# Appendix B – Evaluation of data concerning the necessity of thiacloprid as insecticide to control a serious danger to plant health which cannot be contained by other available means, including non-chemical methods

The European Food Safety Authority (EFSA) was requested by the European Commission to provide scientific assistance under Article 31 of Regulation (EC) No 178/2002 regarding the evaluation of data concerning the necessity of thiacloprid as an insecticide to control a serious danger to plant health which cannot be contained by other available means including non-chemical methods, in accordance with Article 4(7) of Regulation (EC) No 1107/2009. In this context, EFSA organised a commenting phase with Member States in order to collect and validate the data submitted by the applicant. The current scientific report summarises the outcome of the evaluation of several uses/pest combinations in 16 Member States. The evaluation demonstrated that for chemical pest control a good range of alternative insecticide active substances to thiacloprid are available; however for some uses there are no sufficient chemical alternatives. The evaluation included an assessment of non-chemical alternatives for the presented uses. A wide range of non-chemical methods are available, however, often these methods do not have the same efficacy as chemical methods or have economic limitations. A combination of both chemical and non-chemical methods seems often possible.

## Summary

Thiacloprid was included in Annex I to Directive 91/414/EEC by Commission Directive 2004/99/EC and has been deemed to be approved under Regulation (EC) No 1107/2009, in accordance with Commission Implementing Regulation (EU) No 540/2011. The applicant, Bayer CropScience AG, applied for renewal of approval in line with the provisions of Commission Regulation (EU) No 844/2012.

Thiacloprid is an insecticide active substance (a.s.) belonging to the group of neonicotinoid compounds. The representative uses supported for the peer review process were as insecticide on oilseed rape foliar use and maize seed treatment.

Thiacloprid has a current harmonised classification in accordance with Regulation (EC) No 1272/2008, as carcinogen category 2 and toxic for reproduction category 1B. The substance meets the cut-off criteria for non-approval, Annex II, Point 3.6.4 of Regulation (EC) No. 1107/2009 (Repro 1B).

In January 2016, the European Commission (EC) requested EFSA to provide scientific assistance as regards the consideration of evidence that the application of an active substance is necessary to control a serious danger to plant health which cannot be contained by other available means including non-chemical methods. In order to address this request EFSA set up a working group (WG) to develop a specific methodology for the assessment of insecticide active substances (a.s.). The protocol on the methodology was finalised on 29 March 2017 (EFSA, 2017).

In the framework of the process for renewal of approval according to Article 13 of Regulation (EU) No 844/2012 the applicant Bayer CropScience AG requested a derogation under Article 4(7) of Regulation (EC) No 1107/2009, submitting evidence regarding the necessity of thiacloprid to control a serious danger to plant health. In November 2017 the applicant forwarded to the Rapporteur Member State (RMS), the United Kingdom and EFSA, the submission for derogation consisting of a data collection set and a report (Bayer CropScience, 2017). The applicant, included claims that the use of thiacloprid is considered essential in accordance with Article 4(7) of Regulation (EC) No 1107/2009 in relation to the uses authorised in 26 Member States (MS).

As following step, EFSA launched a commenting phase in June-August 2018 asking all MS to confirm that the uses for which the applicant requested Article 4(7) derogation are authorised, and if the use of thiacloprid is considered essential to control a serious danger to plant health, giving clear justification for each use that is considered as essential. In addition, all MS were invited to submit information related to respective national authorisations for different crops or non-agricultural uses, evidence on resistance risk and uses that were not covered by applicant's submission (e.g. minor uses).

More than 500 different uses (crop)/pest combinations in 16 MS (Austria, Belgium, Bulgaria, Denmark, Finland, Germany, Greece, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Spain, -Sweden, and United Kingdom) were evaluated to assess the applicant's claims on the necessity of thiacloprid to control a serious danger to plant health and additional information (uses) provided by MS.

The evaluation demonstrated that for the control of soil pests, sucking and biting insects in agricultural (oilseed rape, maize, cereals, potatoes) and horticultural crops (vegetables, small fruits, pome fruits, stone fruits, tree nuts, and ornamentals) grown in open field or protected use, a good range of alternative insecticide active substances are available, including insecticides (e.g. acetamiprid, sulfoxaflor; and imidacloprid, clothianidin, thiamethoxam for glasshouse uses) belonging to the MoA group 4 (nicotinic acetylcholine receptor) as thiacloprid. Some insecticide a.s. have environmental restrictions (e.g. can not be applied during flowering) when used in plant protection products.

Not sufficient chemical alternatives seem to be available for example, for the following crop/pest combinations: brassicaceae and dasineura brassicae; brassicaceae and biting insects and sucking insects (including control of phyllotreta sp.) brassicaceae and diabrotica virgifera, solanaceae and aphids; potato and leptinotarsa; solanaceae and helicoverpa armigera; fabaceae and curculionidae; fabaceae and chrysomelidae; rosaceae and dasineura; small berries and coccidae; small berries and lygus; small berries, stone and pome fruits and Anthonomus sp.; strawberry and meligethes sp; small berries and byturus sp; small berries and biting/sucking insects; small berries and drosophila suzuki;

bulb vegetables/leek and thrips; cereals and aphids; cereals and phyllotreta; cereals and thrips; maize and oscinella frit; and maize and geomyza tripunctata.

Sufficient chemical alternatives seem to be available for example, for the following crop/pest combinations: solanaceae and aphids; solanaceae and leptinotarsa; solanaceae and tuta absoluta; solanaceae and spodoptera; solanaceae and aleyrodidae; solanaceae and plusia sp.; solanaceae and whitefly; apple/pear and aphid, cucumber/zucchini/ cucurbita pepo and aphid; cucumber/cucurbita pepo and whitefly; ornamentals and whitefly; ornamentals and scales; ornamentals and aphids; ornamentals and aleyrodidae; bulb vegetables/leek and aphids; lettuce and aphids; and hazelnut and curculio nucum.

There was a wide range of crop-pest combinations (e.g. aphids on fabaceae; small berries, cherry, plum; strawberry; cydia on pome and stone fruits; hoplocampa on pome and stone fruits, lepidoptera in small berries and pome fruits; drosophila suzuki on pome and stone fruits; rhagoletis cerasi on stone fruits; curculionidae and ornamentals; Oulema sp. and cereals) which did not allow a clear conclusion if a derogation is scientifically supported or not.

The evaluation included an assessment of non-chemical alternatives for the presented uses. A wide range of non-chemical methods are available, but often these methods do not have the same efficacy as chemical methods or have economic limitations. For some crop/pest combinations, particularly under protected use, non-chemical methods are highly effective and considered as feasible. For example these methods include physical control methods against whitefly on head cabbage; biological control methods such as inundative biocontrol against aleyrodidae in tomatoes, aubergines, pepper, zucchini, cucurbits and parasitoids of whiteflies against whitefly in ornamentals, and predatory mites against spider mites. Many insecticide a.s. are useful in integrated pest management (IPM), meaning that the system as a whole may be able to function without the substance under consideration. It is noted that some MS supported the exclusion of alternative a.s. from the evaluations due to a lower efficacy or the period of application seemed not large enough compared to the substance under evaluation. These aspects might be further discussed with MS and should be considered when a single guidance document for the different types of pesticides will be developed.

# Table of contents

# 1. Introduction

## 1.1. Background and Terms of Reference as provided by the requestor

Thiacloprid was included in Annex I to Directive 91/414/EEC[1] on 1 January 2005 by Commission Directive 2004/99/EC[2] and has been deemed to be approved under Regulation (EC) No 1107/2009[3], in accordance with Commission Implementing Regulation (EU) No 540/2011[4].

Thiacloprid has a current harmonised classification in accordance with Regulation (EC) No 1272/2008, as carcinogen category 2 and toxic for reproduction category 1B. The substance meets the cut-off criteria for non-approval, Annex II, Point 3.6.4 of Regulation (EC) No. 1107/2009 (Repro 1B).

In 2014, the applicant, Bayer CropScience AG, applied for renewal of approval in line with the provisions of Commission Regulation (EU) No 844/2012[5]. Thiacloprid was evaluated by the United Kingdom as rapporteur Member State (RMS). The RMS delivered its initial evaluation of the dossier in the Renewal Assessment Report (RAR), which was received by the EFSA on 31 October 2017 (United Kingdom, 2017). In accordance with Article 13 of Regulation (EU) No 844/2012, the peer review of thiacloprid was performed by EFSA with deadline 21 December 2018 (EFSA, 2018).

In line with the provisions of Article 4(7) of Regulation (EU) 1107/2009, the applicant Bayer CropScience AG also requested derogation of the use of the active substance thiacloprid by submitting evidence regarding the necessity of thiacloprid to control a serious danger to plant health which cannot be contained by other available means. On 22 November 2017 the applicant forwarded to the EMS and EFSA the derogation submission, consisting in a data collection set and a report (Bayer CropScience, 2017). The applicant included claims that the use of thiacloprid is considered essential in accordance with Article 4(7) of Regulation (EC) No 1107/2009 in the following Member States: Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Netherlands, Norway, Poland, Portugal, Romania Slovakia, Slovenia, Spain, Sweden, and United Kingdom.

On 26 June 2018 EFSA launched a two months commenting phase asking all MS to confirm that the uses for which the applicant requests Article 4(7) derogation are authorised and if the use of thiacloprid is considered essential to control the serious danger to plant health, giving clear justification for each use that is considered as critical. In addition, all MS were invited to supplement the information provided by the applicant with information from their own MS uses also considering other uses not presented by the applicant (e.g. minor uses). During the commenting phase, 16 MS (Austria, Belgium, Bulgaria, Denmark, Finland, Germany, Greece, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Spain, Sweden and the United Kingdom) validated the information provided by applicant.

As a follow up, EFSA ensured that the methodology was consistently applied by MS and summarised the evaluation of thiacloprid (See Appendix C, B) in the current scientific report. A final consultation process on the draft scientific report with MS was launched in November 2018.

The legal deadline to finalise the current assessment is 21 December 2018.

[1] Council Directive 91/414/EEC of 15 July 1991 concerning the placing of plant protection products on the market**.** OJ L 230, 19.8.1991, p. 1–32.

[2] Commission Directive 2004/99/EC of 1 October 2004 amending Council Directive 91/414/EEC to include acetamiprid and thiacloprid as active substances.OJ L 309, 6.10.2004, p. 6–8

[3] 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. OJ L 309, 24.09.2009, p.1–50

[4] Commission Implementing Regulation (EU) No 540/2011 of 25 May 2011 implementing Regulation (EC) No 1107/2009 of the European Parliament and of the Council as regards the list of approved active substances. OJ L 153, 11.6.2011, p. 1–186.

[5] Commission Implementing Regulation (EU) No 844/2012 of 18 September 2012 setting out the provisions necessary for the implementation of the renewal procedure for active substances, as provided for in Regulation (EC) No 1107/2009 of the European Parliament and of the Council concerning the placing of plant protection products on the market.OJ L 252, 19.9.2012, p. 26–32

# 2. Data and methodologies

## 2.1. Methodologies

The assessment was conducted in line with the methodology for the evaluation of data concerning the necessity of the application of insecticide active substances to control a serious danger to plant health which cannot be contained by other available means, including non-chemical methods, finalised by EFSA on 29 March 2017 (EFSA, 2017). The submission provided by the applicant in the form of a collection data set and a report, was also in line with the EFSA methodology (EFSA, 2017).

The role of EFSA is to act as the co-ordinator of the process, ensuring that the methodology is applied consistently and providing a scientific report on the evaluation of thiacloprid. EFSA considered the information provided by Member States such as the full list of authorised insecticide active substances and the non-chemical methods as reliable and no further research was conducted to validate these data. Thus, Member States had the full responsibility for the accuracy and correctness of the data provided to EFSA to perform the assessment.

## 2.2. Data and information

This report presents the information contained in the applicant report on thiacloprid (Bayer CropScience, 2017), and additional information and data provided by MS after the commenting phase launched by EFSA in June-August 2018. Table 1 provides an overview of authorised uses of thiacloprid to the controlled pests in Europe. Thiacloprid is formulated as OD240, FS400, OD110, OD170, and SC 480 in Europe (details see Table 2 in applicant report; Bayer CropScience, 2017).

EFSA provides the collection data set as validated by MS and evaluated by EFSA (i.e. complete list/s of authorised a.s. in the relevant Member States in combination with the specific controlled pest), as an Appendix to this scientific report (Appendix C).

Information on the classification of the pests considered under the evaluation of the derogation for thiacloprid under Article 4(7) of Regulation (EC) 1107/2009 according to the taxonomy is reported in Appendix D.

**Table 1** Authorised uses of thiacloprid in Europe for which derogation under Art. 4(7) was claimed by applicant, modified and verified by Member States including their additional uses.

| Pest/crop combination[a] | | Country[b] | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **AT** | **BE** | **BG** | HR | CZ | **DK** | EE | **FI** | FR | **DE** | **EL** | **HU** | IE | IT | **LV** | **LT** | NL[c] | NO | **PL** | PT | **RO** | **SK** | SI | **ES** | **SE** | **UK** |
| **Acalitus phloeocoptes** | almond | | | | | | | | | | | | | x | | | | | | | | | | | | | **x** |
| | chestnut | | | | | | | | | | | | | x | | | | | | | | | | | | | **x** |
| | hazelnut | | | | | | | | | | | | | x | | | | | | | | | | | | | **x** |
| | walnut | | | | | | | | | | | | | x | | | | | | | | | | | | | **x** |
| **Acarus** | almond | | | | x | | | | | | | | | | | | | | | | | | | | | | |
| | chestnut | | | | x | | | | | | | | | | | | | | | | | | | | | | |
| **Agriotes** | maize | **x** | | | x | x | | | | | **x**** | **x*** | **x** | x | x | | | x | | | | **x** | | x | **x** | | **x** |
| **Agromyza nigrella** | oat | | | **x** | | | | | | x | | | | | | | | | | | | | | | | | |
| | triticale | | | **x** | | | | | | x | | | | | | | | | | | | | | | | | |
| | wheat | | | **x** | | | | | | x | | | | | | | | | | | | | | | | | |
| **Aleurodes sp.** | strawberry | | | **x** | | | | | | | | | | | | | | | | | | | | | | | |
| **Aleyrodidae** | cotton | | | | | | | | | | | **x*** | | | | | | | | | | | | | | | |
| | cucumber | | | | | | | | **x*** | | | | | | | | **x*** | | | | | | | | **x*** | | |
| | Cucurbita pepo | | | | | | | | **x*** | | | | | | | | **x*** | | | | | | | | **x*** | | |
| | cucurbits | | | | | | | | | | | **x*** | | | | | | | | | | | | | | | |
| | eggplant | | | | | | | | **x*** | | | **x*** | | | | | **x*** | | | | | | | | **x*** | | |
| | melon | | | | | | | | | | | **x*** | | | | | | | | | | | | | | | |
| | ornamentals | | | | | | **x*** | | | | **x*** | **x*** | | | | | **x*** | | | | | | | | **x*** | | |
| | ornamentals (except Gerbera) | | **x** | | | | | | | | | | | | | | | | | | | | | | | | |
| | pepper | | | | | | | | **x*** | | | **x*** | | | | | **x*** | | | | | | | | **x*** | | |
| | tomato | | | | | | | | **x*** | | | **x*** | | | | | **x*** | | | | | | **x*** | | **x*** | | |
| | watermelon | | | | | | | | | | | **x*** | | | | | | | | | | | | | | | |
| | zucchini | | | | | | | | | | | **x*** | | | | | | | | | | | | | | | |
| **Amphorophora idaei** | raspberry | | | | | | | | | | | | | | | **x** | | | | | | | | | | | |
| **Anarsia lineatella** | almond | | | | | | | | | | | | | | | | | | | | x | | | | | | |
| **Ancylis comptana fragaria** | strawberry | | | | | | | x | | | | | | | | | | | | | | | | | | | |
| **Anthonomus pomorum** | apple | | **x** | | | | | | | | | | | | | | | | | **x** | | **x** | | | | | |
| | pome fruits | **x** | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Anthonomus rubi** | blackberry | | | | | | **x** | | | x | | | | | | | | | | | | | | | | | |
| | raspberry | | | **x** | | | **x** | | **x** | x | | | | | | | | | | | | | | | | **x** | |
| | strawberry | **x** | **x** | | | | **x** | x | **x** | | **x** | | | | | **x** | | | | | | | | x | | **x** | |
| **Anthonomus sp.** | almond | | | | | | | | | | | | | | | | | | | | x | | | | | | |
| | apricot | **x** | | | | | | | | | | | | | x | | | | | | | | | | | | |
| | blackberry | | **x** | | | | | | | | | | | | | | | | | | | | | | | | |
| | ornamentals | | **x*** | | | | | | | | | | | | | | | | | | | | | | | | |
| | raspberry | | **x** | | | | | | | | | | | | | | | | | | | | | | | | |
| **Aphid** | alfalfa | | | | | | | | | | | **x*** | | | | | | | | | | | | | | | |

| Pest/crop combination[a] | Country[b] | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **AT** | **BE** | **BG** | HR | CZ | **DK** | EE | **FI** | FR | **DE** | **EL** | **HU** | IE | IT | **LV** | **LT** | NL[c] | NO | **PL** | PT | **RO** | **SK** | SI | **ES** | **SE** | **UK** |
| almond | | | | | | | | | | | | | | x | | | | | | x | | | | | | |
| apple | | **x** | | | | | | **x*** | | | | | | | | | | | | | | **x*** | | | **x*** | |
| apricot | **x*** | | **x** | x | | | | | | **x** | | | | | | | | | | | | | | | | |
| asparagus | **x*** | | | | | | | | | **x*** | | | | | | | | | | | | | | | | |
| baby leaf crops | | | | | | | | | | | | | | | | | | | | | | | | | | **x*** |
| barley | | | | x | | | x | | | **x** | | **x** | | | **x** | | | x | | | | | | | | |
| bell pepper | | | | | | | | | | **x*** | | | | | | | | | | | | | | | | |
| berries (except blackberry, currant, gooseberry and raspberry) | | | | | | | | | | | | | | | | | x | | | | | | | | | |
| berries (except raspberry and strawberry) | | | | | | | | | | | | | | | | | x | | | | | | | | | |
| Beta vulgaris subs. vulgaris var. cicla | | | | | | | | | | | | | | | | **x*** | | | | | | **x*** | | **x*** | | |
| bilberry | | | | | | | | | x | | **x*** | | | | | | | | | | | | | | | |
| black currant | | | **x** | | | | | | | | | | | | | | | | | | | | | | | |
| blackberry | **x** | **x** | | | | **x** | | **x** | x | **x** | | | | | | | x | | **x** | x | | | | | | |
| bleached celery | **x*** | | | | | | | | | | | | | | | | | | | | | | | | | |
| blueberry | | | | x | | **x*** | | **x** | x | **x** | | | | | | | | | **x*** | x | | | x | | **x** | |
| Brassica genus leaves | | | | | | | | | | | | | | | | **x*** | | | | | | | | | | |
| Brassica vegetables | | | | | | | | | | | | | | | | | | | | | | | | | | **x*** |
| button squash | **x*** | | | | | | | | | | | | | | | | | | | | | | | | | |
| carrot | **x*** | | | | | | | | | | | | | | | | | | | | | | | | | **x*** |
| celeriac | **x*** | | | | | | | | | | | | | | | | | | | | | | | | | |
| cherry | **x*** | **x*** | **x** | | | | | **x*** | x | **x** | **x*** | | | | | | | | **x*** | | | | | | **x*** | **x*** |
| chestnut | | | | | | | | | | | | | | x | | | | | | | | | | | | |
| chicorium sp. | | | | | | | | | | | | | | | | **x*** | | | | | | | | | | |
| Chinese cabbage | **x*** | | | | | | | | | | | | | | | | | | | | | | | | | |
| chokeberry | | | | | | | | | | | | | | | | | | | **x** | | | | | | | |
| climbing French bean | **x*** | | | | | | | | | **x*** | | | | | | | | | | | | | | | | |
| cotton | | | | | | | | | | | **x*** | | | | | | | | | | | | | | | |
| cranberry | | | | | | | | | | **x** | | | | | | | | | **x** | | | | | | | |
| cucumber | **x*** | | | | | | | **x*** | | **x*** | **x*** | | | | | **x*** | | | | | | **x*** | | **x*** | | |
| cucurbita pepo | | | | | | | | **x*** | | | | | | | | **x*** | | | | | | | | **x*** | | |
| cucurbits | | | | | | | | | | | **x*** | | | | | | | | | | | | | | | |
| currants | | **x** | | | | | | **x** | | **x** | | | | | | | | | | | | | | | **x** | |
| currants (red and black) | | | | | | **x*** | | | x | | | | | | | | | x | | | | | | | | |
| dewberry | | | | | | | | | | | | | | | | | x | | | | | | | | | |
| dwarf French bean | **x*** | | | | | | | | | **x*** | | | | | | | | | | | | | | | | |

| Pest/crop combination[a] | Country[b] | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **AT** | **BE** | **BG** | HR | CZ | **DK** | EE | **FI** | FR | **DE** | **EL** | **HU** | IE | IT | **LV** | **LT** | NL[c] | NO | **PL** | PT | **RO** | **SK** | SI | **ES** | **SE** | **UK** |
| eggplant | | | | | | | | | | | **x*** | | | | | | | | | | | | | **x*** | | |
| elderberry | **x** | | | | | | | | | **x** | | | | | | | | | | | | | | | | |
| field bean | **x** | **x*** | | | | | | | | | | | | | **x*** | | | | | | | | | | | **x*** |
| field pea | **x** | **x*** | | | | | | | | | | | | | **x*** | | | | | | | **x*** | | | | |
| fruiting vegetables | | **x*** | | | | | | | | | | | | | | | | | | | | | | | | |
| garden pumpkin | **x*** | | | | | | | | | | | | | | | | | | | | | | | | | |
| garden rocket | | | | | | | | | | | | | | | | **x*** | | | | | | | | | | |
| garlic | **x** | | | x | | | | | | **x** | | | | | | | | | | | | | | | | |
| gooseberry | | | | | | **x*** | | **x** | | **x** | | | | | | | | x | | | | | | | **x** | |
| hazelnut | | | | | | | | | | | | | | x | | | | | | x | | | | | | |
| herbs | | **x*** | | | | | | | | | | | | | | **x*** | | | | | | | | | | **x*** |
| hop | | | | | | | | | | | | | | | | | | | | | | | | | | **x*** |
| infusion and spice crops | | **x*** | | | | | | | | | | | | | | | | | | | | | | | | |
| leafy vegetable lettuce | | | | | | | | | | | | | | | | | | | | | | | | | | **x*** |
| leafy vegetables | | **x*** | | | | | | | | | | | | | | | | | | | | | | | | |
| leek | **x*** | | | | | | | | | **x*** | | | | | | | | | | | | | | | | |
| Lepidium sativum | | | | | | | | | | | | | | | | **x*** | | | | | | | | | | |
| lettuce | | | | | | | | | | **x*** | | | | | | **x*** | | | | | | | | | | **x*** |
| maize | | | | | | | x | | | | | | | | **x** | | | | | | | | | | | |
| melon | | | | | | | | | | | **x*** | | | | | | | | | | | | | | | |
| mizuna | | | | | | | | | | | | | | | | **x*** | | | | | | | | | | |
| nectarine | | | **x** | x | | | | | | | | | | x | | | | | | | | | | | | |
| oat | | | | x | x | | x | | x | **x** | | **x** | | | **x** | **x** | | | | | | | | | | |
| oilseed rape | | | **x** | | | | x | | | | | | x | | **x** | | | x | | | | | | | | **x** |
| onion | **x** | | | | | | | | | | | | | | | | | | | | | | | | | |
| ornamentals | **x*** | **x** | **x** | x | | **x*** | | | | **x*** | | | x | x | | **x*** | | | | | | | | **x*** | | |
| ornamentals (rose) | | | | | | | | | | | **x*** | | | | | | | | **x** | | | | | | | |
| ornamentals (except rose) | | | | | | | | | | | **x*** | | | | | | | | | | | | | | | |
| pea | | | | | | | | | | | | | | | | **x*** | | | | | | | | | | |
| peach | **x*** | | | x | | | | | | **x** | | | | x | | | | | | | | | | | | |
| pear | | **x*** | | | | | | **x*** | | | **x*** | | | | | | | | | | | **x*** | | | **x*** | |
| pepper | | | | | | | | **x*** | | **x** | **x*** | | | | | **x*** | | | | | | **x*** | | **x*** | | |
| plum | **x*** | **x*** | | | | | | **x*** | | **x** | **x*** | | | | | | | | | | | **x*** | | | **x*** | |
| pome fruit | **x** | | | | | | | | | **x** | **x*** | | | | | | | | | | | | | | | |
| poplar | **x** | | | | | | | | | | | | | | | | | | | | | | | | | |
| potato | **x*** | **x** | | | | | | **x** | | **x** | **x*** | **x** | x | | | | | x | | x | | **x** | x | | **x*** | **x*** |
| pumpkin | | | | | | | | | | **x*** | | | | | | | | | | | | | | | | |
| pumpkin (garden) | **x*** | | | | | | | | | | | | | | | | | | | | | | | | | |

