

TOLFENPYRAD (269)

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EXPLANATION

Tolfenpyrad is a pyrazole insecticide first evaluated by JMPR for toxicology and residues in 2013 when an ADI of 0–0.006 mg/kg bw and an ARfD of 0.01 mg/kg bw were established. The 2013 JMPR recommended a residue definition of tolfenpyrad for plant commodities for enforcement and for estimation of dietary intake. For animal commodities, a definition of tolfenpyrad, free and conjugated PT-CA(4-[4-[(4-chloro-3-ethyl-1-methylpyrazol-5-yl)carbonylamino]methyl] phenoxy] benzoic acid and OH-PT-CA(4-[4-[[4-chloro-3-(1-hydroxyethyl)-1-methylpyrazol-5-yl]carbonyl amino]methyl]phenoxy] benzoic acid) (released with alkaline hydrolysis) expressed as tolfenpyrad was recommended for both enforcement and dietary intake assessment. The residue is not fat soluble. An MRL was estimated for tea, green.

Tolfenpyrad was listed by the 47th Session of the CCPR for the evaluation of additional MRLs. The Meeting received information on the GAP and supervised residue trials on potato and tree nuts conducted in the USA.

RESIDUE ANALYSIS

The Meeting received no additional information on analytical methods for the determination of residues of tolfenpyrad. Tree nuts (nutmeat) and potatoes were analysed for tolfenpyrad and the metabolite OH-PT by the validated residue analytical method “Morse Laboratories analytical method no. Meth-183, rev. 2” with an LOQ of 0.01 mg/kg (evaluated by JMPR in 2013).

Stability of Residues in Stored Samples

The stability of residues of tolfenpyrad and metabolites in stored samples was evaluated by the 2013 JMPR, and these previously submitted stability studies are considered adequate for the residue trials submitted to the current Meeting. No further stability data were submitted to the current Meeting.

USE PATTERNS

The authorized uses relevant to the supervised trial data submitted to the current Meeting are summarized in Table 1.

Table 1 List of registered uses

Crop	Country	Formulation	Application			PHI days
			Method	Rate, g ai/ha	No. of treatments	
Potato	USA	EC (150 g/L)	Foliar spray	230	2	14
Tree nuts	USA	SC (157 g/L)	Foliar spray	310	1	14

Residues resulting from supervised trials on crops

The Meeting received residue data from supervised field trials conducted in the USA involving foliar applications of tolfenpyrad to potatoes and tree nuts (almonds and pecans).

Trials were well documented with the results of the laboratory analysis and field reports. The former included method validation including recoveries with spiking at residue levels like those occurring in samples from the supervised trials. Dates of analyses or duration of residue sample storage were also provided. Although trials included control plots, no control data are recorded in the tables because no residues in control samples exceeded the LOQ. Residues are unadjusted for

recoveries. The residues of OH-TP were analysed for in all samples, but were not detected in any sample.

All appropriate trials are summarized. In many trials, especially those conducted in the USA, duplicate or multiple field samples from replicate plots were taken at each sampling period and were analysed separately. Each value is reported in the tables. Means of replicate field or analytical samples have been calculated for use in STMR, HR and MRL calculations.

When residues were not quantifiable they are shown as below the LOQ of the relevant analytical method (e.g. < 0.01 mg/kg). Residues and application rates have generally been rounded to two significant figures or, for residues near the LOQ, to one significant figure so as not to represent spuriously high precision.

Trials within 25% of the label use pattern were considered to comply with the GAP. Residues from the trials conducted per critical GAP have been used for the estimation of maximum residue levels and dietary intake assessment.

Table 2 Tolfenpyrad - supervised residue trials

CODEX Group	Commodity	treatment	country	Table No.
Root and tuber vegetables	Potato	Foliar spray	USA	Table 3
Tree nuts	Almond	Foliar spray	USA	Table 4

Root and tuber vegetables

Potatoes

Sixteen residue trials were conducted on potatoes in the USA in 2007 (Carringer, S.J. 2008, Report no. R-10166). In each trial, two treatments were performed by foliar broadcast ground application per GAP at a rate of 230 g ai/ha with an interval of 14 days. Tolfenpyrad was applied as a 15% EC formulation.

One untreated control and one treated plot were established at each trial site. All samples were harvested at commercial maturity, 13–14 days after the second application. Two trials were conducted as decline trials with samples taken 7, 14, 21 and 28 days after the second application. One trial site had an additional plot treated at an exaggerated rate (5×) to provide samples for processing.

