

## REASONED OPINION OF EFSA

### Modification of the existing MRLs for tebufenpyrad in raspberries and blackberries<sup>1</sup>

Prepared by the Pesticides Unit (PRAPeR)

(Question No EFSA-Q-2009-00220)

Issued on 29 June 2009

#### SUMMARY

The United Kingdom received an application from the Horticultural Development Council to modify the existing MRLs for tebufenpyrad in raspberries and blackberries. In order to accommodate for a new use of tebufenpyrad on these crops, the applicant proposes to raise the existing MRL of 0.05 mg/kg (equivalent to the LOQ) to 0.5 mg/kg. The United Kingdom as the Evaluating Member State (EMS) drafted an Evaluation Report according to Article 9 of Regulation (EC) No 396/2005 which was submitted to the European Commission and forwarded to EFSA on 14 January.

On 17 March 2009 data requirements were identified by EFSA regarding supervised residue trials, which prevented EFSA from deriving the MRL proposal and performing the consumer risk assessment. In reply to this request on 4 June 2009 EFSA received the notice of the EMS that no further data are available.

Consequently EFSA derived the following conclusions regarding the application, based on the above mentioned Evaluation Report and the Draft Assessment Report prepared by Germany.

Metabolism of tebufenpyrad in fruits and fruiting vegetables was sufficiently addressed in the framework of the peer review and for these crops a risk assessment and enforcement residue definition was established as parent tebufenpyrad only. For the determination of tebufenpyrad in high acid content matrices a multi-residue method DFG S19 is sufficiently validated at the LOQ of 0.01 mg/kg.

The applicant submitted two indoor and two outdoor supervised residue trials on raspberries. An extrapolation to blackberries was envisaged. EFSA is of the opinion that the number of submitted supervised residue trials is insufficient for deriving an MRL proposal for tebufenpyrad in raspberries and blackberries since at least four trials should be performed reflecting each proposed GAP. Two trials for each use are not sufficiently representative for

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<sup>1</sup> For citation purposes: Reasoned opinion of EFSA prepared by the Pesticides Unit (PRAPeR) on the modification of the existing MRLs for tebufenpyrad in raspberries and blackberries. *EFSA Scientific Report* (2009) 321, 1-20

concluding whether indoor and outdoor data sets are comparable. A complete data set is essential because extrapolation of supervised residue trials data is requested.

Taking into account the above mentioned, EFSA concludes that the intended use is not supported by residue data as requested in the EU Guidance documents, therefore no MRL proposal could be derived for tebufenpyrad in raspberries and blackberries and no consumer intake assessment could be performed.

### Overview of the proposed EC MRLs

Commodity	Existing EC MRL (mg/kg)	Proposed EC MRL (mg/kg)	Justification for the proposal
Tebufenpyrad			
Raspberries, blackberries	0.05*	-	No MRL proposal could be derived since it is not sufficiently supported by residue data.

(\*): Indicates that the MRL is set at the limit of analytical quantification.

**Key words: tebufenpyrad, blackberries, raspberries, MRL application, Regulation (EC) No 396/2005, consumer risk assessment, pyrazole insecticide, acaricide**

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## **BACKGROUND**

Regulation (EC) No 396/2005 establishes the rules governing the setting of pesticide MRLs at Community level. Article 6 of that regulation lays down that a party requesting an authorisation for the use of a plant protection product in accordance with Directive 91/414/EEC, shall submit to a Member State, when appropriate, an application to set or modify an MRL in accordance with the provisions of Article 7 of that regulation.

The United Kingdom hereafter referred to as the Evaluating Member State (EMS), received an application from the Horticultural Development Council<sup>2</sup> to modify the existing MRL for tebufenpyrad in raspberries and blackberries. This application was notified to the European Commission and EFSA and subsequently evaluated by the EMS in accordance with Article 8 of the Regulation.

After completion, the evaluation report of the EMS was submitted to the European Commission, who forwarded the application, the evaluation report and the supporting dossier to EFSA on 14 January, 2009. The application was included in the EFSA Register of Question with the reference number EFSA-Q-2009-00220 and the following subject:

*Tebufenpyrad - Application to modify the existing MRL for tebufenpyrad in raspberries from 0.05\* mg/kg to 0.5 mg/kg and in blackberries from 0.05\* mg/kg to 0.5 mg/kg*

EFSA then proceeded with the assessment of the application as required by Article 10 of the Regulation.

On 17 March 2009 some data requirements were identified, which prevented EFSA to conclude on the consumer risk assessment. In reply to this request EFSA received the notice of the EMS on 4 June 2009 that no further data are available and that EFSA should continue the assessment with the available data. This information was taken into consideration by EFSA for finalization of this reasoned opinion.