| Pest/crop combination[a] | Country[b] | | | | | | | | | | | | | | | | | | | | | | | | |
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| | **AT** | **BE** | **BG** | HR | CZ | **DK** | EE | **FI** | FR | **DE** | **EL** | **HU** | IE | IT | **LV** | **LT** | NL[c] | NO | **PL** | PT | **RO** | **SK** | SI | **ES** | **SE** | **UK** |
| pumpkin hybrids | **x*** | | | | | | | | | | | | | | | | | | | | | | | | | |
| radish | | | | | | | | | | | | | | | | **x*** | | | | | | | | | | |
| raspberry | **x** | **x** | **x** | | | **x** | | **x** | x | **x** | **x*** | | | | **x** | | x | x | | x | | **x*** | | | **x** | |
| red beet | | **x*** | | | | | | | | | | | | | | | | | | | | | | | | |
| ripped celery | | | | | | | | | | **x*** | | | | | | | | | | | | | | | | |
| rocket | **x*** | | | | | | | | | | | | | | | | | | | | | | | | | |
| root and tuber vegetables | **x*** | | | | | | | | | **x*** | | | | | | | | | | | | | | | | |
| root and stem vegetables | | **x*** | | | | | | | | | | | | | | | | | | | | | | | | |
| root Brassicas | | **x*** | | | | | | | | | | | | | | | | | | | | | | | | |
| Rubus | | | | | | | | | | | **x*** | | | | | | | | | | | | | | | |
| rye | | | | x | x | | | | | **x** | | **x** | | | **x** | | | x | | | | | x | | | |
| salad | **x*** | | | | | | | | | | | | | | | | | | | | | | | | | |
| shallot | **x** | | | x | | | | | | **x** | | | | | | | | | | | | | | | | |
| sorbaronia mitschurinii | | | | | | | | **x*** | | | | | | | | | | | | | | | | | | |
| sour cherry | | | | x | | | | | | | | | | | | | | | | | | | | | | |
| spinach | | | | | | | | | | | | | | | | **x*** | | | | | | | | | | |
| spring barley | | | | | x | | | | | | | **x** | | | | **x** | | | | | | | | | | |
| spring rye | | | | | | | x | | | | | **x** | | | | **x** | | | | | | | | | | |
| spring triticale | | | | | | | x | | | | | | | | | **x** | | | | | | | | | | |
| spring wheat | | | | | x | | x | | | **x** | | **x** | | | **x** | **x** | | | | | | | | | | |
| sprouts | | | | | | | | | | | | | | | | **x*** | | | | | | | | | | |
| stone fruits | | | | | | | | | | | **x*** | | | | | | | | | | | | | | | |
| strawberry | **x** | **x** | **x** | | | **x** | x | **x** | x | **x** | **x**** | | | | **x** | **x*** | x | | | | | **x*** | x | **x** | **x** | |
| sugar beet | | | | | | | | | | | **x*** | | | | | | | | | | | | | | | |
| sweet cherry | | | | x | | | | | | | | | | | | | | | | | | | | | | |
| tobacco | | | | | | | | | | | **x*** | | | | | | | | | | | | | | | |
| tomato | | | | | | | | **x*** | | | **x*** | | | | | **x*** | | | | | | | | **x*** | | |
| triticale | | | | x | x | | | | x | **x** | | **x** | | | **x** | **x*** | | x | | | | | x | | | |
| turnip rape | | | | | | | x | | x | | | | | | | | | | | | | | | | | |
| umbilliferous crops | | **x*** | | | | | | | | | | | | | | | | | | | | | | | | |
| Valerianella locusta | | | | | | | | | | | | | | | | **x*** | | | | | | | | | | |
| vegetables | | **x*** | | | | **x*** | | | | | | | | | | | | | | | | | | | | |
| vining/combining peas | | | | | | | | | | | | | | | | | | | | | | | | | | **x*** |
| walnut | | | | | | | | | | | | | | x | | | | | | | | | | | | |
| watermelon | | | | | | | | | | | **x*** | | | | | | | | | | | | | | | |
| wheat | | | | x | | | | | x | | | | | | | | | x | | | | | x | | | |
| winter barley | | | | | x | | | | | | | | | | | **x** | | | | | | | | | | |
| winter rye | | | | | | | x | | | | | | | | | **x** | | | | | | | | | | |
| winter triticale | | | | | | | x | | | | | | | | | | | | | | | | | | | |

| Pest/crop combination[a] | | Country[b] | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | **AT** | **BE** | **BG** | HR | CZ | **DK** | EE | **FI** | FR | **DE** | **EL** | **HU** | IE | IT | **LV** | **LT** | NL[c] | NO | **PL** | PT | **RO** | **SK** | SI | **ES** | **SE** | **UK** |
| | winter wheat | **x** | | | | x | | x | | x | **x** | | **x** | | | **x** | **x** | | | | | | **x** | | | | |
| | wood dyers | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | zucchini | **x*** | | | | | | | | | **x*** | **x*** | | | | | | | | | | | | | **x*** | | |
| **Apion apricans** | white clover seeds | | | | | | **x*** | | | | | | | | | | | | | | | | | | | | |
| **Argyresthia conjugella** | apple | | | | | | | | | | | | | | | | | | x | | | | | | | | |
| **Argyresthia pruniella** | cherry | | | | | | | | | | | | | | | | | | x | | | | | | | | |
| **Aromia bungii** | apricot | | | | | | | | | | | | | | x | | | | | | | | | | | | |
| | cherry | | | | | | | | | | | | | | x | | | | | | | | | | | | |
| | nectarine | | | | | | | | | | | | | | x | | | | | | | | | | | | |
| | peach | | | | | | | | | | | | | | x | | | | | | | | | | | | |
| | plum | | | | | | | | | | | | | | x | | | | | | | | | | | | |
| **Athalia rosae** | oilseed rape | | | | | | | | | | | | | | | | | | | | | | **x** | | | | |
| **Bactrocera oleae** | olive | | | | | | | | | x | | **x*** | | | | | | | | | | | | | | | |
| **Beetles** | alfalfa | | | | | | | | | | | **x*** | | | | | | | | | | | | | | | |
| | sugar beet | | | | | | | | | | | **x*** | | | | | | | | | | | | | | | |
| **Bembecia hylaeformis** | blackberry | | | | | | | | | | | | | | | | | | | **x** | | | | | | | |
| **Biting insects** | blueberry | | | | | | | | | | **x** | | | | | | | | | | | | | | | | |
| | cabbage | **x*** | | | | | | | | | | | | | | | | | | | | | | | | | |
| | cauliflower | **x*** | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Chinese cabbage | **x*** | | | | | | | | | | | | | | | | | | | | | | | | | |
| | cranberry | | | | | | | | | | **x** | | | | | | | | | | | | | | | | |
| | currants | **x** | | | | | | | | | **x** | | | | | | | | | | | | | | | | |
| | elderberry | | | | | | | | | | **x** | | | | | | | | | | | | | | | | |
| | gooseberry | | | | | | | | | | **x** | | | | | | | | | | | | | | | | |
| | head cabbage | | | | | | | | | | **x*** | | | | | | | | | | | | | | | | |
| | kohlrabi | **x*** | | | | | | | | | | | | | | | | | | | | | | | | | |
| | mustard | **x** | | | | | | | | | **x** | | | | | | | | | | | | | | | | |
| | oilseed rape | **x** | | | | | | | | | **x** | | | | | | | | | | | | | | | | |
| **Biting insects excluding free feeding caterpillars** | cauliflower | | | | | | | | | | **x*** | | | | | | | | | | | | | | | | |
| | Chinese cabbage | | | | | | | | | | **x*** | | | | | | | | | | | | | | | | |
| **Blossom weevils** | ornamentals | | **x** | | | | | | | | | | | | | | | | | | | | | | | | |
| **Bothynoderes punctiventris** | sugar beet | **x*** | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Brachycaudus helichrysi** | sunflower | | | | | | | | | | | | | | | | | | | | | | **x*** | | | | |
| **Bradysia paupera** | blueberry | | | | | | | | | | | | | x | | | | | | | | | | | | | |
| **Bradysia sp.** | ornamentals | | | | | | | | | | | | | | | | | | | | | | | | | | **x** |
| **Brevicoryne brassicae** | cabbage | | | | | | | | | | | | | | | **x*** | | | | | | | | | | | |
| | cauliflower | **x*** | | | | | | | | | **x*** | | | | | **x*** | | | | | | | | | | | |
| | Chinese cabbage | | | | | | | | | | **x*** | | | | | | | | | | | | | | | | |
| | head cabbage | | | | | | | | | | **x*** | | | | | | | | | | | | | | | | |
| | kohlrabi | **x*** | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Bruchus pisorum** | pea | | | | | | | | | | | | | | | **x*** | | | | **x*** | | | | | | | |

| Pest/crop combination[a] | | Country[b] | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **AT** | **BE** | **BG** | HR | CZ | **DK** | EE | **FI** | FR | **DE** | **EL** | **HU** | IE | IT | **LV** | **LT** | NL[c] | NO | **PL** | PT | **RO** | **SK** | SI | **ES** | **SE** | **UK** |
| **Bruchus rufimanus** | bean | | | | | | | | | | | | | | | **x*** | | | | | | | | | | |
| | broad bean | | | | | | | | | | | | | | | | | | | | | | | | | **x*** | |
| | field bean | | | | | | | | | | | | | | | | | | | | | | | | | | **x*** |
| **Byturus sp.** | blackberry | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| | raspberry | **x** | | | | | | | | x | | | | | | | | | | | | | | | | | |
| **Byturus tomentosus** | blackberry | | | | | | **x*** | | **x** | | | | | | | | | | | | | | | | | **x** | |
| | blueberry | | | | | | | | **x** | | | | | | | | | | | | | | | | | **x** | |
| | raspberry | | | | x | | **x*** | x | **x** | | | | | | | | | | x | | | | | | | **x** | |
| **Cacopsylla pruni** | apricot | **x** | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Capnodis tenebrionis** | apricot | | | | | | | | | x | | | | | | | | | | | x | | | | | | |
| | cherry | | | | | | | | | x | | | | | | | | | | | x | | | | | | |
| | peach | | | | | | | | | | | | | | | | | | | | x | | | | | | |
| | plum | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| **Cecidomyiidae** | blackberry | | | | | | **x*** | | | | | | | | | | | | | | | | | | | | |
| | black currant | | | **x** | | | | | | | | | | | | | | | | | | | | | | | |
| | blueberry | | | | | | **x*** | | | | | | | | | | | | | | | | | | | | |
| | currants (red and black) | | | | | | **x*** | | | | | | | | | | | | | | | | | | | | |
| | gooseberry | | | | | | **x*** | | | | | | | | | | | | | | | | | | | | |
| | pear | | | | | | | | | | | | | | | | | | | | | | | | | **x*** | |
| | raspberry | | | | | | **x*** | | | | | | | | | | | | | | | | | | | | |
| **Ceratitis sp.** | bilberry | | | | | | | | | | | **x*** | | | | | | | | | | | | | | | |
| | raspberry | | | | | | | | | | | **x*** | | | | | | | | | | | | | | | |
| | Rubus berry | | | | | | | | | | | **x*** | | | | | | | | | | | | | | | |
| **Ceroplastes sp.** | raspberry | | | **x** | | | | | | | | | | | | | | | | | | | | | | | |
| **Ceutorhynchus assimilis** | mustard | | | | | x | | | | | | | | | | | | | | | | | | | | | |
| | oilseed rape | | | | | | | | **x** | | | | **x** | | | **x** | **x** | x | | | | **x** | | | | | |
| | turnip rape | | | | | | | x | **x** | | | | | | | | | | | | | | | | | | |
| **Ceutorhynchus maculaalba** | poppy | | | | | x | | | | | | | | | | | | | | | | | | | | | |
| **Ceutorhynchus napi** | oilseed rape | | | **x** | | | | | | | | | | | | | | | | **x** | | | | | | | |
| **Ceutorhynchus picitarsis** | mustard | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| | oilseed | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| | Turnip rape | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| **Ceutorhynchus quadridensis** | oilseed rape | | | | | | | | | | | | | | | | | | | **x** | | | | | | | |
| | turnip rape | | | | | | | x | | | | | | | | | | | | | | | | | | | |
| **Ceutorhynchus sp.** | mustard | | | | | x | | | | | | | | | | | | | | | | | **x*** | | | | |
| | oilseed rape | | | | | | **x** | x | | | | | | | | **x** | **x** | x | x | | | | | | | **x** | |
| | poppy seed | **x** | | | | | | | | | | | | | | | | | x | | | | **x** | | | | |
| | turnip rape | | | | | | | x | | | | | | | | | | | | | | | | | | | |

| Pest/crop combination[a] | | Country[b] | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | **AT** | **BE** | **BG** | HR | CZ | **DK** | EE | **FI** | FR | **DE** | **EL** | **HU** | IE | IT | **LV** | **LT** | NL[c] | NO | **PL** | PT | **RO** | **SK** | SI | **ES** | **SE** | **UK** |
| **Chaetosiphon fragaefolii** | strawberry | | | | | | | | | | | | | | | | | | | | x | | | | | | |
| **Chematobia sp.** | cherry | | | | | | | | | | | | | | | | | | | | x | | | | | | |
| **Chrysodeixis sp.** | eggplant | | | | | | | | | | | **x*** | | | | | | | | | | | | | | | |
| | tomato | | | | | | | | | | | **x*** | | | | | | | | | | | | | | | |
| **Chrysomelidae** | herbs | | **x*** | | | | | | | | | | | | | | | | | | | | | | | | |
| | infusion and spice crops | | **x*** | | | | | | | | | | | | | | | | | | | | | | | | |
| | rhubarb | | **x*** | | | | | | | | | | | | | | | | | | | | | | | | |
| | spring barley | | | | | | | x | | | | | | | | | | | | | | | | | | | |
| | spring oat | | | | | | | x | | | | | **x** | | | | | | | | | | | | | | |
| | spring rye | | | | | | | x | | | | | **x** | | | | | | | | | | | | | | |
| | spring triticale | | | | | | | x | | | | | | | | | | | | | | | | | | | |
| | spring wheat | | | | | | | x | | | | | **x** | | | | | | | | | | | | | | |
| | winter barley | | | | | | | | | | | | **x** | | | | | | | | | | | | | | |
| | winter oat | | | | | | | | | | | | **x** | | | | | | | | | | | | | | |
| | winter rye | | | | | | | x | | | | | **x** | | | | | | | | | | | | | | |
| | winter triticale | | | | | | | x | | | | | | | | | | | | | | | | | | | |
| | winter wheat | | | | | | | x | | | | | **x** | | | | | | | | | | | | | | |
| **Cicadella sp.** | wheat | | | | | | | | | | | | | | | | | | | | | | **x** | | | | |
| **Coccidae** | apple | | **x** | | | | | | | | | | | | | | | | | | | | | | | | |
| | blackberry | | **x** | | | | | | | | | | | | | | | | | | | | | | | | |
| | black currant | | | **x** | | | | | | | | | | | | | | | | | | | | | | | |
| | blueberry | | **x** | | | | **x*** | | | | | | | | | | | | | | | | | | | | |
| | cowberry | | **x** | | | | | | | | | | | | | | | | | | | | | | | | |
| | cranberry | | **x** | | | | | | | | | | | | | | | | | | | | | | | | |
| | currants (red and black) | | | | | | **x*** | | | | | | | | | | | | | | | | | | | | |
| | currants | | **x** | | | | | | | | | | | | | | | | | | | | | | | | |
| | gooseberry | | **x** | | | | **x*** | | | | | | | | | | | | | | | | | | | | |
| | ornamentals | | | | x | | **x**** | | | | | | | | | | | | | | | | | | | | |
| | raspberry | | **x** | | | | | | | | | | | | | | | | | | | | | | | | |
| **Contarinia pyrivora** | pear | | | | | | | | | | | | | | | | | | x | **x** | | | | | | | |
| **Contarinia sp.** | pear | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Crioceris asparagi** | asparagus | **x*** | | | | | | | | | **x*** | | | | | | | | | | | | | | | | **x*** |
| **Crioceris duodecimpunctata** | asparagus | **x*** | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Crioceris sp.** | garden asparagus | | **x*** | | | | | | | | | | | | | | | | | | | | | | | | |
| | oat | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| | triticale | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| | wheat | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| **Curculio nucum** | hazelnut | | | | x | | | | | | **x** | | | | | | | | | **x** | x | | | | | | |

| Pest/crop combination[a] | | Country[b] | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | **AT** | **BE** | **BG** | HR | CZ | **DK** | EE | **FI** | FR | **DE** | **EL** | **HU** | IE | IT | **LV** | **LT** | NL[c] | NO | **PL** | PT | **RO** | **SK** | SI | **ES** | **SE** | **UK** |
| **Curculionidae** | Christmas trees | | | | | | **x*** | | | | | | | | | | | | | | | | | | | | |
| | ornamentals | | | | | | **x*** | | | | **x*** | | | | | | | | | | | | | | | | |
| **Cydia funebrana** | plum | | | | | | | | | | | | | | | | | | x | | | | | | | | |
| **Cydia molesta** | apricot | | | | | | | | | | | | | | | | | | | | x | | | | | | |
| | peach | | | | | | | | | | | | | | | | | | | | x | | | | | | |
| | plum | | | | | | | | | x | | | | | | | | | | | x | | | | | | |
| **Cydia pomonella** | almond | | | | | | | | | | | | | | | | | | | | x | | | | | | |
| | apple | | **x*** | | | | | | **x*** | | **x** | | | | | **x*** | | | | | | | **x*** | | | **x*** | |
| | pome fruits | **x*** | | | | | | | | | | **x*** | | | | | | | | | | | | | | | |
| **Cydia sp.** | cherry | | | | | | | | **x*** | | | | | | | | | | | | | | | | | | |
| | pear | | | | | | | | **x*** | | | | | | | | | | | | | **x** | | | | | |
| | plum | | | | | | | | **x*** | | | | | | | | | | | | | | | | | | |
| **Dasineura brassicae** | mustard | | | | | x | | | | | | | | | | | | | | | | | | | | | |
| | oilseed rape | **x** | | | | | | x | | | | | | | | **x** | **x** | | | | | | | x | | | |
| | turnip rape | | | | | | | x | | | | | | | | | | | | | | | | | | | |
| **Dasineura oxycoccana** | blueberry | | | | | | | | | | | | | | | | | | | | | | | | | | **x** |
| **Dasineura ribis** | black currant | | | | | | | | | | | | | | | | | | | **x** | | | | | | | |
| **Dasineura sp.** | blueberry | | | | | | | | | | | | | | | | | | | | | | | | | | **x** |
| | oilseed rape | | | | | | | | | | | | | | | | | x | | | | | | | | | |
| | pear | | | | | | | | | | | | | | | | | | | | | | | | | | **x** |
| **Delia radicum** | oilseed rape | | | | | | | | | | | | | | | | | | | | | | **x** | | | | |
| **Dolycoris baccarum** | ornamentals | | | | | | | | **x** | | | | | | | | | | | | | | | | | | |
| **Diabrotica virgifera** | cabbage | **x*** | | | | | | | | | | | | | | | | | | | | | | | | | |
| | cauliflower | **x*** | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Chinese cabbage | **x*** | | | | | | | | | | | | | | | | | | | | | | | | | |
| | garden rocket | **x*** | | | | | | | | | | | | | | | | | | | | | | | | | |
| | kohlrabi | **x** | | | | | | | | | | | | | | | | | | | | | | | | | |
| | maize | **x** | | **x** | | x | | | | x | **x**** | | **x** | | | | | x | | **x** | | | | | | | |
| | salad | **x*** | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Drosophila suzukii** | apricot | | | | | | | | | | | | | | | | | | | **x** | | | | | | | |
| | berries other than strawberry, bilberry and raspberry | | | | | | | | | | | **x** | | | | | | | | | | | | | | | |
| | bilberry | | | | | | | | | | | **x** | | | | | | | | | | | | | | | |
| | blackberry | | | **x** | | | | | | | | | | | | | | | | **x** | | | | | | | |
| | black currant | | | **x** | | | | | | | | | | | | | | | | | | | | | | | |
| | blueberry | | | | | | | | | | | | | | | | | | | **x*** | | | | | | | |
| | cherry | | | **x** | | | | | | | | **x** | | | | | | | | **x** | | | | | | | |
| | chokeberry | | | | | | | | | | | | | | | | | | | **x** | | | | | | | |
| | cranberry | | | | | | | | | | | | | | | | | | | **x** | | | | | | | |

| Pest/crop combination[a] | | Country[b] | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **AT** | **BE** | **BG** | HR | CZ | **DK** | EE | **FI** | FR | **DE** | **EL** | **HU** | IE | IT | **LV** | **LT** | NL[c] | NO | **PL** | PT | **RO** | **SK** | SI | **ES** | **SE** | **UK** |
| | currants | | | | | | | | | | | | | | | | | | | **x** | | | | | | | |
| | gooseberry | | | | | | | | | | | | | | | | | | | **x** | | | | | | | |
| | nectarine | | | **x** | | | | | | | | **x*** | | | | | | | | | | | | | | | |
| | peach | | | **x** | | | | | | | | **x*** | | | | | | | | **x** | | | | | | | |
| | plum | | | **x** | | | | | | | | **x*** | | | | | | | | **x** | | | | | | | |
| | pome fruits | | | **x** | | | | | | | | | | | | | | | | | | | | | | | |
| | raspberry | | | **x** | | | | | | | | **x** | | | | | | | | **x** | | | | | | | |
| | strawberry | | | | | | | | | | | **x** | | | | | | | | | | | | | | | |
| **Epiphyas postvittana** | blueberry | | | | | | | | | | | | | | | | | | | | | | | | | | **x** |
| **Eriosoma sp.** | pome fruits | **x** | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Eurytoma sp.** | plum | | | | | | | | | | | | | | | | | | | | | **x** | | | | | |
| **Fruit flies** | bilberry | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| | blackberry and raspberry | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| | blueberry | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| | cherry | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| | currants (red and black) | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| **Fungus gnat** | ornamentals | | | | | | | | | | **x*** | | | | | | | | | | | | | | | | |
| **Gracillaria roscipennella** | walnut | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| **Gracillaria sp.** | pome fruits | | | | | | | | | | **x** | | | | | | | | | | | | | | | | |
| **Grapholita molesta** | almond | | | | | | | | | | | | | | | | | | | | x | | | | | | |
| **Geomyza tripunctata** | maize | | | **x** | | x | | | | x | | | | | | | | | | | | | **x** | | | | |
| **Halyomorpha halys** | pear | | | | | | | | | | | | | | x | | | | | | | | | | | | |
| **Helicoverpa armigera** | eggplant | | | | | | | | | | | **x*** | | | | | | | | | | | | | | | |
| | tomato | | | | | | | | | | | **x*** | | | | | | | | | | | | | | | |
| **Hoplocampa sp.** | apple | | | | | | | | | | | | | | | | | | | | | **x** | | | | **x*** | |
| | plum | **x*** | | | | | | | | | **x** | | | | | | | | | | x | **x** | | | | | |
| | pome fruits | **x*** | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Hoplocampa testudinea** | apple | | **x*** | | | | | | | | | | | | | **x*** | | | x | | | | | | | | |
| | pome fruits | | | | x | | | | | | **x** | | | | | | | x | | | | | | | | | |
| **Leaf miners and other lepidoptera** | cherry | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| | pome fruits | | | | | | | | | x | | **x*** | | | | | | | | | | | | | | | |
| **Leaf rollers** | almond | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| | cherry | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| | plum | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| **Leafhopper** | pome fruits | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| | potato | | | | | | | | | | | | | | | | | | x | | | | | | | **x*** | |
| | ornamentals | | **x** | | | | | | | | | | | | | | | | | | | | | | | | |
| **Lecanium corni** | walnut | | | | | | | | | | | | | | | | | | | | x | | | | | | |

