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

European Food Safety Authority (EFSA)

Abstract

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 pymetrozine 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 more than 100 crop (group)/pest combinations in 10 Member States. The evaluation demonstrated that not a wide range of alternative insecticide active substances to pymetrozine are available to chemically control pollen beetle, whitefly and aphids in various crops (open field and protected use); however for several crop(group)/pest combinations, sufficient chemical alternatives are available. The evaluation included an assessment of non-chemical alternatives for the presented uses. A wide range of non-chemical methods are available, 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 feasible.

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Summary

Pymetrozine was included in Annex I to Directive 91/414/EEC on 1 November 2001 and has been deemed to be approved under Regulation (EC) No 1107/2009, in accordance with Commission Implementing Regulation (EU) No 540/2011, amended by Commission Implementing Regulation (EU) No 2017/841, as regards the extension of the approval period for pymetrozine to 30 June 2018.

The applicant, Syngenta Crop Protection AG, applied for renewal of approval in line with the provisions of Commission Regulation (EU) No 1141/2010 as amended by Commission Implementing Regulation (EU) No 380/2013. The European Food Safety Authority (EFSA) finalised the conclusion on the peer review of the pesticide risk assessment of pymetrozine in August 2014.

In 2014, during the peer review, EFSA proposed to classify pymetrozine as toxic for reproduction category 2 in addition to the harmonised classification as carcinogen category 2. A critical area of concern was identified with regard to the approval criteria of Annex II, Point 3.6.5 of Regulation (EC) No 1107/2009 interim provisions for active substances that shall be considered to have endocrine-disrupting properties. In September 2016, EFSA was requested by the European Commission to carry out an assessment of the information submitted by the applicant to demonstrate whether the active substance pymetrozine can be used such that exposure to humans may be considered negligible. EFSA finalised the peer review in light of negligible exposure data in December 2016.

The applicant Syngenta Crop Protection AG requested derogation in accordance with the provisions of Article 4(7) of Regulation (EU) 1107/2009, submitting evidence regarding the necessity of pymetrozine to control a serious danger to plant health which cannot be contained by other available means. In January 2016, the European Commission requested by a general mandate to 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 published on 29 March 2017.

Subsequently, the applicant was requested by the European Commission to re-submit the data following the methodology developed by EFSA. In June 2017, EFSA received the updated submission provided by the applicant, consisting of a data collection set and a report. The applicant, included claims that the use of pymetrozine is considered essential in accordance with Article 4(7) of Regulation (EC) No 1107/2009 in relation to the uses (more than 150 crop(group)/pest combinations, in open field and under protected use) authorised in 17 Member States (MS).

As following step, EFSA launched a commenting phase in June–September 2017 asking all MS to confirm that the uses for which the applicant requested Article 4(7) derogation are authorised, and if the use of pymetrozine 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).

Overall, more than 100 different crop(group)/pest combinations (in open field and under protected use) in 10 MS (Austria, Belgium, Denmark, Finland, France, Germany, the Netherlands, Spain, and the United Kingdom) were evaluated to assess the applicant's claims or new information provided by MS (Latvia) on the necessity of pymetrozine to control a serious danger to plant health. The evaluation demonstrated that not a wide range of alternative insecticide active substances to pymetrozine are available to chemically control pollen beetle, whitefly and aphids in various crops (open field and protected use). However, in two MS (Spain and Austria), sufficient chemical alternatives were available for the following 7 crop (group)/pest combinations: tomatoes, courgettes, melon/watermelon, cucumber, peach, nectarine, ornamentals and aphids. Furthermore, in two MS (Spain and the Netherlands) sufficient chemical alternatives were available for the following 11 crop (group)/pest combinations: tomatoes (open field and protected use), aubergines (open field and protected use), sweet pepper (protected use), courgettes (open field and protected use), pepper, cucumber (open field and protected use) and gherkin (protected use) and whitefly.

The evaluation included an assessment of non-chemical alternatives for the presented uses. A wide range of non-chemical methods are available, 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 feasible.

These methods include: inundative biological control against whitefly for sweet pepper, tomatoes and aubergines (protected use) in Austria; classical biological control and mass trapping against whitefly for tomatoes, sweet pepper, aubergines, cucumber, courgettes, gherkin, pumpkins, melons and watermelons under protected use in the Netherlands; inoculative and classical biological control against aphids and whitefly for cucumber, tomatoes, sweet pepper (protected use), and against aphids for lettuce (protected use) in Denmark; inundative biological control against whitefly for cucumbers, melons, pepper, tomatoes and aubergines in France (however chemical control methods are needed to avoid virus transmission); inundative and inoculative biological control against aphids and whitefly for sweet pepper, tomatoes, aubergines and cucumber under protected use in the United Kingdom.

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1. Introduction

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

Pymetrozine was included in Annex I to Directive 91/414/EEC¹ on 1 November 2001 and has been deemed to be approved under Regulation (EC) No 1107/2009², in accordance with Commission Implementing Regulation (EU) No 540/2011³, amended by Commission Implementing Regulation (EU) No 2017/841⁴, as regards the extension of the approval period for pymetrozine to 30 June 2018.

The applicant, Syngenta Crop Protection AG, applied for renewal of approval in line with the provisions of Commission Regulation (EU) No 1141/2010⁵ as amended by Commission Implementing Regulation (EU) No 380/2013⁶. Pymetrozine was evaluated by Germany as rapporteur Member State (RMS). The RMS delivered its initial evaluation of the dossier in the Renewal Assessment Report (RAR), which was received by EFSA on 28 June 2013 (Germany, 2013). In accordance with Article 16 of Commission Regulation (EU) No 1141/2010 as amended by Commission Implementing Regulation (EU) No 380/2013, EFSA finalised the conclusion on the peer review of the pesticide risk assessment of pymetrozine on 22 August 2014 (EFSA, 2014).

In 2014, during the peer review, EFSA proposed to classify pymetrozine as toxic for reproduction category 2 (R2) in addition to the harmonised classification as carcinogen category 2 (C2). A critical area of concern was identified with regard to the approval criteria of Annex II, Point 3.6.5 of Regulation (EC) No 1107/2009 interim provisions for active substances that shall be considered to have endocrine disrupting properties. In September 2016, EFSA was requested by the European Commission to carry out an assessment of the information submitted by the applicant to demonstrate whether the active substance pymetrozine can be used such that exposure to humans may be considered negligible. EFSA finalised the peer review in light of negligible exposure data on 12 December 2016 (EFSA 2017a).

The applicant Syngenta Crop Protection AG requested derogation in accordance with the provisions of Article 4(7) of Regulation (EU) 1107/2009, submitting evidence regarding the necessity of pymetrozine to control a serious danger to plant health which cannot be contained by other available means. In January 2016, European Commission requested by a general mandate to 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 published on 29 March 2017 (EFSA, 2017b).

Subsequently, the applicant was requested by European Commission to re-submit the data following the methodology developed by EFSA. On 7 June 2017 EFSA received the updated submission provided by the applicant, consisting in a data collection set and a report (Syngenta, 2017a,b). The applicant included claims that the use of pymetrozine is considered essential in accordance with Article 4(7) of Regulation (EC) No 1107/2009 in relation to the uses (more than 150 pest-crop combinations) authorised in 17 Member States (MS) (Austria, Belgium, Croatia, the Czech Republic, Denmark, Finland, France, Germany, Greece, Italy, the Netherlands, Poland, Portugal, Slovenia, Spain, Sweden, and the United Kingdom).

