FLONICAMID (282)

The first draft was prepared by Ms M Thomas, Pest Management Regulatory Agency, Canada

EXPLANATION

Flonicamid is a systemic pyridine carboxamide insecticide with selective activity against Hemipterous pests, such as aphids and whiteflies, and Thysanopterous pests.

Flonicamid was first evaluated by the 2015 JMPR where an ADI of 0–0.07 mg/kg bw was established. An ARfD was determined to be unnecessary. A residue definition of *flonicamid* was determined for compliance with the MRL and for estimation of dietary intake for plant commodities. For compliance with the MRL and for estimation of dietary intake for animal commodities, the residue definition was determined as the s*um of flonicamid, N-cyanomethyl-4-(trifluoromethyl)nicotinamide and the metabolite TFNA-AM, 4-(trifluoromethyl)nicotinamide, expressed as flonicamid.*

Flonicamid was proposed by the 48th Session of the CCPR for the evaluation of additional new uses. The current Meeting received new GAP information and supervised field trials on legume vegetables and pulses.

Methods of analysis

The LC-MS/MS Method P-3561, previously evaluated by the 2015 JMPR was used to analyse all samples of legume vegetables and pulses collected from the supervised field trials. Concurrent method validation was conducted with each of the trials resulting in acceptable recoveries of 70–120% at fortification levels that bracketed the flonicamid residues expected in the field trials

Storage Stability

The freezer storage stability of flonicamid in legume vegetables and pulses was studied concurrently with the supervised field trials. All samples were fortified with parent compound at a concentration of 0.1 mg/kg, stored frozen at -25 °C to -10 °C, and analysed at intervals up to 33 months. Analysis was conducted using the validated LC-MS/MS analytical method P-3561. The data indicated that residues of flonicamid in beans without pods, peas without pods, dry beans and dry peas were stable for 31 months, 33 months, 22 months and 31 months, respectively, which cover the storage durations of all collected samples of legume vegetables and pulses.

USE PATTERN

Flonicamid is currently registered in the USA as a soluble granular formulation for use on various fruits and vegetables. The formulated end use product is applied as a foliar spray using ground and aerial equipment.

Table 1 Registered use of flonicamid in the USA

Crop	Country	Form	Rate (g ai/ha)	Water (L/ha)	No	Interval (days)	Maximum Rate (g ai/ha/season)	PHI (days)
Legume vegetables (succulent and dried) crop group 6 except soya beans [a]	USA	50% SG	60-100	28 (aerial) 94 (ground)	3	7	300	7

[a] Includes all members of the Legume Vegetables, succulent and dried, Crop Group 6, except soya beans: Bean (*Lupinus*) (includes grain lupin, sweet lupin, white lupin, and white sweet lupin); bean (*Phaseolus*) (includes field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean); bean (*Vigna*) (includes adzuki bean,asparagus bean, blackeyed pea, catjang, Chinese longbean, cowpea, crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, yardlong bean); broad bean (fava); chickpea (garbanzo); guar; jackbean; lablab bean; lentil; pea (Pisum) (includes dwarf pea, edible podded pea, English pea, field pea, garden pea, green pea, snowpea, sugar snap pea); pigeon pea; soya bean (immature seed); sword bean

Residue studies

The Meeting received information on supervised field trials for flonicamid on the following crops or crop groups:

Crop	Table No.
Beans with pods	2
Peas with pods	3
Succulent peas without pods	4
Succulent peas without pods	5
Dry beans	6
Dry peas	7

Trials were generally well documented with laboratory and field reports. Laboratory reports included method validation with procedural recoveries from spiking at levels similar to those occurring in samples from the supervised field 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 as residues in control samples did not exceed the LOQ. Unless stated otherwise, residue data are recorded unadjusted for recovery. Residues and application rates have generally been rounded to two significant figures or, for residues near the LOQ, to one significant figure. Residue values from the trials conducted according to maximum GAP have been used for the estimation of maximum residue levels. Those results included in the evaluation are underlined. Conditions of the supervised field trials were generally well reported in detailed field reports. Trial designs used non-replicated plots. Field reports provided data on the sprayers used, plot size, field sample size and sampling date.

Where duplicate field samples from an un-replicated plot were taken at each sampling time and were analysed separately, the mean of the two analytical results was taken as the best estimate of the residues in the plot and only the means are recorded in the tables. Similarly where samples were collected from replicate plots the mean result is reported.