| Pest/crop combination[a] | | Country[b] | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **AT** | **BE** | **BG** | HR | CZ | **DK** | EE | **FI** | FR | **DE** | **EL** | **HU** | IE | IT | **LV** | **LT** | NL[c] | NO | **PL** | PT | **RO** | **SK** | SI | **ES** | **SE** | **UK** |
| **Leek moth** | leek | **x*** | | | | | | | | | | | | | | | | | | | | | | | | |
| **Lema sp.** | oat | | | | | x | | | | | | | | | | | | | | | | | | | | |
| | rye | | | | | x | | | | | | | | | | | | | | | | | | | | |
| | spring barley | | | | | x | | | | | | | | | | | | | | | | | | | | |
| | spring wheat | | | | | x | | | | | | | | | | | | | | | | | | | | |
| | triticale | | | | | x | | | | | | | | | | | | | | | | | | | | |
| | winter barley | | | | | x | | | | | | | | | | | | | | | | | | | | |
| | winter wheat | | | | | x | | | | | | | | | | | | | | | | | | | | |
| **Lepidoptera** | alfalfa | | | | | | | | | | | **x*** | | | | | | | | | | | | | | |
| | bilberry | | | | | | | | | x | | | | | | | | | | | | | | | | |
| | blackberry | | | | | | | | | x | | | | | | | | | | | | | | | | |
| | blueberry | | | | | | | | | x | | | | | | | | | | | | | | | | |
| | cotton | | | | | | | | | | | **x*** | | | | | | | | | | | | | | |
| | Currants (red and black) | | | | | | | | | x | | | | | | | | | | | | | | | | |
| | ornamentals | | | | | | **x*** | | | | | | | | | | | | | | | | | | | |
| | pome fruits | | | | x | | | | | x | | | | | | | | | | | | | **x*** | | | |
| | raspberry | | | **x** | | | | | | x | | | | | | | | | | | | | | | | |
| | vegetables | | | | | | **x*** | | | | | | | | | | | | | | | | | | | |
| | wine | | | | | | | | | | | | | | | | | | | | | | **x*** | | | |
| **Lepidosaphes ulmi** | raspberry | | | **x** | | | | | | | | | | | | | | | | | | | | | | |
| **Leptinotarsa** | eggplant | | | | | | | | | | | **x*** | | | | | | | | | | | | | | |
| | pepper | | | | | | | | | | | **x*** | | | | | | | | | | | | | | |
| | tomato | | | | | | | | | | | **x*** | | | | | | | | | | | | | | |
| **Leptinotarsa decemlineata** | potato | **x*** | | | | | | | **x** | | **x*** | **x*** | | | | | | x | | **x*** | | | | | | |
| **Leucoptera malifoliella** | pome fruits | | | **x** | | | | | | | | | | | | | | | | | | | | | | |
| **Liriomyza sp.** | ornamentals | | | | x | | | | | | | | | x | | | | | | | | | | | | **x** |
| **Lygocoris pabulinus** | apple | | | | | | | | | | | | | | | | | | x | | | | | | | |
| | berries other than blackberry, currant, gooseberry and raspberry | | | | | | | | | | | | | | | | | x | | | | | | | | |
| | blackberry | | | | x | | | | | | | | | | | | | | | | | | | | | **x** |
| | cherry | | | | | | | | | | | | | | | | | | x | | | | | | | |
| | pear | | | | | | | | | | | | | | | | | | x | | | | | | | |
| | plum | | | | | | | | | | | | | | | | | x | x | | | | | | | |
| | pome fruits | | | | | | | | | | | | | | | | | x | | | | | | | | |
| | raspberry | | | | | | | | | | | | | x | | | | | | | | | | | | **x** |
| | strawberry | | | | | | | x | | | | | | | | | | | | | | | | | | |

| Pest/crop combination[a] | | Country[b] | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **AT** | **BE** | **BG** | HR | CZ | **DK** | EE | **FI** | FR | **DE** | **EL** | **HU** | IE | IT | **LV** | **LT** | NL[c] | NO | **PL** | PT | **RO** | **SK** | SI | **ES** | **SE** | **UK** |
| **Lygus lineolaris** | blackberry | | | | x | | | | | | | | | | | | | | | | | | | | | |
| **Lygus rugulipennis** | blackberry | | | | | | | | | | | | | x | | | | | | | | | | | | **x** |
| | raspberry | | | | | | | | | | | | | x | | | | | | | | | | | | **x** |
| | Rubus hybrid | | | | | | | | | | | | | x | | | | | | | | | | | | |
| | strawberry | | | | | | | | | | | | | x | | | | | | | | | | | | |
| **Lygus sp.** | blackberry | | | | | | | | **x** | | | | | | | | | | | | | | | | | |
| | blueberry | | | | | | | | **x** | | | | | | | | | | | | | | | | | |
| | currants | | | | | | | | **x** | | | | | | | | | | | | | | | | | |
| | gooseberry | | | | | | | | **x** | | | | | | | | | | | | | | | | | |
| | raspberry | | | | | | | | **x** | | | | | | | | | | | | | | | | | |
| | potato | | | | | | | | | | | | | | | | | | | | | | | | **x*** | |
| | strawberry | | | | | | | | **x** | | | | | x | | | | | | | | | | | | **x** |
| **Lyonetia clerkella** | cherry | | | | | | | | | | | | | | | | | | | | x | | | | | |
| **Melanotus fissilis** | maize | | | | | | | | | x | | | | | | | | x | | | | | | | | |
| **Meligethes** | ornamentals | | | | | | **x*** | | | | | | | | | | | | | | | | | | | |
| | strawberry | | | | | | **x*** | | | | | | | | | | **x** | | | | | | | | | |
| **Meligethes aeneus** | crucifers for seeds | | | | | | **x*** | | | | | | | | | | | | | | | | | | | |
| | mustard | | | | | x | | | | x | | | | | | | | | | | | | | | | **x** |
| | oilseed rape | | **x** | **x** | x | x | **x** | x | **x** | x | | | **x** | x | | **x** | **x** | x | x | **x** | | **x** | **x** | x | | **x** | **x** |
| | turnip rape | | | | | | | x | **x** | x | | | | | | | | | x | | | | | | | |
| | wood dyers | | | | | | | | | x | | | | | | | | | | | | | | | | |
| **Midges** | blackberry | | | | | | | | | x | | | | | | | | | | | | | | | | |
| | bilberry | | | | | | | | | x | | | | | | | | | | | | | | | | |
| | blueberry | | | | | | | | | x | | | | | | | | | | | | | | | | |
| | oat | | | | | | | | | x | | | | | | | | | | | | | | | | |
| | raspberry | | | | | | | | | x | | | | | | | | | | | | | | | | |
| | triticale | | | | | | | | | x | | | | | | | | | | | | | | | | |
| | wheat | | | | | | | | | x | | | | | | | | | | | | | | | | |
| **Miner moth** | pome fruits | **x*** | | | | | | | | | | | | | | | | | | | | | | | | |
| **Miridae** | apple | | **x** | | | | | | | | | | | | | | | | | | | | | | | |
| | blackberry | | **x** | | | | | | | | | | | | | | | | | | | | | | | |
| | bleached celery | | **x*** | | | | | | | | | | | | | | | | | | | | | | | |
| | blueberry | | **x** | | | | | | | | | | | | | | | | | | | | | | | |
| | cherry | | **x** | | | | | | | | | | | | | | | | | | | | | | | |
| | chicory | | **x*** | | | | | | | | | | | | | | | | | | | | | | | |
| | cowberry | | **x** | | | | | | | | | | | | | | | | | | | | | | | |
| | cranberry | | **x** | | | | | | | | | | | | | | | | | | | | | | | |
| | currants | | **x** | | | | | | | | | | | | | | | | | | | | | | | |
| | fennel | | **x*** | | | | | | | | | | | | | | | | | | | | | | | |

| Pest/crop combination[a] | | Country[b] | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | **AT** | **BE** | **BG** | HR | CZ | **DK** | EE | **FI** | FR | **DE** | **EL** | **HU** | IE | IT | **LV** | **LT** | NL[c] | NO | **PL** | PT | **RO** | **SK** | SI | **ES** | **SE** | **UK** |
| | fruiting vegetables | | **x*** | | | | | | | | | | | | | | | | | | | | | | | | |
| | gooseberry | | **x** | | | | | | | | | | | | | | | | | | | | | | | | |
| | ornamentals | | **x** | | | | | | | | | | | | | | | | | | | | | | | | |
| | pear | | **x** | | | | | | | | | | | | | | | | | | | | | | | | |
| | plum | | **x** | | | | | | | | | | | | | | | | | | | | | | | | |
| | raspberry | | **x** | | | | | | | | | | | | | | | | | | | | | | | | |
| | strawberry | | **x** | | | | | | | | | | | | | | | | | | | | | | | | |
| **Moths** | almond | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| | apricot | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| | cherry | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| | nectarine | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| | peach | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| | plum | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| **Myzus persicae** | cabbage | | | | | | | | | | | | | | | **x*** | | | | | | | | | | | |
| | cauliflower | | | | | | | | | | | | | | | **x*** | | | | | | | | | | | |
| **Nematus** | blueberry | | | | | | **x** | | | | | | | | | | | | | | | | | | | | |
| | currant (red) | | | | | | **x** | | | | | | | | | | | | | | | | | | | | |
| | gooseberry | | | | | | **x** | | | | | | | | | | | | | | | | | | | | |
| **Oscinella frit** | maize | | | **x** | | x | | | | x | **x**** | | | | | | | | | **x** | | | | | **x** | | |
| **Ostrinia nubilalis** | maize | | | | | | | x | | | | | | | | **x** | **x** | | | **x** | | | | | | | |
| **Otiorhynchus sp.** | ornamentals | | | | | | | | | | | | | | | | | | | | | | | | | | **x** |
| **Oulema galleciana** | oat | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| | triticale | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| | wheat | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| **Oulema lichenis** | barley | | | | | | | x | | | | | | | | | | | | | | | | | | | |
| | oat | | | | | | | x | | | | | | | | | | | | | | | | | | | |
| | spring rye | | | | | | | x | | | | | | | | | | | | | | | | | | | |
| | spring wheat | | | | | | | x | | | | | | | | | | | | | | | | | | | |
| | triticale | | | | | | | x | | | | | | | | | | | | | | | | | | | |
| | winter rye | | | | | | | x | | | | | | | | | | | | | | | | | | | |
| | winter wheat | | | | | | | x | | | | | | | | | | | | | | | | | | | |
| **Oulema melanopus** | barley | | | | x | | | x | | | | | | | | | | | | | | | | | | | |
| | oat | | | | x | | | x | | x | | | | | | | **x** | | | | | | | x | | | |
| | rye | | | | x | | | | | | | | | | | | **x** | | | | | | | x | | | |
| | spring rye | | | | | | | x | | | | | | | | | | | | | | | | | | | |
| | spring triticale | | | | | | | x | | | | | | | | | **x** | | | | | | | | | | |
| | spring wheat | | | | | | | | | | | | | | | | **x** | | | | | | | | | | |
| | triticale | | | | x | | | | | x | | | | | | | | | | | | | | x | | | |
| | wheat | | | | x | | | x | | x | | | | | | | | | | | | | | x | | | |

| Pest/crop combination[a] | | Country[b] | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | **AT** | **BE** | **BG** | HR | CZ | **DK** | EE | **FI** | FR | **DE** | **EL** | **HU** | IE | IT | **LV** | **LT** | NL[c] | NO | **PL** | PT | **RO** | **SK** | SI | **ES** | **SE** | **UK** |
| | winter barley | | | | | | | | | | | | | | | | **x** | | | | | | | | | | |
| | winter rye | | | | | | | x | | | | | | | | | | | | | | | | | | | |
| | winter triticale | | | | | | | x | | | | | | | | | | | | | | | | | | | |
| **Oulema sp.** | barley | | | | | | | | | | **x** | | **x** | | | **x** | | x | | | | **x** | | | | | |
| | oat | | | **x** | | | | | | | **x** | | | | | **x** | **x** | x | | | | **x** | | | | | |
| | rye | | | | | | | | | | **x** | | | | | **x** | **x*** | x | | | | | | | | | |
| | spring triticale | | | | | | | | | | | | **x** | | | | **x*** | | | | | | | | | | |
| | spring wheat | | | | | | | | | | **x** | | | | | **x** | **x** | x | | | | | **x** | | | | |
| | triticale | | | **x** | | | | | | | **x** | | | | | **x** | | x | | | | | | | | | |
| | wheat | **x** | | | | | | | | | | | | | | | | | | | | | **x** | | | | |
| | winter barley | | | | | | | | | | | | | | | | **x*** | | | | | | | | | | |
| | winter triticale | | | | | | | | | | | | **x** | | | | **x** | | | | | | | | | | |
| | winter wheat | | | | | | | | | | **x** | | | | | **x** | **x** | x | | | | | **x** | | | | |
| **Paranthrene tabaniformis** | willow and poplar | **x** | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Pegomya** | sugar beet | | | | | | | | | | | **x*** | | | | | | | | | | | | | | | |
| **Pegomya hyoscyami** | sugar beet | | | | | | | | | | | | | | | | | | | **x*** | | | | | | | |
| **Pemphigus phenax** | carrot | | | | | | | | | | | | | | | | | | | **x*** | | | | | | | |
| **Phyllotreta sp.** | barley | | | | | | | x | | | | | | | | | | | | | | | | | | | |
| | oat | | | | | | | x | | | | | | | | **x** | **x** | | | | | | | | | | |
| | oilseed rape | | | | | x | | x | | | | | | | | **x*** | **x** | | | | | | **x** | | | | |
| | rye | | | | | | | | | | | | | | | **x** | **x** | | | | | | | | | | |
| | spring barley | | | | | | | | | | | | | | | **x** | **x** | | | | | | | | | | |
| | spring rye | | | | | | | x | | | | | | | | | | | | | | | | | | | |
| | spring triticale | | | | | | | x | | | | | | | | | | | | | | | | | | | |
| | spring wheat | | | | | | | | | | | | | | | **x** | **x** | | | | | | | | | | |
| | triticale | | | | | | | | | | | | | | | **x** | **x** | | | | | | | | | | |
| | turnip rape | | | | | | | x | | | | | | | | | | | | | | | | | | | |
| | wheat | | | | | | | x | | | | | | | | | | | | | | | | | | | |
| | winter barley | | | | | | | | | | | | | | | | **x** | | | | | | | | | | |
| | winter rye | | | | | | | x | | | | | | | | | | | | | | | | | | | |
| | winter triticale | | | | | | | x | | | | | | | | | | | | | | | | | | | |
| | winter wheat | | | | | | | | | | | | | | | **x** | **x** | | | | | | | | | | |
| **Phytonemus pallidus** | strawberry | | | | | | | x | | | | | | | | | | | | | | | | | | | |
| **Pieris brassicae** | cabbage | | | | | | | | | | | | | | | **x*** | | | | | | | | | | | |
| | head cabbage | | | | | | | | | | | | | | | | | | | **x*** | | | | | | | |
| | cauliflower | | | | | | | | | | | | | | | **x*** | | | | **x*** | | | | | | | |
| **Pieris rapae** | cabbage | | | | | | | | | | | | | | | **x*** | | | | | | | | | | | |
| | cauliflower | | | | | | | | | | | | | | | **x*** | | | | | | | | | | | |
| **Pieris sp.** | cabbage | | | | | | | | | | | **x*** | | | | | | | | | | | | | | | |

| Pest/crop combination[a] | | Country[b] | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **AT** | **BE** | **BG** | HR | CZ | **DK** | EE | **FI** | FR | **DE** | **EL** | **HU** | IE | IT | **LV** | **LT** | NL[c] | NO | **PL** | PT | **RO** | **SK** | SI | **ES** | **SE** | **UK** |
| **Plusia sp.** | eggplant | | | | | | | | | | | **x*** | | | | | | | | | | | | | | | |
| | tomato | | | | | | | | | | | **x*** | | | | | | | | | | | | | | | |
| **Plutella xylostella** | leek | | | | | | | | | | **x*** | | | | | | | | | | | | | | | | |
| **Plutella maculipennis** | cabbage | | | | | | | | | | | | | | | **x*** | | | | | | | | | | | |
| | cauliflower | | | | | | | | | | | | | | | **x*** | | | | | | | | | | | |
| **Prays oleae** | olive | | | | | | | | | | | **x*** | | | | | | | | | | | | | | | |
| **Pulvinaria vitis** | bilberry | | | | | | | | | | | | | | | | | | | | | | | | | | **x** |
| | blueberry | | | | | | | | | | | | | x | | | | | | | | | | | | | **x** |
| | cranberry | | | | | | | | | | | | | | | | | | | | | | | | | | **x** |
| | curannts (red and black) | | | | | | | | | | | | | x | | | | | | | | | | | | | |
| | gooseberry | | | | | | | | | | | | | | | | | | | | | | | | | | **x** |
| **Psila rosae** | carrot | | | | | | | | | | | | | | | | | | | **x*** | | | | | | | |
| **Psyllidae** | pear | | **x*** | | | | | | | | | | | | | | | | | | | | | | | | |
| **Psylliodes chrysocephala** | mustard | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| | oilseed rape | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| | turnip rape | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| **Pyrrhalta cavicollis** | strawberry | | | | | | | x | | | | | | | | | | | | | | | | | | | |
| **Ressellia theobaldi** | blackberry | | | | | | | | | | | | | | | | | | | **x** | | | | | | | |
| | raspberry | | | **x** | | | | | | | | | | | | | | | | | | | | | | | |
| **Rhagoletis cerasi** | apricot | | | **x** | | | | | | | | | | | | | | | | | | | | | | | |
| | cherry | | **x*** | **x** | | | | | | | | | | | | | | | x | **x*** | | | | | | **x*** | |
| | peach | | | **x** | | | | | | | | | | | | | | | | | | | | | | | |
| | nectarine | | | **x** | | | | | | | | | | | | | | | | | | | | | | | |
| | plum | | **x*** | | | | | | | | | | | | | | | | | | | | **x*** | | | | |
| | sweet cherry | | | | | | | | | | | | | | | | | | | **x*** | | | | | | | |
| | wine | | | | | | | | | | | | | | | | | | | | | | **x*** | | | | |
| **Rhagoletis completa** | walnut | | | | x | | | | | | | | | | | | | | | | | | | | | | |
| **Rhagoletis juglandis** | walnut | | | | | | | | | | | | | | | | | | | | | | | x | | | |
| **Rhopalosiphum padi** | winter barley | | | | | | **x*** | | | | | | | | | | | | | | | | | | | | |
| **Sawflies** | apricot | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| | cherry | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| | peach | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| | nectarine | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| **Scales** | bilberry | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| | blueberry | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| | blackberry and raspberry | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| | currants (red and black) | | | | | | | | | x | | | | | | | | | | | | | | | | | |

| Pest/crop combination[a] | | Country[b] | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **AT** | **BE** | **BG** | HR | CZ | **DK** | EE | **FI** | FR | **DE** | **EL** | **HU** | IE | IT | **LV** | **LT** | NL[c] | NO | **PL** | PT | **RO** | **SK** | SI | **ES** | **SE** | **UK** |
| | ornamentals | **x*** | **x** | | | | | | | | **x*** | | | | | | | | | | | | | | | | |
| **Sitobion avenae** | winter barley | | | | | | **x*** | | | | | | | | | | | | | | | | | | | | |
| **Sitobion fragariae** | raspberry | | | | | | | | | | | | | | | **x** | | | | | | | | | | | |
| **Sitodiplosis mosellana** | barley | | | | | | | | | | | | | | | | | x | | | | | | | | | |
| | oat | | | | | | | | | | | | | | | | | x | | | | | | | | | |
| | rye | | | | | | | | | | | | | | | | | x | | | | | | | | | |
| | triticale | | | | | | | | | | | | | | | | | x | | | | | | | | | |
| | spring wheat | | | | | | | | | | | | | | | | | x | | | | | | | | | |
| | winter wheat | | | | | | | | | | | | | | | | | x | | | | | | | | | |
| | wheat | | | | | | | | | | | | | x | | | | | | | | | | | | | **x** |
| **Sitona lineatus** | bean | | | | | | | | | | | | | | | **x*** | | | | | | | | | | | |
| | pea | | | | | | | | | | | | | | | **x*** | | | | | | | | | | | |
| **Snout beetles** | garden rocket | | **x** | | | | | | | | | | | | | | | | | | | | | | | | |
| **Spider mites** | ornamentals | | | | | | | | | | **x*** | | | | | | | | | | | | | | | | |
| **Spodoptera sp.** | cotton | | | | | | | | | | | **x*** | | | | | | | | | | | | | | | |
| | eggplant | | | | | | | | | | | **x*** | | | | | | | | | | | | | | | |
| | sugar beet | | | | | | | | | | | **x*** | | | | | | | | | | | | | | | |
| | tomato | | | | | | | | | | | **x*** | | | | | | | | | | | | | | | |
| **Stem weevils** | mustard | | | | | x | | | | | | | | | | | | | | | | | **x** | | | | |
| | oilseed rape | | | | | | | | | | | | | | | **x** | **x** | x | | | | | | | | | |
| **Sucking insects** | anise | | | | | | | | | | **x*** | | | | | | | | | | | | | | | | |
| | blueberry | | | | | | | | | | **x** | | | | | | | | | | | | | | | | |
| | Brussels sprouts | **x*** | | | | | | | | | | | | | | | | | | | | | | | | | |
| | dill | | | | | | | | | | **x*** | | | | | | | | | | | | | | | | |
| | caraway | | | | | | | | | | **x*** | | | | | | | | | | | | | | | | |
| | coriander | | | | | | | | | | **x*** | | | | | | | | | | | | | | | | |
| | cranberry | | | | | | | | | | **x** | | | | | | | | | | | | | | | | |
| | currants | **x** | | | | | | | | | **x** | | | | | | | | | | | | | | | | |
| | elderberry | | | | | | | | | | **x** | | | | | | | | | | | | | | | | |
| | fennel | **x*** | | | | | | | | | **x*** | | | | | | | | | | | | | | | | |
| | fresh herbs | **x*** | | | | | | | | | **x*** | | | | | | | | | | | | | | | | |
| | gooseberry | | | | | | | | | | **x** | | | | | | | | | | | | | | | | |
| | mint species | **x*** | | | | | | | | | | | | | | | | | | | | | | | | | |
| | oilseed rape | **x*** | | | | | | | | | | | | | | | | | | | | | | | | | |
| | pepper | **x*** | | | | | | | | | | | | | | | | | | | | | | | | | |
| | red cabbage | **x*** | | | | | | | | | | | | | | | | | | | | | | | | | |
| | savoy | **x*** | | | | | | | | | | | | | | | | | | | | | | | | | |
| | sweet fennel | | | | | | | | | | **x*** | | | | | | | | | | | | | | | | |
| | white cabbage | **x*** | | | | | | | | | | | | | | | | | | | | | | | | | |

| Pest/crop combination[a] | | Country[b] | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **AT** | **BE** | **BG** | HR | CZ | **DK** | EE | **FI** | FR | **DE** | **EL** | **HU** | IE | IT | **LV** | **LT** | NL[c] | NO | **PL** | PT | **RO** | **SK** | SI | **ES** | **SE** | **UK** |
| **Tenthredinidae** | apple | | **x** | | | | | | | | | | | | | | | | | | | | | | | |
| | ornamentals | | **x*** | | | | | | | | | | | | | | | | | | | | | | | |
| **Thomasiniana ribis** | black currant | | | | | | | | | | | | | | | | | | | **x** | | | | | | |
| **Thrips** | barley | | | | | | | x | | | | | | | | **x** | | | | | | | | | | |
| | bulb vegetables and leek | **x*** | | | | | | | | | **x** | | | | | | | | | | | | | | | **x*** |
| | chilli | | | | | | | | | | | | | | | | | | | | | | | | | **x*** |
| | cucumber | | | | | | | | | | | | | | | | | | | | | | | | | **x*** |
| | fennel | **x*** | | | | | | | | | | | | | | | | | | | | | | | | |
| | flower bulbs | | | | | | | | | | | | | | | | | x | | | | | | | | |
| | garlic | | | | x | | | | | | | | | | | | | | | | | | | | | |
| | leek | **x*** | | | | | | | | | **x*** | | | | | | | | | | | | | | | |
| | melon | | | | | | | | | | | | | | | | | | | | | | | | | **x*** |
| | oat | | | | | | | x | | | | | | | | **x** | **x** | | | | | | | | | |
| | ornamentals | | | | x | | | | | | | | | x | | | | | | | | | | | | **x** |
| | pepper | | | | | | | | | | | | | | | | | | | | | | | | | **x*** |
| | rye | | | | | | | | | | | | | | | **x** | | | | | | | | | | |
| | shallot | **x** | | | x | | | | | | **x** | | | | | | | | | | | | | | | |
| | spring barley | | | | | | | | | | | | | | | | **x** | | | | | | | | | |
| | spring rye | | | | | | | x | | | | | | | | | **x** | | | | | | | | | |
| | spring triticale | | | | | | | x | | | | | | | | | **x** | | | | | | | | | |
| | spring wheat | | | | | | | | | | | | | | | **x** | **x*** | | | | | | | | | |
| | summer squash | | | | | | | | | | | | | | | | | | | | | | | | | **x*** |
| | triticale | | | | | | | | | | | | | | | **x** | | | | | | | | | | |
| | vegetables | | | | | | **x*** | | | | | | | | | | | | | | | | | | | |
| | wheat | | | | | | | x | | | | | | | | | | | | | | | | | | |
| | winter barley | | | | | | | | | | | | | | | | **x** | | | | | | | | | |
| | winter rye | | | | | | | x | | | | | | | | | **x** | | | | | | | | | |
| | winter triticale | | | | | | | x | | | | | | | | | **x** | | | | | | | | | |
| | winter wheat | | | | | | | | | | | | | | | **x** | **x** | | | | | | | | | |
| | zucchini | | | | | | | | | | | | | | | | | | | | | | | | | **x*** |
| **Tortricidae** | almond | | | | | | | | | x | | | | | | | | | | | | | | | | |
| | cherry | | | | | | | | | x | | | | | | | | | | | | | | | | |
| | plum | | | | | | | | | x | | | | | | | | | | | | | | | | |
| | pome fruits | | | | x | | | | | | | | | | | | | | | | | | | | | |
| **Trachycera advenella** | chokeberry | | | | | | | | | | | | | | | | | | | **x** | | | | | | |
| **Trialeurodes vaporariorum** | strawberry | | | | | | | | | x | | | | | | | | x | | | | | | | | |
| **Trioza apicalis** | carrot | | | | | | | | **x*** | | | | | | | | | | | | | | | | | |
| **Tuta absoluta** | eggplant | | | | | | | | | | | **x*** | | | | | | | | | | | | | | |
| | tomato | | | | | | | | | | | **x*** | | | | | | | | | | | | | | |
| **Underwings** | hazelnut | | | | | | | | | x | | | | | | | | | | | | | | | | |

| Pest/crop combination[a] | | Country[b] | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **AT** | **BE** | **BG** | HR | CZ | **DK** | EE | **FI** | FR | **DE** | **EL** | **HU** | IE | IT | **LV** | **LT** | NL[c] | NO | **PL** | PT | **RO** | **SK** | SI | **ES** | **SE** | **UK** |
| | walnut | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| **Weevils** | almond | | | | | | | | | x | | | | | | | | | | | | | | | | | |
| | blackberry | | | | | | | | | | | | | | | | | | | **x** | | | | | | | |
| | garden rocket | | **x*** | | | | | | | | | | | | | | | | | | | | | | | | |
| | herbs | | **x** | | | | | | | | | | | | | | | | | | | | | | | | |
| | infusion and spice crops | | **x** | | | | | | | | | | | | | | | | | | | | | | | | |
| | ornamentals | | **x** | | | | | | | | | | | | | | | | | | | | | | | | |
| **Whitefly** | fruiting vegetables | | **x*** | | | | | | | | | | | | | | | | | | | | | | | | |
| | head cabbage | | | | | | | | | | **x*** | | | | | | | | | | | | | | | | |
| | ornamentals | | | | | | | | | | | | | x | | | | | | | | | | | | | |
| | ornamentals (except Gerbera) | | | | | | | | | | | | | | x | | | | | | | | | | | | |
| | strawberry | | **x** | | | | | | | | | | | | | | | | | | | | | | | | |

(a): Details are in the excel files Appendix C.