## **TERMS OF REFERENCE**

According to Article 10 of Regulation (EC) No 396/2005, EFSA shall, based on the evaluation report provided by the Evaluating Member State, provide a reasoned opinion on the risks to the consumer associated with the application.

According to Article 11 of that Regulation, the reasoned opinion shall be provided as soon as possible and at the latest within 3 months from the date of receipt of the application. Where EFSA requests supplementary information, the time limit laid down shall be suspended until that information has been provided.

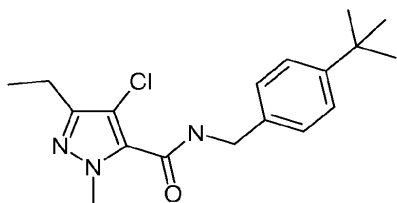
In this particular case the calculated deadline for providing the reasoned opinion is 2 July 2009.

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<sup>2</sup> Horticultural Development Council, Bradbourne House, East Mailing, Kent, ME 196DZ, The United Kingdom

## THE ACTIVE SUBSTANCE AND ITS USE PATTERN

Tebufenpyrad is the ISO common name for N-(4-tert-butylbenzyl)-4-chloro-3-ethyl-1-methylpyrazole-5-carboxamide (IUPAC). The chemical structure of tebufenpyrad is the following:



Tebufenpyrad belongs to the group of pyrazole insecticides and acaricides. It is a non-systemic substance, active by contact and ingestion routes. Tebufenpyrad has a broad spectrum of activity on a wide variety of mite pests and on all developmental stages of mites (eggs, larvae, nymph and adults). There is no evidence that the active substance tebufenpyrad is translocated in plants. Tebufenpyrad acts by inhibiting mitochondrial respiration. It is used to control all stages of *Tetranychus*, *Panonychus*, *Oligonychus*, *Eotetranychus* spp. on fruit, wines, citrus, vegetables, hops, ornamentals, melons and cotton.

Tebufenpyrad was peer reviewed under Directive 91/414/EEC with Germany being the designated Rapporteur Member State. It will be included in Annex I of this Directive by Directive 2009/11/EC following its entry into force on 1 November 2009. The Annex I inclusion is restricted to the uses as insecticide and acaricide only. The representative use supported in the peer review refers to the outdoor foliar application of tebufenpyrad on pome fruit at an application rate 1 x 100 g a.s./ha.

In the European Community currently temporary MRLs for tebufenpyrad are established in Annex IIIA of Regulation (EC) No 396/2005 (Appendix B). The current MRLs for blackberries and raspberries are set at the LOQ of 0.05 mg/kg. Codex Alimentarius has not established CXLs for tebufenpyrad.

The applicant Horticultural Development Council applied for an authorization of the use of tebufenpyrad on blackberries and raspberries in The United Kingdom. The GAP for which an authorization is requested refers to a field and glasshouse use of tebufenpyrad once at the growth stage of BBCH 80-87 at an application rate of 100 g a.s./ha. The minimum waiting period is 7 days.

## ASSESSMENT

### 1. Methods of analysis

#### 1.1. Methods for enforcement of residues in food of plant origin

The analytical methods for the determination of tebufenpyrad in the foodstuffs of plant origin were evaluated in the framework of the peer review of Directive 91/414/EEC (Germany, 2007). For the determination of tebufenpyrad in high acid content matrices, where berries belong to, a multi-residue method DFG S19 (GC-MS) is applicable with the validate LOQ of 0.01 mg/kg. The method has been validated for matrices with high acid (grapes) and high water (apples) content.

An adequate analytical method is available for the enforcement of the MRLs.

#### 1.2. Methods for enforcement of residues in food of animal origin

Since blackberries and raspberries are not used as a livestock feed, analytical methods for the products of animal origin are not of relevance.

### 2. Mammalian toxicology

The toxicological reference values for tebufenpyrad were derived in the peer review process of Directive 91/414/EEC (EFSA, 2008) and are compiled in Table 2-1.

