

REASONED OPINION

Modification of the existing MRL for azoxystrobin in cardoon¹

European Food Safety Authority²

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SUMMARY

According to Article 6 of Regulation (EC) No 396/2005, France, hereafter referred to as the Evaluating Member State (EMS), received an application from Syngenta AGRO S.A.S to modify the existing MRL for azoxystrobin in cardoon. In order to accommodate for a new use of azoxystrobin in Northern and Southern Europe, it was proposed to raise the existing MRL (which is set at the limit of quantification) for cardoon from 0.05 mg/kg to 5 mg/kg. France drafted an evaluation report according to Article 8 of the regulation which was submitted to the European Commission and forwarded to EFSA on 8 July 2009.

EFSA derives the following conclusions regarding the application, based on the above mentioned evaluation report as well as the Draft Assessment Report prepared by Germany and the JMPR Evaluation.

The toxicological profile of azoxystrobin was investigated in the peer review and the data were sufficient to conclude on an ADI value of 0.1 mg/kg bw/d. No ARfD was established in the peer review and by the JMPR in its recent evaluation.

The metabolism of azoxystrobin in primary and rotational crops is elucidated. The residue definition for risk assessment and enforcement is set as parent azoxystrobin only. Adequate analytical methods are available to enforce the proposed MRL in cardoon according to the residue definition.

Submitted supervised residue field trials indicate that a higher MRL of 5 mg/kg as proposed by the EMS would be required to accommodate the proposed GAPs in Northern and Southern Europe.

The occurrence of azoxystrobin residues in rotational crops was also investigated. EFSA concluded that significant residues will not occur in crops grown in crop rotation with cardoon provided that azoxystrobin is applied according to the proposed GAP.

Cardoon is not a livestock feeding stuff and therefore the nature and magnitude of azoxystrobin residues in livestock was not investigated under the current application.

The consumer intake calculation was performed with revision 2 of the EFSA PRIMo (Pesticide Residue Intake Model), using the MRLs as established in Regulation (EC) No 396/2005 as input values. In addition, recently a wide range of CXLs for azoxystrobin were assessed by the JMPR and adopted by Codex Alimentarius Commission. For commodities, where the Codex residue limit is

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higher than the established EC MRL, CXL was used as an input value in the consumer intake assessment. For commodities which were subject to previous EFSA assessments, EFSA used the available risk assessment values as derived in the respective assessments.

Acute risk assessment was not undertaken since there is no ARfD established for azoxystrobin.

No long-term intake concerns were identified for any of the European diets. The total calculated intake values were in the range of 6 - 62% of the ADI. The contribution of cardoon to the overall consumer exposure to azoxystrobin residues accounts for a maximum of 0.015% of the ADI for ES adult diet.

Consequently, it is concluded that the intended use of azoxystrobin on cardoon is acceptable as it will not raise any consumer health concerns. The MRL proposal is presented in the table below:

Commodity	Existing EC MRL (mg/kg)	Proposed EC MRL (mg/kg)	Justification for the proposal
Enforcement residue definition : azoxystrobin			
Cardoon	0.05*	5.00	The MRL proposal is supported by data and no risk for consumers was identified for the proposed use.

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

KEY WORDS

Azoxystrobin, cardoon, MRL application, Regulation (EC) No 396/2005, consumer risk assessment, strobilurin fungicide

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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.

France, hereafter referred to as the evaluating Member State (EMS), received an application from Syngenta AGRO S.A.S.³ to modify the existing MRL for the active substance azoxystrobin in cardoon. 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 8 July 2009. The application was included in the EFSA Register of Question with the reference number EFSA-Q-2009-00704 and the following subject:

Azoxystrobin - Application to modify the existing MRL for azoxystrobin in cardoon from 0.05 mg/kg to 5 mg/kg.*

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

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.

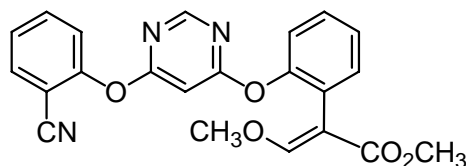
According to Article 11 of that Regulation, the reasoned opinion shall be provided as soon as possible and at the latest within 3 months from the date of receipt of the application. Where EFSA requests supplementary information, the time limit laid down shall be suspended until that information has been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

In this particular case the calculated deadline for providing the reasoned opinion is 8 October 2009.

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THE ACTIVE SUBSTANCE AND ITS USE PATTERN

Azoxystrobin is the ISO common name for methyl (E)-2-{2-6-(2-cyanophenoxy) pyrimidin-4-yl}oxy]phenyl}-3-methoxyacrylate (IUPAC).



Azoxystrobin belongs to the class of strobilurines; it is a synthetic analogue of naturally occurring fungal metabolites of strobilurins and oudemansins. It is a fungicide with protective, curative, eradicant, translaminar and systemic properties. It is used against a wide range of diseases in fruit, vegetables and cereals.

Azoxystrobin is a new active substance according to the definition of Directive 91/414/EEC. Germany was designated as the Rapporteur Member State (RMS). After having passed successfully the peer review azoxystrobin was included in Annex I of Directive 91/414/EEC with Directive 1998/47/EC which entered into force on 1 July 1998. The uses evaluated in the peer review were the uses on wheat, barley, rye, triticale and vines. In addition, an import tolerance was evaluated for the use of azoxystrobin on bananas. In 2007 the inclusion in Annex I of the mentioned directive was extended until 31 December 2011 (Directive 2007/21/EC). For the process of renewal of the Annex I inclusion the United Kingdom was appointed as new Rapporteur Member State. In May 2009, the Annex-I renewal Draft Assessment Report (AIR-DAR) has been submitted to EFSA. The peer review process of the Annex I-renewal (AIR) procedure is currently ongoing.

MRLs for azoxystrobin were set at EU level for the first time 1999 which were modified several times to accommodate for new uses authorised in Member States. The MRLs established under the old European MRL legislation were transferred to Annex II of Regulation 396/2005. Since 1 September 2008, the entry into force of this regulation, EFSA issued four reasoned opinions regarding the modification of MRLs of turnips, broccoli, beet leaves, passion fruit and swedes (EFSA 2008a, EFSA 2008b, EFSA 2009a, and EFSA 2009b). The currently valid MRLs, which can be found in Appendix C to this report, are established in Annex II of Regulation (EC) No. 396/2005. Recently Codex MRLs have been established for azoxystrobin, which are compiled in Appendix D.

The current MRL for azoxystrobin on cardoon is established at the LOQ of 0.05 mg/kg. According to the proposal made by the applicant, it would be necessary to raise the MRL to 5 mg/kg.