(b): The applicant submitted the information in relation to 26 Member States (Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the United Kingdom); 16 MS (Austria, Belgium, Bulgaria, Denmark, Finland, Germany, Greece, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Spain, Sweden and United Kingdom) verified the information submitted by the applicant and they are highlighted in bold, and additional uses provided by MS are marked with "*"; 10 MS (Croatia, Czech Republic, Estonia, France, Ireland, Italy, Netherlands, Norway, Portugal, and Slovenia) did not verified the information.

(c): Excluding olive

(d): It is further noted that the applicant submitted information concerning LU/BE together (Bayer CropScience, 2017), however LU was not able to fully validate the data. Therefore, the information was only consdiered for BE

(e): It is further noted that NL provided a quick scan information on the alternative chemical control methods available at Member State level, however since the information was not in line with the format and the level of detail required in order to perform a proper assessment in accordance with the methodology (EFSA, 2017), it was not possible for EFSA to further consider the data in the current evaluation.

In addition, key supporting documents to this scientific report are:

- the applicant submission in the form of a Report (Bayer CropScience, 2017) and collection data set;
- the comments received on the Applicant Report (EFSA, 2018b);
- the comments received on the draft scientific report (EFSA, 2018c).

The applicant submitted the information in relation to 26 Member States (Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the United Kingdom); 16 MS (Austria, Belgium, Bulgaria, Denmark, Finland, Germany, Greece, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Spain, Sweden and United Kingdom) verified the information submitted by the applicant. 10 MS (Croatia, Czech Republic, Estonia, France, Ireland, Italy, Netherlands, Norway, Portugal, and Slovenia) did not verify the information.

# 3. Evaluation and assessment

## 3.1. Evaluation of chemical alternatives

### 3.1.1. Amaranthaceae – aphididae

Table 2 summarises the outcome for 'amaranthaceae and aphididae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 2:** Outcome of the evaluation 'amaranthaceae and aphididae' in 4 Member States.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Sugar beet/aphid | EL | 1.50 | Yes |
| Spinach/aphid (protected use) | LT | n.a [b] | No |
| Beta vulgaris subs. vulgaris var. cicla/aphid (field use) | SK | 2.00 | Yes |
| Beta vulgaris subs. vulgaris var. cicla/aphid (protected use) | LT | n.a [b] | No |
| | ES | 3.00 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and < 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported.

### 3.1.2. Amaranthaceae – beetles

Table 3 summarises the outcome for 'amaranthaceae and beetles', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 3:** Outcome of the evaluation 'amaranthaceae and beetles' in Greece.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Sugar beet/beetles | EL | 2.00 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and < 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.3. Amaranthaceae – curculionidae

Table 4 summarises the outcome for 'amaranthaceae and curculionidae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 4:** Outcome of the evaluation 'amaranthaceae and curculionidae' in Austria.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Sugar beet/bothynoderes punctiventris | AT | 1.33 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and < 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.4. Amaranthaceae – pegomya sp.

Table 5 summarises the outcome for 'amaranthaceae and pegomya', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 5:** Outcome of the evaluation 'amaranthaceae and pegomya' in 2 Member States.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Sugar beet/pegomya | EL | 2.00 | Yes |
| Sugar beet/pegomya hyoscyami | PL | 4.00 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and < 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.5. Amaranthaceae – spodoptera sp.

Table 6 summarises the outcome for 'amaranthaceae and spodoptera sp.', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is

scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 6:** Outcome of the evaluation 'amaranthaceae and spodoptera sp.' in Greece.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Sugar beet/spodoptera sp. | EL | 4.00 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and < 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.6. Amaryllidaceae – aphididae

Table 7 summarises the outcome for 'amaryllidaceae and aphididae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 7:** Outcome of the evaluation 'amaryllidaceae and aphididae' in 2 Member States.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Onion, aphid | AT | 2.00 | Yes |
| Garlic/aphid | DE | 6.00 | Yes |
| | AT | 4.00 | Yes |
| Leek/aphid | DE | 6.00 | Yes |
| | AT | n.a [b] | Yes |
| Shallot/aphid | DE | 6.00 | Yes |
| | AT | 4.00 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusions that the derogation is scientifically supported.

### 3.1.7. Amaryllidaceae – lepidoptera

Table 8 summarises the outcome for 'amaryllidaceae and lepidoptera', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 8:** Outcome of the evaluation 'amaryllidaceae and lepidoptera' in 2 Member States.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Leek/plutella xylostella | DE | 1.33 | Yes |

| | | | |
|---|---|---|---|
| Leek/leek moth | AT | n.a [(b)] | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusions that the derogation is scientifically supported.

### 3.1.8. Amaryllidaceae – thrips

Table 9 summarises the outcome for 'amaryllidaceae and thrips', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 9:** Outcome of the evaluation 'amaryllidaceae and thrips' in 3 Member States.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Bulb vegetables and leek (onion)/thrips | UK | 1.33 | Yes |
| | AT | 1.60 | Yes |
| | DE | 0.92 | Maybe |
| Leek/thrips | DE | 2.00 | Yes |
| | AT | n.a [(b)] | Yes |
| Shallot/thrips | DE | 1.33 | Yes |
| | AT | 4.00 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix C. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusions that the derogation is scientifically supported.

### 3.1.9. Apiaceae – aphididae

Table 10 summarises the outcome for 'apiaceae and aphididae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 10:** Outcome of the evaluation for 'apiaceae and aphididae' 4 Member States.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Carrot/aphid | AT | 1.00 | Maybe |
| | UK | 3.00 | Yes |
| Carrot/pemphigus phenax | PL | 4.00 | Yes |
| Celery (bleached) /aphid | AT | 1.33 | Yes |

| | | | |
|---|---|---|---|
| Celery (ripped)/aphid (open field) | DE | 1.33 | Yes |
| Celeriac/aphid | AT | 0.80 | Maybe |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix C. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.10. Apiaceae – miridae

Table 11 summarises the outcome for 'apiaceae and miridae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 11:** Outcome of the evaluation for 'apiaceae and miridae' in Belgium.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Celery (bleached) and fennel/miridae (open field + protected use) | BE | 2.00 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.11. Apiaceae – psilidae

Table 12 summarises the outcome for 'apiaceae and psilidae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 12:** Outcome of the evaluation for 'apiaceae and psilidae' in Poland.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Carrot/psila rosae | PL | 4.00 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.12. Apiaceae – sucking insects

Table 13 summarises the outcome for 'apiaceae and sucking insects', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is

scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 13:** Outcome of the evaluation for 'apiaceae and sucking insects' in 2 Member States.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Fennel/sucking insects (including thrips, which is a seperate use in DE) (open field) | DE | 2.40 | Yes |
| Fennel/sucking insects | AT | 4.00 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.13. Apiaceae – thrips

Table 14 summarises the outcome for 'apiaceae and thrips', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 14:** Outcome of the evaluation for 'apiaceae and thrips' in Austria.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Fennel/thrips | AT | 1.60 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.14. Apiaceae – trioza apicalis

Table 15 summarises the outcome for 'apiaceae and trioza apicalis', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 15:** Outcome of the evaluation for 'apiaceae and trioza apicalis' in Finland.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Carrot/trioza apicalis | FI | 4.00 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.15. Asparagaceae – aphididae

Table 16 summarises the outcome for 'asparagaceae and aphididae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance

management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 16:** Outcome of the evaluation 'asparagaceae and aphididae' in 2 Member States.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Asparagus/aphid | DE | n.a [b] | No |
| | AT | n.a [c] | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions (MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.
(b): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported.
(c): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusions that the derogation is scientifically supported.

### 3.1.16. Asparagaceae – crioceris

Table 17 summarises the outcome for 'asparagaceae and crioceris', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 17:** Outcome of the evaluation 'asparagaceae and crioceris' in 4 Member States.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Asparagus (garden) /crioceris | BE | 2.00 | Yes |
| Asparagus/crioceris asparagi | AT | 1.33 | Yes |
| | DE | n.a. [b] | No |
| | UK | 0.80 | Maybe |
| Asparagus/crioceris duodecimpunctata | AT | 1.33 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions (MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix C. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.
(b): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A).

### 3.1.17. Asteraceae – aphididae

Table 18 summarises the outcome for 'asteraceae and aphididae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 18:** Outcome of the evaluation 'asteraceae and aphididae' for 1 crop (group)/pest combination in 4 Member States.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Baby leaf crops (upto 8 true leaf stage) – aphid (protected use and open field) | UK | n.a. [b] | No |
| Cichorium sp./aphid (protected use) | LT | n.a. [d] | Yes |
| Lettuce/aphid (protected use) | LT | n.a. [b] | No |
| | UK | n.a. [b],[c] | No |
| Lettuce/aphid (open field) | DE | n.a. [b] | No |
| | UK | n.a. [b],[c] | No |
| Sunflower/Brachycaudus helichrysi | SK | 1.00 | Maybe |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and < 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix C. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(a): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported.

(a): Leavy vegatables .

(b): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusions that the derogation is scientifically supported.

### 3.1.18. Asteraceae – miridae

Table 19 summarises the outcome for 'asteraceae and miridae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 19:** Outcome of the evaluation 'asteraceae and miridae' in Belgium

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Chicory/miridae | BE | n.a [b] | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and < 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a. = not applicable, no score could be calculated as there are no alternative a.s. available. This leads to the conclusion that the derogation is scientifically supported.

### 3.1.19. Brassicaceae – aphididae

Table 20 summarises the outcome for 'brassicaceae and aphididae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 20:** Outcome of the evaluation 'brassicaceae and aphididae' (open field and protected use) in 6 Member States.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Oilseed rape/aphid | UK | n.a. [b] | Yes |
| | BG | 6.00 | Yes |
| | LV | 6.00 | Yes |
| Head cabbage/brevicoryne brassicae (open field) | DE | n.a. [c] | No |
| Chinese cabbage/brevicoryne brassicae (open field) | DE | 1.50 | Yes |
| Lepidium sativum/aphid (protected use) | LT | n.a. [c] | No |
| garden rocket/aphid (protected use) | LT | n.a. [c] | No |
| Brassica genus leaves (max 8) and sprouts, mizuna, pea and radish/aphid (protected use) | LT | n.a. [b] | Yes |
| Brassica vegetables (crops harvested beyond the 8 true leaves stage) | UK | 2.00 | Yes |
| Cabbage/brevicoryne brassicae | LV | 1.33 | Yes |
| Cabbage/myzus persicae | LV | 6.00 | Yes |
| Cauliflower/brevicoryne brassicae | AT | n.a. [b] | Yes |
| | DE | 0.75 | Maybe |
| | LV | 1.33 | Yes |
| Cauliflower/myzus persicae | LV | 6.00 | Yes |
| Salad and rocket/aphid | AT | n.a [c] | No |
| Chinese cabbage/aphid | AT | 1.33 | Yes |
| Kohlrabi/brevicoryne brassicae | AT | n.a [c] | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix C. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a. = not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusion that the derogation is scientifically supported.

(c): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported.

### 3.1.20. Brassicaceae – athalia rosae

Table 21 summarises the outcome for 'brassicaceae and athalia rosae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 21:** Outcome of the evaluation 'brassicaceae and athalia rosae' in Slovakia.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Oilseed rape/athalia rosae | SK | 1.00 | Maybe |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix A. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.21. Brassicaceae – biting insects

Table 22 summarises the outcome for 'brassicaceae and biting insects', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 22:** Outcome of the evaluation 'brassicaceae and biting insects' in 2 Member States.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Oilseed rape/biting insects | DE | n.a. [c], [d] | No |
| | AT | n.a. [b] | Yes |
| Mustard/biting insects | DE | n.a. [b] | Yes |
| | AT | 4.0 | Yes |
| Chinese cabbage/biting insects excluding free feeding caterpillars (open field) | DE | 2.40 | Yes |
| Head cabbage/biting insects (open field) | DE | 0.80 | Maybe |
| Cauliflower/biting insects excluding free feeding caterpillars (open field) | DE | 2.40 | Yes |
| Chinese cabbage/biting insects | AT | 2.00 | Yes |
| Cabbage/biting insects | AT | 1.33 | Yes |
| Cauliflower/biting insects | AT | 4.00 | Yes |
| Kohlrabi/biting insects | AT | 4.00 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix A. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusions that the derogation is scientifically supported.

(c): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported.

(d): DE flagged that restrictions concerning applications during flowering have to be taken into account for both acetamiprid and thiacloprid in combination with azole fungicides.

### 3.1.22. Brassicaceae – ceutorhynchus

Table 23 summarises the outcome for 'brassicaceae and ceutorhynchus', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance

management strategy based on the remaining insecticide a.s. and indicates if a derogation consideration is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 23:** Outcome of the evaluation 'brassicaceae and ceutorhynchus' in 10 Member States.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Oilseed rape/ceutorhynchus napi | BG | 1.14 | Maybe |
| | PL | n.a. [(b)] | No |
| Oilseed rape/ceutorhynchus sp. | DK | 6.00 | Yes |
| | SE | n.a. [(b)] | No |
| Oilseed rape/ceutorhynchus quadridens | PL | n.a. [(b)] | No |
| Mustard/ceutorhynchus sp. - stem weevils | SK | 4.00 | Yes |
| Oilseed rape/ceutorhynchus sp. - stem weevils | LV | 4.00 | Yes |
| | LT | 4.00 | Yes |
| Oilseed rape, turnip rape/ceutorhynchus assimilis | FI | 6.00 | Yes |
| Oilseed rape/ceutorhynchus assimilis | HU | n.a. [(b)] | No |
| | LV | 6.00 | Yes |
| | LT | 6.00 | Yes |
| | RO | 6.00 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix A. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A).

### 3.1.23. Brassicaceae – curculionidae

Table 24 summarises the outcome for 'brassicaceae and curculionidae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 24:** Outcome of the evaluation 'brassicaceae and curculionidae' in Belgium.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Garden rocket/snout beetles, weevils (protected use) | BE | 1.0 | Maybe |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix A. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.24. Brassicaceae – dasineura

Table 25 summarises the outcome for 'brassicaceae and dasineura', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 25:** Outcome of the evaluation 'brassicaceae and dasineura' in 3 Member States.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Oilseed rape/dasineura brassicae | AT | 2.00 | Yes |
| | LV | 2.00 | Yes |
| | LT | 2.00 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix A. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.25. Brassicaceae – delia radicum

Table 26 summarises the outcome for 'brassicaceae and delia radicum', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 26:** Outcome of the evaluation 'brassicaceae and delia radicum' in Slovakia.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Oilseed rape/delia radicum | SK | n.a. [(b)] | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusions that the derogation is scientifically supported.

### 3.1.26. Brassicaceae – diabrotica virgifera

Table 27 summarises the outcome for 'brassicaceae and diabrotica virgifera', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 27:** Outcome of the evaluation 'brassicaceae and diabrotica virgifera' in Austria.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Salad and rocket/diabrotica virgifera | AT | n.a [b] | Yes |
| Chinese cabbage/diabrotica virgifera | AT | 4.00 | Yes |
| Cabbage/diabrotica virgifera | AT | 1.33 | Yes |
| Kohlrabi/diabrotica virgifera | AT | 4.00 | Yes |
| Cauliflower/diabrotica virgifera | AT | 4.00 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusions that the derogation is scientifically supported.

### 3.1.27. Brassicaceae – lepidoptera

Table 28 summarises the outcome for 'brassicaceae and lepidoptera', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 28:** Outcome of the evaluation 'brassicaceae and lepidoptera' in Latvia.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Cabbage/plutella maculipennis | LV | 1.33 | Yes |
| Cauliflower/plutella maculipennis | LV | 1.33 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.28. Brassicaceae – meligethes sp.

Table 29 summarises the outcome for 'brassicaceae and meligethes sp.', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 29:** Outcome of the evaluation 'brassicaceae and meligethes sp.' in 12 Member States.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Oilseed rape/meligethes aeneus | BG | 6.00 | Yes |
| | FI | n.a [c] | No |
| | DK | 4.00 | Yes |
| | UK | n.a [c] | No |
| | BE | n.a [c][d] | No |
| | LV | n.a [b] | Yes |
| | SK | n.a [c] | No |
| | SE | n.a [c] | No |
| | PL | 2.4 | Yes |

| | | | |
|---|---|---|---|
| | RO | n.a (c) | No |
| | HU | n.a (c) | No |
| | LT | 2.4 | Yes |
| Crucifers for seeds/meligethes aeneus | DK | 4.00 | Yes |
| Mustard/meligethes aeneus | UK | 4.00 | Yes |
| Turnip rape/meligethes aeneus | FI | n.a (c) | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusions that the derogation is scientifically supported.

(c): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported.

(d): Acetamiprid is available as an a.s. However BE proposes that this a.s. should not be shortlisted due environmental restrictions ("Dangerous to bees. Do not use during flowering"). This is useful information but not part of the methodology (EFSA, 2017). EFSA proposes to consider acetamiprid as an alternative a.s. to ensure consistency across MS and within the evaluation.

### 3.1.29. Brassicaceae – phyllotreta sp.

Table 30 summarises the outcome for 'brassicaceae and phyllotreta sp.', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 30:** Outcome of the evaluation 'brassicaceae and phyllotreta sp' in 3 Member States.

| Crop(group)/pest | Country | Score(a) | Derogation scientifically supported |
|---|---|---|---|
| Oilseed rape/phyllotreta sp. | LT | 4.00 | Yes |
| | SK | 2.00 | Yes |
| | LV | 4.00 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.30. Brassicaceae – pieris sp.

Table 31 summarises the outcome for 'brassicaceae and pieris sp.', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 31:** Outcome of the evaluation 'brassicaceae and pieris sp.' in 3 Member States.

| Crop(group)/pest | Country | Score(a) | Derogation scientifically supported |
|---|---|---|---|
| Head cabbage/pieris brassicae | PL | 0.89 | Maybe |
| Cabbage/pieris sp. | EL | 0.35 | No |
| Cabbage/pieris rapae | LV | 1.33 | Yes |
| Cabbage/pieris brassicae | LV | 1.33 | Yes |
| Cauliflower/pieris brassicae | LV | 1.33 | Yes |

| | | | |
|---|---|---|---|
| | PL | 0.89 | Maybe |
| Cauliflower/pieris rapae | LV | 1.33 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.31. Brassicaceae – sucking insects

Table 32 summarises the outcome for 'brassicaceae and sucking insects', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 32:** Outcome of the evaluation 'brassicaceae and sucking insects' in Austria.

| Crop(group)/pest | **Country** | **Score**[a] | **Derogation scientifically supported** |
|---|---|---|---|
| Oilseed rape/ sucking insects | AT | n.a. [b] | Yes |
| Savoy, white cabbage, red cabbage, Brussels sprouts/sucking insects | AT | 0.80 | Maybe |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix A. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusions that the derogation is scientifically supported.

### 3.1.32. Brassicaceae – whitefly

Table 33 summarises the outcome for 'brassicaceae and ornawhite fly', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 33:** Outcome of the evaluation 'brassicaceae and white fly' in Germany.

| **Crop(group)/pest** | **Country** | **Score**[a] | **Derogation scientifically supported** |
|---|---|---|---|
| Head cabbage/whitefly | DE | n.a. [b], [c] | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported.

(c): One highly effective physical control method (nets) is available to control the pest, but application for large-scale field is possibliy a limitation. Details are available in the excel file, Appendix C.

### 3.1.33. Cannabaceae – aphididae

Table 34 summarises the outcome for 'cannabaceae and aphididae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. For further details on the evaluation, see Appendix C.

**Table 34:** Outcome of the evaluation 'cannabaceae and aphididae' in the United Kingdom.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Hop/aphid | UK | n.a. [b] | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported.

### 3.1.34. Caprifoliaceae – aphididae

Table 35 summarises the outcome for 'caprifoliaceae and aphididae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 35:** Outcome of the evaluation 'caprifoliaceae and aphididae' in Lithuania.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Valerianella locusta/aphid (protected use) | LT | 3.00 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and < 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.35. Cucurbitaceae – aleyrodidae

Table 36 summarises the outcome for 'cucurbitaceae and aleyrodidae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. For further details on the evaluation, see Appendix C.

**Table 36:** Outcome of the evaluation 'cucurbitaceae and aleyrodidae' in 4 Member States.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Cucumber/aleyrodidae (whitefly) (protected use) | FI | n.a [b] | No |
| | ES | n.a [b] | No |
| | LT | n.a [b] | No |
| Cucurbita pepo/ aleyrodidae (whitefly) (protected use) | ES | n.a [b | No |
| | LT | n.a. [b] | No |

| | | | |
|---|---|---|---|
| | FI | n.a [(b)] | No |
| Cucurbits/aleyrodidae (open filed and protected use) | EL | n.a [(b)(c)] | No |
| Melon and watermelon/aleyrodidae (open field) | EL | n.a [(b)] | No |
| Zucchini/aleyrodidae (protected use) | EL | n.a [(b)(c)] | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and < 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported.

a. Under protected use one highly effective biological control method (Inundative biocontrol) is practised on 10-50% of the acreage, and is available to control the pest. Details are available in the excel file, Appendix C.