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 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, 24.9.2009, p.1–50

³ 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.

⁴ Commission Implementing Regulation (EU) 2017/841 of 17 May 2017 amending Implementing Regulation (EU) No 540/2011 as regards the extension of the approval periods of the active substances alpha-cypermethrin, *Ampelomyces quisqualis* strain: aq 10, benalaxyl, bentazone, bifentazate, bromoxynil, carfentrazone ethyl, chlorpropham, cyazofamid, desmedipham, diquat, DPX KE 459 (flupyrsulfuron-methyl), etoxazole, famoxadone, fenamidone, flumioxazine, foramsulfuron, *Gliocladium catenulatum* strain: j1446, imazamox, imazosulfuron, isoxaflutole, laminarin, metalaxyl-m, methoxyfenozide, milbemectin, oxasulfuron, pendimethalin, phenmedipham, pymetrozine, s-metolachlor, and trifloxystrobin. C/2017/3160. OJ L 125, 18.5.2017, p. 12–15.

⁵ Commission Regulation (EU) No 1141/2010 of 7 December 2010 laying down the procedure for the renewal of the inclusion of a second group of active substances in Annex I to Council Directive 91/414/EEC and establishing the list of those substances. OJ L 322, 8.12.2010, p. 10–19

⁶ Commission Implementing Regulation (EU) No 380/2013 of 25 April 2013 amending Regulation (EU) No 1141/2010 as regards the submission of the supplementary complete dossier to the Authority, the other Member States and the Commission. OJ L 116, 26.4.2013, p. 4–4

On 26 June 2017 EFSA launched a ten weeks 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 pymetrozine is considered essential to control a 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 9 MS (Austria, Belgium, Denmark, Finland, France, Germany, the Netherlands, Spain, and the United Kingdom) validated the information provided by applicant and 1 MS (Latvia) submitted new information in relation to the uses in oilseed rape.

As a follow up, EFSA ensured that the methodology was consistently applied by MS and summarised the evaluation of pymetrozine (See Appendix A) in the current scientific report. A final consultation process with MS on the draft scientific report was launched in October 2017.

The legal deadline to finalise the current scientific report is 7 December 2017.

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, 2017b). 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, 2017b).

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 pymetrozine. EFSA considered the information provided by MS such as the list of authorised insecticide active substances for each crop(group)/pest combination, the evaluation of risk of resistance of pests, the evaluation of risk of resistance of insecticides and the evaluation of non-insecticide alternatives as reliable and no further research was conducted to validate these data. Thus, MS 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 pymetrozine (Syngenta, 2017a,b), and additional information and data provided by MS after the commenting phase launched by EFSA in June–September 2017. Table 1 provides an overview of authorised uses of pymetrozine to control pollen beetle, whitefly and aphids in various crops in Europe for which derogation under Art. 4 (7) was claimed. For each crop/pest combination, information on 'open field' and/or 'protected use' was provided by the applicant and validated by MS. For crop/pest combinations where such information is not specified in Table 1, it can be assumed that the information relates to 'open field' use.

EFSA provides the data collection sets 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 A).

Table 1: Authorised uses of pymetrozine in Europe for which derogation under Art. 4(7) was claimed

Country	Pest/crop combination ^(a)
Austria	Pollen beetle: Oilseed rape, flowering Brassicaceae and headed Brassicaceae, leafy Brassicaceae, Brussels sprouts
	Aphids (as vector): potatoes
	Aphids: Lettuce (ex. head lettuce) (open field and protected use), lamb's lettuce, flowering Brassicaceae (open field), leafy Brassicaceae, celeriac and stick celery, sweet pepper (protected use), tomatoes (protected use), aubergines (protected use), fresh herbs, small and garden radish, peach and apricot, strawberries (open field and protected use), raspberries, currants and gooseberries, climbing French beans (open field and protected use), dwarf French beans (field), field beans, spinaches and spinaches beet, ornamentals (open field and protected use), sweet corn, hops, potatoes (not including virus transmission), oil radish (seed production), cucumber (protected use), lentils (seed production), cress (seed production)
	Whitefly: Kohlrabi (open field and protected use), sweet pepper (protected use), tomatoes (protected use), aubergines (protected use), ornamentals (open field and protected use), cucumber (protected use)
Belgium	Pollen beetle: Oilseed rape
	Aphids: Seed potatoes, lettuce (protected use), pepper (protected use), tomatoes (protected use), aubergines (protected use), cucumber (protected use)
	Whitefly: Tomatoes (protected use), aubergines (protected use), sweet pepper (protected use), cucurbits (protected use)
Denmark	Pollen beetle: Oilseed rape, cruciferous garden seeds for seed production (minor use)
	Aphids: Cucumber (protected use), pepper (protected use), tomatoes (protected use), sweetcorn (minor use), lettuce (protected use)
	Whitefly: Tomatoes (protected use), pepper (protected use), cucumber (protected use)
Finland	Pollen beetle: Oilseed rape (turnip rape and rape)
	Aphids: <i>Lepidium sativum</i> (minor use), lettuce (protected)(minor use), <i>Valerianella locusta</i> (protected use), <i>Cichorium</i> (protected use), <i>Eruca sativa</i> (protected use), Brassicaceae genus leaves and sprouts(protected use), mizuna (protected use), peas (protected use), radish (protected use), herbs, spinaches (protected use), <i>Beta vulgaris</i> (protected use), strawberry (protected use), tomatoes (protected use), cucumber (protected use), capsicum (protected use), <i>Cucurbita pepo</i> , aubergines (protected use), ornamentals (protected use)
	Whitefly: Tomatoes (protected use), cucumber (protected), capsicum (protected use), <i>Cucurbita pepo</i> , aubergines (protected use), ornamentals (protected use)
France	Pollen beetle: Oilseed rape
	Aphids: Potatoes, artichoke and cardoon, cabbage, cucumber, melon, salads, pepper, tomatoes, aubergines, peach and nectarine (sharka virus, PPV control), aromatic, medicinal and food plants including condiments (seed production), nuts, hops
	Whitefly: Cucumber, melon, pepper, tomatoes, aubergines, aromatic, medicinal and food plants including condiments (seed production)
Germany	Pollen beetle: Oilseed rape, cabbage (leafy Brassicaceae, head cabbage, flowering Brassicaceae, kohlrabi, head cabbage incl. Brussels sprouts)
	Aphids: (as vector): Potatoes
	Aphids: Potatoes (not including virus transmission), lettuce (open field and protected use), endive (protected use), kohlrabi (protected use), sweet pepper (protected use), tomatoes (protected use), aubergines (protected use), fresh herbs, small and garden radish, peach and apricot, strawberries (open field and protected use), raspberries and gooseberries, climbing and dwarf French beans, climbing French bean (protected use), ornamentals (open field and protected use), Italian fennel, celeriac, stick celery (open field and protected use), sweet corn, tobacco, cabbage, leafy Brassicaceae, head cabbage, flowering Brassicaceae, kohlrabi, head cabbage incl. Brussels sprouts), cucumber (protected use)
	Whitefly: Kohlrabi (open field and protected use), cucumber (protected use), sweet pepper (protected use), tomatoes (protected use), aubergines (protected use), ornamentals (open field and protected use)
Latvia	Pollen beetle: Oilseed rape