Legume vegetables

Beans with pods

A total of seven trials were conducted in Canada and the USA on beans during the 2012 growing season (Samoil, 2015, IR-4 PR No. 10474). The treated plots received three foliar applications of a soluble granular formulation with a guarantee of 50.0% flonicamid at a nominal rate of 100 g ai/ha/application at 6–8 day re-treatment intervals. The spray volumes ranged from 140–290 L/ha. A non-ionic surfactant or a crop oil concentrate was included in the spray mixes. At all test sites, samples were harvested 6–8 days after the last application with the exception of one trial, where sample collection was delayed and collected after 10 days. Additional decline samples were collected from one site at 1, 3, 10 and 15 days after application.

Residues of flonicamid were quantified using the validated LC-MS/MS Method P-3561M. The Lower Limit of Method Validation (LLMV) was 0.01 mg/kg.

The storage interval from collection to extraction for beans with pods was 974 days (~32 months). While the demonstrated storage stability interval was determined to be 930 days (~31 months) for beans without pods, there is no expectation that residues dissipated over the storage duration, considering the stability over the entire tested interval

Table 2 Flonicamid residues in beans with pods from supervised field trials in the USA and Canada

Location Year Trial ID (variety)	Application					DALA	Flonicamid Residues [average], mg/kg
	Spray Volume (L/ha)	Rate (g ai/ha)	No.	RTI (days)	Max Rate/ season (g ai/ha)		
USA GAP	28 (aerial) 94 (ground)	60-100	3	7	300	7	
Citra, FL, USA, 2012 FL23 (Dusky)	140 140 140	101 102 101	3	- 7 6	304	1	0.056, 0.076 [0.0661]
						3	0.097, 0.102 [0.100]
						7	0.082, 0.086 [0.084]
						10	0.078, 0.080 [0.079]
						15	0.076, 0.068 [0.072]
Salisbury, MD, USA, 2012 MD09 (Provider)	168 168 168	100 97 99	3	- 7 7	296	7	0.097, 0.085 [0.091]
Freeville, NY, USA, 2012 NY07 (Savannah)	290 290 299	100 100 100	3	- 7 7	300	7	0.049, 0.057 [0.053]
Wooster, OH, USA, 2012 OH06 (Derby Cruiser)	224 215 224	103 102 101	3	- 6 7	306	7	0.127, 0.111 [0.119]
Moxee, WA, USA, 2012 WA16 (Lewis)	215 215 215	103 104 101	3	- 7 7	308	7	0.437, 0.385 [0.411]
Agassiz, BC, Canada, 2012 BC04 (Caprice)	197 193 203	99 97 102	3	- 7 7	298	6	0.104, 0.146 [0.125]
Harrow, ON, Canada, 2012 ON07 (Valentine)	168 164 162	102 100 98	3	- 6 8	300	10	<0.01, <0.01 [<0.01]

Peas with pods

A total of seven trials were conducted in the USA and Canada on peas during the 2012 growing season (Samoil, 2015, IR-4 PR No. 10472). The treated plots received three foliar applications of a soluble granular formulation with a guarantee of 50.0% flonicamid, at a nominal rate of 100 g ai/ha/application at 6–8 day re-treatment intervals (RTI). The spray volumes ranged from 100–290 L/ha. A non-ionic surfactant or crop oil concentrate was included in the spray mixes. At all test sites, samples were harvested 6–8 days after the last application with the exception of one trial where samples were harvested at 4 days because high temperatures threatened to ruin the crop.

Residues of flonicamid were quantified using the validated LC-MS/MS Method P-3561M. The Lower Limit of Method Validation (LLMV) was established at 0.01 mg/kg.

The storage interval from collection to extraction for peas with pods was 951 days (~32 months) which is supported by the demonstrated storage stability interval of 981days (~33 months) determined concurrently with the supervised field trials for peas without pods.

Table 3 Flonicamid residues in peas with pods from supervised field trials in the USA and Canada

Location Year Trial ID (variety)	Application					DALA	Flonicamid Residues [average], mg/kg
	Spray Volume (L/ha)	Rate (g ai/ha)	No.	RTI (days)	Max Rate/ season (g ai/ha)		
USA GAP	28 (aerial) 94 (ground)	60-100	3	7	300	7	
Kimberly, ID, USA, 2012 ID08 (SU72)	187 187 196	102, 101, 104	3	- 8 6	307	7	0.036, 0.044 [0.040]
Freeville, NY, USA, 2012 NY06 (Sugar Sprint)	290 281 281	100, 101, 100	3	- 8 7	300	4	0.145, 0.143 [0.144]
Taber, AB, Canada, 2013 AB01 (Sugar Snap)	204 209 205	102, 104, 103	3	- 6 8	309	6	0.344, 0.349 [0.347]
Harrow, ON, Canada, 2012 ON04 (Little Sweetie)	214 222 219	100, 99, 99	3	- 8 6	298	7	0.079, 0.088 [0.084]
Harrow, ON, Canada, 2012 ON05 (Oregon Giant)	100 102 105	97, 101, 99	3	- 6 7	297	6	0.132, 0.121 [0.127]
Ste.-Clotilde, QC, Canada, 2012 QC02 (Sugar Queen)	100 102 105	100, 102, 105	3	- 7 8	307	7	0.190, 0.217 [0.204]
Ste.-Clotilde, QC, Canada, 2012 QC03 (Oregon Giant)	204 200 194	102, 100, 97	3	- 7 8	299	6	0.324, 0.374 [0.349]