### 3.1.36. Cucurbitaceae – aphididae

Table 37 summarises the outcome for 'cucurbitaceae and aphididae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. For further details on the evaluation, see Appendix C.

**Table 37:** Outcome of the evaluation 'cucurbitaceae and aphididae' in 7 Member States.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Cucumber, zucchini and pumpkin/aphid (open field) UG | DE | n.a [(b)] | No |
| Cucumber, zucchini and pumpkin/aphid (open field) FX | DE | n.a [(b)] | No |
| Cucumber, melon and watermelon/aphid (open field) | EL | n.a [(b)] | No |
| Zucchini/aphid (open field) | EL | n.a [(b)] | No |
| | AT | n.a [(b)] | No |
| Zucchini/aphid (protected use) | AT | n.a [(b)] | No |
| | ES | n.a [(b)] | No |
| Cucurbits/aphid (protected use) | EL | n.a [(b)] | No |
| Cucumber/aphid (protected use) | AT | n.a [(b)] | No |
| | ES | n.a [(b)] | No |
| | FI | n.a [(b)] | No |
| | LT | n.a [(b)] | No |
| | SK | 2.00 | Yes |
| Pumpkin (garden) /aphid | AT | 0.80 | Maybe |
| Pumpkin hybrids/aphid | AT | n.a [(b)] | No |
| Button squash/aphid | AT | 1.33 | Yes |
| Pumpkin (garden) /aphid (protected use) | AT | 2.00 | Yes |
| Pumpkin hybrids/aphid (protected use) | AT | n.a [(c)] | Yes |
| Button squash/aphid (protected use) | AT | n.a [(c)] | Yes |
| Cucurbita pepo/aphid (protected use) | FI | n.a [(b)] | No |
| | ES | n.a [(b] | No |
| | LT | n.a [(b] | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix A. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported.
(c): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusions that the derogation is scientifically supported.

### 3.1.37. Cucurbitaceae – thrips

Table 38 summarises the outcome for 'cucurbitaceae and thrips', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 38:** Outcome of the evaluation 'cucurbitaceae and thrips' in the United Kingdom.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Cucumber, zucchini, summer squash, melon/thrips (protected use) | UK | 1.71 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.38. Fabaceae – aphididae

Table 39 summarises the outcome for 'fabaceae and aphididae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 39:** Outcome of the evaluation 'fabaceae and aphididae' in 7 Member State.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Field pea/aphid | AT | 2.00 | Yes |
| | LV | 4.00 | Yes |
| Field pea/aphid (open field + protected use) | BE | 0.67/1.00 | No/Maybe |
| Field pea/aphid (acyrthosiphon pisum) | SK | 1.00 | Maybe |
| Climbing French bean/aphid (open field) | DE | n.a. [(b)] | No |
| | AT | 4.00 | Yes |
| Climbing French bean/aphid (protected use) | DE | 6.00 | Yes |
| | AT | 4.00 | Yes |
| Dwarf French bean/aphid (open field) | DE | n.a. [(b)] | No |
| | AT | 4.00 | Yes |
| Field bean/ aphid (open field) | AT | 2.00 | Yes |
| | LV | 4.00 | Yes |
| | UK | 2.00 | Yes |

| | | | |
|---|---|---|---|
| Field bean/aphid (open field + protected use) | BE | 0.67/1.00 | No/Maybe |
| Alfalfa/aphid | EL | n.a [b] | No |
| Vining/combining peas | UK | 2.00 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix A. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusion that the derogation is not scientifically supported.

### 3.1.39. Fabaceae – apionidae

Table 40 summarises the outcome for 'fabaceae and apionidae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 40:** Outcome of the evaluation 'fabaceae and apionidae' in Denmark.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| White clover seeds/apion apricans | DK | 2.00 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.40. Fabaceae – beetles

Table 41 summarises the outcome for 'fabaceae and beetles', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 41:** Outcome of the evaluation 'fabaceae and beetles' in Greece.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Alfalfa/beetles | EL | n.a [b] | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported.

### 3.1.41. Fabaceae – chrysomelidae

Table 42 summarises the outcome for 'fabaceae and chrysomelidae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 42:** Outcome of the evaluation 'fabaceae and chrysomelidae' in 4 Member States.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Pea/bruchus pisorum | LV | 2.0 | Yes |
| | PL | 4.00 | Yes |
| Bean/bruchus rufimanus | LV | 2.00 | Yes |
| Broad bean/ bruchus rufimanus | SE | n.a. [(b)] | Yes |
| Field bean/ bruchus rufimanus | UK | n.a. [(b)] | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusions that the derogation is scientifically supported.

### 3.1.42. Fabaceae – curculionidae

Table 43 summarises the outcome for 'fabaceae and curculionidae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 43:** Outcome of the evaluation 'fabaceae and curculionidae' in Latvia.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Pea/sitona lineatus | LV | 2.00 | Yes |
| Bean/sitona lineatus | LV | 2.00 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.43. Fabaceae – lepidoptera

Table 44 summarises the outcome for 'fabaceae and lepidoptera', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 44:** Outcome of the evaluation 'fabaceae and lepidoptera' in Greece.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Alfalfa/lepidoptera | EL | 2.0 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.44. Fresh herbs – sucking insects

Table 45 summarises the outcome for 'fresh herbs and sucking insects', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 45:** Outcome of the evaluation 'fresh herbs and sucking insects' in 2 Member States.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Fresh herbs/sucking insects (open field) | DE | 0.86[d] | Maybe |
| | AT | n.a [b] | No |
| Mint species/sucking insects | AT | n.a [c] | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix C. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported.

(c): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusions that the derogation is scientifically supported.

(d): One highly effective physical control method (nets) is available to control the pest, application for large-scale fields seems to be a limitation. Details are available in the excel file, Appendix C.

### 3.1.45. Fruiting vegetables – aphididae

Table 46 summarises the outcome for 'fruiting vegetables and aphididae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 46:** Outcome of the evaluation for 'fruiting vegetables and aphididae sp.' in 2 Member States.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Fruiting vegetables/aphididae (open field + protected use) | BE | n.a [b] | No |
| Vegetables (open field) /aphids | DK | 1.0 | Maybe |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix C. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.
(b): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same main MoA group as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported.

### 3.1.46. Fruiting vegetables – miridae

Table 47 summarises the outcome for 'fruiting vegetables and miridae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 47:** Outcome of the evaluation for 'fruiting vegetables and miridae' in Belgium.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Fruiting vegetables/miridae (open field + protected use) | BE | n.a [(b)] | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.
(b): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusions that the derogation is scientifically supported.

### 3.1.47. Fruiting vegetables – whitefly

Table 48 summarises the outcome for 'fruiting vegetables and whitefly', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 48:** Outcome of the evaluation for 'fruiting vegetables and whitefly' in Belgium.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Fruiting vegetables/whitefly (open field + protected use) | BE | n.a [(b)] | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.
(b): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same main MoA group as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported.

### 3.1.48. Herb, infusion and spice crops – aphididae

Table 49 summarises the outcome for 'herb, infusion and spice crops and aphididae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 49:** Outcome of the evaluation 'herb, infusion and spice crops and aphididae' in Belgium.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Herb, infusion and spice crops/aphididae (open field + protected use) | BE | n.a [(b)] | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported.

### 3.1.49. Herb, infusion and spice crops – chrysomelidae

Table 50 summarises the outcome for 'herb, infusion and spice crops and chrysomelidae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 50:** Outcome of the evaluation 'herb, infusion and spice crops and chrysomelidae' in Belgium.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Herb, infusion and spice crops/chrysomelidae (open field + protected use) | BE | 2.00 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.50. Herb, infusion and spice crops – weevils

Table 51 summarises the outcome for 'herb, infusion and spice crops and weevils', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 51:** Outcome of the evaluation 'herb, infusion and spice crops and weevils' in Belgium.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Herb, infusion and spice crops/weevils (open field + protected use) | BE | 2.00 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and

feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.51. Herbs – aphididae

Table 52 summarises the outcome for 'herbs and aphididae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 52:** Outcome of the evaluation 'herbs and aphididae' in 2 Member States.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Herbs (open field and protected use)/aphid | LT[(c)] | 3.00 | Yes |
| | UK | n.a. [(b)] | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported.

(c): LT provided listed the following herbs: anthriscus cerefolium, Allium schoenoprasum, Apium graveolens var. Secalinum, Foeniculum vulgare leaves, Coriandrum sativum leaves, Anethum graveolens leaves, Carum carvi leaves, Levisticum officinale leaves, Angelica archangelica, Myrrhis odorata and other Apiaceae herbs, Petroselinum crispum, Salvia officinalis, Rosmarinus officinales, Thymus vulgaris, Origanum majorana, Origanum vulgare, Ocimum basilicum, Melissa officinales, Mentha, Mentha x piperita, Laurus nobilis, Artemisia dracunculus and Hyssopus officinali.

### 3.1.52. Leafy vegetables – aphididae

Table 53 summarises the outcome for 'leafy vegetables and aphididae sp.', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 53:** Outcome of the evaluation for 'leafy vegetables and aphididae ' in 2 Member States.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| leafy vegetables/ (open field and protected use)/aphids | BE | n.a [(b)] | No |
| leafy vegetable lettuce (open field and protected use)/aphids | UK | n.a [(b)] | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported.

### 3.1.53. Malvaceae – aleyrodidae

Table 54 summarises the outcome for 'malvaceae and aleyrodidae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 54:** Outcome of the evaluation 'asteraceae and aleyrodidae' in Greece.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Cotton/aleyrodidae | EL | n.a. [b] | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and < 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.
(b): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A).
(c):

### 3.1.54. Malvaceae – aphididae

Table 55 summarises the outcome for 'malvaceae and aphididae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 55:** Outcome of the evaluation 'malvaceae and aphididae' for 1 crop (group)/pest combination in Greece.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Cotton/aphid | EL | n.a. [b] | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and < 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.
(b): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported.

### 3.1.55. Malvaceae – lepidoptera (other than spodoptera sp.)

Table 56 summarises the outcome for 'malvaceae and lepidoptera (other than spodoptera sp.)', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 56:** Outcome of the evaluation 'asteraceae and lepidoptera (other than spodoptera sp.)' in Greece.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Cotton/lepidoptera (other than spodoptera sp.) | EL | 0.38 | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and < 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.56. Malvaceae – spodoptera

Table 57 summarises the outcome for 'malvaceae and spodoptera', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 57:** Outcome of the evaluation 'asteraceae and spodoptera' Greece.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Cotton/spodoptera | EL | 1.14 | Maybe |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and < 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix C. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.57. Oleaceae – bactrocera oleae

Table 58 summarises the outcome for 'oleaceae and bactrocera oleae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 58:** Outcome of the evaluation 'oleaceae and bactrocera oleae' in Greece.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Olive/bactrocera oleae | EL | 0.44[b] | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions (MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): One highly effective biological control method (Conservation biocontrol meaning the implementation of practices to enhance populations of natural enemies of B. oleae) practised on 10-50% of the acreage is available to control the pest. Details are available in the excel file, Appendix C.

### 3.1.58. Oleaceae – prays oleae

Table 59 summarises the outcome for 'oleaceae and prays oleae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 59:** Outcome of the evaluation 'oleaceae and prays oleae' in Greece.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Olive/prays oleae | EL | n.a. [(b)] | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions (MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A).

### 3.1.59. Ornamentals – aleyrodidae

Table 60 summarises the outcome for 'ornamentals and aleyrodidae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 60:** Outcome of the evaluation 'ornamentals and aleyrodidae' in 6 Member States.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Ornamentals/aleyrodidae (whitefly) (protected use) | DK | n.a. [(b)] | No |
| | EL | n.a. [(b)] | No |
| | DE | n.a. [(b)] | No |
| | ES | n.a. [(b)] | No |
| | LT | n.a. [(b)] | No |
| Ornamentals/aleyrodidae (open field) | DK | n.a. [(b)] | No |
| Ornamentals (except gerbera)/aleyrodidae (whitefly) (open field and protected use) | BE | n.a [(b)(c)] | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported.

(c): One highly effective biological control method (Inundative biocontrol, parasitoids of whiteflies such as Encarsia formosa, Eretmocerus sp.) is available and practised on 10-50% of the acreage to control the pest. Details are available in the excel file, Appendix C.

### 3.1.60. Ornamentals – aphididae

Table 61 summarises the outcome for 'ornamentals and aphididae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is

scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 61:** Outcome of the evaluation 'ornamentals and aphididae' in 9 Member States.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Ornamentals/aphid (open field) | AT | n.a.[b], [d] | No |
| | DE | n.a. [b] | No |
| | DK | n.a. [b] | No |
| Ornamentals/aphid (protected use) | DE | n.a. [b] | No |
| | DK | n.a. [b] | No |
| | ES | n.a. [b] | No |
| | LT | n.a. [b] | No |
| Ornamentals/aphid (open field + protected use) | BG | n.a. [b], [c] | No |
| | BE | n.a. [b] | No |
| Ornamentals(rose)/aphid (open field + protected use) | EL | n.a. [b] | No |
| | PL | n.a.[b] | No |
| Ornamentals(except rose)/aphid (open field + protected use) | EL | n.a. [b] | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusion that the derogation is not scientifically supported.

(c): If the assessment takes into account not only Macrosiphum rosae and Myzus persicae but a wider range of aphids the score is 2.00 leading to the result that derogation is scientifically supported.

(d): This crop-pest refers to aphids and Scale sp.

### 3.1.61. Ornamentals – bradysia sp.

Table 62 summarises the outcome for 'ornamentals and bradysia sp.', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 62:** Outcome of the evaluation 'ornamentals and bradysia sp.' in the United Kingdom.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Ornamentals/bradysia sp. (open field) | UK | 1.00 | Maybe |
| Ornamentals/bradysia sp. (protected use) | UK | 1.00 | Maybe |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix A. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.62. Ornamentals – bug

Table 63 summarises the outcome for 'ornamentals and bug', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 63:** Outcome of the evaluation 'ornamentals and bug' in Finland.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Ornamentals/Dolycoris baccarum | FI | 2.00 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.63. Ornamentals – curculionidae

Table 64 summarises the outcome for 'ornamentals and curculionidae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 64:** Outcome of the evaluation 'ornamentals and curculionidae' in 3 Member States.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Ornamentals/curculionidae sp. (protected use) | DE | n.a.[(d),(e)] | No |
| Ornamentals/curculionidae (open field and protected use) | DK | n.a.[(b)] | Yes |
| Christmas tree[(c)] | DK | 4.00 | Yes |
| Ornamentals/otiorynchus sp. (open field) | UK | 1.00 | Maybe |
| Ornamentals/otiorynchus sp. (protected use) | UK | n.a.[(d)] | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix A. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017

(b): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusion that the derogation is scientifically supported.

(c): Belongs to pinaceae

(d): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported.

(e): One highly effective biological control methods (inundative biocontrol) is available to control the pest. Details are available in the excel file, Appendix C.

### 3.1.64. Ornamentals – fungus gnat

Table 65 summarises the outcome for 'ornamentals and fungus gnat', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is

scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 65:** Outcome of the evaluation 'ornamentals and fungus gnat' in Gemrany.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Ornamentals/fungus gnat | DE | 1.0[(b)] | Maybe |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix A. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): One highly effective biological control method (enthomopathogenic nematodes) is available to control the pest. Details are available in the excel file, Appendix C.

### 3.1.65. Ornamentals -– leafhoppers

Table 66 summarises the outcome for 'ornamentals and leafhoppers', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 66:** Outcome of the evaluation 'ornamentals and leafhoppers' in Belgium.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Ornamentals/leafhoppers (open field and protected use) | BE | 1.60/2.40 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.66. Ornamentals – lepidoptera

Table 67 summarises the outcome for 'ornamentals and lepidoptera', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 67:** Outcome of the evaluation 'ornamentals and lepidoptera' in Denmark.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Ornamentals/lepidoptera (protected use and open field) | DK | 1.33 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and

feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.67. Ornamentals – lyriomyza sp.

Table 68 summarises the outcome for 'ornamentals and lyriomyza sp.', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 68:** Outcome of the evaluation 'ornamentals and lyriomyza sp.' in the United Kingdom.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Ornamentals/lyriomyza sp. (open field) | UK | 0.80 | Maybe |
| Ornamentals/lyriomyza sp. (protected use) | UK | 0.80 | Maybe |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix A. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.68. Ornamentals – meligethes

Table 69 summarises the outcome for 'ornamentals and meligethes', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 69:** Outcome of the evaluation 'ornamentals and meligethes' in Denmark.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Ornamentals/meligethes (open field and protected use) | DK | n.a.[(b)] | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the concluions that the derogation is scientifically supported.

### 3.1.69. Ornamentals – miridae

Table 70 summarises the outcome for 'ornamentals and miridae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 70:** Outcome of the evaluation 'ornamentals and miridae' in Belgium.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Ornamentals/miridae | BE | 0.67 | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.70. Ornamentals – scales

Table 71 summarises the outcome for 'ornamentals and scales', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 71:** Outcome of the evaluation 'ornamentals and scales' in 3 Member States.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Ornamentals/scales (open field) | AT | n.a [b] | No |
| | BE | 0.44 [b] | No |
| | DE | n.a. [b] | No |
| Ornamentals/scales (protected use) | BE | n.a. [b], [c] | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported.

(c): One highly effective biological control method (predators (ie., ladybird beetles, green lacewings; and parasitoids ie., tiny wasps) is available and practised on 10-50% of the acreage, to control the pest. Details are available in the excel file, Appendix C.

### 3.1.71. Ornamentals – spider mites

Table 72 summarises the outcome for 'ornamentals and spider mites', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 72:** Outcome of the evaluation 'ornamentals and spider mites' in Germany.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Ornamentals/spider mites (protected use) | DE | n.a.[b], [c] | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported.
(c): One highly effective biological control method (predatory mites) is available to control the pest. Details are available in the excel file, Appendix C.

### 3.1.72. Ornamentals – tenthredinidae

Table 73 summarises the outcome for 'ornamentals and tenthredinidae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide and indicates if a derogation of the a.s. under consideration is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 73:** Outcome of the evaluation 'ornamentals and tenthredinidae' in Belgium.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Ornamentals/tenthredinidae | BE | n.a [(b)] | Yes |

(d): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.
(e): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusions that the derogation is scientifically supported.

### 3.1.73. Ornamentals – thrips

Table 74 summarises the outcome for 'ornamentals and thrips', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 74:** Outcome of the evaluation 'ornamentals and thrips' in the United Kingdom.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Ornamentals/thrips (open field) | UK | 1.09 | Maybe |
| Ornamentals/thrips (protected use) | UK | n.a.[(b)] | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix A. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.
(b): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported.

### 3.1.74. Ornamentals – weevils

Table 75 summarises the outcome for 'ornamentals and weevils', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table75:** Outcome of the evaluation 'ornamentals and weevils' in Belgium.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Ornamentals/anthonomus sp. – blossom weevils | BE | n.a [(b)] | Yes |
| Ornamentals/other weevils | BE | 0.50 | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusions that the derogation is scientifically supported.

### 3.1.75. Papaveraceae - ceutorhynchus sp.

Table 76 summarises the outcome for 'papaveraceae and ceutorhynchus sp.', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. For further details on the evaluation, see Appendix C.

**Table 76:** Outcome of the evaluation "papaveraceae and ceutorhynchus sp.' in 2 Member States.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Poppy/ceutorhynchus sp. (ceutorhynchus maculaalba) | AT | 2.00 | Yes |
| Poppy/ceutorhynchus sp. | SK | 1.00 | Maybe |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix A. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.76. Poaceae – agriotes

Table 77 summarises the outcome for 'poaceae and agriotes', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 77:** Outcome of the evaluation 'poaceae and agriotes' in 6 Member States.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Maize/agriotes sp. | AT | 1.00 | Maybe |
| | HU | 1.00 | Maybe |
| | EL | 1.00 | Maybe |
| | ES | 1.00 | Maybe |
| | RO | 2.00 | Yes |
| | UK | n.a. [(b)] | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and < 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix C. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a. = not applicable, no score could be calculated as there are no alternative a.s. available. This leads to the conclusion that the derogation is scientifically supported.

### 3.1.77. Poaceae – agromyza nigrella

Table 78 summarises the outcome for 'poaceae and agromyza nigrella', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 78:** Outcome of the evaluation 'poaceae and agromyza nigrella' in Bulgaria

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Wheat, oat, triticale/agromyza nigrella | BG | 2.0 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and < 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.78. Poaceae – aphididae

Tables 79, 87 and 88 summarise the outcome for 'poaceae and aphididae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 79:** Outcome of the evaluation 'poaceae and aphididae' in 6 Member States.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Barley (spring)/aphid | HU | 2.00 | Yes |
| | LT | 4.0 | Yes |
| Barley (winter)/aphid | LT | 4.00 | Yes |
| Barley/aphid | HU | 2.00 | Yes |
| | DE | 0.1.33 | Yes |
| | LV | 4.00 | Yes |
| Maize/aphid | LV | n.a [b] | Yes |
| Oat/aphid | DE | 1.33 | Yes |
| | HU | 2.00 | Yes |
| | LT | 4.00 | Yes |
| | LV | 4.00 | Yes |
| Rye (spring)/aphid | HU | 2.00 | Yes |
| | LT | 4.00 | Yes |
| Rye/aphid | DE | 1.33 | Yes |
| | HU | 2.00 | Yes |
| | LV | 4.00 | Yes |
| Rye (winter)/aphid | LT | 4.00 | Yes |
| Triticale/aphid | DE | 1,33 | Yes |
| | LT | 4.00 | Yes |
| | LV | 4.00 | Yes |
| | HU | 1.00 | Maybe |
| Triticale (spring)/aphid | LT | 4.00 | Yes |
| Wheat (spring) /aphid | DE | 1.33 | Yes |
| | HU | 2.00 | Yes |
| | LT | 4.00 | Yes |
| | LV | 4.00 | Yes |
| Wheat (winter) /aphid | AT | 1.00 | Maybe |
| | DE | 0.80 | Maybe |
| | LT | 4.0 | Yes |
| | LV | 4.00 | Yes |
| | HU | 1.00 | Maybe |
| | SK | 1.33 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix C. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusions that the derogation is scientifically supported.

### 3.1.79. Poaceae – chrysomelidae

Table 80 summarises the outcome for 'poaceae and chrysomelidae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 80:** Outcome of the evaluation 'poaceae and chrysomelidae' in 10 Member States.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Barley (spring)/chrysomelidae (Oulema sp.) | LT | 4.00 | Yes |
| Barley (winter)/chrysomelidae (Oulema sp.) | HU | 2.00 | Yes |
| | DE | 2.00 | Yes |
| | RO | 2.00 | Yes |
| | HU | 2.00 | Yes |
| Barley/Oulema sp. | LV | 4.00 | Yes |
| | | | |
| Oat (Spring)/chrysomelidae (Oulema sp.) | HU | 4.00 | Yes |
| Oat (winter)/chrysomelidae (Oulema sp.) | HU | 4.00 | Yes |
| | DE | 2.00 | Yes |
| | RO | 2.00 | Yes |
| | LV | 4.00 | Yes |
| Oat/Oulema sp. | BG | n.a. [b] | No |
| Rye (spring)/chrysomelidae (Oulema sp.) | HU | 2.00 | Yes |
| Rye (winter)/chrysomelidae (Oulema sp.) | HU | 2.00 | Yes |
| | DE | 2.00 | Yes |
| Rye/Oulema sp. | LV | 4.00 | Yes |
| Wheat (spring) /chrysomelidae (Oulema sp.) | HU | 2.00 | Yes |
| | DE | 2.00 | Yes |
| | LV | 4.00 | Yes |
| | LT | 4.00 | Yes |
| Wheat (spring) / Oulema sp. | SK | 1.00 | Maybe |
| | DE | 2.00 | Yes |
| | SK | 1.00 | Maybe |
| | LT | 4.00 | Yes |
| Wheat (winter) / Oulema sp. | LV | 4.00 | Yes |

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Wheat (winter) /chrysomelidae (Oulema sp.) | HU | 2.00 | Yes |
| Wheat/(Oulema sp.) | AT | 2.00 | Yes |
| | RO | 2.00 | Yes |
| Triticale (winter)/ Oulema sp. | LT | 4.00 | Yes |
| Triticale (spring)/ Oulema sp. | HU | 2.00 | Yes |
| | HU | 2.00 | Yes |
| | LV | 4.00 | Yes |
| | BG | n.a. [b] | No |
| Triticale (winter)/ Oulema sp. | DE | 2.00 | Yes |
| Oat, rye, spring triticale, spring wheat and winter barley/Oulema melanopus | LT | 4.00 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix C. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported.