Country	Pest/crop combination ^(a)
Netherlands	Aphids: Potatoes (seed, ware and starch), flowering Brassicaceae (open field), head cabbage (open field), pepper (protected use), tomatoes (protected use), aubergines (protected use), endive (open field), lettuce (open field and protected use), ornamentals (open field and protected use), aromatic herbs (open field and protected use), cucumber, courgettes, gherkin (protected use), pumpkins, melons, watermelons (protected use)
	Whitefly: Tomatoes (protected use), pepper (protected use), cucumber, courgettes, gherkin (protected use), aubergines (protected use), pumpkins, melons, watermelons(protected use)
Spain	Aphids: Potatoes, aubergines, pepper, courgettes, melon, watermelon, lettuce and similar, strawberries, cucumber, peach and nectarine (sharka virus, PPV control), tomatoes
	Whitefly: Melon and watermelon, courgettes and pepper, cucumber, tomatoes and aubergines
United Kingdom	Pollen beetle: Oilseed rape
	Aphids: Oilseed rape, potatoes (seed), potatoes (ware), cabbage, sweet pepper (protected use), tomatoes (protected use), aubergines (protected use), cucumber (protected use), fresh herb (protected use and open field), lettuce (incl. Lambs lettuce, endive, spinaches, rocket) (open field and protected use), strawberry (open field and protected), raspberry, gooseberry, blackberry, logan berry and Rubus hybrid (open field and protected use), ornamentals (open field and protected use), hops, Brussels sprouts, broccoli/calabrese, cauliflower, choy sum, collard, kale, kohlrabi, baby leaf (open field and protected use)
	Whitefly: sweet pepper (protected use), tomatoes (protected use), aubergines(protected use), cucumber (protected use), ornamentals (protected use)

(a): The uses proposed in the following table correspond to the list provided by the applicant in the excel files (Syngenta, 2017a,b) as modified (including additional uses) and validated by MS, except for the information provided by Latvia on oilseed rape/pollen beetle.

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

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

The applicant submitted the information in relation to the uses for more than 150 pest/crop combinations (in open field and under protected use) in 17 MS (Austria, Belgium, Croatia, the Czech Republic, Denmark, Finland, France, Germany, Greece, Italy, the Netherlands, Poland, Portugal, Slovenia, Spain, Sweden and the United Kingdom). Nine MS (Austria, Belgium, Denmark, Finland, France, Germany, the Netherlands, Spain, and the United Kingdom) validated the information provided by applicant. Eight MS (Croatia, the Czech Republic, Greece, Italy, Poland, Portugal, Slovenia and Sweden) did not verify the information. One MS (Latvia) submitted new information in relation to the uses in oilseed rape/pollen beetle.

3. Evaluation and assessment

The detailed evaluation of applicant's claims on the necessity of pymetrozine to control a serious danger to plant health according to Article 4(7) of Regulation (EC) No 1107/2009 concerning insecticide and non-insecticide alternatives for more than 100 crop(group)/pest combinations (uses in open field and protected use are considered separately) in 10 MS is provided in the data collection sheets reported in Appendix A. The results for the different crop(group)/pest combinations are presented by 'family', using the EPPO code⁷, except for ornamentals, aromatic, medicinal and food plants including condiments (seed production) and fresh herbs. The EPPO code is also used in the EU Plant Protection Products Application Management System (PPPAMS)⁸ database.

⁷ Available at <https://gd.eppo.int/>

⁸ Available at https://ec.europa.eu/food/plant/pesticides/authorisation_of_ppp/pppams_en

3.1. Evaluation of chemical and non-chemical alternatives

3.1.1. Brassicaceae–pollen beetle

Table 2 summarises the outcome for 'brassicaceae and pollen beetle', 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 non-insecticide alternatives and indicates if a derogation of the a.s. under consideration is scientifically supported or not. Further details on the evaluation are reported in Appendix A.

Table 2: Outcome of the evaluation 'brassicaceae and pollen beetle' for four different crop(group)/pest combinations in eight Member States.

Crop(group)/pest	Country	Score ^(a)	Derogation scientifically supported
Flowering Brassicaceae, headed Brassicaceae/pollen beetle	AT	1.5	Yes
Cabbage (leafy Brassicaceae, head cabbage, flowering Brassicaceae, kohlrabi, head cabbage incl. Brussels sprouts)/pollen beetle	DE	3	Yes
Cruciferous garden seeds for seed production/pollen beetle	DK	n.a. ^(b)	Yes
Leafy Brassicaceae/pollen beetle	AT	3	Yes
Brussels sprouts/pollen beetle	AT	2	Yes
Oilseed rape/pollen beetle	AT	1.33	Yes
	BE	1.71	Yes
	DE	2.4	Yes
	DK	1.71	Yes
	FI	1.71	Yes
	FR	2.4	Yes
	UK	1.5	Yes
	LV	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 (2017b).

(b): n.a.: not applicable as no score can be calculated.

The evaluation of non-insecticide alternatives and detailed information on possible reasons preventing or limiting the applicability of each method for the above outlined crop(group)/pest combinations in the respective MS are provided in the data collection sheets in Appendix A. None of the non-insecticide alternatives is highly effective and used on a larger scale in different cropping systems (applied on more than 50% of the acreage of crop).

3.1.2. Brassicaceae – aphids

Table 3 summarises the outcome for 'brassicaceae and aphids', 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 non-insecticide alternatives and indicates if a derogation of the a.s. under consideration is scientifically supported or not. Further details on the evaluation are reported in Appendix A.

Table 3: Outcome of the evaluation 'brassicaceae and aphids' for 18 crop(group)/pest combinations (open field and protected use) and in six Member States

Crop(group)/pest	Country	Score ^(a)	Derogation scientifically supported
Flowering Brassicaceae/aphids	AT	0.86	Maybe
Flowering Brassicaceae (open field)/aphids	NL	1.2	Maybe
Brussels sprouts, broccoli/calabrese, cauliflower, choy sum, collard, kale, kohlrabi/aphids	UK	1	Maybe
Brassicaceae genus leaves and sprouts, mizuna, peas, radish/aphids (protected use)	FI	6	Yes
Leafy Brassicaceae/aphids	AT	1.2	Maybe
Cabbage (leafy Brassicaceae, head cabbage, flowering Brassicaceae, kohlrabi, head cabbage incl. Brussels sprouts)/aphids	DE	1	Maybe
Cabbages/ aphids	FR	1.5	Yes
	UK	1	Maybe
Head cabbage (open field)/aphids	NL	1.2	Maybe
Small radish, garden radish/aphids	AT	2	Yes
	DE	3	Yes
Oil radish/aphids (seed production)	AT	6	Yes
Oilseed rape/aphids	UK	6	Yes
<i>Lepidium sativum</i> (seed production)/ aphids	AT	1	Maybe
<i>Lepidium sativum</i> /aphids	FI	6	Yes
Kohlrabi/ aphids (protected use)	DE	4	Yes
<i>Eruca sativa</i> /aphids (protected use)	FI	6	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 (2017b).

The evaluation of non-insecticide alternatives and detailed information on possible reasons preventing or limiting the applicability of each method for the above outlined crop(group)/pest combinations in the respective MS are provided in the data collection sheets in Appendix A. None of the non-insecticide alternatives is highly effective and used on a larger scale in different cropping systems (i.e. applied on more than 50% of the acreage of crop).

3.1.3. Brassicaceae–whitefly

Table 4 summarises the outcome for 'brassicaceae 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 and non-insecticide alternatives and indicates if a derogation of the a.s. under consideration is scientifically supported or not. Further details on the evaluation are reported in Appendix A.