Table 2-1. Overview of the toxicological reference values

	Source	Year	Value	Study relied upon	Safety factor
ADI	EFSA	2008	0.01 mg/kg bw/d	2 yr and 90 day rat	100
ARfD	EFSA	2008	0.02 mg/kg bw	Acute clinical signs in dog studies	100

### 3. Residues

#### 3.1. Nature and magnitude of residues in plant

##### 3.1.1. Primary crops

##### 3.1.1.1. Nature of residues

During the peer review of Directive 91/414/EEC the metabolism of tebufenpyrad was investigated in apples and pears, covering the crop category of fruits and fruiting vegetables (Germany, 2007). The metabolism studies were performed with either phenyl- or pyrazole labelled tebufenpyrad. The radiolabelled tebufenpyrad was applied on apple trees at a total application rate of 2.22 kg a.s./ha. Tebufenpyrad was metabolised in apples to a minor degree, with fractions of metabolites below 2%. It was concluded that the only relevant component in apples treated with both types of radiolabelled tebufenpyrad is the parent compound

tebufenpyrad. The residue definition for enforcement and risk assessment in fruits and fruiting vegetables was set as the parent tebufenpyrad only.

Taking into account that raspberries and blackberries belong to the crop category of fruits, it can be concluded that metabolism of tebufenpyrad in these berries proceeds according to a similar pattern than in apples and no additional metabolism studies are required.

#### 3.1.1.2. Magnitude of residues

The applicant submitted two indoor and two outdoor trials on raspberries. An extrapolation to blackberries was envisaged. Two trials were designed as residue decline studies. Supervised residues field trials data are summarized in Table 3-1.

EFSA is of the opinion that the number of submitted supervised residue trials is insufficient for deriving an MRL proposal for tebufenpyrad in raspberries and blackberries. At least four trials should be performed reflecting each proposed GAP. Two trials for each use are not sufficiently representative for concluding whether indoor and outdoor data sets are comparable. A complete data set is essential because extrapolation of supervised residue trials data is requested. In addition, no supplementing information on growth and cultivation conditions of berries with regard to indoor use is available to EFSA that could possibly be used for supporting the MRL proposal submitted by the EMS.

Table 3-1. Overview of the available residues trials data

Commodity	Region (a)	Outdoor /Indoor	Individual trial results (mg/kg)		STM (mg/kg) (b)	HR (mg/kg) (c)	MRL proposal (mg/kg)	Median CF <sup>(d)</sup>	Comments
			Enforcement	Risk assessment					
Raspberries, blackberries	NEU	Outdoor	0.116; 0.135	0.116; 0.135	-	-	-	-	No MRL proposal could be derived.
	EU	Indoor	0.110; 0.156	0.110; 0.156	-	-	-	-	

(a): NEU, SEU, EU or Import (country code). In the case of indoor uses there is no necessity to differentiate between NEU and SEU.

(b): Median value of the individual trial results according to the enforcement residue definition.

(c): Highest value of the individual trial results according to the enforcement residue definition.

(d): The median conversion factor for enforcement to risk assessment is obtained by calculating the median of the individual conversion factors for each residues trial.



### 3.1.1.3. Effect of industrial processing and/or household preparation

Under the peer review the effect of processing on the nature of tebufenpyrad was investigated in hydrolysis study (Germany, 2007), simulating pasteurisation (90°C, 20 min.), baking, brewing, boiling (100°C, 60 min.) and sterilisation (120°C, 20 min.). Tebufenpyrad was concluded to be stable under the simulated processing conditions and no formation of toxicologically significant metabolites was observed. Tebufenpyrad is the only relevant residue in processed commodities.

### 3.1.2. Rotational crops

Raspberries and blackberries are not of relevance for raspberries and blackberries since they are not normally grown in rotation.

### 3.2. Nature and magnitude of residues in livestock

Raspberries and blackberries are not used as livestock feed therefore studies on nature and magnitude of residues in livestock are not of relevance regarding the current MRL application.

## 4. Consumer risk assessment

Consumer intake risk assessment was not performed since MRL proposal could not be derived with regard to tebufenpyrad residues in raspberries and blackberries.

## CONCLUSIONS AND RECOMMENDATIONS

The United Kingdom received an application from the Horticultural Development Council to modify the existing MRLs for tebufenpyrad in raspberries and blackberries. In order to accommodate for a new use of tebufenpyrad on these crops, the applicant proposes to raise the existing MRL of 0.05 mg/kg (equivalent to the LOQ) to 0.5 mg/kg. The United Kingdom as the Evaluating Member State (EMS) drafted an Evaluation Report according to Article 9 of Regulation (EC) No 396/2005 which was submitted to the European Commission and forwarded to EFSA on 14 January.

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Taking into account the above mentioned, EFSA concludes that the intended use is not supported by residue data as requested in the EU Guidance documents, therefore no MRL proposal could be derived for tebufenpyrad in raspberries and blackberries and no consumer intake assessment could be performed.

### Overview of the proposed EC MRLs

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(\*): Indicates that the MRL is set at the limit of analytical quantification.