### 3.1.80. Poaceae – cicadella sp.

Table 81 summarises the outcome for 'poaceae and cicadella sp.', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 81:** Outcome of the evaluation 'poaceae and cicadella sp.' in Slovakia.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Wheat/cicadella sp. | SK | n.a [b] | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and < 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a. = not applicable, no score could be calculated as there are no alternative a.s. available. This leads to the conclusion that the derogation is scientifically supported.

### 3.1.81. Poaceae – diabrotica virgifera

Table 82 summarises the outcome for 'poaceae and diabrotica virgifera', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 82:** Outcome of the evaluation 'poaceae and diabrotica virgifera' in 4 Member States.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Maize/diabrotica virgifera (soil treatement) | BG | 2.00 | Yes |
| Maize/diabrotica virgifera (foliar treatement) | AT | n.a [(b)] | No |
| | PL | 2.67 | Yes |
| Sweet maize/diabrotica virgifera (foliar treatement) | HU | 1.14 | Maybe |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and < 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported.

### 3.1.82. Poaceae – geomyza tripunctata

Table 83 summarises the outcome for 'poaceae and geomyza tripunctata', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 83:** Outcome of the evaluation 'poaceae and geomyza tripunctata' in 2 Member States.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Maize/geomyza tripunctata (soil treatement) | BG | n.a. [(b)] | Yes |
| | SK | n.a. [(b)] | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and < 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a. = not applicable, no score could be calculated as there are no alternative a.s. available. This leads to the conclusion that the derogation is scientifically supported.

### 3.1.83. Poaceae – oscinella frit

Table 84 summarises the outcome for 'poaceae and oscinella frit', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 84:** Outcome of the evaluation 'poaceae and oscinella frit' in 3 Member States.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Maize/oscinella frit (soil treatement) | BG | n.a. [(b)] | Yes |
| | ES | 1.00 | Maybe |
| Maize/oscinella frit (foliar treatement) | PL | n.a. [(b)] | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and < 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix C. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.
(b): n.a. = not applicable, no score could be calculated as there are no alternative a.s. available. This leads to the conclusion that the derogation is scientifically supported.

### 3.1.84. Poaceae – ostrinia nubilalis

Table 85 summarises the outcome for 'poaceae and ostrinia nubilalis', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 85:** Outcome of the evaluation 'poaceae and ostrinia nubilalis' in 3 Member States.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Maize/ostrinia nubilalis (foliar treatement) | LV | n.a. [b] | Yes |
| | LT | 4.00 | Yes |
| | PL | 1.00 | Maybe |

(a) z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and < 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix C. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome maybe into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.
(b) n.a. = not applicable, no score could be calculated as there are no alternative a.s. available. This leads to the conclusion that the derogation is scientifically supported.

### 3.1.85. Poaceae – phyllotreta

Table 86 summarises the outcome for 'poaceae and phyllotreta', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 86:** Outcome of the evaluation 'poaceae and phyllotreta' in 2 Member States.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Barley (spring)/phyllotreta sp. | LV | 4.0 | Yes |
| | LT | 4.0 | Yes |
| Oat, rye, triticale, spring wheat, winter wheat/phyllotreta sp. | LV | 4.0 | Yes |
| Oat, rye, triticale, spring wheat, winter wheat, winter barley/phyllotreta sp. | LT | n.a. [b] | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and < 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.
(b): n.a. = not applicable, no score could be calculated as there are no alternative a.s. available. This leads to the conclusion that the derogation is scientifically supported.

### 3.1.86. Poaceae – rhopalosiphum padi

Table 87 summarises the outcome for 'poaceae and rhopalosiphum padi', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 87:** Outcome of the evaluation 'poaceae and rhopalosiphum padi' in Denmark.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Winter barley/rhopalosiphum padi | DK | 4.00 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and < 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.87. Poaceae – sitobion avenae

Table 88 summarises the outcome for 'poaceae and sitobion avenae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 88:** Outcome of the evaluation 'poaceae and sitobion avenae' in Denmark.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Winter barley/sitobion avenae | DK | 6.00 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and < 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.88. Poaceae – sitodiplosis mosellana

Table 89 summarises the outcome for 'poaceae and sitodiplosis mosellana', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 89:** Outcome of the evaluation 'poaceae and sitodiplosis mosellana' in the United Kingdom.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically |
|---|---|---|---|

| | | | supported |
|---|---|---|---|
| Wheat/sitodiplosis mosellana | UK | 2.0 | Yes |

(a): Stz/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and < 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.89. Poaceae – thrips

Table 90 summarises the outcome for 'poaceae and thrips', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 90:** Outcome of the evaluation 'poaceae and thrips' in 2 Member States.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Barley/thrips | LV | 4.0 | Yes |
| Oat/thrips | LV | 4.0 | Yes |
| Rye, triticale, spring wheat, winter wheat/thrips | LV | 4.0 | Yes |
| Spring barley, winter triticale, winter wheat/thrips | LT | 4.0 | Yes |
| Winter rye/thrips | LT | 4.0 | Yes |
| Oat, winter barley, spring triticale, spring rye, spring wheat/thrips | LT | 4.0 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and < 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.90. Polygonaceae – chrysomelidae

Table 91 summarises the outcome for 'polygonaceae and chrysomelidae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 91:** Outcome of the evaluation 'polygonaceae and chrysomelidae' in Belgium.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Rhuburb/chrysomelidae | BE | 2.00 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.91. Root, tuber and stem vegetables – aphididae

Table 92 summarises the outcome for 'root and stem vegetables and aphididae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 92:** Outcome of the evaluation for 'root and stem vegetables and aphididae' in 3 Member States.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Root brassicas, red beet, vegetables, umbelliferous crops and other root and stem vegetables/aphid | BE | n.a [(c)] | No |
| Root and tuber vegetables/aphid (open field) | DE | n.a [(b)] | Yes |
| | AT | n.a [(b)] | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.
(b): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusions that the derogation is scientifically supported.
(c): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported.

### 3.1.92. Rosaceae – aleyrodidae

Table 93 summarises the outcome for 'rosaceae and aleyrodidae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 93:** Outcome of the evaluation 'rosaceae and aleyrodidae' (open field and protected use) in 2 Member States.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Strawberry/aleyrodidae (whitefly) (open field) | BE | 1.33 | Yes |
| | BG | 1.33 | Yes |
| Strawberry/ aleyrodidae (whitefly) (protected use) | BE | 0.86 | Maybe |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix C. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.93. Rosaceae – amphorophora idaei

Table 94 summarises the outcome for 'rosaceae and amphorophora idaei', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance

management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 94:** Outcome of the evaluation 'rosaceae and amphorophora idaei' in Latvia.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Raspberry/amphorophora idaei (open field) | LV | 2.0 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.94. Rosaceae – anthonomus sp.

Table 95 summarises the outcome for 'rosaceae and anthonomus sp.', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. For further details on the evaluation, see Appendix C.

**Table 95:** Outcome of the evaluation 'rosaceae and anthonomus sp.' (open field and protected use) in 10 Member States.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Pome fruits/anthonomus pomorum | AT | 1.33 | Yes |
| Apricot/anthonomus sp. | AT | n.a.[b] | Yes |
| Strawberry/anthonomus rubi (open field) | AT | 2.67 | Yes |
| | BE | n.a [b] | Yes |
| | DE | 4.00 | Yes |
| | DK | 4.00 | Yes |
| | LV | 4.0 | Yes |
| | FI | n.a.[b] | Yes |
| | SE | 4.00 | Yes |
| Strawberry/anthonomus rubi (protected use) | AT | 4.00 | Yes |
| | BE | 6.00 | Yes |
| | DK | n.a.[b] | Yes |
| | FI | n.a. [b] | Yes |
| Apple/anthonomus pomorum | BE | n.a.[b] | Yes |
| | RO | n.a.[b] | Yes |
| | PL | 4.00 | Yes |
| Blackberry, raspberry/anthonomus sp. (open field) | BE | 4.00 | Yes |
| Raspberry/anthonomus rubi (open field) | BG | n.a [b] | Yes |
| | FI | 4.00 | Yes |
| Raspberry/anthonomus rubi (open field and protected use) | SE | n.a [b] | Yes |
| Blackberry, raspberry/anthonomus rubi (open field) | DK | 4.00 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and

feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusion that the derogation is scientifically supported.

### 3.1.95. Rosaceae – aphididae

Table 96 summarises the outcome for 'rosaceae and aphididae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 96:** Outcome of the evaluation 'rosaceae and aphididae' (open field and protected use) in 13 Member States.

| Crop(group)/pest[6] | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Apple/aphid | | | |
| | BE | n.a.[(b)] | No |
| | | | |
| | | | |
| | FI | n.a.[(b | No |
| | SK | n.a.[(b)] | No |
| | SE | n.a.[(b)] | No |
| Apricot, nectarine/aphid | BG | 2.00 | Yes |
| Apricot, peach/aphid | DE | n.a.[(b)] | No |
| | AT | n.a.[(b)] | No |
| Sorbaronia mitschurinii/aphid | FI | n.a.[(c)] | Yes |
| Blackberry/aphid (open field) | PL | n.a.[(c)] | Yes |
| | DE | 4.00 | Yes |
| Blackberry, raspberry/aphid (open field) | AT | 1.00 | Maybe |
| | BE | 0.67 | No |
| | DE | 4.00 | Yes |
| | DK | n.a.[(c)] | Yes |
| Blueberry, cranberry, elderberry/aphid (open field) | DE | n.a.[(b)] | No |
| Blueberry, blackberry/aphid (open field) | FI | n.a.[(c)] | Yes |
| Blueberry/aphid (protected use) | PL | n.a.[(b)] | No |
| | SE | n.a.[(c)] | Yes |
| Bilberry/aphid (open field) | EL | 1.50 | Yes |
| Cherry[(d)]/aphid | AT | n.a.[(b)] | No |
| | BE | 1.00 | Maybe |
| | BG | 2.00 | Yes |
| | DE | 4.00 | Yes |
| | EL | n.a.[(b)] | No |

[6] This comprises aphis, aphis sp., aphis and aphididae

| Crop(group)/pest[6] | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| | FI | 2.00 | Yes |
| | PL | n.a.[b] | No |
| | UK | n.a.[b] | No |
| | SE | n.a.[b] | No |
| Chokeberry/aphid (open field) | PL | n.a.[c] | Yes |
| Cranberry/aphid (open field) | PL | n.a.[c] | Yes |
| Currants/aphid (open field) | BE | n.a.[b] | No |
| Currant (black)/aphid (open field) | BG | n.a.[c] | Yes |
| Currants (red+black), blueberry, gooseberry/aphid (open field) | DK | 6.00 | Yes |
| Currants (all), gooseberry/aphid (open field) | DE | n.a.[b] | No |
| Elderberry/aphid (open field) | AT | n.a.[b] | No |
| Gooseberry, currants/aphid (open field and protected use) | FI | 4.00 | Yes |
| | SE | 4.00 | Yes |
| Pear/aphid | BE | n.a.[b] | No |
| | | | |
| | FI | n.a.[b] | No |
| | SK | 0.67 | No |
| | SE | n.a.[b] | No |
| Plum/aphid | AT | n.a.[b] | No |
| | BE | n.a.[b] | No |
| | DE | n.a.[b] | No |
| | EL | n.a.[b] | No |
| | FI | 2.00 | Yes |
| | SK | 4.00 | Yes |
| | SE | 4.00 | Yes |
| Pome fruit | AT | n.a.[b] | No |
| | DE | n.a.[b] | No |
| | EL | n.a.[b] | No |
| Raspberry/aphid (open field) | BG | 4.00 | Yes |
| | DE | 4.00 | Yes |
| | EL | n.a.[b] | No |
| | FI | n.a [c] | Yes |
| | LV | 4.0 | Yes |
| | SK | n.a [c] | Yes |
| | SE | n.a [c] | Yes |
| Raspberry/aphid (protected use) | DE | 6.00 | Yes |
| | SE | n.a [c] | Yes |
| | AT | n.a [c] | Yes |
| Rubus sp./aphid (open field) | EL | n.a.[b] | No |
| Strawberry/aphid (open field) | AT | 0.80 | Maybe |
| | BE | 0.67 | No |
| | BG | 2.00 | Yes |
| | DE | 2.00 | Yes |

| Crop(group)/pest[6] | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| | DK | n.a [(c)] | Yes |
| | FI | n.a [(c)] | Yes |
| | LV | 4.0 | Yes |
| | SK | 1.00 | Maybe |
| | SE | 4.00 | Yes |
| Strawberry/aphid (protected use) | AT | 1.20 | Maybe |
| | BE | 0.75 [(e)] | Maybe |
| | DE | 3.00 | Yes |
| | DK | n.a [(c)] | Yes |
| | ES | n.a.[(b)] | No |
| | FI | n.a [(c)] | Yes |
| | LT | n.a.[(b)] | No |
| | LV | 6.00 | Yes |
| | SE | 4.00 | Yes |
| Stone fruits/aphid | EL | n.a.[(b)] | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix C. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no';<0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA 2017 b.

(b): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusion that the derogation is not scientifically supported.

(c): n.a. = not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusion that the derogation is scientifically supported.

(d): Sour and sweet cherry in Hungary

(e): BE stated that there is one highly effective non-insecticide method available (nets, agrotextiles, traps), which is practiced up-to 10% of acreage. Based on this information BE might alter the outcome "maybe" to "no".

### 3.1.96. Rosaceae – bembecia hylaeiformis

Table 97 summarises the outcome for 'rosaceae and bembecia hylaeiformis', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 97:** Outcome of the evaluation 'rosaceae and bembecia hylaeiformis' in Poland.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Blackberry/bembecia hylaeiformis (open field) | PL | n.a. [(b)] | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): No score could be calculated as there are no alternative a.s. available. This leads to the conclusion that the derogation is scientifically supported.

### 3.1.97. Rosaceae – biting/sucking insects

Table 98 summarises the outcome for 'rosaceae and biting/sucking insects', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. For further details on the evaluation, see Appendix C.

**Table 98:** Outcome of the evaluation 'rosaceae and biting/sucking insects' in 2 Member States.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Currants (all)/biting insects (Protected use) | AT | n.a. [b] | Yes |
| Currants (all)/sucking insects (Protected use) | AT | n.a. [b] | Yes |
| Blueberry, cranberry, elderberry, currants, gooseberry/sucking insects (protected use) | DE | n.a. [b] | Yes |
| Blueberry, elderberry, currants, gooseberry/biting insects (protected use) | DE | n.a. [b] | Yes |
| Cranberry/biting insects (protected use) | DE | n.a. [b] | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusions that the derogation is scientifically supported.

### 3.1.98. Rosaceae – byturus sp.

Table 99 summarises the outcome for 'rosaceae and byturus sp.', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. For further details on the evaluation, see Appendix C.

**Table 99:** Outcome of the evaluation 'rosaceae and byturus sp.' (open field and protected use) in 4 Member States.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Blackberry, raspberry/byturus sp. (open field) | AT | n.a [b] | Yes |
| Raspberry/byturus sp. (protected use) | AT | n.a [b] | Yes |
| Blackberry, raspberry/byturus tomentosus (open field) | DK | n.a [b] | Yes |
| Raspberry/byturus tomentosus (open field) | FI | n.a.[b] | Yes |
| Raspberry/byturus tomentosus (open field and protected use) | SE | n.a [b] | Yes |
| Blackberry and blueberry/byturus tomentosus (open field) | FI | n.a [b] | Yes |
| Blueberry, blackberry/byturus tomentosus (open field and protected use) | SE | n.a [b] | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusions that the derogation is scientifically supported.

### 3.1.99. Rosaceae – cacopsylla pruni

Table 100 summarises the outcome for 'rosaceae and cacopsylla pruni', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. For further details on the evaluation, see Appendix C.

**Table 100:** Outcome of the evaluation 'rosaceae and cacopsylla pruni' in Austria.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Apricot/cacopsylla pruni | AT | n.a.[b] | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusions that the derogation is scientifically supported.

### 3.1.100. Rosaceae – cecidomyiidae

Table 101 summarises the outcome for 'rosaceae and cecidomyiidae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 101:** Outcome of the evaluation 'rosaceae and cecidomyiidae' in 3 Member States.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Black currant/cecidomyiidae (open field) | BG | n.a [b] | Yes |
| Currants (red+black), blueberry, gooseberry/ cecidomyiidae | DK | n.a [b] | Yes |
| Blackberry, raspberry/ Cecidomyiidae (open field) | DK | n.a. [b] | Yes |
| Pear/Cecidomyiidae (Contarinia sp.) | SE | n.a [c] | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusions that the derogation is scientifically supported.

(c): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported.

### 3.1.101. Rosaceae – ceratitis sp

Table 102 summarises the outcome for 'rosaceae and ceratitis sp', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. For further details on the evaluation, see Appendix C.

**Table 102:** Outcome of the evaluation 'rosaceae and ceratitis sp.' in Greece.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Bilberry/ceratitis sp. (open field) | EL | n.a [b] | Yes |
| Rubus berry/ceratitis sp. (open field) | EL | n.a [b] | Yes |
| Raspberry/ceratitis sp. (open field) | EL | n.a [b] | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.
(b): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusions that the derogation is scientifically supported

### 3.1.102. Rosaceae – ceroplastes sp.

Table 103 summarises the outcome for 'rosaceae and ceroplastes sp.', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. For further details on the evaluation, see Appendix C.

**Table 103:** Outcome of the evaluation 'rosaceae and ceroplastes sp.' in Bulgaria.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Raspberry/ceroplastes sp. (open field) | BG | n.a [b] | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.
(b): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusions that the derogation is scientifically supported.

### 3.1.103. Rosaceae – coccidae

Table 104 summarises the outcome for 'rosaceae and coccidae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 104:** Outcome of the evaluation 'rosaceae and coccidae' in 3 Member States.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Apple/coccidae | BE | 1.00 | Maybe |
| Blackberry, raspberry/coccidae (open field) | BE | 2.00 | Yes |
| Currants/coccidae (open field) | BE | 2.00 | Yes |
| Blueberry, cowberry, cranberry, gooseberry/coccidae (open field) | BE | 2.00 | Yes |
| Black currant/coccidae (open field) | BG | n.a [b] | Yes |

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| | | | |
| Currants (red+black), blueberry, gooseberry/coccidae | DK | 6.00 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix A. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusions that the derogation is scientifically supported.

### 3.1.104. Rosaceae – contarinia pyrivora

Table 105 summarises the outcome for 'rosaceae and contarinia pyrivora', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide and indicates if a derogation of the a.s. under consideration is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 105:** Outcome of the evaluation 'rosaceae and contarinia pyrivora' in Poland.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Pear/contarinia pyrivora | PL | n.a. [b] | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): No score could be calculated as there are no alternative a.s. available. This leads to the conclusion that the derogation is scientifically supported.

### 3.1.105. Rosaceae – cydia sp.

Table 106 summarises the outcome for 'rosaceae and cydia sp.', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 106:** Outcome of the evaluation 'rosaceae and cydia sp.' in 9 Member States.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Apple/cydia pomonella | BE | 0.25 | No |
| | DE | 0.57 | No |
| | LV | 6.00 | Yes |

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| | SK | 6.00 | Yes |
| | FI | 0.73 | No |
| | SE | 0.4/(0.6) [c] | No |
| Cherry/cydia sp. | FI | 2.00 | Yes |
| | FI | 0.73 | No |
| Pear/cydia sp. | RO | 0.80 | Maybe |
| Pome fruits/cydia pomonella | EL | n.a.[b] | No |
| | AT | n.a.[b] | No |
| Plum/cydia sp. | FI | 2.00 | Yes |
| | RO | 0.80 | Maybe |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix A. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported.

(c): One highly effective semiochemical control method (mating disruption) is practised above 50% of the acreage, and is available to control the pest. Details are available in the excel file, Appendix C.

### 3.1.106. Rosaceae – dasineura

Table 107 summarises the outcome for 'rosaceae and dasineura sp.', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 107:** Outcome of the evaluation 'rosaceae and dasineura sp.' in 2 Member States.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Pear/dasineura sp. | UK | n.a. [b] | Yes |
| Blueberry/dasineura (protected use) | UK | 2.00 | Yes |
| Black currant/dasineura ribis (open field) | PL | n.a. [b] | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): No score could be calculated as there are no alternative a.s. available. This leads to the conclusion that the derogation is scientifically supported.

### 3.1.107. Rosaceae – dasineura oxycoccana

Table 108 summarises the outcome for 'rosaceae and dasineura oxycoccana', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is

scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 108:** Outcome of the evaluation 'rosaceae and dasineura oxycoccana' in the United Kingdom.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Blueberry/dasineura oxycoccana (protected use) | UK | 4.00 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.108. Rosaceae – drosophila suzukii

Table 109 summarises the outcome for 'rosaceae and drosophila suzukii', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. For further details on the evaluation, see Appendix C.

**Table 109:** Outcome of the evaluation 'rosaceae and drosophila suzukii' in 3 Member States.

| Crop(group)/pest | Country | Score[a] | Derogation scientificall y supported |
|---|---|---|---|
| Pome fruits/drosophila suzukii | BG | 2.00 | Yes |
| Peach/drosophila suzukii | BG | 4.00 | Yes |
| Nectarine/drosophila suzukii | BG | n.a [b] | Yes |
| Cherry/drosophila suzukii | BG | 0.80[e] | Maybe |
| | PL | 4.00 | Yes |
| | EL | n.a. [c][d] | No |
| Plum/drosophila suzukii | BG | 1.00 | Maybe |
| | PL | 4.00 | Yes |
| | EL | 1.09[d] | Maybe |
| Blackberry/drosophila suzukii (open field) | BG | n.a. [b] | Yes |
| Raspberry/drosophila suzukii (open field) | EL | n.a [c] | No |
| | BG | 1.6 | Yes |
| Nectarine, peach/drosophila suzukii | EL | n.a [c][d] | No |
| Strawberry/drosophila suzukii (open field) | EL | 2.00 | Yes |
| Strawberry/drosophila suzukii (protected use) | EL | 4.00 | Yes |
| Bilberry/drosophila suzukii (open field) | EL | 2.00 | Yes |
| Berries other than strawberry, bilberry, raspberry/drosophila suzukii (open field) | EL | n.a [c] | No |
| Apricot, peach/drosophila suzukii | PL | n.a. [b] | Yes |
| Raspberry, blackberry/drosophila suzukii (open field) | PL | 2.67 | Yes |
| Currants/drosophila suzukii (open field) | PL | 1.60 | Yes |
| Black currant/drosophila suzukii | BG | 4.00 | Yes |
| Cranberry, gooseberry/drosophila suzukii (open field) | PL | 2.67 | Yes |
| Chokeberry/drosophila suzukii (open field) | PL | 4.00 | Yes |
| Blueberry/drosophila suzukii (open field) | PL | 1.60 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix C. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.
(b): No score could be calculated as there are no alternative a.s. available. This leads to the conclusion that the derogation is scientifically supported.
(c): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported.
(d): One highly effective biological control method (Asian parasitoid species) shows promising results to control the pest. Details are available in the excel file, Appendix C.

### 3.1.109. Rosaceae – epiphyas postvittana

Table 110 summarises the outcome for 'rosaceae and epiphyas postvittana', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 110:** Outcome of the evaluation 'rosaceae and epiphyas postvittana' in the United Kingdom.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Blueberry/epiphyas postvittana (open field) | UK | 0.89 | Maybe |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix A. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.110. Rosaceae – eriosoma sp.

Table 111 summarises the outcome for 'rosaceae and eriosoma sp.', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 111:** Outcome of the evaluation 'rosaceae and eriosoma sp.' in Austria.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Pome fruits/eriosoma sp | AT | n.a. [b] | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.
(b): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusions that the derogation is scientifically supported.

### 3.1.111. Rosaceae - eurytoma sp.

Table 112 summarises the outcome for 'rosaceae and eurytoma sp.', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 112:** Outcome of the evaluation 'rosaceae and eurytoma sp.' in Romania.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Plum/eurytoma sp. | RO | 0.57 | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.112. Rosaceae – gracillaria sp.

Table 113 summarises the outcome for 'rosaceae and gracillaria sp.', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 113:** Outcome of the evaluation 'rosaceae and gracillaria sp.' in Germany.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Pome fruits/gracillaria sp. | DE | 0.50 | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.113. Rosaceae – hoplocampa sp.