Table 4: Outcome of the evaluation 'brassicaceae and whitefly' for two crop group/pest combinations (open field and protected use) in two Member States

Crop(group)/pest	Country	Score ^(a)	Derogation scientifically supported
Kohlrabi/whitefly	AT	1.2	Maybe
	DE	1.5	Yes
Kohlrabi/whitefly (protected use)	AT	2	Yes
	DE	6	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 (2017b).

The evaluation of non-insecticide alternatives and detailed information on possible reasons preventing or limiting the applicability of each method for the above outlined crop(group)/pest combinations in the respective MS are provided in the data collection sheets in Appendix A. None of the non-insecticide alternatives is highly effective and used on a larger scale in different cropping systems (i.e. applied on more than 50% of the acreage of crop).

3.1.4. Solanaceae–aphids

Table 5 summarises the outcome for 'solanaceae and aphids', 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 non-insecticide alternatives, and indicates if a derogation of the a.s. under consideration is scientifically supported or not. For further details on the evaluation, see Appendix A.

Table 5: Outcome of the evaluation 'solanaceae and aphids' for 11 crop(group)/pest combinations (open field and protected use) and in nine Member States

Crop(group)/pest	Country	Score ^(a)	Derogation scientifically supported
Seed potatoes/aphids	BE	1.2	Maybe
	UK	1.5	Yes
Potatoes/aphids (virus transmission)	AT	1.2	Maybe
	DE	2	Yes
	ES	1.2	Maybe
	FR	2	Yes
	DE	2	Yes
Potatoes/aphids (not including virus transmission)	AT	0.86	Maybe
	DE	3	Yes
Tobacco/aphids	FI	6	Yes
Aubergines/aphids (protected use)	FR	1	Maybe
Aubergines, pepper/aphids	ES	0.86	Maybe
Pepper/aphids	FR	3	Yes
Pepper/aphids (protected use)	DK	1.5 ^(b)	Yes
Potatoes seed, ware and starch potatoes/aphids	NL	0.86	Maybe
Potatoes (ware)/aphids	UK	1	Maybe
Sweet pepper, tomatoes, aubergines/aphids (protected use)	AT	1.2 ^(b)	Maybe
	BE	3	Yes
	DE	1.5	Yes
	NL	1.2	Maybe
	UK	1.2 ^(b)	Maybe
Tomatoes/aphids	ES	0.6	No
Tomatoes/aphids (protected use)	FI	1.5	Yes
	DK	0.8 ^(b)	Maybe
Capsicum sp./aphids (protected use)	FI	6	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 (2017b).

(b): Effective alternative non-insecticide methods are available.

The evaluation of non-insecticide alternatives and detailed information on possible reasons preventing or limiting the applicability of each method for the above outlined crop(group)/pest combinations in the respective MS are provided in the data collection sheets in Appendix A. In Denmark, for tomatoes and pepper (protected use), two non-insecticide alternatives, classical biocontrol and inoculative biocontrol, are considered as highly effective, used on a larger scale in different cropping systems and feasible. In the United Kingdom, for sweet pepper, tomatoes and aubergines (protected use), two non-insecticide alternatives, inoculative and inundative biocontrol, are

considered as highly effective, used on a larger scale in different cropping systems and feasible. In Austria, for sweet pepper, tomatoes and aubergines (protected use), one non-insecticide alternative, inundative biocontrol, is considered as highly effective, used on a larger scale in different cropping systems and feasible.

3.1.5. Solanaceae–whitefly

Table 6 summarises the outcome for 'solanaceae 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 and non-insecticide alternatives, and indicates if a derogation of the a.s. under consideration is scientifically supported or not. For further details on the evaluation, see Appendix A.

Table 6: Outcome of the evaluation 'solanaceae and whitefly' for six crop(group)/pest combinations (open field and protected use) and in nine Member States

Crop(group)/pest	Country	Score ^(a)	Derogation scientifically supported
Aubergines, tomatoes/whitefly (protected use)	BE	0.86	Maybe
Aubergines, tomatoes/whitefly	ES	0.67	No
	FR	0.86	Maybe
Aubergines/whitefly (protected use)	FI	6	Yes
Tomatoes/whitefly (protected use)	DK	1.5 ^(b)	Yes
	FI	1.5	Yes
Pepper/whitefly	FR	1.2	Maybe
Sweet pepper/whitefly (protected use)	DK	2 ^(b)	Yes
	BE	0.86	Maybe
Sweet pepper, tomatoes, aubergines /whitefly (protected use)	AT	0.75 ^(b)	Maybe
	DE	1.5	Yes
	NL	0.43 ^(b)	No
	UK	1 ^(b)	Maybe
Capsicum sp./whitefly (protected use)	FI	6	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 (2017b).

(b): Effective alternative non-insecticide methods are available.

The evaluation of non-insecticide alternatives and detailed information on possible reasons preventing or limiting the applicability of each method for the above outlined crop(group)/pest combinations in the respective MS are provided in the data collection sheets in Appendix A. In Austria, for sweet pepper, tomatoes and aubergines (protected use), one non-insecticide alternative, inundative biocontrol, is considered as highly effective, used on a larger scale in different cropping systems and feasible. In the Netherlands, for tomatoes, pepper, aubergines (protected use), two non-insecticide alternatives, classical biocontrol and mass-trapping, are considered as highly effective (the use of natural enemies in combination with mass trapping delivers 80–99% control of whiteflies), used on a larger scale in different cropping systems and feasible. In Denmark, for tomatoes and pepper (protected use), two non-insecticide alternatives, classical biocontrol and inoculative biocontrol, are considered as highly effective, used on a larger scale in different cropping systems and feasible. In the United Kingdom, for sweet pepper, tomatoes, and aubergines (protected use), two non-insecticide alternatives, inoculative biocontrol and inundative biocontrol, are considered as highly effective, used on a larger scale in different cropping systems and feasible. In France, for pepper, tomatoes and aubergines in open field, one non-insecticide alternative, inundative biocontrol, is considered as highly effective, used on a larger scale in different cropping systems and feasible. However, chemical control methods are needed to avoid virus transmission.

3.1.6. Cucurbitaceae–aphids

Table 7 summarises the outcome for 'cucurbitaceae and aphids', 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 non-insecticide alternatives and indicates if a derogation of the a.s. under consideration is scientifically supported or not. Further details on the evaluation are reported in Appendix A.

Table 7: Outcome of the evaluation 'cucurbitaceae and aphids' for 12 crop(group)/pest combinations (open field and protected use) and in nine Member States

Crop(group)/pest	Country	Score ^(a)	Derogation scientifically supported
Courgettes, melon, watermelon/aphids	ES	0.67	No
Cucumber/aphids	FR	2	Yes
Melon/aphids	FR	1.5	Yes
Cucumber, courgettes, gherkin/aphids (protected use)	NL	1.2	Maybe
Pumpkins, melons, watermelons/aphids (protected use)	NL	2	Yes
Cucumber/aphids	ES	0.67	No
Cucumber/aphids (protected use)	AT	1.5	Maybe
	BE	2	Yes
	DE	1	Maybe
	DK	1.2 ^(b)	Maybe
	UK	1.33 ^(b)	Yes
	FI	1.5	Yes
<i>Cucurbita pepo</i> /aphids (protected use)	FI	6	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 (2017b).

(b): Effective alternative non-insecticide methods are available.