The samples were comprised of a minimum of 12 (if large) or 24 tubers. The bulk untreated and treated samples for processing weighed approximately 75 kg.

The potato RAC samples were frozen for shipping to the analytical laboratory. The two bulk potato samples for processing were delivered to the processing facility at ambient temperature on the day of harvest. Processed samples were shipped frozen to the analytical laboratory.

Potato tubers were analysed for residues of tolfenpyrad and the metabolite, tolfenpyrad-OH-PT (OH-PT), using a validated method (Morse Laboratories analytical method no. Meth-183, rev. 2). Analyses were conducted using HPLC with mass spectrometric detection (LC-MS/MS). The LOQ for both analytes was 0.01 mg/kg. Procedural mean recoveries at fortification levels in the range of 0.01 mg/kg to 0.5 mg/kg were in the range of 67% to 101% for parent tolfenpyrad and in the range of 79% to 116% for OH-PT. No control samples contained residues at or above the LOQ of the method.

Summaries of the trial results as mean values of two separate samples analysed are given in Table 3. Residues of tolfenpyrad and OH-PT in potato tubers at harvest were all below the LOQ even at an exaggerated application rate (trial TCI-07-163-13). Therefore, the total residue is also assumed to be < 0.01 mg/kg.

Table 3 Tolfenpyrad residues in potato resulting from supervised trials in the USA

Trial, Country, Year (Variety)	Application			DALA	Commodity	Residues (mg/kg)			Reference
	Formulation (g ai/L)	g ai/ha	No.			Tolfenpyrad	OH-PT	total	
GAP—USA	(150 g/L EC)	237	2	14					
TCI-07-163-01, Alton, New York, USA, 2007 (Reba)	EC (150 g/L)	1) 224 2) 230	2	14	tubers	< 0.01, < 0.01 (< 0.01)	< 0.01 (2)	< 0.01	R-10166
TCI-07-163-02, Germansville, Pennsylvania, USA, 2007 (Dark Red Norland)	EC (150 g/L)	1) 238 2) 240	2	14	tubers	< 0.01, < 0.01 (< 0.01)	< 0.01 (2)	< 0.01	R-10166
TCI-07-163-03, Seven Springs, North Carolina, USA, 2007 (Red Chieftain)	EC (150 g/L)	1) 226 2) 232	2	14	tubers	< 0.01, < 0.01 (< 0.01)	< 0.01 (2)	< 0.01	R-10166
TCI-07-163-04, O'Brien, Florida, USA, 2007 (LaSoda)	EC (150 g/L)	1) 230 2) 234	2	14	tubers	< 0.01, < 0.01 (< 0.01)	< 0.01 (2)	< 0.01	R-10166
TCI-07-163-05, Conklin, Michigan, USA, 2007 (Dark Red Norland)	EC (150 g/L)	1) 228 2) 229	2	14	tubers	< 0.01, < 0.01 (< 0.01)	< 0.01 (2)	< 0.01	R-10166
TCI-07-163-06, Delavan, Wisconsin, USA, 2007 (Superior)	EC (150 g/L)	1) 231 2) 232	2	14	tubers	< 0.01, < 0.01 (< 0.01)	< 0.01 (2)	< 0.01	R-10166
TCI-07-163-07, Geneva, Minnesota, USA, 2007 (Cascade)	EC (150 g/L)	1) 231 2) 225	2	14	tubers	< 0.01, < 0.01 (< 0.01)	< 0.01 (2)	< 0.01	R-10166
TCI-07-163-08, Carrington, North Dakota, USA, 2007 (Red Norland)	EC (150 g/L)	1) 238 2) 236	2	7 14 21 28	tubers	< 0.01, < 0.01 (< 0.01) < 0.01, < 0.01 (< 0.01) < 0.01, < 0.01 (< 0.01)	< 0.01 (2) < 0.01 (2) < 0.01 (2) < 0.01 (2)	< 0.01 < 0.01 < 0.01 < 0.01	R-10166
TCI-07-163-09, Kimberly, Idaho, USA, 2007 (Russet Burbank)	EC (150 g/L)	1) 231 2) 231	2	14	tubers	< 0.01, < 0.01 (< 0.01)	< 0.01 (2)	< 0.01	R-10166
TCI-07-163-10, Terra Bella, California, USA, 2007 (Red LaSoda)	EC (150 g/L)	1) 231 2) 231	2	14	tubers	< 0.01, < 0.01 (< 0.01)	< 0.01 (2)	< 0.01	R-10166