## DOCUMENTATION PROVIDED TO EFSA

1. Evaluation report on the modification of the existing MRL for tebufenpyrad in raspberry and blackberry prepared by the United Kingdom under Regulation (EC) No 396/2005. Submitted to EFSA on 14 January 2009.

## REFERENCES

- EFSA, 2008. Conclusion of EFSA prepared by PRAPeR on the peer review of pesticide risk assessment of the active substance tebufenpyrad. *EFSA Scientific Report (2008) 192, 1-100*.
- Germany, 2007. Draft Assessment Report on tebufenpyrad prepared by Germany under Directive 91/414/EEC. February, 2007.

**APPENDIX A – GOOD AGRICULTURAL PRACTICES (GAPs)**

Crop and/or situation (a)	F or G (b)	Pest or group of pests controlled (c)	Formulation rate per treatment		Application			Application rate per treatment			PHI (days) (k)	Remarks: (l) e.g. minimum realistic PHI
			Type (d-f)	Conc. of as (i)	method, kind, if other than spray (f-h)	growth stage (j)	number (range)	kg as/hl, where appropriate	water l/ha	g as/ha, where appropriate		
Raspberry, blackberry	F and G	acaricide	WP	20 % w/w	Spray	BBCH 80 - 87	1	-	200	100	7	

- (a) For crops, the EU and Codex classifications (both) should be used; where relevant, the use situation should be described (e.g. fumigation of a structure).
- (b) Outdoor or field use (F), glasshouse application (G) or indoor application.
- (c) e.g. biting and suckling insects, soil born insects, foliar fungi, weeds.
- (d) e.g. wettable powder (WP), emulsifiable concentrate (EC), granule (GR).
- (e) GCPF Codes – GIFAP Technical Monograph No 2, 1989.
- (f) All abbreviations used must be explained.
- (g) Method, e.g. high volume spraying, low volume spraying, spreading, dusting, drench.
- (h) Kind, e.g. overall, broadcast, aerial spraying, row, individual plant, between the plant - type of equipment used must be indicated.
- (i) g/kg or g/l.
- (j) Growth stage at last treatment (BBCH Monograph, Growth Stages of Plants, 1997, Blackwell, ISBN 3-8263-3152-4), including where relevant, information on season at time of application.
- (k) Indicate the minimum and maximum number of application possible under practical conditions of use.
- (l) PHI – minimum pre-harvest interval.
- (m) Remarks may include: extent of use/economic importance/restrictions.

**APPENDIX B – EXISTING EC MRLs**

Code number	Groups and examples of individual products to which the MRLs apply (a)	Tebufenpyrad (F)
100000	1. FRUIT FRESH OR FROZEN; NUTS	
110000	(i) Citrus fruit	0,5
110010	Grapefruit (Shaddocks, pomelos, sweeties, tangelo, ugli and other hybrids)	0,5
110020	Oranges (Bergamot, bitter orange, chinotto and other hybrids)	0,5
110030	Lemons (Citron, lemon )	0,5
110040	Limes	0,5
110050	Mandarins (Clementine, tangerine and other hybrids)	0,5
110990	Others	0,5
120000	(ii) Tree nuts (shelled or unshelled)	0,05*
120010	Almonds	0,05*
120020	Brazil nuts	0,05*
120030	Cashew nuts	0,05*
120040	Chestnuts	0,05*
120050	Coconuts	0,05*
120060	Hazelnuts (Filbert)	0,05*
120070	Macadamia	0,05*
120080	Pecans	0,05*
120090	Pine nuts	0,05*
120100	Pistachios	0,05*
120110	Walnuts	0,05*
120990	Others	0,05*
130000	(iii) Pome fruit	0,2
130010	Apples (Crab apple)	0,2
130020	Pears (Oriental pear)	0,2
130030	Quinces	0,2
130040	Medlar	0,2
130050	Loquat	0,2
130990	Others	0,2
140000	(iv) Stone fruit	
140010	Apricots	0,5
140020	Cherries (sweet cherries, sour cherries)	0,5

Code number	Groups and examples of individual products to which the MRLs apply (a)	Tebufenpyrad (F)
140030	Peaches (Nectarines and similar hybrids)	0,3
140040	Plums (Damson, greengage, mirabelle)	0,5
140990	Others	0,5
150000	(v) Berries & small fruit	
151000	(a) Table and wine grapes	0,5
151010	Table grapes	0,5
151020	Wine grapes	0,5
152000	(b) Strawberries	0,5
153000	(c) Cane fruit	0,05*
153010	Blackberries	0,05*
153020	Dewberries (Loganberries, Boysenberries, and cloudberries)	0,05*
153030	Raspberries (Wineberries )	0,05*
153990	Others	0,05*
154000	(d) Other small fruit & berries	1
154010	Blueberries (Bilberries cowberries (red bilberries))	1
154020	Cranberries	1
154030	Currants (red, black and white)	1
154040	Gooseberries (Including hybrids with other ribes species)	1
154050	Rose hips	1
154060	Mulberries (arbutus berry)	1
154070	Azarole (mediteranean medlar)	1
154080	Elderberries (Black chokeberry (appleberry), mountain ash, azarole, buckthorn (sea sallowthorn), hawthorn, service berries, and other treeberries)	1
154990	Others	1
160000	(vi) Miscellaneous fruit	0,05*