The evaluation of non-insecticide alternatives and detailed information on possible reasons preventing or limiting the applicability of each method for the above outlined crop(group)/pest combinations in the respective MS are provided in the data collection sheets in Appendix A. In Denmark, for cucumber (protected use) two non-insecticide alternatives, classical biocontrol and inoculative biocontrol, are considered as highly effective, used on a larger scale in different cropping systems and feasible. In the United Kingdom, for cucumber (protected use) two non-insecticide alternatives, inoculative and inundative biocontrol, are considered as highly effective, used on a larger scale in different cropping systems and feasible.

3.1.7. Cucurbitaceae–whitefly

Table 8 summarises the outcome for 'cucurbitaceae 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 and non-insecticide alternatives and indicates if a derogation of the a.s. under consideration is scientifically supported or not. Further details on the evaluation are reported in Appendix A.

Table 8: Outcome of the evaluation 'cucurbitaceae and whitefly' for 12 crop(group)/pest combinations (open field and protected use) and in nine Member States

Crop(group)/pest	Country	Score ^(a)	Derogation scientifically supported
Courgettes, pepper/whitefly	ES	0.6	No
Melon, watermelon/whitefly	ES	0.86	Maybe

Crop(group)/pest	Country	Score ^(a)	Derogation scientifically supported
Cucumber/whitefly (protected use)	AT	1.5	Yes
	BE	0.86	Maybe
	DE	2	Yes
	DK	1 ^(b)	Maybe
	UK	1.33 ^(b)	Yes
	FI	1.5	Yes
Cucumber/whitefly	ES	0.55	No
Cucumber/whitefly	FR	1.2	Maybe
Melon/whitefly	FR	2	Yes
Cucumber, courgettes, gherkin/whitefly (protected use)	NL	0.5 ^(b)	No
Pumpkins, melons, watermelons/ whitefly (protected use)	NL	0.75 ^(b)	Maybe
<i>Cucurbita pepo</i> /whitefly	FI	6	Yes

(a): z/x scores > 1.25 : derogation is scientifically supported as there are not enough alternative mode of actions (MoA); $0.75 \leq 1.25$: 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 (2017b).

(b): Effective alternative non-insecticide methods are available.

The evaluation of non-insecticide alternatives and detailed information on possible reasons preventing or limiting the applicability of each method for the above outlined crop(group)/pest combinations in the respective MS are provided in the data collection sheets in Appendix A. In the Netherlands, for whitefly and cucumber, courgettes, gherkin, pumpkins, melons, and watermelons under protected use, two non-insecticide alternatives, classical biocontrol and mass-trapping are considered as highly effective (the use of natural enemies in combination with mass trapping delivers 80–99% control of whiteflies), used on a larger scale in different cropping systems and feasible. In Denmark, for whitefly and cucumber (protected use), two non-insecticide alternatives, classical biocontrol and inoculative biocontrol, are considered as a highly effective, used on a larger scale in different cropping systems and feasible. In the United Kingdom, for whitefly and cucumber (protected use), two non-insecticide alternatives, inoculative and inundative biocontrol, are considered as highly effective, used on a larger scale in different cropping systems and feasible. In France, for whitefly and cucumber and melon in open field, one non-insecticide alternative, inundative biocontrol, is considered as highly effective, used on a larger scale in different cropping systems and feasible; however, chemical control methods are needed to avoid virus transmission.

3.1.8. Fresh herbs–aphids

Table 9 summarises the outcome for 'fresh herbs and aphids', 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 non-insecticide alternatives, and indicates if a derogation of the a.s. under consideration is scientifically supported or not. For further details on the evaluation, see Appendix A.

Table 9: Outcome of the evaluation 'fresh herbs and aphids' for four crop(group)/pest combinations (open field and protected use) and in five Member States

Crop(group)/pest	Country	Score ^(a)	Derogation scientifically supported
Fresh herbs/aphids	AT	1.2	Maybe
	DE	1.5	Yes
Aromatic herbs (ex. edible flowers)/aphids	NL	2	Yes

Crop(group)/pest	Country	Score ^(a)	Derogation scientifically supported
Fresh herbs/aphids (open field, protected use)	UK	1	Maybe
Herbs/aphids (protected use)	FI	2	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 (2017b).

The evaluation of non-insecticide alternatives and detailed information on possible reasons preventing or limiting the applicability of each method for the above outlined crop(group)/pest combinations in the respective MS are provided in the data collection sheets in Appendix A. None of the non-insecticide alternatives is highly effective and used on a larger scale in different cropping systems (i.e. applied on more than 50% of the acreage of crop).

3.1.9. Caprifoliaceae–aphids

Table 10 summarises the outcome for 'caprifoliaceae and aphids', 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 non-insecticide alternatives, and indicates if a derogation of the a.s. under consideration is scientifically supported or not. Further details on the evaluation are reported in Appendix A.

Table 10: Outcome of the evaluation 'caprifoliaceae and aphids' for two crop(group)/pest combinations (open field and protected use) and in two Member States

Crop(group)/pest	Country	Score ^(a)	Derogation scientifically supported
Lamb's lettuce/aphids	AT	3	Yes
<i>Valerianella locusta</i> /aphids (protected use)	FI	6	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 (2017b).

The evaluation of non-insecticide alternatives and detailed information on possible reasons preventing or limiting the applicability of each method for the above outlined crop(group)/pest combinations in the respective MS are provided in the data collection sheets in Appendix A. None of the non-insecticide alternatives is highly effective and used on a larger scale in different cropping systems (i.e. applied on more than 50% of the acreage of crop) and enabling the use of the methods.

3.1.10. Asteraceae–aphids

Table 11 summarises the outcome for 'asteraceae and aphids', 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 non-insecticide alternatives and indicates if a derogation of the a.s. under consideration is scientifically supported or not. Further details on the evaluation are reported in Appendix A.

Table 11: Outcome of the evaluation 'asteraceae and aphids' for 17 crop(group)/pest combinations (open field and protected use) and in nine Member States

Crop(group)/pest	Country	Score ^(a)	Derogation scientifically supported
Endive/aphids (protected use)	DE	3	Yes
Endive (open field use)/aphids	NL	1.5	Yes
Salads/aphids	FR	1.5	Yes
Artichoke, cardoon/aphids	FR	3	Yes

Crop(group)/pest	Country	Score ^(a)	Derogation scientifically supported
Lettuce (open field and protected use)/aphids	NL	2	Yes
Lettuce (incl. lamb's lettuce ^(b) , endive, spinaches, rocket)/aphids (open field, protected use)	UK	1	Maybe
Lettuce (ex. head lettuce)/aphids (protected use)	AT	2	Yes
Lettuce (ex. head lettuce)/aphids	AT	0.86	Maybe
Lettuce/aphids	DE	1.5	Yes
Lettuce and similar/aphids	ES	0.75	Maybe
Lettuce/aphids (protected)	BE	1.2	Maybe
	DE	3	Yes
	DK	1.2 ^(c)	maybe
	FI	1.5	yes
<i>Cichorium</i> sp./aphids (protected use)	FI	6	Yes
Baby leaf (harvest before 8 leaves)/aphids (open field and protected use)	UK	1	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 (2017b).

(b): Some species do not belong to the family 'asteraceae'. However as only information for the whole group was provided, no further break down was possible.

(c): Effective alternative non-insecticide methods are available.

The evaluation of non-insecticide alternatives and detailed information on possible reasons preventing or limiting the applicability of each method for the above outlined crop(group)/pest combinations in the respective MS are provided in the data collection sheets in Appendix A. In Denmark, for lettuce (protected use) two non-insecticide alternatives, classical biocontrol and inoculative biocontrol are considered as a highly effective, used on a larger scale in different cropping systems and feasible.