Trial, Country, Year (Variety)	Application			DALA	Commodity	Residues (mg/kg)			Reference
	Formulation (g ai/L)	g ai/ha	No.			Tolfenpyrad	OH-PT	total	
GAP—USA	(150 g/L EC)	237	2	14					
TCI-07-163-11, Ephrata, Washington, USA, 2007 (Ranger Russet)	EC (150 g/L)	1) 231 2) 231	2	7 14 21 28	tubers	< 0.01, < 0.01 (< 0.01) < 0.01, < 0.01 (< 0.01) < 0.01, < 0.01 (< 0.01) < 0.01, < 0.01 (< 0.01)	< 0.01 (2) < 0.01 (2) < 0.01 (2) < 0.01 (2)	< 0.01 < 0.01 < 0.01 < 0.01	R-10166
TCI-07-163-12, Ephrata, Washington, USA, 2007 (Russet Burbank)	EC (150 g/L)	1) 231 2) 232	2	14	tubers	< 0.01, < 0.01 (< 0.01)	< 0.01 (2)	< 0.01	R-10166
TCI-07-163-13, Payette, Idaho, USA, 2007 (Russet Burbank)	EC (150 g/L)	1) 228 2) 229 1) 1040 2) 1050	2 2	14 14	tubers tubers	< 0.01, < 0.01 (< 0.01) < 0.01, < 0.01 (< 0.01)	< 0.01 (2) < 0.01 (2)	< 0.01 < 0.01	R-10166
TCI-07-163-14, Minidika, Idaho, USA, 2007 (Russet Burbank)	EC (150 g/L)	1) 226 2) 225	2	14	tubers	< 0.01, < 0.01 (< 0.01)	< 0.01 (2)	< 0.01	R-10166
TCI-07-163-15, Jerome, Idaho, USA, 2007 (Russet Burbank)	EC (150 g/L)	1) 230 2) 230	2	14	tubers	< 0.01, < 0.01 (< 0.01)	< 0.01 (2)	< 0.01	R-10166
TCI-07-163-16, American Falls, Idaho, USA, 2007 (Russet Burbank)	EC (150 g/L)	1) 236 2) 236	2	14	tubers	< 0.01, < 0.01 (< 0.01)	< 0.01 (2)	< 0.01	R-10166

Tree nuts

Ten residue trials were performed on tree nuts grown in the USA in 2008 (Greenland, RG 2009a, Report no. R-10178); five on almond and five on pecan. Two treatments with a 15% SC formulation were performed at a rate of 300 g ai/ha by air blast sprayer with a re-treatment interval of 10 days.

One untreated control and one treated plot were established at each trial site. All trials were harvested at commercial maturity, 13–14 days after the second application. One trial was conducted as a decline trial with samples taken 5, 9, 13, 17 and 21 days after the second application.

Samples of almond nutmeat, almond hulls and pecan nutmeat were taken from each treated plot and untreated plot. Some of the samples were placed in a freezer more than 4 hours after collection because of the time required to shell the nuts. The samples were stored frozen (-20 °C ± 5 °C) for shipping to the analytical laboratory and were kept frozen before and after sample homogenization. The samples were analysed within 60 days following collection.

The method of analysis was LC-MS/MS. The LOQ was 0.01 mg/kg for both analytes in all matrices. Mean procedural recoveries at fortification levels of 0.01 mg/kg to 5.0 mg/kg were in the range of 76% to 107% for parent tolfenpyrad and in the range of 88% to 104% for OH-PT. No control samples contained residues at or above the LOQ.

The trial results as mean values of two separate samples analysed are given in Table 4. No quantifiable residues of OH-PT were present in any of the samples.

Table 4 Tolfenpyrad residues in almonds and pecans resulting from supervised trials in the USA