Code number	Groups and examples of individual products to which the MRLs apply (a)	Tebufenpyrad (F)
161000	(a) Edible peel	0,05*
161010	Dates	0,05*
161020	Figs	0,05*
161030	Table olives	0,05*
161040	Kumquats (Marumi kumquats, nagami kumquats)	0,05*
161050	Carambola (Bilimbi)	0,05*
161060	Persimmon	0,05*
161070	Jambolan (java plum) (Java apple (water apple), pomeric, rose apple, Brazilian cherry (grumichama), Surinam cherry)	0,05*
161990	Others	0,05*
162000	(b) Inedible peel, small	0,05*
162010	Kiwi	0,05*
162020	Lychee (Litchi) (Pulasan, rambutan (hairy litchi))	0,05*
162030	Passion fruit	0,05*
162040	Prickly pear (cactus fruit)	0,05*
162050	Star apple	0,05*
162060	American persimmon (Virginia kaki) (Black sapote, white sapote, green sapote, canistel (yellow sapote), and mammey sapote)	0,05*
162990	Others	0,05*
163000	(c) Inedible peel, large	0,05*
163010	Avocados	0,05*
163020	Bananas (Dwarf banana, plantain, apple banana)	0,05*
163030	Mangoes	0,05*
163040	Papaya	0,05*
163050	Pomegranate	0,05*
163060	Cherimoya (Custard apple, sugar apple (sweetsop) , llama and other medium sized Annonaceae)	0,05*
163070	Guava	0,05*

Code number	Groups and examples of individual products to which the MRLs apply (a)	Tebufenpyrad (F)
163080	Pineapples	0,05*
163090	Bread fruit (Jackfruit)	0,05*
163100	Durian	0,05*
163110	Soursop (guanabana)	0,05*
163990	Others	0,05*
200000	2. VEGETABLES FRESH OR FROZEN	
210000	(i) Root and tuber vegetables	0,05*
211000	(a) Potatoes	0,05*
212000	(b) Tropical root and tuber vegetables	0,05*
212010	Cassava (Dasheen, eddoe (Japanese taro), tannia)	0,05*
212020	Sweet potatoes	0,05*
212030	Yams (Potato bean (yam bean), Mexican yam bean)	0,05*
212040	Arrowroot	0,05*
212990	Others	0,05*
213000	(c) Other root and tuber vegetables except sugar beet	0,05*
213010	Beetroot	0,05*
213020	Carrots	0,05*
213030	Celeriac	0,05*
213040	Horseradish	0,05*
213050	Jerusalem artichokes	0,05*
213060	Parsnips	0,05*
213070	Parsley root	0,05*
213080	Radishes (Black radish, Japanese radish, small radish and similar varieties)	0,05*
213090	Salsify (Scorzoneria, Spanish salsify (Spanish oysterplant))	0,05*
213100	Swedes	0,05*
213110	Turnips	0,05*
213990	Others	0,05*
220000	(ii) Bulb vegetables	0,05*
220010	Garlic	0,05*
220020	Onions (Silverskin onions)	0,05*
220030	Shallots	0,05*

Code number	Groups and examples of individual products to which the MRLs apply (a)	Tebufenpyrad (F)
220040	Spring onions (Welsh onion and similar varieties)	0,05*
220990	Others	0,05*
230000	(iii) Fruiting vegetables	
231000	(a) Solanacea	
231010	Tomatoes (Cherry tomatoes, )	0,5
231020	Peppers (Chilli peppers)	0,5
231030	Aubergines (egg plants) (Pepino)	0,5
231040	Okra, lady's fingers	0,05*
231990	Others	0,05*
232000	(b) Cucurbits - edible peel	
232010	Cucumbers	0,1
232020	Gherkins	0,5
232030	Courgettes (Summer squash, marrow (patisson))	0,1
232990	Others	0,1
233000	(c) Cucurbits-inedible peel	
233010	Melons (Kiwano )	0,5
233020	Pumpkins (Winter squash)	0,05*
233030	Watermelons	0,5
233990	Others	0,05*
234000	(d) Sweet corn	0,05*
239000	(e) Other fruiting vegetables	0,05*
240000	(iv) Brassica vegetables	0,05*
241000	(a) Flowering brassica	0,05*
241010	Broccoli (Calabrese, Chinese broccoli, Broccoli raab)	0,05*
241020	Cauliflower	0,05*
241990	Others	0,05*
242000	(b) Head brassica	0,05*
242010	Brussels sprouts	0,05*
242020	Head cabbage (Pointed head cabbage, red cabbage, savoy cabbage, white cabbage)	0,05*