The GAP for which an authorisation is intended in Southern and Northern Europe refers to an outdoor application of azoxystrobin on cardoon. The suspension concentrate is applied as a spray three times on cardoon at a rate of 0.250 kg/ha. The GAPs differ between NEU and SEU. In Northern Europe, the minimum PHI is 14 days with an application interval of 14 days for cardoon. The growth stage is not specified. In Southern Europe, the minimum PHI is 7 days with an application interval of 10 days for cardoon. The growth stage is not specified. The summary of GAPs is available in Appendix A.

ASSESSMENT

1. Methods of analysis

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

Validated analytical methods are available to enforce MRLs for azoxystrobin in commodities with high water content, high acid content and dry commodities (EFSA 2008a, EFSA 2008b, EFSA 2009a and EFSA 2009b). Validation data demonstrated that the limit of determination achievable in routine MRL enforcement is 0.01 mg/kg. These methods are also applicable to enforce MRLs in cardoon.

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

Cardoon is not used as a livestock feed therefore the availability of analytical methods for enforcement was not investigated under the current application.

2. Mammalian toxicology

In the peer review under Directive 91/414/EEC, an ADI value of 0.1 mg/kg bw/d was derived for azoxystrobin. In 1998, when the peer review was finalised, the setting of an ARfD was not considered routinely, but Germany performed an evaluation and concluded that no ARfD is necessary because of the low acute risk of the active substance.

In the AIR-DAR prepared by the United Kingdom (2009), the RMS United Kingdom concluded to propose the same ADI value as established in 1998, but the value is based on a different NOAEL.

The key information on the toxicological reference values are summarised in Table 2.1

Table 2-1. Overview of the toxicological reference values

	Source	Year	Value (mg/kg bw/d)	Study relied upon	Safety factor
ADI	COM	1998	0.1	90 d dog, 1 yr dog	100
ADI	AIR-DAR	2009	0.1	2 yr rat	200
ARfD	DE	1999		Not necessary	
ARfD	AIR-DAR	2009		Not necessary	

It is noted that the JMPR evaluated azoxystrobin in 2008 and came to the conclusion that an ARfD is not necessary. The ADI established by the JMPR is 0.2 mg/kg based on a 2-year carcinogenicity study in rats.

3. Residues

3.1. Nature and magnitude of residues in plant

3.1.1. Primary crops

3.1.1.1. Nature of residues

The metabolism of azoxystrobin in primary crops has been investigated in different crops representative for fruits and fruiting vegetables, pulses and oilseeds and cereals. In the peer review it was concluded that qualitatively similar metabolism occurred in these crops (Germany, 1997). The parent compound was identified as the major component of the residue in treated crops. The peer review concluded to set the residue definitions for enforcement and risk assessment as parent compound azoxystrobin only. The JMPR came to the same conclusions regarding residue definitions in its recent review (WHO/FAO, 2008).

Since no differences were observed in the different crop groups, it is most likely that the metabolism in leafy vegetables is similar to the crop groups investigated. Thus, no additional studies are required for the application to modify the MRL in cardoon.

3.1.1.2. Magnitude of residues

The applicant submitted residue trials on celery which were performed according to the intended GAP. An extrapolation to cardoon is proposed. The GAPs for the NEU and the SEU are different in the means of PHI intervals and therefore four trials were submitted for each region. Residue trials data were submitted for trimmed and untrimmed celery. In untrimmed celery reflecting the SEU use, the residue situation is more critical; therefore these data were used for deriving the MRL proposal and risk assessment values.

Residue trials data are compiled in the Table 3-1.

The stability of residues in treated crops under storage conditions has been evaluated in the DAR. No significant degradation of azoxystrobin was observed in samples of wheat straw, wheat grain, grapes and wine stored for at least 14 months at -15°C. According to the JMPR Evaluation, storage stability of azoxystrobin is demonstrated in plant matrices with high water-, high acid-, and high oil content and in dry commodities for a period of 24 months when stored deep frozen (WHO/FAO, 2008).

Celery samples prior analyses were stored deep frozen for a maximum of 6 months not exceeding the demonstrated storage period for azoxystrobin.

According to the EMS, the analytical method for analysing the residue trial samples is considered sufficiently validated.

Residue data indicate that a higher MRL of 5 mg/kg for azoxystrobin on cardoon would be required to accommodate the intended GAP.

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

Commodity	Region (a)	Outdoor /Indoor	Individual trial results (mg/kg)		STMR (mg/kg) ^(b)	HR (mg/kg) ^(c)	MRL proposal (mg/kg)	Median CF ^(d)	Comments
			Enforcement (azoxystrobin)	Risk assessment (azoxystrobin)					
Celery (untrimmed stalk)	NEU	Outdoor	0.23; 0.25; 0.28; 0.97	0.23; 0.25; 0.28; 0.97	0.265	0.97	2	1	R _{ber} =1.59 mg/kg R _{max} =2.28 mg/kg PHI 14 days Application interval 14 d
	SEU	Outdoor	0.19; 1.00; 1.80; 2.50	0.19; 1.00; 1.80; 2.50	1.40	2.5	5	1	R _{ber} =4.65 mg/kg R _{max} =6.51 mg/kg PHI 7 day Application interval 10 d
Celery (trimmed stalk)	NEU	Outdoor	0.08; 0.09; 0.11; 0.28	0.08; 0.09; 0.11; 0.28	0.1	0.28	0.5	1	R _{ber} =0.48 mg/kg R _{max} =0.62 mg/kg PHI 14 days Application interval 14 d
	SEU	Outdoor	0.12; 0.16; 0.41; 0.73	0.12; 0.16; 0.41; 0.73	0.285	0.73	2	1	R _{ber} =1.3 mg/kg R _{max} =1.8 mg/kg PHI 7 day Application interval 10 d

(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

In the DAR prepared by Germany, no hydrolyses studies with radiolabelled azoxystrobin are reported. However, the JMPR assessed the stability of azoxystrobin simulating industrial processing at temperatures ranging from 90 to 120°C at pH 4 to 6. It was concluded that azoxystrobin can be considered stable under these conditions. Processing studies are available for different crops, but not for cardoon. However, considering the low dietary intake related to cardoon, no processing studies are necessary.

3.1.2. Rotational crops

Cardoon can be grown in crop rotation. The DT₉₀ values derived under field conditions ranged from 87 to 433 days. Since the trigger value is exceeded, the nature and magnitude of azoxystrobin in rotational crops has to be addressed. The nature and magnitude in succeeding crops has been discussed in the previous EFSA reasoned opinions on azoxystrobin (EFSA 2008a, EFSA 2008b, EFSA 2009a and EFSA 2009b). The conclusion that the setting MRLs for rotational crops or the setting of planting restrictions is not necessary is also applicable to the intended use on cardoon.

3.2. Nature and magnitude of residues in livestock

Cardoon is not a livestock feeding item therefore the nature and magnitude of azoxystrobin residues in livestock was not investigated under the current application.