Trial, Country, Year (Variety)	Application			DALA	Commodity	Residues (mg/kg)			Reference
	Formulation (g ai/L)	g ai/ha	No.			Tolfenpyrad	OH-PT	total	
GAP—USA	157 g/L SC	310	1	14					
Almond									
SARS-08-01-CA-1 Fresno, California, USA, 2008 (Nonpareil)	EC (150 g/L)	1) 305 2) 305	2	14	nutmeat	< 0.01, < 0.01 (< 0.01)	< 0.01 (2)	< 0.0 1	R-10178
SARS-08-01-CA-2 Madera, California, USA, 2008 (Nonpareil)	EC (150 g/L)	1) 308 2) 307	2	14	nutmeat	0.025, 0.029 (0.027)	< 0.01 (2)	0.027	R-10178
SARS-08-01-CA-3 Fresno, California, USA, 2008 (Carmel)	EC (150 g/L)	1) 309 2) 308	2	5 9 13 17 21	nutmeat	< 0.01, < 0.01 (< 0.01) < 0.01, < 0.01 (< 0.01) < 0.01, < 0.01 (< 0.01) < 0.01, < 0.01 (< 0.01) < 0.01, < 0.01 (< 0.01)	< 0.01 (2) < 0.01 (2) < 0.01 (2) < 0.01 (2) < 0.01 (2)	< 0.0 1 < 0.0 1 < 0.0 1 < 0.0 1 < 0.0 1	R-10178
SARS-08-01-CA-4 Glenn, California, USA, 2008 (Nonpareil)	EC (150 g/L)	1) 308 2) 307	2	14	nutmeat	< 0.01, < 0.01 (< 0.01)	< 0.01 (2)	< 0.0 1	R-10178
SARS-08-01-CA-5 Colusa, California, USA, 2008 (Nonpareil)	EC (150 g/L)	1) 302 2) 303	2	14	nutmeat	< 0.01, < 0.01 (< 0.01)	< 0.01 (2)	< 0.0 1	R-10178
Pecan									
SARS-08-02-SC Screven, Georgia, USA, 2008 (Desirable)	EC (150 g/L)	1) 309 2) 305	2	14	nutmeat	< 0.01, < 0.01 (< 0.01)	< 0.01 (2)	< 0.0 1	R-10178
SARS-08-02-GA Tift, Georgia, USA, 2008 (Sumner)	EC (150 g/L)	1) 306 2) 305	2	14	nutmeat	< 0.01, < 0.01 (< 0.01)	< 0.01 (2)	< 0.0 1	R-10178
SARS-08-02-AR Stoddard, Missouri, USA, 2008 (Stuard)	EC (150 g/L)	1) 308 2) 306	2	14	nutmeat	< 0.01, < 0.01 (< 0.01)	< 0.01 (2)	< 0.0 1	R-10178
SARS-08-02-TX Frio, Texas, USA, 2008 (Wichita)	EC (150 g/L)	1) 310 2) 304	2	14	nutmeat	< 0.01, < 0.01 (< 0.01)	< 0.01 (2)	< 0.0 1	R-10178
SARS-08-02-OK Stephens, Oklahoma, USA, 2008 (Kiowa)	EC (150 g/L)	1) 309 2) 310	2	14	nutmeat	< 0.01, < 0.01 (< 0.01)	< 0.01 (2)	< 0.0 1	R-10178

Primary feed commodities of plant origin**Almond hulls**

Five supervised trials were conducted on almonds during 2008 in the USA (Greenland, RG 2009a, Report no. R-10178). Percent dry matter of the almond hulls was 20.0% to 60.8%. No correction was made for percent dry matter for residues found in any of the commodity samples.

Summaries of the trial results as mean values of two separate samples analysed are given in Table 5. In almond hulls, 13 to 14 days after application residues of tolfenpyrad were in the range of < 0.01–3.00 mg/kg. No quantifiable residues of OH PT were present in any of the samples

Table 5 Tolfenpyrad residues in almond hull resulting from supervised trials in the USA

Trial, Country, Year (Variety)	Application			DAL A	Commodity	Residues (mg/kg)			Reference
	Formulation (g ai/L)	g ai/ha	No.			Tolfenpyrad	OH-PT	total	
GAP—USA	157 g/L SC	310	1	14					
SARS-08-01-CA-1 Fresno, California, USA, 2008 (Nonpareil)	EC (150 g/L)	1) 305 2) 305	2	14	hull	1.82, 2.25 (2.04)	< 0.01 (2)	2.04	R-10178
SARS-08-01-CA-2 Madera, California, USA, 2008 (Nonpareil)	EC (150 g/L)	1) 308 2) 307	2	14	hull	1.20, 1.60 (1.40)	< 0.01 (2)	1.40	R-10178
SARS-08-01-CA-3 Fresno, California, USA, 2008 (Carmel)	EC (150 g/L)	1) 309 2) 308	2	5 9 13 17 21	hull	2.73, 2.88 (2.81) 1.55, 1.67 (1.61) 2.57, 3.42 (3.00) 2.79, 2.92 (2.86) 2.28, 2.46 (2.37)	< 0.01 (2) < 0.01 (2) < 0.01 (2) < 0.01 (2) < 0.01 (2)	2.81 1.61 3.00 2.86 2.37	R-10178
SARS-08-01-CA-4 Glenn, California, USA, 2008 (Nonpareil)	EC (150 g/L)	1) 308 2) 307	2	14	hull	< 0.01, < 0.01 (< 0.01)	< 0.01 (2)	< 0.01	R-10178
SARS-08-01-CA-5 Colusa, California, USA, 2008 (Nonpareil)	EC (150 g/L)	1) 302 2) 303	2	14	hull	1.63, 1.75 (1.69)	< 0.01 (2)	1.69	R-10178