Code number	Groups and examples of individual products to which the MRLs apply (a)	Tebufenpyrad (F)
242990	Others	0,05*
243000	(c) Leafy brassica	0,05*
243010	Chinese cabbage (Indian (Chinese) mustard, pak choi, Chinese flat cabbage (tai goo choi), peking cabbage (pe-tsai), cow cabbage)	0,05*
243020	Kale (Borecole (curly kale), collards)	0,05*
243990	Others	0,05*
244000	(d) Kohlrabi	0,05*
250000	(v) Leaf vegetables & fresh herbs	0,05*
251000	(a) Lettuce and other salad plants including Brassicacea	0,05*
251010	Lamb's lettuce (Italian cornsalad)	0,05*
251020	Lettuce (Head lettuce, lollo rosso (cutting lettuce), iceberg lettuce, romaine (cos) lettuce)	0,05*
251030	Scarole (broad-leaf endive) (Wild chicory, red-leaved chicory, radicchio, curld leave endive, sugar loaf)	0,05*
251040	Cress	0,05*
251050	Land cress	0,05*
251060	Rocket, Rucola (Wild rocket)	0,05*
251070	Red mustard	0,05*
251080	Leaves and sprouts of Brassica spp (Mizuna)	0,05*
251990	Others	0,05*
252000	(b) Spinach & similar (leaves)	0,05*
252010	Spinach (New Zealand spinach, turnip greens (turnip tops))	0,05*
252020	Purslane (Winter purslane (miner's lettuce), garden purslane, common)	0,05*

Code number	Groups and examples of individual products to which the MRLs apply (a)	Tebufenpyrad (F)
	purslane, sorrel, glasswort)	
252030	Beet leaves (chard) (Leaves of beetroot)	0,05*
252990	Others	0,05*
253000	(c) Vine leaves (grape leaves)	0,05*
254000	(d) Water cress	0,05*
255000	(e) Witloof	0,05*
256000	(f) Herbs	0,05*
256010	Chervil	0,05*
256020	Chives	0,05*
256030	Celery leaves (fennel leaves, Coriander leaves, dill leaves, Caraway leaves, lovage, angelica, sweet cicely and other Apiacea)	0,05*
256040	Parsley	0,05*
256050	Sage (Winter savory, summer savory, )	0,05*
256060	Rosemary	0,05*
256070	Thyme ( marjoram, oregano)	0,05*
256080	Basil (Balm leaves, mint, peppermint)	0,05*
256090	Bay leaves (laurel)	0,05*
256100	Tarragon (Hyssop)	0,05*
256990	Others	0,05*
260000	(vi) Legume vegetables (fresh)	
260010	Beans (with pods) (Green bean (french beans, snap beans), scarlet runner bean, slicing bean, yardlong beans)	1
260020	Beans (without pods) (Broad beans, Flageolets, jack bean, lima bean, cowpea)	0,05*
260030	Peas (with pods) (Mangetout (sugar peas))	0,05*
260040	Peas (without pods) (Garden pea, green pea, chickpea)	0,05*
260050	Lentils	0,05*
260990	Others	0,05*

Code number	Groups and examples of individual products to which the MRLs apply (a)	Tebufenpyrad (F)
270000	(vii) Stem vegetables (fresh)	0,05*
270010	Asparagus	0,05*
270020	Cardoons	0,05*
270030	Celery	0,05*
270040	Fennel	0,05*
270050	Globe artichokes	0,05*
270060	Leek	0,05*
270070	Rhubarb	0,05*
270080	Bamboo shoots	0,05*
270090	Palm hearts	0,05*
270990	Others	0,05*
280000	(viii) Fungi	0,05*
280010	Cultivated (Common mushroom, Oyster mushroom, Shi-take)	0,05*
280020	Wild (Chanterelle, Truffle, Morel)	0,05*
280990	Others	0,05*
290000	(ix) Sea weeds	0,05*
300000	3. PULSES, DRY	0,05*
300010	Beans (Broad beans, navy beans, flageolets, jack beans, lima beans, field beans, cowpeas)	0,05*
300020	Lentils	0,05*
300030	Peas (Chickpeas, field peas, chickling vetch)	0,05*
300040	Lupins	0,05*
300990	Others	0,05*
400000	4. OILSEEDS AND OILFRUITS	0,05*
401000	(i) Oilseeds	0,05*
401010	Linseed	0,05*
401020	Peanuts	0,05*
401030	Poppy seed	0,05*
401040	Sesame seed	0,05*
401050	Sunflower seed	0,05*
401060	Rape seed (Bird rapeseed, turnip rape)	0,05*
401070	Soya bean	0,05*
401080	Mustard seed	0,05*
401090	Cotton seed	0,05*
401100	Pumpkin seeds	0,05*
401110	Safflower	0,05*
401120	Borage	0,05*
401130	Gold of pleasure	0,05*
401140	Hempseed	0,05*