4. Consumer risk assessment

The consumer intake calculation was performed with revision 2 of the EFSA PRIMo (Pesticide Residue Intake Model), using the MRLs as established in Regulation (EC) No 396/2005.

In addition, for various commodities CXLs have been recently assessed by the JMPR and have been adopted by Codex Alimentarius Commission (WHO/FAO, 2008). For those commodities where the CXL is higher than the EC MRL, the STMR values related to the CXLs were used as input values in the consumer intake assessment. For commodities which were subject to previous EFSA assessments under Article 10 of this Regulation (passion fruit, beet leaves), the MRLs were replaced by the STMR values derived in the respective assessments (EFSA 2008b, EFSA 2009a).

Acute intake assessment was not undertaken since an ARfD value is not established for azoxystrobin.

Table 4-1. Input values for the consumer risk assessment

Commodity	Chronic risk assessment		Acute risk assessment	
	Input value (mg/kg)	Comment	Input value (mg/kg)	Comment
Risk assessment residue definition: azoxystrobin				
Cardoon	1.4	STMR	Not relevant since no ARfD is established for azoxystrobin.	
Beet leaves (chard)	0.05	STMR (EFSA 2009a)		
Passion fruit	1.1	STMR (EFSA, 2008b)		
Citrus fruit	4.9	Codex STMR (WHO/FAO, 2008)		
Stone fruit	0.74	Codex STMR (WHO/FAO, 2008)		
Cane fruit	1.03	Codex STMR (WHO/FAO, 2008)		

Commodity	Chronic risk assessment		Acute risk assessment	
	Input value (mg/kg)	Comment	Input value (mg/kg)	Comment
Other small fruits and berries (except cranberries and strawberries)	1.03	Codex STMR (WHO/FAO, 2008)		
Strawberries	1.3	Codex STMR (WHO/FAO, 2008)		
Cranberries	0.23	Codex STMR (WHO/FAO, 2008)		
Mango	0.28	Codex STMR (WHO/FAO, 2008)		
Papaya	0.09	Codex STMR (WHO/FAO, 2008)		
Root and tuber vegetables	0.23	Codex STMR (WHO/FAO, 2008)		
Bulb vegetables and leek	2.2	Codex STMR (WHO/FAO, 2008)		
Solanacea, sweet corn	0.35	Codex STMR (WHO/FAO, 2008)		
Cucurbits-inedible peel	0.17	Codex STMR (WHO/FAO, 2008)		
Flowering brassica, head brassica, kohlrabi	1.2	Codex STMR (WHO/FAO, 2008)		
Witloof	0.05	Codex STMR (WHO/FAO, 2008)		
Herbs	23	Codex STMR (WHO/FAO, 2008)		
Legume vegetables (fresh)	1.04	Codex STMR (WHO/FAO, 2008)		
Celery	0.43	Codex STMR (WHO/FAO, 2008)		
Globe artichokes	1.8	Codex STMR (WHO/FAO, 2008)		
Peanuts	0.01	Codex STMR (WHO/FAO, 2008)		
Sunflower seed	0.04	Codex STMR (WHO/FAO, 2008)		
Soya bean	0.06	Codex STMR (WHO/FAO, 2008)		
Cotton seed	0.01	Codex STMR (WHO/FAO, 2008)		
Barley, oats	0.08	Codex STMR (WHO/FAO, 2008)		
Rice grain	0.68	Codex STMR (WHO/FAO, 2008)		
Edible offal, kidney, and liver of bovine, swine, sheep, goat, horses, asses or mules and other farm animals	0.01	Codex STMR (WHO/FAO, 2008)		
Other commodities	MRL	Appendix C		

Summary of intake calculations is available in Appendix B.

No long-term intake concerns were identified for any of the European diets. Total calculated intake values were in the range of 6 - 62% of the ADI.

The contribution of cardoon to the overall consumer exposure to azoxystrobin residues accounts for a maximum of 0.015% of the ADI for ES adult diet.

Consequently it is concluded that the intended use of azoxystrobin on cardoon is acceptable as it will not raise any consumer health concerns.

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

The toxicological profile of azoxystrobin was investigated in the peer review and the data were sufficient to conclude on an ADI value of 0.1 mg/kg bw/d. No ARfD was established in the peer review and by the JMPR in its recent evaluation.

The metabolism of azoxystrobin in primary and rotational crops is elucidated. The residue definition for the risk assessment and enforcement is set as parent azoxystrobin only. Adequate analytical methods are available to enforce the proposed MRL in cardoon according to the residue definition.

Submitted supervised residue field trials indicate that a higher MRL of 5 mg/kg as proposed by the EMS would be required to accommodate the proposed GAPs in Northern and Southern Europe.

The occurrence of azoxystrobin residues in rotational crops was also investigated. EFSA concluded that significant residues will not occur in crops grown in crop rotation with cardoon provided that azoxystrobin is applied according to the proposed GAP.

Cardoon is not a livestock feeding item and therefore the nature and magnitude of azoxystrobin in livestock was not investigated under the current application.

The consumer intake calculation was performed with revision 2 of the EFSA PRIMo (Pesticide Residue Intake Model), using the MRLs as established in Regulation (EC) No 396/2005 as input values. In addition, recently a wide range of CXLs for azoxystrobin were assessed by the JMPR and have been adopted by Codex Alimentarius Commission. For commodities where the CXL is higher than the established EC MRL, the STMR values related to the CXLs were used as input values in the consumer intake assessment. For commodities which were subject to previous EFSA assessments, EFSA used the available risk assessment values as derived in the respective assessments.

Acute risk assessment was not undertaken since there is no ARfD established for azoxystrobin.

No long-term intake concerns were identified for any of the European diets. The total calculated intake values were in the range of 6 - 62% of the ADI. The contribution of cardoon to the overall consumer exposure to azoxystrobin residues accounts for a maximum of 0.015% of the ADI for ES adult diet.

Consequently, it is concluded that the intended use of azoxystrobin on cardoons is acceptable as it will not raise any consumer health concerns.

RECOMMENDATIONS

Commodity	Existing EC MRL (mg/kg)	Proposed EC MRL (mg/kg)	Justification for the proposal
Enforcement residue definition : azoxystrobin			
Cardoons	0.05*	5.00	The MRL proposal is supported by data and no risk for consumers was identified for the proposed use.

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

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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: e.g. minimum realistic PHI
			Type (d-f)	Conc. of a.s. (i)	method, kind, if other than spray (f-h)	growth stage (j)	number (range)	kg a.s./ha, where appropriate		
Cardoon	F	Downy and powdery mildew	SC	250 g/l	Low volume spraying		3	0.25	7	GAP for Southern Europe. 10 days between applications
Cardoon	F	Downy and powdery mildew	SC	250 g/l	Low volume spraying		3	0.25	14	GAP for Northern Europe. 14 days between applications

- (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) PHI – minimum pre-harvest interval.