Note: Based on the dates of application being <30 days apart, trials ON04 and ON05, and QC02 and QC03 were considered dependent

Succulent beans without pods

A total of six trials were conducted in Canada and the USA on beans during the 2012 growing season (Samoil, 2015, IR-4 PR No. 10474). The treated plots received three foliar applications of a soluble granular formulation with a guarantee of 50.0% flonicamid at a nominal rate of 100 g ai/ha/application at 6–8 day re-treatment intervals. The spray volumes ranged from 168–233 L/ha. A non-ionic surfactant or a crop oil concentrate was included in the spray mixes. At all test sites, samples were harvested 7–8 days following the last application.

Residues of flonicamid were quantified using the validated LC-MS/MS Method P-3561M. The Lower Limit of Method Validation (LLMV) was 0.01 mg/kg.

The storage interval from collection to extraction was 917 (~31 months) for beans without pods which is covered by the demonstrated storage stability of 930 days (~31 months).

Table 4 Flonicamid residues in succulent beans without pods from supervised field trials in the USA and Canada

Location Year Trial ID (variety)	Application					DALA	Flonicamid Residues [average], mg/kg
	Spray Volume (L/ha)	Rate (g ai/ha)	No.	RTI (days)	Max Rate/ season (g ai/ha)		
USA GAP	28 (aerial) 94 (ground)	60-100	3	7	300	7	
Parlier, CA, USA, 2012 CA45 (Fordhook 242)	206 196 196	105 101 102	3	- 6 7	308	7	0.044, 0.032 [0.039]
Kimberly, ID, USA, 2012 ID10 (R15413341461)	187 187 196	101 102 103	3	- 7 7	306	7	0.077, 0.076 [0.076]
Salisbury, MD, USA, 2012 MD10 (Eastland)	168 168 168	102 102 102	3	- 6 6	306	7	0.079, 0.092 [0.086]
Clinton, NC, USA, 2012 NC04 (Fordhook)	187 187 187	99 99 99	3	- 8 8	296	8	0.072, 0.083 [0.078]
Arlington, WI, USA, 2012 WI07 (Imperial Kingston)	206 206 206	99 99 99	3	- 6 8	296	7	0.097, 0.111 [0.104]
Harrow, ON, Canada, 2012 ON06 (Fordhook)	233 218 223	106 99 101	3	- 7 8	306	7	0.038, 0.038 [0.038]

Succulent peas without pods

A total of six trials were conducted in the USA and Canada on peas during the 2012 and 2013 growing seasons (Samoil, 2015, IR-4 PR No. 10472). The treated plots received three foliar applications, with the exception of one trial that received four applications due to the crop maturing more slowly than expected, of a soluble granular formulation with a guarantee of 50.0% flonicamid, at a nominal rate of 100 g ai/ha/application at 5–8 day re-treatment intervals (RTI). The spray volumes ranged from 140–234 L/ha. A non-ionic surfactant or crop oil concentrate was included in the spray mixes. At all test sites, samples were harvested 6–8 days after the last application.

Residues of flonicamid were quantified using the validated LC-MS/MS Method P-3561M. The Lower Limit of Method Validation (LLMV) was established at 0.01 mg/kg.

The storage interval from collection to extraction was 1024 days (~35 months) for succulent peas without pods. While the duration of demonstrated storage stability for flonicamid, determined concurrently with the crop field trials, was 981 days (~33 months), there is no expectation that residues dissipated, considering the stability over the entire tested interval.

