2.5 The acute and chronic Oomen feeding test – adapted methods and further options*

Johannes Lückmann [1], Stephan Schmitzer [2]

[1] RIFCON GmbH, Goldbeckstraße 13, 69493 Hirschberg, Germany, johannes.lueckmann@rifcon.de
[2] IBACON GmbH, Arheilger Weg 17, 64380 Rossdorf, Germany, stephan.schmitzer@ibacon.com
* on behalf of the Oomen-brood method ring test group of the German AG Bienenschutz

DOI 10.5073/jka.2018.462.027

Abstract

According to the "Guidance Document on the risk assessment of plant protection products on bees" (EFSA 2013) the Oomen bee brood feeding test (Oomen et al., 1992) is recommended, next to the OECD Guidance Document 75 (2007) as one possibility to refine the risk on honeybee brood, if concern is raised on them. The method proposed in the EFSA GD is based on a rough description given by Oomen. In the past few years the method was adapted to current needs to be in line with more recent methods e.g. OECD GD 75. The major difference of the original paper compared to the EFSA GD is that honeybees should be fed chronically over a period of 9 days. In order to fulfill this requirement a sub-group of the German AG Bienenschutz developed a ring-test protocol for a chronic feeding test under field conditions and subsequently performed ring-tests in 2013 and 2014 (Lückmann and Schmitzer 2015). Beside acute Oomen feeding tests, chronic feeding of bee colonies is possible. The method was adopted accordingly and both scenarios can be performed in order to detect risk of plant protection products on honey bee brood. The poster summarized both, the adapted method for single feeding as well as the method for chronic feeding and describes obligatory assessments and optional evaluations.

References

EFSA (2013): EFSA Guidance Document on the risk assessment of plant production products on bees (*Apis mellifera*, *Bombus* spp. and solitary bees) (published on July 04, 2013, updated on 04 July 2014). EFSA Journal **11** (7), 3295, 268 pp.

LÜCKMANN, J., S. SCHMITZER (2015): The effects of fenoxycarb in a chronic Oomen feeding test – results of a ring-test. In: Hazards of pesticides to bees, 12th Internat. Symp. ICP-PR, Ghent, Belgium 2014, ed. by Oomen PA & Pistorius J, Julius-Kühn-Archiv **450,** 75-81.

OOMEN, P. A., A. DE RUIJTER, and J. VAN DER STEEN 1992: Method for honeybee brood feeding tests with insect growth-regulating insecticides. Bulletin OEPP/EPPO Bulletin **22**, 613–616.

OECD Guidance Document No. 75 (2007): Guidance document on the honey bee (*Apis mellifera* L.) brood test under semi-field conditions. Series of testing and assessment, Number 75. ENV/JM/MONO **22**, 11-27.