APPENDIX B – PESTICIDE RESIDUES INTAKE MODEL (PRIMO)

Azoxystrobin			
Status of the active substance:	Included	Code no.:	#/N/A
LOQ (mg/kg bw):		proposed LOQ:	
Toxicological end points			
ADI (mg/kg bw/day):	0.1	ARfD (mg/kg bw):	n.n.
Source of ADI:	AIR-DAR	Source of ARfD:	#/N/A
Year of evaluation:	2009	Year of evaluation:	#/N/A

Chronic risk assessment - refined calculations

		TMDI (range) in % of ADI minimum - maximum							
		6 62							
		No of diets exceeding ADI:		---					
Highest calculated TMDI values in % of ADI	MS Diet	Highest contributor to MS diet (in % of ADI)	Commodity / group of commodities	2nd contributor to MS diet (in % of ADI)	Commodity / group of commodities	3rd contributor to MS diet (in % of ADI)	Commodity / group of commodities	pTMRLs at LOQ (in % of ADI)	
62.1	DE child	22.5	Citrus fruit	18.7	Oranges	3.1	Bananas		
59.5	NL child	19.9	Citrus fruit	15.3	Oranges	3.6	Mandarins		
45.2	IE adult	13.1	Citrus fruit	5.1	Oranges	3.4	Grapefruit		
39.9	FR toddler	11.5	Citrus fruit	9.8	Oranges	2.6	Bananas		
39.2	UK Toddler	11.3	Citrus fruit	9.7	Oranges	6.9	Sugar beet (root)		
38.7	WHO Cluster diet B	7.7	Citrus fruit	4.2	Oranges	3.6	Wine grapes		
32.1	ES child	11.5	Citrus fruit	10.6	Oranges	2.0	Bananas		
28.9	SE general population 90th percentile	6.8	Citrus fruit	3.7	Oranges	3.6	Bananas		
28.2	NL general	9.1	Citrus fruit	7.3	Oranges	1.3	Wine grapes		
26.9	UK Infant	6.6	Citrus fruit	6.4	Oranges	3.0	Sugar beet (root)		
24.3	WHO cluster diet E	4.1	Citrus fruit	3.2	Wine grapes	2.2	Oranges		
22.6	WHO Cluster diet F	5.5	Citrus fruit	4.3	Oranges	1.2	Wine grapes		
21.6	FR infant	5.2	Citrus fruit	4.5	Oranges	1.6	Root and tuber vegetables		
21.6	ES adult	7.1	Citrus fruit	6.3	Oranges	1.6	Lettuce		
20.5	WHO regional European diet	4.0	Citrus fruit	2.4	Oranges	1.1	Lettuce		
20.4	FR all population	8.0	Wine grapes	3.2	Citrus fruit	1.4	Oranges		
19.9	PT General population	5.0	Wine grapes	3.8	Citrus fruit	3.0	Oranges		
19.3	WHO cluster diet D	2.3	Citrus fruit	2.0	Wheat	1.5	Herbs		
19.0	UK vegetarian	5.1	Citrus fruit	4.2	Oranges	1.6	Wine grapes		
16.3	IT kids/toddler	3.6	Citrus fruit	2.4	Oranges	2.0	Wheat		
15.7	FI adult	5.5	Citrus fruit	4.8	Oranges	0.6	Wine grapes		
15.2	DK child	2.3	Bananas	1.7	Wheat	1.6	Cucumbers		
15.0	UK Adult	3.4	Citrus fruit	2.8	Oranges	2.2	Wine grapes		
13.7	IT adult	2.8	Citrus fruit	1.8	Oranges	1.2	Wheat		
10.1	DK adult	2.8	Wine grapes	1.2	Citrus fruit	0.8	Bananas		
7.9	PL general population	0.9	Root and tuber vegetables	0.8	Potatoes	0.7	Onions		
6.1	LT adult	0.8	Root and tuber vegetables	0.7	Potatoes	0.5	Citrus fruit		

Conclusion:
The estimated Theoretical Maximum Daily Intakes (TMDI), based on pTMRLs were below the ADI.
A long-term intake of residues of Azoxystrobin is unlikely to present a public health concern.

APPENDIX C – EXISTING EC MRLs

Pesticides - Web Version - EU MRLs (File created on 20/10/2009)

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

Code number	Groups and examples of individual products to which the MRLs apply (a)	Azoxystrobin
	cherries)	
140030	Peaches (Nectarines and similar hybrids)	0,05*
140040	Plums (Damson, greengage, mirabelle)	0,05*
140990	Others	0,05*
150000	(v) Berries & small fruit	
151000	(a) Table and wine grapes	2
151010	Table grapes	2
151020	Wine grapes	2
152000	(b) Strawberries	2
153000	(c) Cane fruit	
153010	Blackberries	3
153020	Dewberries (Loganberries, Boysenberries, and cloudberry)	0,05*
153030	Raspberries (Wineberries)	3
153990	Others	0,05*
154000	(d) Other small fruit & berries	0,05*
154010	Blueberries (Bilberries cowberries (red bilberries))	0,05*
154020	Cranberries	0,05*
154030	Currants (red, black and white)	0,05*
154040	Gooseberries (Including hybrids with other ribes species)	0,05*
154050	Rose hips	0,05*
154060	Mulberries (arbutus berry)	0,05*
154070	Azarole (mediteranean medlar)	0,05*
154080	Elderberries (Black chokeberry (appleberry), mountain ash, azarole, buckthorn (sea sallowthorn), hawthorn, service berries, and other treeberries)	0,05*
154990	Others	0,05*
160000	(vi) Miscellaneous fruit	
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), pomegranate, rose apple, Brazilian cherry (grumichama), Surinam cherry)	0,05*
161990	Others	0,05*
162000	(b) Inedible peel, small	0,05*
162010	Kiwi	0,05*

Code number	Groups and examples of individual products to which the MRLs apply (a)	Azoxystrobin
162020	Lychee (Litchi) (Pulasan, rambutan (hairy litchi))	0,05*
162030	Passion fruit	4
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 mammy sapote)	0,05*
162990	Others	0,05*
163000	(c) Inedible peel, large	
163010	Avocados	0,05*
163020	Bananas (Dwarf banana, plantain, apple banana)	2
163030	Mangoes	0,2
163040	Papaya	0,2
163050	Pomegranate	0,05*
163060	Cherimoya (Custard apple, sugar apple (sweetsop), llama and other medium sized Annonaceae)	0,05*
163070	Guava	0,05*
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	
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	
213010	Beetroot	0,05*
213020	Carrots	0,2
213030	Celeriac	0,3
213040	Horseradish	0,2
213050	Jerusalem artichokes	0,05*
213060	Parsnips	0,2