FATE OF RESIDUES IN STORAGE AND IN PROCESSING**In stored commodities**

No data regarding use of tolfenpyrad in stored commodities were presented to the Meeting.

In processing

A processing study on potato conducted in USA in 2008 was reviewed by the 2013 JMPPR. Neither the RAC nor the processed fractions contained residues of tolfenpyrad and OH-PT above the LOQ of 0.01 mg/kg. No new processing data were submitted to the current Meeting.

Residues in animal commodities*Farm animal feeding studies*

Animal feeding studies were evaluated by the 2013 Meeting. The maximum total residues of tolfenpyrad at the 2.5 ppm feeding level were 0.04 mg/kg in muscle, 0.9 mg/kg in liver, 0.18 mg/kg in kidney, < 0.03 mg/kg in fat and 0.04 mg/kg in milk.

APPRAISAL

Tolfenpyrad is a broad spectrum insecticide and a miticide, with contact activity against target pests on eggs, larvae, nymphs, and adults. It also has anti-feeding activity on lepidopteran insects. It belongs to the pyrazole class of insecticides. It has activity against several economically important insect pests of vegetables, fruits, nuts, vines and row crops. It was first evaluated by JMPR in 2013 for toxicology and residues. The 2013 Meeting established an ADI of 0–0.006 mg/kg bw and an ARfD of 0.01 mg/kg bw, and an MRL for green tea was recommended.

Tolfenpyrad was listed by the 47th Session of the CCPR for the evaluation of additional uses. The current Meeting received information on the latest use patterns and supervised residue trials on potato and tree nuts conducted in the USA.

The 2013 JMPR recommended the following definition for tolfenpyrad:

Definition of the residue for compliance with the MRL and estimation of dietary intake for plant commodities: *Tolfenpyrad*.

Definition of the residue for compliance with the MRL and estimation of dietary intake for animal commodities: *sum of tolfenpyrad and free and conjugated PT-CA (4-[4-[(4-chloro-3-ethyl-1-methylpyrazol-5-yl)carbonylamino]methyl]phenoxy]benzoic acid and OH-PT-CA (4-[4-[(4-chloro-3-(1-hydroxyethyl)-1-methylpyrazol-5-yl]carbonylamino]methyl]phenoxy] benzoic acid) (released with alkaline hydrolysis) expressed as tolfenpyrad.*

The residue is not fat soluble.

Results of supervised residue trials on crops

The current Meeting received information on the latest use patterns and supervised residue trials for foliar application of tolfenpyrad on potato and tree nuts conducted in the USA. For estimating HR or highest residue, the highest individual residue value from the trials conducted in accordance with GAP was used.

Potatoes

The GAP for tolfenpyrad on potato in the USA is two foliar spray applications at 230 g ai/ha with a re-treatment interval of 14 days and a 14-day PHI. A total of sixteen supervised trials on potato were conducted in the USA. The residues of tolfenpyrad in potato from fifteen independent trials in accordance with US GAP were: < 0.01(15) mg/kg. The total residues of tolfenpyrad from one trial in which the application rate was 5 times the GAP rate were also < 0.01 mg/kg.

The Meeting estimated a maximum residue level, an STMR and a HR at 0.01*, 0 and 0 mg/kg for tolfenpyrad in potato, respectively.

Tree nuts

The GAP for tolfenpyrad on tree nuts in the USA consists of a single foliar spray application at 310 g ai/ha and a PHI of 14 days.

Residue trials conducted in the USA in almonds and pecans were made available to the Meeting.

Almonds

Four independent trials were conducted on almonds in the USA, 2×310 g ai/ha applications. Tolfenpyrad residues in nutmeat at a 14-day PHI were < 0.01 (3) and 0.027 mg/kg ($n = 4$). All trials were overdosed with two applications instead of one. The Meeting noted that the trials did not match GAP and concluded that a maximum residue level could not be estimated for almonds.