Table 5 Flonicamid residues in succulent peas without pods from supervised field trials in the USA

Location Year Trial ID (variety)	Application					DALA	Flonicamid Residues [average], mg/kg
	Spray Volume (L/ha)	Rate (g ai/ha)	No.	RTI (days)	Max Rate/ season (g ai/ha)		
USA GAP	28 (aerial) 94 (ground)	60-100	3	7	300	7	
Clinton, NC, USA, 2012 NC03 (Mr. Big)	234 234 224	102, 103, 99	3	- 8 8	304	6	0.198, 0.206 [0.202]
Fargo, ND, 2012 ND01 (Green Arrow)	140 140 140	100, 101, 101	3	- 7 6	302	6	0.185, 0.181 [0.183]
Fremont, OH, USA, 2012 OH05 (Green Arrow)	224 224 224	103, 101, 101	3	- 8 8	305	7	0.038, 0.044 [0.041]
Aurora, OR, USA, 2012 OR19 (Progress #9)	187 187 187	101, 102, 100	3	- 7 6	303	6	0.046, 0.043 [0.045]
Aurora, SD, USA, 2013 SD01 (Little Marvel)	140 140 150 150	101, 99, 102, 101	4	- 5 8 7	403	7	0.116, 0.095 [0.105]
Moxee, WA, USA, 2012 WA40 (Misty)	206 206 206	99, 97, 99	3	- 5 7	295	8	0.047, 0.050 [0.048]

Pulses

Dry beans

A total of twelve trials were conducted in the USA on beans during the 2010 and 2011 growing seasons (Samoil, 2015, IR-4 PR No. 10475). The crops were treated with a soluble granular formulation with a guarantee of 50.0% of flonicamid, at a nominal rate of 100 g ai/ha/application at 6–9 day re-treatment intervals, except at the Washington trial (WA24), in which a fourth application was made because the beans were not yet mature after three applications. The spray volumes ranged from 112–234 L/ha. A non-ionic surfactant was included in the spray mixes. At all test sites, samples were harvested 6–8 days after the last application. In some cases, the bean samples were sufficiently dry at harvest to be collected for samples the same day and in other cases the plants were cut and allowed to dry either in the field or in a protected location. At all the field trials, the beans were shelled either by hand or mechanically, and the bean seed without pods was retained for analysis.

Residues of flonicamid were quantified using the validated LC-MS/MS Method P-3561M. The Lower Limit of Method Validation (LLMV) was 0.02 mg/kg.

The storage interval from collection to extraction was 660 days (22 months) for dry beans. While the duration of demonstrated storage stability for flonicamid, determined concurrently during the crop field trials, was 652 days (~22 months), there is no expectation that residues dissipated, considering the stability over the tested interval.

Table 6 Flonicamid residues in dry beans from supervised field trials in the USA

Location Year Trial ID (variety)	Application					DALA	Flonicamid Residues [average], mg/kg
	Spray Volume (L/ha)	Rate (g ai/ha)	No.	RTI (days)	Max Rate/ season (g ai/ha)		
USA GAP	28 (aerial) 94 (ground)	60-100	3	7	300	7	
Davis, CA, 2011 CA157 (California Early Light Red)	159 168 168	101 105 103	3	- 7 7	309	8	0.036, 0.024 [0.030]
Larned, KS, 2010 KS01 (Chase)	187 187 187	100 101 99	3	- 6 8	299	6	< 0.02, < 0.02 [<0.02]
Holt, MI, 2010 MI29 (Mayflower (Navy))	187 196 196	100 103 104	3	- 6 7	307	7	0.091, 0.091 [0.091]
Fargo, ND, 2010 ND11 (Eclipse)	112 112 112	101 101 100	3	- 6 9	301	6	<0.02, <0.02 [<0.02]
Velva, ND, 2010 ND12 (Lariat)	150 140 140	108 96 99	3	- 7 7	302	8	<0.02, <0.02 [<0.02]
Las Cruces, NM, 2010 NM09 (Pinto UI-196)	150 168 187	103 100 101	3	- 8 6	303	6	0.027, 0.029 [0.028]
Freeville, NY, 2010 NY14 (Hystyle)	206 234 215	100 101 100	3	- 7 7	300	7	<0.02, <0.02 [<0.02]
Fremont, OH, 2010 OH08 (Great Northern)	224 234 224	97 103 101	3	- 8 8	301	7	<0.02, <0.02 [<0.02]
Fremont, OH, 2010 OH09 (Pinto)	224 234 224	104 102 99	3	- 8 6	305	6	<0.02, <0.02 [<0.02]
Moxee, WA, 2010 WA24 (Dragon's Tongue)	178 168 178 206	105 103 105 96	4	- 8 7 6	410	7	0.094, 0.098 [0.096]
Arlington, WI, 2010 WI09 (California Early)	178 178 178	103 100 101	3	- 7 6	304	8	<0.02, <0.02 [<0.02]
Arlington, WI, 2010 WI10 (Mont Calm)	187 168 178	104 100 101	3	- 8 6	305	7	<0.02, <0.02 [<0.02]

Note: Based on the dates of application being <30 days apart, trials OH08 and OH09, and WI09 and WI10 were considered dependent.