Code number	Groups and examples of individual products to which the MRLs apply (a)	Azoxystrobin
213070	Parsley root	0,2
213080	Radishes (Black radish, Japanese radish, small radish and similar varieties)	0,2
213090	Salsify (Scorzoneria, Spanish salsify (Spanish oysterplant))	0,2
213100	Swedes	0,05* (0,2) ⁴
213110	Turnips	0,2
213990	Others	0,05*
220000	(ii) Bulb vegetables	
220010	Garlic	0,05*
220020	Onions (Silverskin onions)	0,05*
220030	Shallots	0,05*
220040	Spring onions (Welsh onion and similar varieties)	2
220990	Others	0,05*
230000	(iii) Fruiting vegetables	
231000	(a) Solanaceae	2
231010	Tomatoes (Cherry tomatoes,)	2
231020	Peppers (Chilli peppers)	2
231030	Aubergines (egg plants) (Pepino)	2
231040	Okra, lady's fingers	2
231990	Others	2
232000	(b) Cucurbits - edible peel	1
232010	Cucumbers	1
232020	Gherkins	1
232030	Courgettes (Summer squash, marrow (patisson))	1
232990	Others	1
233000	(c) Cucurbits-inedible peel	0,5
233010	Melons (Kiwano)	0,5
233020	Pumpkins (Winter squash)	0,5
233030	Watermelons	0,5
233990	Others	0,5
234000	(d) Sweet com	0,05*
239000	(e) Other fruiting vegetables	0,05*
240000	(iv) Brassica vegetables	
241000	(a) Flowering brassica	0,5
241010	Broccoli (Calabrese, Chinese broccoli, Broccoli raab)	0,5/1 ⁵

⁴ MRL proposal considered in the SCFCAH on 15-16 October 2009

⁵ MRL voted in SCFCAH on 3 July 2009

Code number	Groups and examples of individual products to which the MRLs apply (a)	Azoxystrobin
241020	Cauliflower	0,5
241990	Others	0,5
242000	(b) Head brassica	0,3
242010	Brussels sprouts	0,3
242020	Head cabbage (Pointed head cabbage, red cabbage, savoy cabbage, white cabbage)	0,3
242990	Others	0,3
243000	(c) Leafy brassica	5
243010	Chinese cabbage (Indian (Chinese) mustard, pak choi, Chinese flat cabbage (tai goo choi), peking cabbage (pe-tsai), cow cabbage)	5
243020	Kale (Borecole (curly kale), collards)	5
243990	Others	5
244000	(d) Kohlrabi	0,2
250000	(v) Leaf vegetables & fresh herbs	
251000	(a) Lettuce and other salad plants including Brassicaceae	3
251010	Lamb's lettuce (Italian cornsalad)	3
251020	Lettuce (Head lettuce, lollo rosso (cutting lettuce), iceberg lettuce, romaine (cos) lettuce)	3
251030	Scarole (broad-leaf endive) (Wild chicory, red-leaved chicory, radicchio, curd leaf endive, sugar loaf)	3
251040	Cress	3
251050	Land cress	3
251060	Rocket, Rucola (Wild rocket)	3
251070	Red mustard	3
251080	Leaves and sprouts of Brassica spp (Mizuna)	3
251990	Others	3
252000	(b) Spinach & similar (leaves)	
252010	Spinach (New Zealand spinach, turnip greens (turnip tops))	0,05*
252020	Purslane (Winter purslane (miner's lettuce), garden purslane, common purslane, sorrel, glasswort)	3

Code number	Groups and examples of individual products to which the MRLs apply (a)	Azoxystrobin
252030	Beet leaves (chard) (Leaves of beetroot)	0,05*/0,5 ⁶
252990	Others	0,05*
253000	(c) Vine leaves (grape leaves)	0,05*
254000	(d) Water cress	0,05*
255000	(e) Witloof	0,2
256000	(f) Herbs	3
256010	Chervil	3
256020	Chives	3
256030	Celery leaves (fennel leaves, Coriander leaves, dill leaves, Caraway leaves, lovage, angelica, sweet cicely and other Apiacea)	3
256040	Parsley	3
256050	Sage (Winter savory, summer savory,)	3
256060	Rosemary	3
256070	Thyme (marjoram, oregano)	3
256080	Basil (Balm leaves, mint, peppermint)	3
256090	Bay leaves (laurel)	3
256100	Tarragon (Hyssop)	3
256990	Others	3
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, Flageolet, jack bean, lima bean, cowpea)	0,2
260030	Peas (with pods) (Mangetout (sugar peas))	0,5
260040	Peas (without pods) (Garden pea, green pea, chickpea)	0,2
260050	Lentils	0,05*
260990	Others	0,05*
270000	(vii) Stem vegetables (fresh)	
270010	Asparagus	0,05*
270020	Cardoons	0,05*
270030	Celery	5
270040	Fennel	5
270050	Globe artichokes	1
270060	Leek	2

⁶ See footnote on broccoli

Code number	Groups and examples of individual products to which the MRLs apply (a)	Azoxystrobin
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	0,1
300010	Beans (Broad beans, navy beans, flageolets, jack beans, lima beans, field beans, cowpeas)	0,1
300020	Lentils	0,1
300030	Peas (Chickpeas, field peas, chickling vetch)	0,1
300040	Lupins	0,1
300990	Others	0,1
400000	4. OILSEEDS AND OILFRUITS	
401000	(i) Oilseeds	
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)	0,5
401070	Soya bean	0,5
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*
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	
500010	Barley	0,3

Code number	Groups and examples of individual products to which the MRLs apply (a)	Azoxystrobin
500020	Buckwheat	0,05*
500030	Maize	0,05*
500040	Millet (Foxtail millet, teff)	0,05*
500050	Oats	0,3
500060	Rice	5
500070	Rye	0,3
500080	Sorghum	0,05*
500090	Wheat (Spelt Triticale)	0,3
500990	Others	0,05*
600000	6. TEA, COFFEE, HERBAL INFUSIONS AND COCOA	
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)	
631000	(a) Flowers	50
631010	Camomille flowers	50
631020	Hybiscus flowers	50
631030	Rose petals	50
631040	Jasmine flowers	50
631050	Lime (linden)	50
631990	Others	50
632000	(b) Leaves	50
632010	Strawberry leaves	50
632020	Rooibos leaves	50
632030	Maté	50
632990	Others	50
633000	(c) Roots	50
633010	Valerian root	50
633020	Ginseng root	50
633990	Others	50
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	20
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*

Code number	Groups and examples of individual products to which the MRLs apply (a)	Azoxystrobin
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*
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	
900010	Sugar beet (root)	0,3
900020	Sugar cane	0,05*
900030	Chicory roots	0,05*
900990	Others	0,05*
100000	10. PRODUCTS OF ANIMAL ORIGIN-TERRESTRIAL ANIMALS	
101000	(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*
101100	(a) Swine	0,05*