Pecan

Five independent trials were conducted on pecans in the USA, 2×310 g ai/ha applications. Tolfenpyrad residues in nutmeat at a 14-day PHI were all < 0.01 mg/kg ($n = 5$). All trials were overdosed with two applications instead of one.

The Meeting noted that the additional application above GAP did not result in finite residues in pecans and considered that the data could be used for estimation of a maximum residue level. The Meeting estimated a maximum residue level, an STMR and an HR at 0.01^* , 0.01 and 0.01 mg/kg respectively for tolfenpyrad in pecan.

Animal feed

Almond hulls

The US GAP in almonds is 1×310 g ai/ha application with a 14-day PHI. Results from supervised trials on almond hulls conducted in the USA were provided to the Meeting. Four independent trials were conducted on almond, involving two applications at 310 g ai/ha.

The Meeting noted that the trials did not match GAP, with two applications rather than one being made. The Meeting did not estimate a maximum residue level or median residue for tolfenpyrad in almond hulls.

Fate of residues during processing

A processing study on potato was reviewed by the 2013 JMPR. One trial had an additional plot treated at an exaggerated rate ($5\times$) with the EC formulation to provide samples for processing. Neither the RAC nor the processed fractions contained residues of tolfenpyrad and OH-PT above the LOQ of 0.01 mg/kg. Therefore, no processing factors could be calculated for potato.

Residues in animal commodities

Estimation of dietary burdens

The only commodity used as a livestock feed and for which the JMPR has estimated a maximum residue level is for potatoes; the estimated STMR and HR values are 0. Therefore the additional livestock dietary burden for tolfenpyrad is nil.

Farm animal feeding studies

As the livestock dietary burden is zero, no maximum residue levels are estimated for animal commodities.

RECOMMENDATIONS

On the basis of the data obtained from supervised residue trials the Meeting concluded that the residue levels listed in Annex 1 are suitable for establishing maximum residue limits and for IEDI and IESTI assessment

Definition of the residue_for compliance with the MRL and estimation of dietary intake for plant commodities: *Tolfenpyrad*.

Definition of the residue for compliance with the MRL and estimation of dietary intake for animal commodities: *sum of tolfenpyrad and free and conjugated PT-CA (4-[4-[(4-chloro-3-ethyl-1-methylpyrazol-5-yl)carbonylamino]methyl]phenoxy]benzoic acid and OH-PT-CA (4-[4-[[4-chloro-3-(1-hydroxyethyl)-1-methylpyrazol-5-yl]carbonylamino]methyl]phenoxy] benzoic acid) (released with alkaline hydrolysis) expressed as tolfenpyrad.*

The residue is not fat soluble.

CCN	Commodity	Proposed MRL (mg/kg)	STMR or STMR-P (mg/kg)	HR or HR-P (mg/kg)
TN 0672	Pecan	0.01*	0.01	0.01
VR 0589	Potato	0.01*	0	0

DIETARY RISK ASSESSMENT

Long-term dietary exposure

The evaluation of tolfenpyrad resulted in recommendations for MRLs and STMR values for potato and tree nut. Where data on consumption were available for the listed food commodities, dietary intakes were calculated from the seventeen GEMS/Food Cluster Diets. The results are shown in Annex 3 of the 2016 JMPR Report. The IEDIs in the seventeen Cluster Diets, based on the estimated STMRs were 0–8% of the maximum ADI (0.006 mg/kg bw). The Meeting concluded that the long-term exposure to residues of tolfenpyrad from uses that have been considered by the JMPR is unlikely to present a public health concern.

Short-term dietary exposure

The IESTI for tolfenpyrad calculated on the basis of the recommendations made by the Meeting represented 0% of the ARfD (0.01 mg/kg bw) for children and 0% for the general population. The results are shown in Annex 4 of the 2016 JMPR Report.

The Meeting concluded that the short-term dietary exposure to residues of tolfenpyrad resulting from uses that have been considered by the JMPR is unlikely to present a public health concern.

REFERENCES

Code	Author(s)	Year	Title, Institute, Report reference
R-10166	Carringer, SJ	2008	Magnitude of the residue of tolfenpyrad and its metabolite in or on potato raw agricultural and processed commodities following two foliar applications of NAI-2302 15EC
R-10178	Greenland, R.G.	2009	Tolfenpyrad residues on tree nuts (almond and pecan) from trials conducted in the United States in 2008