Code number	Groups and examples of individual products to which the MRLs apply (a)	Tebufenpyrad (F)
401150	Castor bean	0,05*
401990	Others	0,05*
402000	(ii) Oilfruits	0,05*
402010	Olives for oil production	0,05*
402020	Palm nuts (palmoil kernels)	0,05*
402030	Palmfruit	0,05*
402040	Kapok	0,05*
402990	Others	0,05*
500000	5. CEREALS	0,05*
500010	Barley	0,05*
500020	Buckwheat	0,05*
500030	Maize	0,05*
500040	Millet (Foxtail millet, teff)	0,05*
500050	Oats	0,05*
500060	Rice	0,05*
500070	Rye	0,05*
500080	Sorghum	0,05*
500090	Wheat (Spelt Triticale)	0,05*
500990	Others	0,05*
600000	6. TEA, COFFEE, HERBAL INFUSIONS AND COCOA	0,1
610000	(i) Tea (dried leaves and stalks, fermented or otherwise of Camellia sinensis)	0,1
620000	(ii) Coffee beans	0,1
630000	(iii) Herbal infusions (dried)	0,1
631000	(a) Flowers	0,1
631010	Camomille flowers	0,1
631020	Hybiscus flowers	0,1
631030	Rose petals	0,1
631040	Jasmine flowers	0,1
631050	Lime (linden)	0,1
631990	Others	0,1
632000	(b) Leaves	0,1
632010	Strawberry leaves	0,1
632020	Rooibos leaves	0,1
632030	Maté	0,1
632990	Others	0,1
633000	(c) Roots	0,1
633010	Valerian root	0,1

Code number	Groups and examples of individual products to which the MRLs apply (a)	Tebufenpyrad (F)
633020	Ginseng root	0,1
633990	Others	0,1
639000	(d) Other herbal infusions	0,1
640000	(iv) Cocoa (fermented beans)	0,1
650000	(v) Carob (st johns bread)	0,1
700000	7. HOPS (dried) , including hop pellets and unconcentrated powder	0,5
800000	8. SPICES	0,1
810000	(i) Seeds	0,1
810010	Anise	0,1
810020	Black caraway	0,1
810030	Celery seed (Lovage seed)	0,1
810040	Coriander seed	0,1
810050	Cumin seed	0,1
810060	Dill seed	0,1
810070	Fennel seed	0,1
810080	Fenugreek	0,1
810090	Nutmeg	0,1
810990	Others	0,1
820000	(ii) Fruits and berries	0,1
820010	Allspice	0,1
820020	Anise pepper (Japan pepper)	0,1
820030	Caraway	0,1
820040	Cardamom	0,1
820050	Juniper berries	0,1
820060	Pepper, black and white (Long pepper, pink pepper)	0,1
820070	Vanilla pods	0,1
820080	Tamarind	0,1
820990	Others	0,1
830000	(iii) Bark	0,1
830010	Cinnamon (Cassia )	0,1
830990	Others	0,1
840000	(iv) Roots or rhizome	0,1
840010	Liquorice	0,1
840020	Ginger	0,1
840030	Turmeric (Curcuma)	0,1
840040	Horseradish	0,1