Code number	Groups and examples of individual products to which the MRLs apply (a)	Azoxystrobin
101101	Meat	0,05*
101102	Fat free of lean meat	0,05*
101103	Liver	0,05*
101104	Kidney	0,05*
101105	Edible offal	0,05*
101199	Others	0,05*
101200	(b) Bovine	0,05*
101201	Meat	0,05*
101202	Fat	0,05*
101203	Liver	0,05*
101204	Kidney	0,05*
101205	Edible offal	0,05*
101299	Others	0,05*
101300	(c) Sheep	0,05*
101301	Meat	0,05*
101302	Fat	0,05*
101303	Liver	0,05*
101304	Kidney	0,05*
101305	Edible offal	0,05*
101399	Others	0,05*
101400	(d) Goat	0,05*
101401	Meat	0,05*
101402	Fat	0,05*
101403	Liver	0,05*

Code number	Groups and examples of individual products to which the MRLs apply (a)	Azoxystrobin
101404	Kidney	0,05*
101405	Edible offal	0,05*
101499	Others	0,05*
101500	(e) Horses, asses, mules or hinnies	0,05*
101501	Meat	0,05*
101502	Fat	0,05*
101503	Liver	0,05*
101504	Kidney	0,05*
101505	Edible offal	0,05*
101599	Others	0,05*
101600	(f) Poultry -chicken, geese, duck, turkey and Guinea fowl-, ostrich, pigeon	0,05*
101601	Meat	0,05*
101602	Fat	0,05*
101603	Liver	0,05*
101604	Kidney	0,05*
101605	Edible offal	0,05*
101699	Others	0,05*
101700	(g) Other farm animals (Rabbit, Kangaroo)	0,05*
101701	Meat	0,05*
101702	Fat	0,05*
101703	Liver	0,05*
101704	Kidney	0,05*
101705	Edible offal	0,05*
101799	Others	0,05*

Code number	Groups and examples of individual products to which the MRLs apply (a)	Azoxystrobin
102000	(ii) Milk and cream, not concentrated, nor containing added sugar or sweetening matter, butter and other fats derived from milk, cheese and curd	0,01*
102001	Cattle	0,01*
102002	Sheep	0,01*
102003	Goat	0,01*
102004	Horse	0,01*
102099	Others	0,01*
103000	(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	0,01*
103001	Chicken	0,01*
103002	Duck	0,01*
103003	Goose	0,01*
103004	Quail	0,01*
103099	Others	0,01*
104000	(iv) Honey (Royal jelly, pollen)	0,01*
105000	(v) Amphibians and reptiles (Frog legs, crocodiles)	0,01*
106000	(vi) Snails	0,01*
107000	(vii) Other terrestrial animal products	0,01*

(*) Indicates lower limit of analytical determination

APPENDIX D – EXISTING CXLs

CXLs which are higher than EC MRLs are indicated in bold.

Code number	Groups and examples of individual products to which the MRLs apply (a)	Azoxystrobin
100000	1. FRUIT FRESH OR FROZEN; NUTS	
110000	(i) Citrus fruit	15
110010	Grapefruit (Shaddocks, pomelos, sweeties, tangelo, ugli and other hybrids)	
110020	Oranges (Bergamot, bitter orange, chinotto and other hybrids)	
110030	Lemons (Citron, lemon)	
110040	Limes	
110050	Mandarins (Clementine, tangerine and other hybrids)	
110990	Others	
120000	(ii) Tree nuts (shelled or unshelled)	
120010	Almonds	0.01
120020	Brazil nuts	0.01
120030	Cashew nuts	0.01
120040	Chestnuts	0.01
120050	Coconuts	0.01
120060	Hazelnuts (Filbert)	0.01
120070	Macadamia	0.01
120080	Pecans	0.01
120090	Pine nuts	0.01
120100	Pistachios	1
120110	Walnuts	0.01
120990	Others	0.01
130000	(iii) Pome fruit	
130010	Apples (Crab apple)	
130020	Pears (Oriental pear)	
130030	Quinces	
130040	Medlar	
130050	Loquat	
130990	Others	
140000	(iv) Stone fruit	2
140010	Apricots	
140020	Cherries (sweet cherries, sour cherries)	

Code number	Groups and examples of individual products to which the MRLs apply (a)	Azoxystrobin
140030	Peaches (Nectarines and similar hybrids)	
140040	Plums (Damson, greengage, mirabelle)	
140990	Others	
150000	(v) Berries & small fruit	
151000	(a) Table and wine grapes	2
151010	Table grapes	
151020	Wine grapes	
152000	(b) Strawberries	10
153000	(c) Cane fruit	5
153010	Blackberries	
153020	Dewberries (Loganberries, Boysenberries, and cloudberrries)	
153030	Raspberries (Wineberries)	
153990	Others	
154000	(d) Other small fruit & berries	
154010	Blueberries (Bilberries cowberries (red bilberries))	5
154020	Cranberries	0.5
154030	Currants (red, black and white)	5
154060	Mulberries (arbutus berry)	5
154070	Azarole (mediteranean medlar)	5
154080	Elderberries (Black chokeberry (appleberry), mountain ash, azarole, buckthorn (sea sallowthorn), hawthorn, service berries, and other treeberries)	5
154990	Others	5
160000	(vi) Miscellaneous fruit	
161000	(a) Edible peel	
161010	Dates	
161020	Figs	
161030	Table olives	
161040	Kumquats (Marumi kumquats, nagami kumquats)	
161050	Carambola (Billinbi)	
161060	Persimmon	
161070	Jambolan (java plum) (Java apple (water apple), pomerac, rose apple, Brazilian cherry (gumichama), Surinam cherry)	
161990	Others	
162000	(b) Inedible peel, small	
162010	Kiwi	
162020	Lychee (Litchi) (Pulasan, rambutan (hairy litchi))	
162030	Passion fruit	