3.1.11. Fabaceae–aphids

Table 12 summarises the outcome for 'fabaceae and aphids', 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 non-insecticide alternatives and indicates if a derogation of the a.s. under consideration is scientifically supported or not. Further details on the evaluation are reported in Appendix A.

Table 12: Outcome of the evaluation 'fabaceae and aphids' for five crop(group)/pest combinations (open field and protected use) and in two Member States

Crop(group)/pest	Country	Score ^(a)	Derogation scientifically supported
Climbing French bean/aphids (open field, protected use)	AT	3	Yes
Dwarf French bean/aphids	AT	3	Yes
Field bean/aphids	AT	2	Yes
Lentils (seed production)/aphids	AT	6	yes
Climbing, dwarf French bean/aphids	DE	3	Yes
Climbing French bean/aphids (protected use)	DE	6	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 (2017b).

The evaluation of non-insecticide alternatives and detailed information on possible reasons preventing or limiting the applicability of each method for the above outlined crop(group)/pest combinations in the respective MS are provided in the data collection sheets in Appendix A. None of the non-insecticide alternatives is highly effective and used on a larger scale in different cropping systems (i.e. applied on more than 50% of the acreage of crop).

3.1.12. Apiaceae–aphids

Table 13 summarises the outcome for 'apiaceae and aphids', 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 non-insecticide alternatives and indicates if a derogation of the a.s. under consideration is scientifically supported or not. Further details on the evaluation are reported in Appendix A.

Table 13: Outcome of the evaluation 'apiaceae and aphids' for four crop(group)/pest combinations (open field and protected use) and in two Member States

Crop(group)/pest	Country	Score ^(a)	Derogation scientifically supported
Celeriac, stick celery/aphids	AT	3	Yes
Italian fennel, celeriac, stick celery/aphids	DE	2	Yes
Sticky celery/aphids (protected use)	DE	4	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 (2017b).

The evaluation of non-insecticide alternatives and detailed information on possible reasons preventing or limiting the applicability of each method for the above outlined crop(group)/pest combinations in the respective MS are provided in the data collection sheets in Appendix A. None of the non-insecticide alternatives is highly effective and used on a larger scale in different cropping systems (i.e. applied on more than 50% of the acreage of crop).

3.1.13. Rosaceae–aphids

Table 14 summarises the outcome for 'rosaceae and aphids', 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 non-insecticide alternatives and indicates if a derogation of the a.s. under consideration is scientifically supported or not. Further details on the evaluation are reported in Appendix A.

Table 14: Outcome of the evaluation 'rosaceae and aphids' for 18 crop(group)/pest combinations (including some protected use) and in seven Member States

Crop(group)/pest	Country	Score ^(a)	Derogation scientifically supported
Strawberries/aphids	AT	1	Maybe
	ES	0.75	Maybe
Strawberries/aphids (open field, protected use)	DE	3	Yes
	UK	2	Yes
Strawberries/aphids (protected use)	AT	0.86	Maybe
	FI	6	Yes
Peach, apricots/aphids	AT	1	Maybe
	DE	6	Yes
Gooseberry, currants/aphids	AT	1	Maybe
Raspberry/aphids	AT	0.86	Maybe
Raspberry, gooseberry/aphids	DE	3	Yes

Crop(group)/pest	Country	Score ^(a)	Derogation scientifically supported
Peach, nectarine/aphids (sharka virus (PPV) control)	ES	0.6	No
	FR	1.5	Yes
Raspberry, gooseberry, blackberry, logan berry and Rubus hybrid/aphids (open field and protected use)	UK	2	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 (2017b).

The evaluation of non-insecticide alternatives and detailed information on possible reasons preventing or limiting the applicability of each method for the above outlined crop(group)/pest combinations in the respective MS are provided in the data collection sheets in Appendix A. None of the non-insecticide alternatives is highly effective and used on a larger scale in different cropping systems (i.e. applied on more than 50% of the acreage of crop).

3.1.14. Chenopodioideae–aphids

Table 15 summarises the outcome for 'chenopodioideae and aphids', 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 non-insecticide alternatives and indicates if a derogation of the a.s. under consideration is scientifically supported or not. For further details on the evaluation, see Appendix A.

Table 15: Outcome of the evaluation 'chenopodioideae and aphids' for three crop(group)/pest combinations (open field and protected use) and in two Member States

Crop(group)/pest	Country	Score ^(a)	Derogation scientifically supported
Spinaches, spinaches beet/aphids	AT	1.2	Maybe
Spinaches/aphids (protected use)	FI	6	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 (2017b).

The evaluation of non-insecticide alternatives and detailed information on possible reasons preventing or limiting the applicability of each method for the above outlined crop(group)/pest combinations in the respective MS are provided in the data collection sheets in Appendix A. None of the non-insecticide alternatives is highly effective and used on a larger scale in different cropping systems (i.e. applied on more than 50% of the acreage of crop).

3.1.15. Ornamentals–aphids

Table 16 summarises the outcome for 'ornamentals and aphids', 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 non-insecticide alternatives and indicates if a derogation of the a.s. under consideration is scientifically supported or not. Further details on the evaluation are reported in Appendix A.

Table 16: Outcome of the evaluation 'ornamentals and aphids' for two crop group/pest combination (open field and protected use) and in five Member States

Crop(group)/pest	Country	Score ^(a)	Derogation scientifically supported
Ornamentals/aphids	AT	0.67	No
	DE	1.2	Maybe
	UK	1.5	Yes

Crop(group)/pest	Country	Score ^(a)	Derogation scientifically supported
Ornamentals/aphids (protected use)	AT	0.67	No
	DE	0.86	Maybe
	UK	0.75	Maybe
	FI	0.8	Maybe
Ornamentals/aphids (open field and protected use)	NL	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; < 0.75: derogation is scientifically not supported as there are enough alternative MoA. Further details, see EFSA (2017b).

The evaluation of non-insecticide alternatives and detailed information on possible reasons preventing or limiting the applicability of each method for the above outlined crop(group)/pest combinations in the respective MS are provided in the data collection sheets in Appendix A. None of the non-insecticide alternatives is highly effective and used on a larger scale in different cropping systems (i.e. applied on more than 50% of the acreage of crop).

3.1.16. Ornamentals–whitefly

Table 17 summarises the outcome for 'ornamentals 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 and non-insecticide alternatives and indicates if a derogation of the a.s. under consideration is scientifically supported or not. Further details on the evaluation are reported in Appendix A.

Table 17: Outcome of the evaluation 'ornamentals and whitefly' for two crop group/pest combination (open field and protected use) and in four Member States

Crop(group)/pest	Country	Score ^(a)	Derogation scientifically supported
Ornamentals/whitefly	DE	1.5	Yes
	AT	1	Maybe
Ornamentals/whitefly (protected use)	AT	0.75	Maybe
	DE	1	Maybe
	UK	1.5	Yes
	FI	0.8	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 (2017b).

The evaluation of non-insecticide alternatives and detailed information on possible reasons preventing or limiting the applicability of each method for the above outlined crop(group)/pest combinations in the respective MS are provided in the data collection sheets in Appendix A. None of the non-insecticide alternatives is highly effective and used on a larger scale in different cropping systems (i.e. applied on more than 50% of the acreage of crop).

3.1.17. Poaceae–aphids

Table 18 summarises the outcome for 'poaceae and aphids', 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 non-insecticide alternatives and indicates if a derogation of the a.s. under consideration is scientifically supported or not. Further details on the evaluation are reported in Appendix A.

