- Françoise & Pieter Oomen with award (editor & former chairman),
- Guy Smagghe (organiser, symposium host and new board member),
- Job & Margreet van Praagh with award,
- Anne Alix (secretary of the board)

Foto

Pieter A. Oomen (Bumble bee *Bombus lapidarius* on thistle)

The proceedings of the symposia (such as these) are being published by the Julius Kühn Archive in Germany since the 2008 symposium in Bucharest, Romania. These proceedings are also accessible on internet, e.g. the former symposium proceedings published by JKI can be found on <https://ojs.openagrar.de/index.php/JKA/issue/archive> (Issues 423, 437, 450). Furthermore, proceedings of former meetings have meanwhile been digitalized and can be found on https://www.openagrar.de/receive/openagrar_mods_00032635.

Bibliografische Information der Deutschen Nationalbibliothek

Die Deutsche Nationalbibliothek verzeichnet diese Publikation. In der Deutschen Nationalbibliografie: detailierte bibliografische. Daten sind im Internet über <http://dnb.d-nb.de> abrufbar.

ISSN 1868-9892

ISBN 978-3-95547-064-7

DOI 10.5073/jka.2018.462.000



Alle Beiträge im Julius-Kühn-Archiv sind unter einer Creative Commons - Namensnennung - Weitergabe unter gleichen Bedingungen - 4.0 Lizenz veröffentlicht.

Printed in Germany by Arno Brynda GmbH, Berlin.