Code number	Groups and examples of individual products to which the MRLs apply (a)	Tebufenpyrad (F)
840990	Others	0,1
850000	(v) Buds	0,1
850010	Cloves	0,1
850020	Capers	0,1
850990	Others	0,1
860000	(vi) Flower stigma	0,1
860010	Saffron	0,1
860990	Others	0,1
870000	(vii) Aril	0,1
870010	Mace	0,1
870990	Others	0,1
900000	9. SUGAR PLANTS	0,05*
900010	Sugar beet (root)	0,05*
900020	Sugar cane	0,05*
900030	Chicory roots	0,05*
900990	Others	0,05*
1000000	10. PRODUCTS OF ANIMAL ORIGIN-TERRESTRIAL ANIMALS	0,05*
1010000	(i) Meat, preparations of meat, offals, blood, animal fats fresh chilled or frozen, salted, in brine, dried or smoked or processed as flours or meals other processed products such as sausages and food preparations based on these	0,05*
1011000	(a) Swine	0,05*
1011010	Meat	0,05*
1011020	Fat free of lean meat	0,05*
1011030	Liver	0,05*
1011040	Kidney	0,05*
1011050	Edible offal	0,05*
1011990	Others	0,05*
1012000	(b) Bovine	0,05*
1012010	Meat	0,05*
1012020	Fat	0,05*
1012030	Liver	0,05*
1012040	Kidney	0,05*
1012050	Edible offal	0,05*
1012990	Others	0,05*
1013000	(c) Sheep	0,05*
1013010	Meat	0,05*

Code number	Groups and examples of individual products to which the MRLs apply (a)	Tebufenpyrad (F)
1013020	Fat	0,05*
1013030	Liver	0,05*
1013040	Kidney	0,05*
1013050	Edible offal	0,05*
1013990	Others	0,05*
1014000	(d) Goat	0,05*
1014010	Meat	0,05*
1014020	Fat	0,05*
1014030	Liver	0,05*
1014040	Kidney	0,05*
1014050	Edible offal	0,05*
1014990	Others	0,05*
1015000	(e) Horses, asses, mules or hinnies	0,05*
1015010	Meat	0,05*
1015020	Fat	0,05*
1015030	Liver	0,05*
1015040	Kidney	0,05*
1015050	Edible offal	0,05*
1015990	Others	0,05*
1016000	(f) Poultry - chicken, geese, duck, turkey and Guinea fowl-, ostrich, pigeon	0,05*
1016010	Meat	0,05*
1016020	Fat	0,05*
1016030	Liver	0,05*
1016040	Kidney	0,05*
1016050	Edible offal	0,05*
1016990	Others	0,05*
1017000	(g) Other farm animals (Rabbit, Kangaroo)	0,05*
1017010	Meat	0,05*
1017020	Fat	0,05*
1017030	Liver	0,05*
1017040	Kidney	0,05*
1017050	Edible offal	0,05*
1017990	Others	0,05*
1020000	(ii) Milk and cream, not concentrated, nor containing added sugar or sweetening matter, butter and other fats derived from milk, cheese and curd	0,05*
1020010	Cattle	0,05*

Code number	Groups and examples of individual products to which the MRLs apply (a)	Tebufenpyrad (F)
1020020	Sheep	0,05*
1020030	Goat	0,05*
1020040	Horse	0,05*
1020990	Others	0,05*
1030000	(iii) Birds' eggs, fresh preserved or cooked Shelled eggs and egg yolks fresh, dried, cooked by steaming or boiling in water, moulded, frozen or otherwise preserved whether or not containing added sugar or sweetening matter	0,05*
1030010	Chicken	0,05*

Code number	Groups and examples of individual products to which the MRLs apply (a)	Tebufenpyrad (F)
1030020	Duck	0,05*
1030030	Goose	0,05*
1030040	Quail	0,05*
1030990	Others	0,05*
1040000	(iv) Honey (Royal jelly, pollen)	0,05*
1050000	(v) Amphibians and reptiles (Frog legs, crocodiles)	0,05*
1060000	(vi) Snails	0,05*
1070000	(vii) Other terrestrial animal products	0,05*
* - Indicates lower limit of analytical determination		

**GLOSSARY / ABBREVIATIONS**

a.s.	active substance
ADI	acceptable daily intake
ARfD	acute reference dose
BBCH	Federal Biological Research Centre for Agriculture and Forestry (Germany)
bw	body weight
CAC	Codex Alimentarius Commission
CXL	codex maximum residue limit
d	day
DAR	Draft Assessment Report (prepared under Directive 91/414/eec)
EC	European Community
EFSA	European Food Safety Authority
EMS	Evaluating Member State
EU	European Union
GAP	good agricultural practice
ha	hectare
hL	hectolitre
HPLC	high performance liquid chromatography
HR	highest residue
IUPAC	International Union of Pure and Applied Chemistry
L	litre
LOQ	limit of quantification
MRL	maximum residue limit
MS	Member States
NEU	Northern European Union
PHI	pre harvest interval
ppm	parts per million ( $10^{-6}$ )
PRIMo	Pesticide Residues Intake Model
RMS	Rapporteur Member State
STMR	supervised trials median residue
TRR	total radioactive residue
WP	wettable powder