Table 18: Outcome of the evaluation 'poaceae and aphids' for one crop(group)/pest combination in three Member States

Crop(group)/pest	Country	Score ^(a)	Derogation scientifically supported
Sweet corn/aphids	AT	n.a. ^(b)	Yes
	DE	n.a. ^(b)	Yes
	DK	4	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 (2017b).

(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.

The evaluation of non-insecticide alternatives and detailed information on possible reasons preventing or limiting the applicability of each method for the above outlined crop(group)/pest combinations in the respective MS are provided in the data collection sheets in Appendix A. None of the non-insecticide alternatives is highly effective and used on a larger scale in different cropping systems (i.e. applied on more than 50% of the acreage of crop).

3.1.18. Corylaceae–aphids

Table 19 summarises the outcome for 'corylaceae and aphids', 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 non-insecticide alternatives and indicates if a derogation of the a.s. under consideration is scientifically supported or not. Further details on the evaluation are reported in Appendix A.

Table 19: Outcome of the evaluation 'corylaceae and aphids' for one crop(group)/pest combination in one Member State

Crop(group)/pest	Country	Score ^(a)	Derogation scientifically supported
Nuts/aphids	FR	3	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 (2017b).

The evaluation of non-insecticide alternatives and detailed information on possible reasons preventing or limiting the applicability of each method for the above outlined crop(group)/pest combination in the respective MS is provided in the data collection sheets in Appendix A. None of the non-insecticide alternatives is highly effective and used on a larger scale in different cropping systems (i.e. applied on more than 50% of the acreage of crop).

3.1.19. Aromatic, medicinal and food plants including condiments (seed production)–whitefly

Table 20 summarises the outcome for 'aromatic, medicinal and food plants including condiments (seed production) 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 and non-insecticide alternatives and indicates if a derogation of the a.s. under consideration is scientifically supported or not. Further details on the evaluation are reported in Appendix A.

Table 20: Outcome of the evaluation 'aromatic, medicinal and food plants including condiments (seed production) and whitefly' for one crop group/pest combination in one Member State

Crop(group)/pest	Country	Score ^(a)	Derogation scientifically supported
Aromatic, medicinal and food plants including condiments (seed production) and whitefly	FR	3	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 (2017b).

The evaluation of non-insecticide alternatives and detailed information on possible reasons preventing or limiting the applicability of each method for the above outlined crop(group)/pest combination in the respective MS is provided in the data collection sheets in Appendix A. None of the non-insecticide alternatives is highly effective and used on a larger scale in different cropping systems (i.e. applied on more that 50% of the acreage of crop).

3.1.20. Aromatic, medicinal and food plants including condiments (seed production)–aphids

Table 21 summarises the outcome for 'aromatic, medicinal and food plants including condiments (seed production) and aphids', 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 non-insecticide alternatives and indicates if a derogation of the a.s. under consideration is scientifically supported or not. Further details on the evaluation are reported in Appendix A.

Table 21: Outcome of the evaluation 'aromatic, medicinal and food plants including condiments (seed production) and aphids' for one crop group/pest combination in one Member State

Crop(group)/pest	Country	Score ^(a)	Derogation scientifically supported
Aromatic, medicinal and food plants including condiments (seed production)/aphids	FR	1.5	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 (2017b).

The evaluation of non-insecticide alternatives and detailed information on possible reasons preventing or limiting the applicability of each method for the above outlined crop(group)/pest combination in the respective MS is provided in the data collection sheets in Appendix A. None of the non-insecticide alternatives is highly effective and used on a larger scale in different cropping systems (i.e. applied on more that 50% of the acreage of crop).

3.1.21. Cannabaceae–aphids

Table 22 summarises the outcome for 'cannabaceae and aphids', 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 non-insecticide alternatives and indicates if a derogation of the a.s. under consideration is scientifically supported or not. Further details on the evaluation are reported in Appendix A.

Table 22: Outcome of the evaluation 'cannabaceae and aphids' for one crop(group)/pest combination in three Member States

Crop(group)/pest	Country	Score ^(a)	Derogation scientifically supported
Hop/ aphids	AT	1.2	Maybe
	FR	2	yes
	UK	0.75	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 (2017b).

The evaluation of non-insecticide alternatives and detailed information on possible reasons preventing or limiting the applicability of each method for the above outlined crop(group)/pest combinations in the respective MS are provided in the data collection sheets in Appendix A. None of the non-insecticide alternatives is highly effective and used on a larger scale in different cropping systems (i.e. applied on more than 50% of the acreage of crop).

3.1.22. Amaranthaceae–aphids

Table 23 summarises the outcome for 'amaranthaceae and aphids', 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 non-insecticide alternatives and indicates if a derogation of the a.s. under consideration is scientifically supported or not. Further details on the evaluation are reported in Appendix A.

Table 23: Outcome of the evaluation 'amaranthaceae and aphids' for one crop(group)/pest combination under protected use in one Member State

Crop(group)/pest	Country	Score ^(a)	Derogation scientifically supported
<i>Beta vulgaris</i> /aphids (protected use)	FI	6	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 (2017b).

The evaluation of non-insecticide alternatives and detailed information on possible reasons preventing or limiting the applicability of each method for the above outlined crop(group)/pest combinations in the respective MS are provided in the data collection sheets in Appendix A. None of the non-insecticide alternatives is highly effective and used on a larger scale in different cropping systems (i.e. applied on more than 50% of the acreage of crop).

4. Conclusions

The evaluation of applicant's claims that the use of pymetrozine 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, 2017b).

Overall, more than 100 different crop(group)/pest combinations (in open field and under protected use) in 10 MS (Austria, Belgium, Denmark, Finland, France, Germany, the Netherlands, Spain and the United Kingdom) were evaluated to assess the applicant's claims or information directly provided by MS (Latvia) on the necessity of pymetrozine to control a serious danger to plant health.

An overview of the outcome of chemical alternative substances to pymetrozine is provided in Table 24.

Table 24: Overview of the evaluation of chemical alternative substances to pymetrozine

Family/Pest	Number of crop (group)/pest combination ^(a)	Number of MS	Derogation scientifically supported (open field)	Derogation scientifically supported (protected use)
Brassicaceae – pollen beetle	4	8	Yes	n.a. ^(b)
Brassicaceae – aphids	18	6	Maybe-yes	Yes
Brassicaceae – whitefly	2	2	Maybe-yes	Yes
Solanaceae – aphids	11	9	No-maybe-yes	Maybe-yes
Solanaceae – whitefly	6	9	No-maybe	No-maybe-yes
Cucurbitaceae – aphids	12	9	No-yes	Maybe-yes
Cucurbitaceae – whitefly	12	9	No-maybe-yes	No-maybe-yes
Fresh herbs – aphids	4	5	Maybe-yes	Maybe-yes
Caprifoliaceae – aphids	2	2	Yes	Yes
Asteraceae – aphids	17	9	Maybe-yes	Maybe-yes
Fabaceae – aphids	5	2	Yes	Yes
Apiaceae – aphids	4	2	Yes	Yes
Rosaceae – aphids	18	7	No-maybe-yes	Maybe-yes
Chenopodioideae – aphids	3	2	Maybe	Yes
Ornamentals – aphids	2	5	No-maybe-yes	No-maybe
Ornamentals – whitefly	2	4	Maybe-yes	Maybe-yes
Poaceae – aphids	1	3	Yes	n.a. ^(b)
Corylaceae – aphids	1	1	Yes	n.a. ^(b)
Aromatic, medicinal and food plants including condiments (seed production) – aphids	1	1	Yes	n.a. ^(b)
Aromatic, medicinal and food plants including condiments (seed production) – whitefly	1	1	Yes	n.a. ^(b)
Cannabaceae – aphids	1	3	Maybe-yes	n.a. ^(b)
Amaranthaceae – aphids	1	1	n.a. ^(b)	Yes

(a): Uses for a crop(group)–pest combination in open field and protected use are considered separately uses for (in open field and under protected use). For details, see Table 2–23.