Code number	Groups and examples of individual products to which the MRLs apply (a)	Azoxystrobin
162040	Prickly pear (cactus fruit)	
162050	Star apple	
162060	American persimmon (Virginia kaki) (Black sapote, white sapote, green sapote, canistel (yellow sapote), and mammy sapote)	
162990	Others	
163000	(c) Inedible peel, large	
163010	Avocados	
163020	Bananas (Dwarf banana, plantain, apple banana)	2
163030	Mangoes	0.7
163040	Papaya	0.3
163050	Pomegranate	
163060	Cherimoya (Custard apple, sugar apple (sweetsop), llama and other medium sized Annonaceae)	
163070	Guava	
163080	Pineapples	
163090	Bread fruit (Jackfruit)	
163100	Durian	
163110	Soursop (guanabana)	
163990	Others	
200000	2. VEGETABLES FRESH OR FROZEN	
210000	(i) Root and tuber vegetables	1
211000	(a) Potatoes	
212000	(b) Tropical root and tuber vegetables	
212010	Cassava (Dasheen, eddoe (Japanese taro), tannia)	
212020	Sweet potatoes	
212030	Yams (Potato bean (yam bean), Mexican yam bean)	
212040	Arrowroot	
212990	Others	
213000	(c) Other root and tuber vegetables except sugar beet	
213010	Beetroot	
213020	Carrots	
213030	Celeriac	
213040	Horseradish	
213050	Jerusalem artichokes	
213060	Parsnips	
213070	Parsley root	
213080	Radishes (Black radish, Japanese radish, small radish)	

Code number	Groups and examples of individual products to which the MRLs apply (a)	Azoxystrobin
	and similar varieties)	
213090	Salsify (Scorzonera, Spanish salsify (Spanish oysterplant))	
213100	Swedes	
213110	Tumips	
213990	Others	
220000	(ii) Bulb vegetables	10
220010	Garlic	
220020	Onions (Silverskin onions)	
220030	Shallots	
220040	Spring onions (Welsh onion and similar varieties)	
220990	Others	
230000	(iii) Fruiting vegetables	
231000	(a) Solanacea	3
231010	Tomatoes (Cherry tomatoes,)	
231020	Peppers (Chilli peppers)	
231030	Aubergines (egg plants) (Pepino)	
231040	Okra, lady's fingers	
231990	Others	
232000	(b) Cucurbits - edible peel	1
232010	Cucumbers	
232020	Gherkins	
232030	Courgettes (Summer squash, marrow (patisson))	
232990	Others	
233000	(c) Cucurbits-inedible peel	1
233010	Melons (Kiwano)	
233020	Pumpkins (Winter squash)	
233030	Watermelons	
233990	Others	
234000	(d) Sweet corn	3
239000	(e) Other fruiting vegetables	
240000	(iv) Brassica vegetables	
241000	(a) Flowering brassica	5
241010	Broccoli (Calabrese, Chinese broccoli, Broccoli raab)	
241020	Cauliflower	
241990	Others	
242000	(b) Head brassica	5
242010	Brussels sprouts	
242020	Head cabbage (Pointed head cabbage, red cabbage, savoy cabbage, white cabbage)	
242990	Others	
243000	(c) Leafy brassica	
243010	Chinese cabbage (Indian (Chinese) mustard, pak choi,	

Code number	Groups and examples of individual products to which the MRLs apply (a)	Azoxystrobin
	Chinese flat cabbage (tai goo choi), peking cabbage (pe-tsai), cow cabbage)	
243020	Kale (Borecole (curly kale), collards)	5
243990	Others	
244000	(d) Kohlrabi	5
250000	(v) Leaf vegetables & fresh herbs	
251000	(a) Lettuce and other salad plants including Brassicacea	
251010	Lamb's lettuce (Italian cornsalad)	
251020	Lettuce (Head lettuce, lollo rosso (cutting lettuce), iceberg lettuce, romaine (cos) lettuce)	3
251030	Scarole (broad-leaf endive) (Wild chicory, red-leaved chicory, radicchio, curld leave endive, sugar loaf)	
251040	Cress	
251050	Land cress	
251060	Rocket, Rucola (Wild rocket)	
251070	Red mustard	
251080	Leaves and sprouts of Brassica spp (Mizuna)	
251990	Others	
252000	(b) Spinach & similar (leaves)	
252010	Spinach (New Zealand spinach, tumip greens (tumip tops))	
252020	Purslane (Winter purslane (miner's lettuce), garden purslane, common purslane, sorrel, glasswort)	
252030	Beet leaves (chard) (Leaves of beetroot)	
252990	Others	
253000	(c) Vine leaves (grape leaves)	
254000	(d) Water cress	
255000	(e) Witloof	0.3
256000	(f) Herbs	70
256010	Chervil	
256020	Chives	
256030	Celery leaves (fennel leaves, Coriander leaves, dill leaves, Caraway leaves, lovage, angelica, sweet cisely and other Apiacea)	
256040	Parsley	
256050	Sage (Winter savory, summer	

Code number	Groups and examples of individual products to which the MRLs apply (a)	Azoxystrobin
	savory,)	
256060	Rosemary	
256070	Thyme (marjoram, oregano)	
256080	Basil (Balm leaves, mint, peppermint)	
256090	Bay leaves (laurel)	
256100	Taragon (Hyssop)	
256990	Others	
260000	(vi) Legume vegetables (fresh)	3
260010	Beans (with pods) (Green bean (french beans, snap beans), scarlet runner bean, slicing bean, yardlong beans)	
260020	Beans (without pods) (Broad beans, Flageolets, jack bean, lima bean, cowpea)	
260030	Peas (with pods) (Mangetout (sugar peas))	
260040	Peas (without pods) (Garden pea, green pea, chickpea)	
260050	Lentils	
260990	Others	
270000	(vii) Stern vegetables (fresh)	
270010	Asparagus	0.01*
270020	Cardoons	
270030	Celery	5
270040	Fennel	
270050	Globe artichokes	5
270060	Leek	10
270070	Rhubarb	
270080	Bamboo shoots	
270090	Palm hearts	
270990	Others	
280000	(viii) Fungi	
280010	Cultivated (Common mushroom, Oyster mushroom, Shi-take)	
280020	Wild (Chanterelle, Truffle, Morel .)	
280990	Others	
290000	(ix) Sea weeds	
300000	3. PULSES, DRY	
300010	Beans (Broad beans, navy beans, flageolets, jack beans, lima beans, field beans, cowpeas)	
300020	Lentils	
300030	Peas (Chickpeas, field peas, chickling vetch)	

Code number	Groups and examples of individual products to which the MRLs apply (a)	Azoxystrobin
300040	Lupins	
300990	Others	
400000	4. OILSEEDS AND OILFRUITS	
401000	(i) Oilseeds	
401010	Linseed	
401020	Peanuts	0.2
401030	Poppy seed	
401040	Sesame seed	
401050	Sunflower seed	0.5
401060	Rape seed (Bird rapeseed, turnip rape)	
401070	Soya bean	0.5
401080	Mustard seed	
401090	Cotton seed	0.7
401100	Pumpkin seeds	
401110	Safflower	
401120	Borage	
401130	Gold of pleasure	
401140	Hempseed	
401150	Castor bean	
401990	Others	
402000	(ii) Oilfruits	
402010	Olives for oil production	
402020	Palm nuts (palmoil kemels)	
402030	Palmfruit	
402040	Kapok	
402990	Others	
500000	5. CEREALS	
500010	Barley	0.5
500020	Buckwheat	
500030	Maize	0.02
500040	Millet (Foxtail millet, teff)	
500050	Oats	0.5
500060	Rice	5
500070	Rye	0.2
500080	Sorghum	
500090	Wheat (Spelt Triticale)	0.2
500990	Others	
600000	6. TEA, COFFEE, HERBAL INFUSIONS AND COCOA	
610000	(i) Tea (dried leaves and stalks, fermented or otherwise of Camellia sinensis)	
620000	(ii) Coffee beans	
630000	(iii) Herbal infusions (dried)	
631000	(a) Flowers	
631010	Camomille flowers	
631020	Hybiscus flowers	

