

## Working Group - Risk to honey bee larvae

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Members of the ICPBR working group on 'Risk to honey bee larvae' (established 2008):

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### Remit of the working group

The remit of this working group was to evaluate recent methodological developments on honey bee brood testing and risk assessment and to integrate these into the current risk assessment where appropriate.

The new Regulation 1107/2009 has new data requirements for honeybees under Annex II and Annex III: „An active substance, safener or synergist shall be approved only if it

- will result in a negligible exposure of honeybees, or
- has no unacceptable acute or chronic effects on colony survival and development, taking into account effects on *honeybee larvae* and honeybee behaviour”

### Detailed data requirements for effects on honeybees

Study type	Requirements following 91/414	Requirements following 1107/2009
Annex II Bee brood feeding test	Required Guideline: Eppo 170 (Oomen et al. 1992) Report: not specified, in fact brood termination rate, brood index and brood compensation index are reported	New requirements (see below)
Annex III Effects on honeybee development and other honeybee life stages	Not required	Required • Guideline: validated tests for different life stages (e.g. eggs, larvae, immature adults) are not in place • Report: EC <sub>10</sub> , EC <sub>20</sub> , EC <sub>50</sub> , NOEC for larvae and adults sub-lethal effects, if observed • Comment: currently covered by semi-field brood studies

Bee larvae/brood:

- no classification lab / semi-field / field (tiered system?)
- no specification of methods / endpoints
- no trigger values
- risk assessment to be revised

**Established test systems**

Tier I	In vitro bee larva laboratory test	No validated test system available yet
Tier I/II	Oomen & de Ruijter Bee brood feeding test	Test method established (Screening of products, so far IGRs)
Tier II	Semi-field test (OECD Guidance Document 75)	Test method established
Tier III	Field test comprising detailed brood evaluation	Test method established

**References**

1. EPPO, EPPO standards PP1/170-Test methods for evaluating the side effects of plant protection products on honeybees. Bull OEPP/EPPO Bull 31, 323-330 (2001).
2. OECD (2007): Guidance document on the honeybee (*Apis mellifera* L.) brood test under semi-field conditions. OECD Environment, Health and Safety Publications, Series on Testing and Assessment No. 75, ENV/JM/MONO (2007) 22.
3. Oomen PA, De Ruijter A & Van der Steen J: Method for honey bee brood feeding tests with insect growth-regulating insecticides. OEPP/EPPO Bulletin 22, 613 – 616 (1992).
4. Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC. *Official Journal of the European Union* L 309/1, (2009).