(b): Not applicable, as use was not requested.

The evaluation demonstrated that not a wide range of alternative insecticide active substances to pymetrozine are available to chemically control pollen beetle, whitefly and aphids in various crops/crop groups (open field and protected use). However, for 19 crop (group)/pest combinations in some MS, sufficient chemical alternatives were available. The data are summarised in Table 25.

Table 25: Summary of the evaluation where sufficient chemical alternative substances to pymetrozine were identified

Crop(group)/pest	Country	Score ^(a)	Derogation scientifically supported
Tomatoes/aphids	ES	0.6	No
Aubergines, tomatoes/whitefly	ES	0.67	No
Sweet pepper, tomatoes, aubergines/whitefly (protected use)	NL	0.43 ^(b)	No
Courgettes, melon, watermelon/aphids	ES	0.67	No
Cucumber/aphids	ES	0.67	No
Courgettes, pepper/whitefly	ES	0.6	No
Cucumber/whitefly	ES	0.55	No

Crop(group)/pest	Country	Score ^(a)	Derogation scientifically supported
Cucumber, courgettes, gherkin/whitefly (protected use)	NL	0.5 ^(b)	No
Peach, nectarine/aphids (sharka virus (PPV) control)	ES	0.6	No
Ornamentals/aphids	AT	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 (2017b).

(b): Effective alternative non-insecticide methods are available. For details, see Sections 3.1.5 and 3.1.7.

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. These methods include: inundative biological control against whitefly and aphids for sweet pepper, tomatoes and aubergines (protected use) in Austria; classical biological control and mass trapping against whitefly for tomatoes, sweet pepper, aubergines, cucumber, courgettes, gherkin, pumpkins, melons, and watermelons under protected use in the Netherlands (although insecticides integrable with natural enemies are necessary in moments the Integrated Pest Management (IPM) system provides insufficient control); inoculative and classical biological control against aphids and whitefly for cucumber, tomatoes, sweet pepper (protected use), and against aphids for lettuce (protected use) in Denmark; inundative biological control against whitefly for cucumbers, melons, pepper, tomatoes and aubergines in France (however chemical control methods are needed to avoid virus transmission); inundative and inoculative biological control against aphids and whitefly for sweet pepper, tomatoes, aubergines and cucumber under protected use in the United Kingdom.

References

- Austria, 2017. Validated excel on pymetrozine prepared by the Member State Austria in the framework of a derogation to Art. 4(7) of Regulation (EC) No 1107/2009, June-September 2017. Available online: www.efsa.europa.eu
- Belgium, 2017. Validated excel on pymetrozine prepared by the Member State Belgium in the framework of a derogation to Art. 4(7) of Regulation (EC) No 1107/2009, June-September 2017. Available online: www.efsa.europa.eu
- Denmark, 2017. Validated excel on pymetrozine prepared by the Member State Denmark in the framework of a derogation to Art. 4(7) of Regulation (EC) No 1107/2009, June-September 2017. Available online: www.efsa.europa.eu
- EFSA (European Food Safety Authority), 2014. Conclusion on the peer review of the pesticide risk assessment of the active substance pymetrozine. EFSA Journal 2014;12(9):3817, 102 pp. <https://doi.org/10.2903/j.efsa.2014.3817>
- EFSA (European Food Safety Authority), 2017a. Statement on the pesticide risk assessment for the active substance pymetrozine in light of negligible exposure data submitted. EFSA Journal 2017;15(1):4678, 12 pp. <https://doi.org/10.2903/j.efsa.2017.4678>
- EFSA (European Food Safety Authority), 2017b. Protocol 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. EFSA supporting publication 2017:14(4): EN-1201, 26 pp.
- EFSA (European Food Safety Authority), 2017c. Compilation of comments received on the Applicant Report from Pesticide Member State Competent Authorities during the evaluation of data concerning the necessity of pymetrozine to control a serious danger to plant health. Available online: www.efsa.europa.eu
- EFSA (European Food Safety Authority), 2017d. Compilation of comments received on the draft scientific report from Pesticide Member State Competent Authorities during the evaluation of data concerning the necessity of pymetrozine to control a serious danger to plant health. Available online: www.efsa.europa.eu
- Finland, 2017. Validated excel on pymetrozine prepared by the Member State Finland in the framework of a derogation to Art. 4(7) of Regulation (EC) No 1107/2009, June-September 2017. Available online: www.efsa.europa.eu

- France, 2017. Validated excel on pymetrozine prepared by the Member State France in the framework of a derogation to Art. 4(7) of Regulation (EC) No 1107/2009, June-September 2017.
- Germany, 2013. Renewal Assessment Report (RAR) on the active substance pymetrozine prepared by the rapporteur Member State Germany in the framework of Regulation (EC) No 1107/2009, June 2013. Available at www.efsa.europa.eu
- Germany, 2017. Validated excel on pymetrozine prepared by the Member State Germany in the framework of a derogation to Art. 4(7) of Regulation (EC) No 1107/2009, June-September 2017. Available online: www.efsa.europa.eu
- Latvia, 2017. Excel on pymetrozine prepared by the Member State Latvia in the framework of a derogation to Art. 4(7) of Regulation (EC) No 1107/2009, June-September 2017. Available online: www.efsa.europa.eu
- Netherlands, 2017. Validated excel on pymetrozine prepared by the Member State the Netherlands in the framework of a derogation to Art. 4(7) of Regulation (EC) No 1107/2009, June-September 2017. Available online: www.efsa.europa.eu
- Spain, 2017. Validated excel on pymetrozine prepared by the Member State Spain in the framework of a derogation to Art. 4(7) of Regulation (EC) No 1107/2009, June-September 2017. Available online: www.efsa.europa.eu
- Syngenta, 2017a. Report on pymetrozine submitted in the context of Article 4(7) of Regulation(EC) No 1107/2009. June 2017. Documentation made available to EFSA by the European Commission.
- Syngenta, 2017b. Collection data set on pymetrozine submitted in the context of Article 4(7) of Regulation(EC) No 1107/2009. June 2017. Documentation made available to EFSA by the European Commission.
- United Kingdom, 2017. Validated excel on pymetrozine prepared by the Member State the United kingdom in the framework of a derogation to Art. 4(7) of Regulation (EC) No 1107/2009, June-September 2017. Available online: www.efsa.europa.eu

Abbreviations

a.s.	active substance
DAR	Draft Assessment Report
IPM	Integrated Pest Management
MoA	Mode of Actions
MS	Member State
PPPAMS	Plant Protection Products Application Management System
RAR	Renewal Assessment Report
RMS	Rapporteur Member State
WG	Working Group

Appendix A – Member States Collection data set

Validated Excel files submitted by MS (Austria, 2017; Belgium, 2017; Denmark, 2017; Finland, 2017; France, 2017; Germany, 2017; Latvia, 2017; Netherlands, 2017; Spain, 2017; United Kingdom, 2017) and evaluated by EFSA.

Appendix A can be found in the online version of this output ('Supporting information' section): <https://doi.org/10.2903/j.efsa.2018.5129>