Code number	Groups and examples of individual products to which the MRLs apply (a)	Azoxystrobin
631030	Rose petals	
631040	Jasmine flowers	
631050	Lime (linden)	
631990	Others	
632000	(b) Leaves	
632010	Strawberry leaves	
632020	Rooibos leaves	
632030	Maté	
632990	Others	
633000	(c) Roots	
633010	Valerian root	
633020	Ginseng root	
633990	Others	
639000	(d) Other herbal infusions	
640000	(iv) Cocoa (fermented beans)	
650000	(v) Carob (st johns bread)	
700000	7. HOPS (dried), including hop pellets and unconcentrated powder	30
800000	8. SPICES	
810000	(i) Seeds	
810010	Anise	
810020	Black caraway	
810030	Celery seed (Lovage seed)	
810040	Coriander seed	
810050	Cumin seed	
810060	Dill seed	
810070	Fennel seed	
810080	Fenugreek	
810090	Nutmeg	
810990	Others	
820000	(ii) Fruits and berries	
820010	Allspice	
820020	Anise pepper (Japan pepper)	
820030	Caraway	
820040	Cardamom	
820050	Juniper berries	
820060	Pepper, black and white (Long pepper, pink pepper)	
820070	Vanilla pods	
820080	Tamarind	
820990	Others	
830000	(iii) Bark	
830010	Cinnamon (Cassia)	
830990	Others	
840000	(iv) Roots or rhizome	
840010	Liquorice	
840020	Ginger	
840030	Turmeric (Curcuma)	

Code number	Groups and examples of individual products to which the MRLs apply (a)	Azoxystrobin
840040	Horseradish	
840990	Others	
850000	(v) Buds	
850010	Cloves	
850020	Capers	
850990	Others	
860000	(vi) Flower stigma	
860010	Saffron	
860990	Others	
870000	(vii) Aрил	
870010	Mace	
870990	Others	
900000	9. SUGAR PLANTS	
900010	Sugar beet (root)	
900020	Sugar cane	
900030	Chicory roots	
900990	Others	
1000000	10. PRODUCTS OF ANIMAL ORIGIN- TERRESTRIAL ANIMALS	
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	
1011000	(a) Swine	
1011010	Meat	0.05
1011020	Fat free of lean meat	
1011030	Liver	0.07
1011040	Kidney	0.07
1011050	Edible offal	0.07
1011990	Others	
1012000	(b) Bovine	
1012010	Meat	0.05
1012020	Fat	
1012030	Liver	0.07
1012040	Kidney	0.07
1012050	Edible offal	0.07
1012990	Others	
1013000	(c) Sheep	
1013010	Meat	0.05
1013020	Fat	
1013030	Liver	0.07
1013040	Kidney	0.07
1013050	Edible offal	0.07
1013990	Others	

Code number	Groups and examples of individual products to which the MRLs apply (a)	Azoxystrobin
1014000	(d) Goat	
1014010	Meat	0.05
1014020	Fat	
1014030	Liver	0.07
1014040	Kidney	0.07
1014050	Edible offal	0.07
1014990	Others	
1015000	(e) Horses, asses, mules or hinnies	
1015010	Meat	0.05
1015020	Fat	
1015030	Liver	0.07
1015040	Kidney	0.07
1015050	Edible offal	0.07
1015990	Others	
1016000	(f) Poultry -chicken, geese, duck, turkey and Guinea fowl-, ostrich, pigeon	
1016010	Meat	0.01*
1016020	Fat	
1016030	Liver	0.01*
1016040	Kidney	0.01*
1016050	Edible offal	0.01*
1016990	Others	
1017000	(g) Other farm animals (Rabbit, Kangaroo)	
1017010	Meat	0.05
1017020	Fat	
1017030	Liver	0.07
1017040	Kidney	0.07
1017050	Edible offal	0.07
1017990	Others	
1020000	(ii) Milk and cream, not concentrated, nor containing added sugar or sweetening matter, butter and other fats derived from milk, cheese and curd	0.01
1020010	Cattle	
1020020	Sheep	
1020030	Goat	
1020040	Horse	
1020990	Others	
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	0.01*

Code number	Groups and examples of individual products to which the MRLs apply (a)	Azoxystrobin
	containing added sugar or sweetening matter	
1030010	Chicken	
1030020	Duck	
1030030	Goose	
1030040	Quail	
1030990	Others	
1040000	(iv) Honey (Royal jelly, pollen)	
1050000	(v) Amphibians and reptiles (Frog legs, crocodiles)	
1060000	(vi) Snails	
1070000	(vii) Other terrestrial animal products	

(*) Indicates lower limit of analytical determination

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
CF	conversion factor for enforcement residue definition to risk assessment residue definition
CIPAC	Collaborative International Pesticide Analytical Council Limited
CXL	codex maximum residue limit
D	day
DAR	Draft Assessment Report (prepared under Directive 91/414/EEC)
DAT	days after treatment
DM	dry matter
DT ₉₀	period required for 90 percent dissipation (define method of estimation)
dw	dry weight
EC	European Community
EFSA	European Food Safety Authority
EMS	evaluating Member State
EU	European Union
FAO	Food and Agriculture Organisation of the United Nations
GAP	good agricultural practice
GS	growth stage
ha	hectare
hL	hectolitre
HPLC	high performance liquid chromatography
HR	highest residue
ISO	International Organization for Standardization
IUPAC	International Union of Pure and Applied Chemistry
JMPR	Joint FAO/WHO Meeting on Pesticide Residues
K _{oc}	organic carbon adsorption coefficient
L	litre
LOD	limit of detection

LOQ	limit of quantification
MRL	maximum residue limit
MS	Member States
NEU	Northern European Union
NOAEL	no observed adverse effect level
PF	processing factor
PHI	pre harvest interval
ppm	parts per million (10^{-6})
PRIMo	Pesticide Residues Intake Model
RMS	rappporteur Member State
SC	suspension concentrate
SEU	Southern European Union
STMR	supervised trials median residue
TMDI	theoretical maximum daily intake
TRR	total radioactive residue
UVD	ultra-violet detection
WHO	World Health Organisation