Table 114 summarises the outcome for 'rosaceae and hoplocampa sp.', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 114:** Outcome of the evaluation 'rosaceae and hoplocampa sp.' in 6 Member States.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Pome fruits/hoplocampa testudinea | DE | 2.00 | Yes |
| Pome fruits/hoplocampa sp. | AT | n.a.[(b)] | No |
| Plum/hoplocampa sp. | DE | n.a.[(b)] | No |

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| | AT | n.a.[b] | No |
| | RO | 1.00 | Maybe |
| Apple/hoplocampa testudinea | BE | n.a.[c] | Yes |
| | LV | 2.00 | Yes |
| Apple/hoplocampa sp. | RO | 4.00 | Yes |
| | SE | n.a.[b] | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix A. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported.

(c): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusions that the derogation is scientifically supported.

### 3.1.114. Rosaceae – lepidoptera

Table 115 summarises the outcome for 'rosaceae and lepidoptera', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 115:** Outcome of the evaluation 'rosaceae and lepidoptera' in 4 Member States.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Raspberry/lepidoptera (open field) | BG | n.a [b] | Yes |
| Pome fruits/miner moth | AT | n.a [b] | Yes |
| Pome fruits/lepidoptera (Leucoptera scitella) | SK | 0.80 | Maybe |
| Pome fruits/leaf miners | EL | n.a [c] | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix A. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusions that the derogation is scientifically supported.

(c): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported.

### 3.1.115. Rosaceae – lepidosaphes ulmi

Table 116 summarises the outcome for 'rosaceae and lepidosaphes ulmi', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. For further details on the evaluation, see Appendix C.

**Table 116:** Outcome of the evaluation 'rosaceae and lepidosaphes ulmi' in Bulgaria.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Raspberry/lepidosaphes ulmi (open field) | BG | n.a [(b)] | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusions that the derogation is scientifically supported.

### 3.1.116. Rosaceae – leucoptera malifoliella

Table 117 summarises the outcome for 'rosaceae and leucoptera malifoliella', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. For further details on the evaluation, see Appendix C.

**Table 117:** Outcome of the evaluation 'rosaceae and leucoptera malifoliella' in Bulgaria.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Pome fruits/leucoptera malifoliella | BG | 2.00 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.117. Rosaceae – lygocoris sp.

Table 118 summarises the outcome for 'rosaceae and lygocoris sp.', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 118:** Outcome of the evaluation 'rosaceae and lygocoris sp.' in the United Kingdom.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Blackberry, raspberry/lygocoris pabulinus (open field) | UK | 4.00 | Yes |
| Blackberry, raspberry/lygocoris pabulinus (protected use) | UK | n.a. [(b)] | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.
(b): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusion that the derogation is scientifically supported.

### 3.1.118. Rosaceae – lygus sp.

Table 119 summarises the outcome for 'rosaceae and lygus sp.', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation of the a.s. under consideration is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 119:** Outcome of the evaluation 'rosaceae and lygus sp.' in 2 Member States.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Strawberry/lygus sp. (open field) | UK | 1.6 | Yes |
| | FI | 4.00 | Yes |
| Blackberry and blueberry/lygus sp. (open field) | FI | n.a. [b] | Yes |
| Raspberry/lygus sp. (open field) | FI | n.a. [b] | Yes |
| Currants, gooseberry/lygus sp. (open field) | FI | n.a. [b] | Yes |
| Strawberry, lygus sp. (protected use) | UK | 4.00 | Yes |
| | FI | n.a. [b] | Yes |
| Raspberry, blackberry/lygus rugulipennis (protected use) | UK | n.a. [b] | Yes |
| Blackberry, raspberry/lygus rugulipennis (open field) | UK | n.a. [b] | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.
(b): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusion that the derogation is scientifically supported.

### 3.1.119. Rosaceae – meligethes sp.

Table 120 summarises the outcome for 'rosaceae and meligethes sp.', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. For further details on the evaluation, see Appendix C.

**Table 120:** Outcome of the evaluation 'rosaceae and meligethes sp.' (open field and protected use) in 2 Member States.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Strawberry/meligethes sp. (open field) | LT | n.a. [b] | Yes |

| | | | |
|---|---|---|---|
| Strawberry/meligethes sp. (protected use) | LT | n.a. (b) | Yes |
| Strawberry/meligethes sp. (open field and protected use) | DK | n.a.(b) | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.
(b): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusion that the derogation is scientifically supported.

### 3.1.120. Rosaceae – miridae

Table 121 summarises the outcome for 'rosaceae and miridae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. For further details on the evaluation, see Appendix C.

**Table 121:** Outcome of the evaluation 'rosaceae and miridae' in Belgium.

| Crop(group)/pest | Country | Score(a) | Derogation scientifically supported |
|---|---|---|---|
| Apple, pear/miridae | BE | 1.00 | Maybe |
| Blackberry, raspberry/miridae (open field) | BE | n.a (b) | Yes |
| Blueberry, cowberry, cranberry, gooseberry/miridae (open field) | BE | 4.00 | Yes |
| Cherry, plum/miridae | BE | n.a (b) | Yes |
| Currants/miridae (open field) | BE | 4.00 | Yes |
| Strawberry/miridae (open field and protected use) | BE | 4.00/6.00 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix A. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.
(b): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusions that the derogation is scientifically supported.

### 3.1.121. Rosaceae – nematus sp.

Table 122 summarises the outcome for 'rosaceae and nematus sp.', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 122:** Outcome of the evaluation 'rosaceae and nematus sp.' in Denamrk.

| Crop(group)/pest | Country | Score(a) | Derogation scientifically supported |
|---|---|---|---|
| Currants (red), blueberry, gooseberry/nematus sp. | DK | n.a (b) | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.
(b): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusions that the derogation is scientifically supported.

### 3.1.122. Rosaceae – psyllidae

Table 123 summarises the outcome for 'rosaceae and psyllidae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 123:** Outcome of the evaluation 'rosaceae and psyllidae' in Belgium.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Pear/psyllidae | BE | 0.50 | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.123. Rosaceae – pulvinaria vitis

Table 124 summarises the outcome for 'rosaceae and pulvinaria vitis', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 124:** Outcome of the evaluation 'rosaceae and pulvinaria vitis' in the United Kingdom.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Berries (bilberry, blueberry, cranberry and gooseberry)/pulvinaria vitis (open field) | UK | n.a. [(b)] | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusion that the derogation is scientifically supported.

### 3.1.124. Rosaceae – resseliella theobaldi

Table 125 summarises the outcome for 'rosaceae and resseliella theobaldi', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. For further details on the evaluation, see Appendix C.

**Table 125:** Outcome of the evaluation 'rosaceae and resseliella theobaldi' in 2 Member States.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Raspberry/resseliella theobaldi (open field) | BG | n.a. [(b)] | Yes |
| Blackberry/resseliella theobaldi (open field) | PL | n.a. [(b)] | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.
(b): No score could be calculated as there are no alternative a.s. available. This leads to the conclusion that the derogation is scientifically supported.

### 3.1.125. Rosaceae – rhagoletis cerasi

Table 126 summarises the outcome for 'rosaceae and rhagoletis cerasi', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. For further details on the evaluation, see Appendix C.

**Table 126:** Outcome of the evaluation 'rosaceae and rhagoletis cerasi' in 5 Member States.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Cherry/rhagoletis cerasi | BG | 1.00 | Maybe |
| | SE | n.a. [(b)] | No |
| Sweet cherry, cherries/rhagoletis cerasi | PL | n.a. [(b)] | No |
| Cherry and plum/rhagoletis cerasi | BE | n.a. [(b)] | No |
| Plum/rhagoletis cerasi | SK | 4.00 | Yes |
| Apricot, peach, nectarine/rhagoletis cerasi | BG | 4.00 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix A. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.
(b): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported.

### 3.1.126. Rosaceae – sitobion fragariae

Table 127 summarises the outcome for 'rosaceae and sitobion fragariae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 127:** Outcome of the evaluation 'rosaceae and sitobion fragariae' for in Latvia.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Raspberry/sitobion fragariae (open field) | LV | 2.0 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.127. Rosaceae – tenthredinidae

Table 128 summarises the outcome for 'rosaceae and tenthredinidae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 128:** Outcome of the evaluation 'rosaceae and tenthredinidae' in Belgium.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Apple/tenthredinidae | BE | n.a [(b)] | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.
(b): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusions that the derogation is scientifically supported.

### 3.1.128. Rosaceae – thomasiniana ribis

Table 129 summarises the outcome for 'rosaceae and thomasiniana ribis', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 129:** Outcome of the evaluation 'rosaceae and thomasiniana ribis' in Poland.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Black currant/thomasiniana ribis (open field) | PL | n.a. [(b)] | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.
(b): No score could be calculated as there are no alternative a.s. available. This leads to the conclusion that the derogation is scientifically supported.

### 3.1.129. Rosaceae – trychacera advenella

Table 130 summarises the outcome for 'rosaceae and trychacera advenella', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. For further details on the evaluation, see Appendix C.

**Table 130:** Outcome of the evaluation 'rosaceae and trychacera advenella' in Poland.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Chokeberry/trychacera advenella (open field) | PL | 4.00 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and

feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.130. Rosaceae – weevils

Table 131 summarises the outcome for 'rosaceae and weevils', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 131:** Outcome of the evaluation 'rosaceae and weevil' in Poland.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Blackberry/weevils (open field) | PL | n.a. [(b)] | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.
(b): No score could be calculated as there are no alternative a.s. available. This leads to the conclusion that the derogation is scientifically supported.

### 3.1.131. Salicaceae – aphididae

Table 132 summarises the outcome for 'salicaceae and aphididae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 132:** Outcome of the evaluation 'salicaceae and aphididae' in Austria.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Willow and poplar/aphid | AT | n.a. [(b)] | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.
(b): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusions that the derogation is scientifically supported.

### 3.1.132. Salicaceae – paranthrene tabaniformis

Table 133 summarises the outcome for 'salicaceae and paranthrene tabaniformis', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 133:** Outcome of the evaluation 'salicaceae and paranthrene tabaniformis' in Austria.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Willow and poplar/paranthrene tabaniformis | AT | n.a. [b] | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.
(b): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusions that the derogation is scientifically supported.

### 3.1.133. Solanaceae – aleyrodidae

Table 134 summarises the outcome for 'solanaceae and aleyrodidae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. For further details on the evaluation, see Appendix C.

**Table 134:** Outcome of the evaluation 'solanaceae and aleyrodidae' in 5 Member States.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Tomato and eggplant/aleyrodidae (open field) | EL | n.a [b] | No |
| Tomato and eggplant/aleyrodidae (protected use) | EL | n.a [b](e) | No |
| Tomato/aleyrodidae (whitefly) (protected use) | FI | n.a [b] | No |
| | LT | n.a [b] | No |
| | ES | n.a [b] | No |
| | SK | n.a [d] | Yes |
| Eggplant/aleyrodidae (whitefly) (protected use) | LT | n.a [b] | No |
| | FI | n.a [b] | No |
| | ES | n.a [b] | No |
| Pepper/aleyrodidae (whitefly) (protected use) | FI | n.a [b] | No |
| | EL | n.a [b],(c) | No |
| | ES | n.a. [b] | No |
| | LT | n.a. [b] | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.
(b): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported.
(c): One highly effective biological control method (Inundative biocontrol) is practised on 10-50% of the acreage, and is available to control the pest. Details are available in the excel file, Appendix C.
(d): n.a.: not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusions that the derogation is scientifically supported.
(e): One highly effective biological control method (Inoculative biocontrol) is practised up to 10% of the acreage, and is available to control the pest. Details are available in the excel file, Appendix C.

### 3.1.134. Solanaceae – aphididae

Table 135 summarises the outcome for 'solanaceae and aphididae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance

management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. For further details on the evaluation, see Appendix C.

**Table 135:** Outcome of the evaluation 'solanaceae and aphididae' in 11 Member States.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Potato/aphid | BE | n.a. [b],[d] | No |
| | AT | n.a. [b] | No |
| | DE | n.a. [b] | No |
| | EL | n.a. [b] | No |
| | FI | 1.5 | Yes |
| | HU | 1.2 | Maybe |
| | SK | 3.00 | Yes |
| | SE | n.a. [b] | No |
| | UK | n.a. [b], [c] | No |
| Tomato/aphid (protected use) | ES | n.a. [b] | No |
| | FI | n.a. [b] | No |
| | LT | n.a. [b] | No |
| eggplant/aphid (protected use) | ES | n.a. [b] | No |
| Tomato and eggplant/aphid (protected use) | EL | n.a. [b] | No |
| Pepper/aphid (protected use) | EL | n.a. [b] | No |
| | FI | n.a. [b] | No |
| | DE | n.a. [b] | No |
| | LT | n.a. [b] | No |
| | ES | n.a. [b] | No |
| | SK | 2.00 | Yes |
| Bell Pepper/aphid (protected use) | DE | n.a.[b] | No |
| Tomato and eggplant/aphid (open field) | EL | n.a. [b] | No |
| Pepper/aphid (open field) | EL | n.a. [b] | No |
| Tobacco/aphid | EL | n.a. [b] | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix A. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same main MoA group as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported.

(c): Same score for potato ware and seed potato

(d): z/x score of 1.2 for seed potato: derogation is maybe scientifically supported depending on the conclusion related to non-insecticide methods by BE

### 3.1.135. Solanaceae – helicoverpa armigera

Table 136 summarises the outcome for 'solanaceae and helicoverpa armigera', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. For further details on the evaluation, see Appendix C.

**Table 136:** Outcome of the evaluation 'solanaceae and helicoverpa armigera' in Greece.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Tomato/helicoverpa armigera (open field) | EL | 0.26 | No |
| Eggplant/helicoverpa armigera (open field) | EL | 0.26 | No |
| Tomato and eggplant/helicoverpa armigera (protected use) | EL | 0.23 | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.136. Solanaceae – leafhopper

Table 137 summarises the outcome for 'solanaceae and leafhopper', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. For further details on the evaluation, see Appendix C.

**Table 137:** Outcome of the evaluation 'solanaceae and leafhopper' in Sweden.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supporNoted |
|---|---|---|---|
| Potato/leafhopper (Empoasca vitis sp.) | SE | n.a [(b)] | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): (a): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported.

### 3.1.137. Solanaceae – leptinotarsa

Table 138 summarises the outcome for 'solanaceae and leptinotarsa, provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. For further details on the evaluation, see Appendix C.

**Table 138:** Outcome of the evaluation 'solanaceae and leptinotarsa' in 5 Member States.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Pepper/leptinotarsa (protected use) | EL | n.a. [b] | No |
| Pepper/leptinotarsa (open field) | EL | n.a. [b] | No |
| Tomato and eggplant/leptinotarsa (open field) | EL | n.a. [b] | No |
| Tomato and eggplant/leptinotarsa (protected use) | EL | n.a. [b] | No |
| Potato/leptinotarsa decemlineata | AT | n.a. [b] | No |
| | DE | n.a. [b] | No |
| | EL | n.a. [b] | No |
| | FI | 4.00 | Yes |
| | PL | n.a. [b] | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusion that the derogation is not scientifically supported.

### 3.1.138. Solanaceae – lygus

Table 139 summarises the outcome for 'solanaceae and lygus, provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. For further details on the evaluation, see Appendix C.

**Table 139:** Outcome of the evaluation 'solanaceae and leafhopper' in Sweden.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|
| Potato/lygus sp. | SE | n.a [b] | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): (a): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported.

### 3.1.139. Solanaceae – Plusia sp.

Table 140 summarises the outcome for 'Solanaceae – Plusia sp.', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. For further details on the evaluation, see Appendix C.

Table 140: Outcome of the evaluation 'Solanaceae – Plusia sp.' in Greece.

| Crop(group)/pest | Country | Score[a] | Derogation scientifically supported |
|---|---|---|---|

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Tomato/Plusia sp./Chrysodeixis (Open field and protected use) | EL | 0.5 | No |
| Eggplant/Plusia sp./Chrysodeixis (protected use) | EL | 0.66 | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.140. Solanaceae – spodoptera sp.

Table 141 summarises the outcome for 'solanaceae and spodoptera sp.', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. For further details on the evaluation, see Appendix C.

**Table 141:** Outcome of the evaluation 'solanaceae and spodoptera sp.' in Greece.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Tomato/spodoptera sp. (open field) | EL | 0.36 | No |
| Eggplant/spodoptera sp. (open field) | EL | 0.42 | No |
| Tomato/spodoptera sp. (protected use) | EL | 0.25 | No |
| Eggplant/spodoptera sp. (protected use) | EL | 0.36 | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.141. Solanaceae – sucking insects

Table 142 summarises the outcome for 'solanaceae and sucking insects', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. For further details on the evaluation, see Appendix C.

**Table 142:** Outcome of the evaluation 'solanaceae and sucking insects' in Austria.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Pepper/sucking insects | AT | 0.86 | Maybe |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix A. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A). This leads to the conclusions that the derogation is scientifically not supported

### 3.1.142. Solanaceae – thrips

Table 143 summarises the outcome for 'solanaceae and thrips', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 143:** Outcome of the evaluation 'solanaceae and thrips' (open field and protected use) and in the United Kingdom.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| pepper, chilli, cucumber [(b)] (fruiting vegetables)/thrips (open field, protected use) | UK | 3.00 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.
(b): cucumber does not belong not to solanaceae.

### 3.1.143. Solanaceae – tuta absoluta

Table 144 summarises the outcome for 'solanaceae and tuta absoluta', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. For further details on the evaluation, see Appendix C.

**Table 144:** Outcome of the evaluation 'solanaceae and tuta absoluta' in Greece.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Tomato/tuta absoluta (open field) | EL | 0.29 | No |
| Eggplant/tuta absoluta (open field) | EL | 0.42 | No |
| Tomato/tuta absoluta (protected use) | EL | 0.25 | No |
| Eggplant/tuta absoluta (protected use) | EL | 0.31 | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.144. Spice crops – sucking insects

Table 145 summarises the outcome for 'spice crops and sucking insects', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance

management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 145:** Outcome of the evaluation 'spice crops and sucking insects' in Germany.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| dill, coriander (common), caraway (common), sweet fennel, anise (used as spice or tea, fruits and seeds)/sucking insects (open field) | DE | 1.00[(b)] | Maybe |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix C. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): One highly effective physical control method (nets) is available to control the pest, application for large-scale fields seems to be a limitation. Details are available in the excel file, Appendix C.

### 3.1.145. Tree nuts - acalitus phloeocoptes

Table 146 summarises the outcome for 'tree nuts and acalitus phloeocoptes', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 146:** Outcome of the evaluation 'tree nuts and acalitus phloeocoptes' in the United Kingdom

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Hazelnut, chestnut, walnut and almonds/acalitus phloeocoptes | UK | n.a. [(b)] | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

(b): n.a. = not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusion that the derogation is scientifically supported.

enough alternative MoA. Further details see EFSA, 2017.

### 3.1.146. Tree nuts – curculio nucum

Table 147 summarises the outcome for 'tree nuts and curculio nucum', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 147:** Outcome of the evaluation 'tree nuts and curculio nucum' in 2 Member States.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically |
|---|---|---|---|

| | | | supported |
|---|---|---|---|
| Hazelnut/curculio nucum | DE | n.a. (b), (d) | Yes |
| | PL | n.a. (c), (d) | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.
(b): n.a. = not applicable. No score could be calculated as there are no alternative a.s. available. This leads to the conclusion that the derogation is scientifically supported.
(c): n.a. = not applicable. There is no need to calculate z/x score as one of the insecticide a.s. has the same MoA as the a.s. under consideration (4A).
(d): One highly effective biological control method (72% efficacy) is available to control the pest. Details are available in the excel file, Appendix C.

### 3.1.147. Vegetables – aphididae

Table 148 summarises the outcome for 'fruiting vegetables and aphididae', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 148**: Outcome of the evaluation for 'fruiting vegetables and aphididae' in Denmark.

| Crop(group)/pest | Country | Score(a) | Derogation scientifically supported |
|---|---|---|---|
| Vegetables /aphids (open field) | DK | 2.0 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and < 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.148. Vegetables - lepidoptera

Table 149 summarises the outcome for 'fruiting vegetables and lepidoptera', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 149:** Outcome of the evaluation for 'vegetables and lepidoptera' in Denmark.

| Crop(group)/pest | Country | Score(a) | Derogation scientifically supported |
|---|---|---|---|
| Vegetables/lepidoptera (open field) minor use | DK | 1.0 | Maybe |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; Detailed information on alternative non-insecticide methods are provided in Appendix C. EFSA summarised the information provided by MS and highlighted feasible and highly effective methods and/or provided information on limiting factors preventing the application of non-chemical alternatives. It is however the responsibility of the Member State to conclude if a non-insecticide method is an alternative that would alter the outcome 'maybe' into 'yes' or 'no'; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.149. Vegetables - thrips

Table 150 summarises the outcome for 'fruiting vegetables and thrips', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 150:** Outcome of the evaluation for 'vegetables and thrips' in Denmark.

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Vegetables/thrips (open field) | DK | 4.00 | Yes |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions(MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.150. Vintaceae – lepidoptera

Table 151 summarises the outcome for 'vintaceae and lepidoptera', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 151:** Outcome of the evaluation 'vintaceae and lepidoptera' in Slovakia

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Wine/lepidoptera (open field) | SK | 0.31 | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions (MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

### 3.1.151. Vintaceae – rhagoletis cerasi

Table 152 summarises the outcome for 'vintaceae and and rhagoletis cerasi', provides information on the number of insecticide a.s. alternatives, the numerical scores for the insecticide/pest resistance management strategy based on the remaining insecticide a.s. and indicates if a derogation is scientifically supported or not. Highly effective non-insecticide alternatives are provided in a footnote, if available. Further details on the evaluation are reported in Appendix C.

**Table 152:** Outcome of the evaluation 'vintaceae and and rhagoletis cerasi' in Slovakia

| Crop(group)/pest | Country | Score[(a)] | Derogation scientifically supported |
|---|---|---|---|
| Wine/rhagoletis cerasi (open field) | SK | 0.31 | No |

(a): z/x scores > 1.25: derogation is scientifically supported as there are not enough alternative mode of actions (MoA); 0.75 and ≤ 1.25: derogation is maybe scientifically supported depending on the availability and feasibility of alternative non-insecticide methods; <0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details see EFSA, 2017.

# 4. Conclusions

The evaluation of applicant's claims that the use of thiacloprid is considered essential in accordance with Article 4(7) of Regulation (EC) No 1107/2009 for each authorised use in the considered MS was evaluated following the methodology proposed in the EFSA protocol for evaluation of insecticide active substances under Art. 4(7) (EFSA, 2017).

Overall, more than 500 different crop(group)/pest combinations in 16 MS (Austria, Belgium, Bulgaria, Denmark, Finland, Germany, Greece, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Sweden and United Kingdom) were evaluated to assess the applicant's claims and information directly provided by these 16 MS on the necessity of thiacloprid to control a serious danger to plant health.

An overview of the outcome of chemical alternative substances to thiacloprid is provided in Table 153.

**Table 153:** Overview of the evaluation of thiacloprid in Europe for which derogation under Art. 4(7) was claimed.

| Pest/crop combination[a] | Number of crop/pest combination[a] | Number of MS | Derogation scientifically supported (open field) | Derogation scientifically supported (protected use) |
|---|---|---|---|---|
| Amaranthaceae – aphididae | 4 | 4 | Yes | No-Yes |
| Amaranthaceae – beetles | 1 | 1 | Yes | n.a.[b] |
| Amaranthaceae – curculionidae | 1 | 1 | Yes | n.a.[b] |
| Amaranthaceae – pegomya sp. | 2 | 2 | Yes | n.a.[b] |
| Amaranthaceae – spodoptera sp. | 1 | 1 | Yes | n.a.[b] |
| Amaryllidaceae – aphididae | 4 | 2 | Yes | n.a.[b] |
| Amaryllidaceae – lepidoptera | 2 | 2 | Yes | n.a.[b] |
| Amaryllidaceae – thrips | 4 | 3 | Maybe-Yes | n.a.[b] |
| Apiaceae – aphididae | 5 | 4 | Maybe-Yes | n.a.[b] |
| Apiaceae – miridae | 4 | 1 | Yes | n.a.[b] |
| Apiaceae – psilidae | 1 | 1 | Yes | n.a.[b] |
| Apiaceae – sucking insects | 2 | 2 | Yes | n.a.[b] |
| Apiaceae – thrips | 1 | 1 | Yes | n.a.[b] |
| Apiaceae – trioza apicalis | 1 | 1 | Yes | n.a.[b] |
| Asparagaceae – aphididae | 1 | 2 | No-Yes | n.a.[b] |
| Asparagaceae – crioceris | 3 | 4 | No-Maybe-Yes | n.a.[b] |
| Asteraceae – aphididae | 6 | 4 | No-Maybe | No-Yes |
| Asteraceae – miridae | 1 | 1 | Yes | n.a.[b] |
| Brassicaceae – aphididae | 19 | 6 | No-Maybe-Yes | No-Yes |
| Brassicaceae – athalia rosae | 1 | 1 | Maybe | n.a.[b] |
| Brassicaceae – biting insects | 9 | 2 | No-Maybe-Yes | n.a.[b] |
| Brassicaceae – ceutorhynchus | 9 | 10 | No-Maybe-Yes | n.a.[b] |
| Brassicaceae – curculionidae | 2 | 1 | n.a.[b] | Maybe |
| Brassicaceae – dasineura | 1 | 3 | Yes | n.a.[b] |
| Brassicaceae – delia radicum | 1 | 1 | Yes | n.a.[b] |
| Brassicaceae – diabrotica virgifera | 6 | 1 | Yes | n.a.[b] |
| Brassicaceae – lepidoptera | 2 | 1 | Yes | n.a.[b] |
| Brassicaceae – meligethes sp. | 4 | 12 | No-Yes | n.a.[b] |
| Brassicaceae – phyllotreta sp. | 1 | 3 | Yes | n.a.[b] |
| Brassicaceae – pieris sp | 6 | 3 | No-Maybe-Yes | n.a.[b] |
| Brassicaceae – sucking insects | 5 | 1 | Maybe-Yes | n.a.[b] |
| Brassicaceae – whitefly | 1 | 1 | No | n.a.[b] |
| Cannabaceae – aphididea | 1 | 1 | No | n.a.[b] |
| Caprifoliaceae – aphididae | 1 | 1 | n.a.[b] | Yes |
| Cucurbitaceae – aleyrodidae | 7 | 4 | No | No |
| Cucurbitaceae – aphididae | 15 | 7 | No-Maybe-Yes | No- Yes |
| Cucurbitaceae – thrips sp. | 4 | 1 | n.a.[b] | Yes |
| Fabaceae – aphididae | 10 | 7 | No-Maybe-Yes | Maybe-Yes |
| Fabaceae – apionidae | 1 | 1 | Yes | n.a.[b] |

| Pest/crop combination[a] | Number of crop/pest combination[a] | Number of MS | Derogation scientifically supported (open field) | Derogation scientifically supported (protected use) |
|---|---|---|---|---|
| Fabaceae – beetles | 1 | 1 | No | n.a.[b] |
| Fabaceae – chrysomelidae | 4 | 4 | Yes | n.a.[b] |
| Fabaceae – curculionidae | 2 | 1 | Yes | n.a.[b] |
| Fabaceae – lepidoptera | 1 | 1 | Yes | n.a.[b] |
| Fresh herbs – sucking insects | 2 | 2 | No-Maybe-Yes | n.a.[b] |
| Fruiting vegetables – aphididae | 3 | 2 | No-Maybe | No |
| Fruiting vegetables – miridae | 2 | 1 | Yes | n.a.[b] |
| Fruiting vegetables – whitefly | 2 | 1 | No | No |
| Herb, infusion and spice crops – aphididae | 6 | 1 | No | No |
| Herb, infusion and spice crops – chrysomelids | 6 | 1 | Yes | Yes |
| Herb, infusion and spice crops – weevils | 6 | 1 | Yes | Yes |
| Herbs – aphididae | 2 | 2 | No-Yes | No-Yes |
| Leafy vegetables – aphididae | 4 | 2 | No | No |
| Malvaceae – aleyrodidae | 1 | 1 | No | n.a.[b] |
| Malvaceae – aphididae | 1 | 1 | No | n.a.[b] |
| Malvaceae – lepidoptera (other than spodoptera sp.) | 1 | 1 | No | n.a.[b] |
| Malvaceae – spodoptera | 1 | 1 | Maybe | n.a.[b] |
| Oleaceae – bactrocera oleae | 1 | 1 | No | n.a.[b] |
| Oleaceae – prays oleae | 1 | 1 | No | n.a.[b] |
| Ornamentals – aleyrodidae | 4 | 6 | No | No |
| Ornamentals – aphididae | 6 | 9 | No | No |
| Ornamentals – bradysia sp | 2 | 1 | Maybe | Maybe |
| Ornamentals – bug | 1 | 1 | Yes | n.a.[b] |
| Ornamentals – curculionidae | 5 | 3 | Maybe-Yes | No-Yes |
| Ornamentals – fungus gnat | 1 | 1 | Maybe | n.a.[b] |
| Ornamentals – leafhopper | 2 | 1 | Yes | Yes |
| Ornamentals – lepidoptera | 2 | 1 | Yes | Yes |
| Ornamentals – lyriomyza sp | 2 | 1 | Maybe | Maybe |
| Ornamentals – meligethes | 1 | 1 | Yes | Yes |
| Ornamentals – miridae | 1 | 1 | No | n.a.[b] |
| Ornamentals – scales | 2 | 3 | No | No |
| Ornamentals – spider mites | 1 | 1 | n.a.[b] | No |
| Ornamentals – tenthredinidae | 1 | 1 | Yes | n.a.[b] |
| Ornamentals – thrips | 2 | 1 | Maybe | No |
| Ornamentals – weevils | 3 | 1 | No-Yes | n.a.[b] |
| Papaveraceae – ceutorhynchus sp. | 2 | 2 | Maybe-Yes | n.a.[b] |
| Poaceae – agriotes | 1 | 6 | Maybe-Yes | n.a.[b] |
| Poaceae – agromyza nigrella | 3 | 1 | Yes | n.a.[b] |
| Poaceae – aphididae | 12 | 6 | Maybe-Yes | n.a.[b] |
| Poaceae – chrysomelidae | 22 | 10 | No-Maybe-Yes | n.a.[b] |
| Poaceae – cicadella sp. | 1 | 1 | Yes | n.a.[b] |
| Poaceae – diabrotica virgifera | 2 | 4 | No-Maybe-Yes | n.a.[b] |
| Poaceae – geomyza tripunctata | 1 | 2 | Yes | n.a.[b] |
| Poaceae – oscinella frit | 1 | 3 | Maybe-Yes | n.a.[b] |
| Poaceae – ostrinia nubilalis | 1 | 3 | Maybe-Yes | n.a.[b] |
| Poaceae – phyllotreta | 7 | 2 | Yes | n.a.[b] |
| Poaceae – rhopalosiphum padi | 1 | 1 | Yes | n.a.[b] |
| Poaceae – sitobion avenae | 1 | 1 | Yes | n.a.[b] |
| Poaceae – sitodiplosis mosellana | 1 | 1 | Yes | n.a.[b] |
| Poaceae – thrips | 12 | 1 | Yes | n.a.[b] |
| Polygonaceae – chrysomelidae | 1 | 1 | Yes | n.a.[b] |

| Pest/crop combination[a] | Number of crop/pest combination[a] | Number of MS | Derogation scientifically supported (open field) | Derogation scientifically supported (protected use) |
|---|---|---|---|---|
| Root, tuber and stem vegetables – aphididae | 7 | 3 | No-Yes | n.a.[b] |
| Rosaceae – aleyrodidae | 2 | 2 | Yes | Maybe |
| Rosaceae – amphorophora idaei | 1 | 1 | Yes | n.a.[b] |
| Rosaceae – anthonomus sp. | 9 | 10 | Yes | Yes |
| Rosaceae – aphididae | 24 | 13 | No-Maybe-Yes | No-Maybe-Yes |
| Rosaceae – bembecia hylaeiformis | 1 | 1 | Yes | n.a.[b] |
| Rosaceae – biting/sucking insects | 10 | 2 | n.a.[b] | Yes |
| Rosaceae – byturus sp. | 6 | 4 | Yes | Yes |
| Rosaceae – cacopsylla pruni | 1 | 1 | Yes | n.a.[b] |
| Rosaceae – cecidomyiidae | 7 | 3 | No-Yes | n.a.[b] |
| Rosaceae – ceratitis sp. | 3 | 1 | Yes | n.a.[b] |
| Rosaceae – ceroplastes sp. | 1 | 1 | Yes | n.a.[b] |
| Rosaceae – coccidae | 10 | 3 | Maybe-Yes | n.a.[b] |
| Rosaceae – contarinia pyrivora | 1 | 1 | Yes | n.a.[b] |
| Rosaceae – cydia sp. | 5 | 9 | No-Maybe-Yes | n.a.[b] |
| Rosaceae – dasineura | 3 | 2 | Yes | Yes |
| Rosaceae – dasineura oxycoccana | 1 | 1 | n.a.[b] | Yes |
| Rosaceae – drosophila suzukii | 20 | 3 | No-Maybe-Yes | Yes |
| Rosaceae – epiphyas postvittana | 1 | 1 | Maybe | n.a.[b] |
| Rosaceae – eriosoma sp. | 1 | 1 | Yes | n.a.[b] |
| Rosaceae – eurytoma sp. | 1 | 1 | No | n.a.[b] |
| Rosaceae – gracillaria sp. | 1 | 1 | No | n.a.[b] |
| Rosaceae – hoplocampa sp. | 5 | 6 | No-Maybe-Yes | n.a.[b] |
| Rosaceae – lepidoptera | 4 | 4 | No-Maybe-Yes | n.a.[b] |
| Rosaceae – lepidosaphes ulmi | 1 | 1 | Yes | n.a.[b] |
| Rosaceae – leucoptera malifoliella | 1 | 1 | Yes | n.a.[b] |
| Rosaceae – lygocoris sp. | 4 | 1 | Yes | Yes |
| Rosaceae – lygus sp. | 11 | 2 | Yes | Yes |
| Rosaceae – meligethes sp. | 2 | 2 | Yes | Yes |
| Rosaceae – miridae | 12 | 1 | Maybe-Yes | Yes |
| Rosaceae – nematus sp. | 3 | 1 | Yes | n.a.[b] |
| Rosaceae – psyllidae | 1 | 1 | No | n.a.[b] |
| Rosaceae – pulvinaria vitis | 1 | 1 | Yes | n.a.[b] |
| Rosaceae – resseliella theobaldi | 2 | 2 | Yes | n.a.[b] |
| Rosaceae – rhagoletis cerasi | 6 | 5 | No-Maybe-Yes | n.a.[b] |
| Rosaceae – sitobion fragariae | 1 | 1 | Yes | n.a.[b] |
| Rosaceae – tenthredinidae | 1 | 1 | Yes | n.a.[b] |
| Rosaceae - thomasiniana ribis | 1 | 1 | Yes | n.a.[b] |
| Rosaceae – trychacera advenella | 1 | 1 | Yes | n.a.[b] |
| Rosaceae – weevils | 1 | 1 | Yes | n.a.[b] |
| Salicaceae – aphididae | 2 | 1 | Yes | n.a.[b] |
| Salicaceae – paranthrene tabaniformis | 2 | 1 | Yes | n.a.[b] |
| Solanaceae – aleyrodidae | 5 | 5 | No | No-Yes |
| Solanaceae – aphididae | 9 | 11 | No-Maybe-Yes | No-Yes |
| Solanaceae – helicoverpa armigera | 4 | 1 | No | No |
| Solanaceae – leafhopper | 1 | 1 | No | n.a.[b] |
| Solanaceae – leptinotarsa | 7 | 5 | No-Yes | No |
| Solanaceae – lygus | 1 | 1 | No | n.a.[b] |
| Solanaceae – plusia sp. | 6 | 1 | No | No |
| Solanaceae – spodoptera sp. | 4 | 1 | No | No |
| Solanaceae – sucking insects | 1 | 1 | Maybe | n.a.[b] |
| Solanaceae – thrips | 6 | 1 | Yes | Yes |
| Solanaceae – tuta absoluta | 4 | 1 | No | No |

| Pest/crop combination[a] | Number of crop/pest combination[a] | Number of MS | Derogation scientifically supported (open field) | Derogation scientifically supported (protected use) |
|---|---|---|---|---|
| Spice crops – sucking insects | 5 | 1 | Maybe | n.a.[b] |
| Tree nuts – acalitus phloeocoptes | 4 | 1 | Yes | n.a.[b] |
| Tree nuts – curculio nucum | 1 | 2 | No-Yes | n.a.[b] |
| Vegetables – aphididae | 1 | 1 | Yes | n.a.[b] |
| Vegetables – lepidoptera | 1 | 1 | Maybe | n.a.[b] |
| Vegetables – thrips | 1 | 1 | Yes | n.a.[b] |
| Vintaceae – lepidoptera | 1 | 1 | No | n.a.[b] |
| Vintaceae – rhagoletis cerasi | 1 | 1 | No | n.a.[b] |

(a): Uses for a crop (group)/pest combination in open field and protected use are considered separateuses
(b): not applicable, as use was not requested.

The evaluation demonstrated that for the control of soil pests, sucking and biting insects in agricultural (oilseed rape, maize, cereals, potatoes) and horticultural crops (vegetables, small fruits, pome fruits, stone fruits, tree nuts, and ornamentals) grown in open field or protected use a good range of alternative insecticide active substances are available, including insecticides (e.g. acetamiprid, sulfoxaflor; and imidacloprid, clothianidin, thiamethoxam for glasshouse use) belonging to the MoA group 4 (nicotinic acetylcholine receptor as thiacloprid. Some insecticide a.s. have environmental restrictions (e.g. can not be applied during flowering) when used in plant protection products.

For example not sufficient chemical alternatives seem to be available for the following crop/pest combinations: brassicaceae and dasineura brassicae; brassicaceae and biting insects and sucking insects (including control of phyllotreta sp.) brassicaceae and diabrotica virgifera, solanaceae and aphids; potato and leptinotarsa; solanaceae and helicoverpa armigera; fabaceae and curculionidae; fabaceae and chrysomelidae; rosaceae and dasineura; small berries and coccidae; small berries and lygus; small berries, stone and pome fruits and Anthonomus sp.; strawberry and meligethes sp; small berries and byturus sp; small berries and biting/sucking insects; small berries and drosophila suzuki; bulb vegetables/leek and thrips; cereals and aphids; cereals and phyllotreta; cereals and thrips; maize and oscinella frit; and maize and geomyza tripunctata.

For example sufficient chemical alternatives seem to be available for the following crop/pest combinations: solanaceae and aphids; solanaceae and leptinotarsa; solanaceae and tuta absoluta; solanaceae and spodoptera; solanaceae and aleyrodidae; solanaceae and plusia sp.; solanaceae and whitefly; apple/pear and aphid, cucumber/zucchini/ cucurbita pepo and aphid; cucumber/cucurbita pepo and whitefly; ornamentals and whitefly; ornamentals and scales; ornamentals and aphids; ornamentals and aleyrodidae; bulb vegetables/leek and aphids; lettuce and aphids; and hazelnut and curculio nucum.

There was a wide range of crop-pest combination (e.g. aphids on fabaceae; small berries, cherry, plum; strawberry; cydia on pome and stone fruits; hoplocampa on pome and stone fruits, lepidoptera in small berries and pome fruits; drosophila suzuki on pome and stone fruits; rhagoletis cerasi on stone fruits; curculionidae and ornamentals; Oulema sp. and cereals) which did not allow a clear conclusion if a derogation is scientifically supported or not.

It should be noted that some active substances (e.g. potassium soap (fatty acids, potassium salts) and rape oil for the control of aphids on climbing French beans; azadirachtin for the control of biting insects on cauliflower, and acetamiprid) were shortlisted as alternative a.s. but were not included in the evaluation of insecticide alternatives as MS confirmed lower efficacy compared to the substance under evaluation. Some a.s. were proposed as alternative substance but were excluded from the evaluations due to the claim that the period of application seemed not large enough (e.g. control during flowering) to control the pest under consideration. The latter aspect is not clearly addressed in the EFSA methodologoy and might be further discussed with MS and should be considered when a single guidance document for different types of pesticides will be developed.

The evaluation included an assessment of non-chemical alternatives for the presented uses. A wide range of non-chemical methods are available, but often these methods do not have the same efficacy as chemical methods or have economic limitations. However for some crop/pest combinations, particularly under protected use, non-chemical methods are highly effective and considered as feasible (see Table 154) and also mentioned in a footnote in the respective tables.

**Table 154:** Overview highly effective non-chemical alternatives.

| Non-chemical method | Pest/crop combination | Country |
|---|---|---|
| Physical control method (nets, agrotextiles, traps) | Head cabbage/whitefly | DE |
| | Strawberry/aphid (protected use) | BE |
| | Spice crops/sucking insects | DE |
| | Fresh herbs/sucking insects | DE |
| Biological control method | Hazelnut/curculio nucum | DE |
| Biological control method (inundative biocontrol) | Tomato, eggplant, pepper, zucchini and cucurbits/aleyrodidae (protected use) | EL |
| | Ornamentals/curculionidae (protected use) | DE |
| Biological control method (enthomopathogenic nematodes) | Ornamentals/fungus gnat | DE |
| Biological control method (predatory mites) | Ornamentals/spider mites (protected use) | DE |
| Biological control method (predators (ie., ladybird beetles, green lacewings; and parasitoids ie., tiny wasps) | Ornamentals/spider mites (protected use) | BE |
| | Ornamentals/scales | BE |
| Biological control method (inundative biocontrol, parasitoids of whiteflies such as Encarsia formosa, Eretmocerus sp.) | Ornamentals/whitefly | BE |
| Biological control method (conservation biocontrol meaning the implementation of practices to enhance populations of natural enemies of B. oleae) | Olive/bactrocera oleae | EL |
| Biological control method (Asian parasitoid species) | Nectarine, peach, cherry/drosophila suzukii | EL |
| Semiochemical control (mating disruption) | Apple/cydia sp. | SE |

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# Abbreviations

| | |
|---|---|
| a.s. | active substance |
| BBCH | growth stages of mono- and dicotyledonous plants |
| DAR | Draft Assessment Report |
| EC | European Commission |
| EU | European Union |
| IPM | Integrated Pest Management |
| MoA | Mode of Actions |
| MS | Member State |
| RAR | Renewal Assessment Report |
| RMS | Rapporteur Member State |
| WG | Working Group |

# Appendix C – Data collection set

Validated Excel files submitted by MS (Austria, 2018, Belgium, 2018, Bulgaria, 2018, Denmark, 2018, Finland, 2018, Germany, 2018, Greece, 2018, Hungary, 2018, Latvia, 2018, Lithuania, 2018, Poland, 2018, Romania, 2018, Slovakia, 2018, Spain, 2018, Sweden, 2018, United Kingdom, 2018) and evaluated by EFSA.

# Appendix D – Classification of the pests according to taxonomy

| Order | Family | Genus | Species |
|---|---|---|---|
| **Acarida**[(a)] | Acaridae | Acarus | |
| | Eriophyidae | Acalitus | Acalitus phloeocoptes |
| | Tarsonemidae | Phytonemus | Phytonemus pallidus |
| **Coleoptera** | Apionidae | Apion | Apion apricans |
| | Bruchidae | Bruchus | Bruchus pisorum |
| | | | Bruchus rufimanus |
| | Buprestidae | Capnodis | Capnodis tenebrionis |
| | Byturidae | Byturus | Byturus tomentosus |
| | Cerambycidae | Aromia | Aromia bungii |
| | Chrysomelidae | Diabrotica | Diabrotica virgifera |
| | | Crioceris | Crioceris asparagi |
| | | | Crioceris duodecimpunctata |
| | | Lema | |
| | | Leptinotarsa | Leptinotarsa decemlineata |
| | | Oulema | Oulema gallaeciana |
| | | | Oulema lichenis |
| | | | Oulema melanopus |
| | | Phyllotreta | |
| | | Psylliodes | Psylliodes chrysocephala |
| | | Pyrrhalta | Pyrrhalta cavicollis |
| | Elateridae | Melanotus | Melanotus fissilis |
| | Curculionidae | Agriotes | |
| | | Anthonomus | Anthonomus pomorum |
| | | | Anthonomus rubi |
| | | Bothynoderes | Bothynoderes punctiventris |
| | | Ceutorhynchus | Ceutorhynchus asismilis |
| | | | Ceutorhynchus maculaalba |
| | | | Ceutorhynchus napi |
| | | | Ceutorhynchus picitarsis |
| | | | Ceutorhynchus quadridensis |
| | | Curculio | Curculio nucum |
| | | Otiorhynchus | |
| | | Sitona | Sitona lineatus |
| | Nitidulidae | Meligethes | Meligethes aeneus |
| **Diptera** | Agromyzidae | Agromyza | Agromyza nigrella |
| | | Liriomyza | |
| | Anthomyiidae | Delia | Delia radicum |
| | | Pegomya | Pegomya hyoscyami |
| | Cecidomyiidae | Contarinia | Contarinia pyrivora |
| | | Dasineura | Dasineura brassicae |
| | | | Dasineura oxycoccana |
| | | | Dasineura ribis |
| | | Resseliella | Thomasiniana ribis |
| | | | Resseliella theobaldi |
| | | Sitodiplosis | Sitodiplosis mosellana |
| | Chloropidae | Oscinella | Oscinella frit |
| | Drosophilidae | Drosophila | Drosophila suzukii |
| | Opomyzidae | Geomyza | Geomyza tripunctata |
| | Sciaridae | Bradysia | Bradysia paupera |
| | Tephritidae | Bactrocera | Bactrocera oleae |
| | | Ceratitis | |

| Order | Family | Genus | Species |
|---|---|---|---|
| | | Rhagoletis | Rhagoletis cerasi |
| | | | Rhagoletis completa |
| | | | Rhagoletis juglandis |
| **Hemiptera** | Aleyrodidae (whitefly) | Trialeurodes | Trialeurodes vaporarium |
| | Aphididae | Acyrthosiphon | Acyrthosiphon pisum |
| | | Amphorophora | Amphorophora idaei |
| | | Aphis | |
| | | Brachycaudus | Brachycaudus helichrysi |
| | | Brevicoryne | Brevicoryne brassicae |
| | | Chaetosiphon | Chaetosiphon fragaefolii |
| | | Eriosoma | |
| | | Myzus | Myzus persicae |
| | | Pemphigus | Pemphigus phenax |
| | | Rhapalosiphum | Rhapalosiphum padi |
| | | Sitobion | Sitobion avenae |
| | | | Sitobion fragariae |
| | Cicadellidae (leafhopper) | Cicadella | |
| | | Empoasca | Empoasca vitis |
| | Coccidae | Cereoplastes | |
| | | Parthenolecaniu m | Lecanium corni |
| | | Pulvinaria | Pulvinaria vitis |
| | Diaspididae | Lepidosaphes | Lepidosaphes ulmi |
| | Miridae | Lygocoris | Lygocoris pabulinus |
| | | Lygus | Lygus lineolaris |
| | | | Lygus rugulipennis |
| | Pentatomidae | Dolycoris | Dolycoris baccarum |
| | | Halyomorpha | Halyomorpha halys |
| | Psyllidae | Cacopsylla | Cacopsylla pruni |
| | | Chamaepsila | Psila rosae |
| | Triozidae | Trioza | Trioza apicalis |
| **Hymenoptera** | Erytomidae | Eurytoma | |
| | Tenthredinidae | Athalia | Athalia rosae |
| | | Hoplocampa | Hoplocampa testudinea |
| | | Nematus | |
| **Lepidoptera** | Gelechiidae | Anarsia | Anarsia lineatella |
| | | Tuta | Tuta absoluta |
| | Geomitridae | Chematobia | |
| | Gracillaridae | Gracillaria | Gracillaria roscipennella |
| | Lyonetidae | Leucoptera | Leucoptera malifoliella |
| | | | Leucoptera scitella |
| | | Lyonetia | Lyonetia clerkella |
| | Pieridae | Pieris | Pieris brassicae |
| | | | Pieris rapae |
| | Plutellidae | Plutella | Plutella maculipennis |
| | | | Plutella xylostella |
| | Pyralidae | Acrobasis | Trachycera advenella |
| | | Ostrinia | Ostrinia nubilalis |
| | Noctuidae | Chrysodeixis | |
| | | Plusia | |
| | | Spodoptera | |
| | | Helicoverpa | Helicoverpa armigera |
| | Sesiidae | Paranthrenre | Paranthrenre tabaniformis |
| | | Pennisetia | Bembecia hylaeiformis |
| | Tortricidae | Ancylis | Ancylis comptana fragaria |
| | | Cydia | Cydia funebrana |
| | | | Cydia molesta |

| Order | Family | Genus | Species |
|---|---|---|---|
| | | | Cydia pomonella |
| | | Epiphyas | Epiphyas postvittana |
| | | Grapholita | Grapholita molesta |
| | Yponomeutidae | Argyresthia | Argyresthia conjugella |
| | | | Argyresthia pruniella |
| | | Prays | Prays oleae |
| **Thysanoptera** | Thripidae | Thrips | |

(a): Acarida is an order belonging to the class Arachnida (all the other pests listed in the table belong to the class Insecta).