Dry Peas

Five trials were conducted in the USA on peas during the 2012 growing season (Samoil, 2015, IR-4 PR No. 10473). The treated plots received three foliar applications of a soluble granular formulation with a guarantee of 50.0% flonicamid, at a nominal rate of 100 g ai/ha/application at 6–8 day re-treatment intervals. The spray volumes ranged from 93–206 L/ha. A non-ionic surfactant was included in the spray mixes. At all test sites, samples were harvested 6–7 days after the last application. In some cases, the pea samples were sufficiently dry at harvest to be collected for samples the same day and in other cases the plants were cut and allowed to dry in the field, then threshed and dry pea seeds were collected.

Residues of flonicamid were quantified using the validated LC-MS/MS Method P-3561M. The Lower Limit of Method Validation (LLMV) was 0.01 mg/kg.

The storage interval from collection to extraction was 943 days (~ 31 months) which is covered by the duration of demonstrated storage stability of 940 days (~31 months), determined concurrently during the crop field trials.

Table 7 Flonicamid residues in dry peas from supervised field trials in the USA

Location Year Trial ID (variety)	Application					DALA	Flonicamid Residues [average], mg/kg
	Spray Volume (L/ha)	Rate (g ai/ha)	No.	RTI (days)	Max Rate/ season (g ai/ha)		
USA GAP	28 (aerial) 94 (ground)	60-100	3	7	300	7	
Kimberly, ID, 2012 ID09 (085-0906)	187 187 187	101 100 101	3	- 7 7	302	7	0.217, 0.822 [0.520]
Velva, ND, 2012 ND02 (Golden)	93 103 94	103 105 100	3	- 7 7	308	6	0.354, 0.398 [0.376]
Minot, ND, 2012 ND03 (DS Admiral)	94 94 94	100 101 101	3	- 7 7	302	6	0.087, 0.094 [0.091]
Aurora, SD, 2012 SD02 (Korando)	140 150 140	101 102 97	3	- 6 8	300	7	0.157, 0.166 [0.162]
Moxee, WA, 2012 WA15 (Mr. Big)	206 206 206	99 97 97	3	- 7 7	293	7	0.068, 0.078 [0.073]

APPRAISAL

Flonicamid is a systemic pyridine carboxamide insecticide with selective activity against Hemipterous pests, such as aphids and whiteflies, and Thysanopterous pests such as Thrips.

Flonicamid was first evaluated by the 2015 JMPR where an ADI of 0–0.07 mg/kg bw was established. An ARfD was determined to be unnecessary. A residue definition of *flonicamid* was determined for compliance with the MRL and for estimation of dietary exposure for plant commodities. For compliance with the MRL and for estimation of dietary exposure for animal commodities, the residue definition was determined as *the sum of flonicamid, N-cyanomethyl-4-*

(trifluoromethyl)nicotinamide and the metabolite TFNA-AM, 4-(trifluoromethyl)nicotinamide, expressed as flonicamid.

Flonicamid was proposed by the 48th Session of the CCPR for the evaluation of additional new uses. The current Meeting received new GAP information and supervised field trials on legume vegetables and pulses.

Methods of analysis

The LC-MS/MS Method P-3561, previously evaluated by the 2015 JMPR was used to analyse all samples of legume vegetables and pulses collected from the supervised field trials. Concurrent method validation was conducted with each of the trials resulting in acceptable recoveries at fortification levels that bracketed the flonicamid residues reported in the trials.

Stability of pesticide residues in stored analytical samples

Storage stability studies were conducted concurrently with the supervised field trials. These data indicated that residues of flonicamid in beans without pods, peas without pods, dry beans and dry peas were stable for 31 months, 33 months, 22 months and 31 months, respectively, which cover the storage durations of all collected samples of legume vegetables and pulses.

Results of supervised residue trials on crops

Legume vegetables

Beans with pods

In Canada and the USA, the critical GAP for flonicamid on beans is 100 g ai/ha with a maximum of 3 applications or 300 g ai/ha/season and a PHI of 7 days.

A total of six independent trials were conducted in the USA and Canada, during the 2012 growing season, in accordance with the critical GAP. Residues were 0.053, 0.084, 0.091, 0.12 (2) and 0.41 mg/kg.

The Meeting estimated a maximum residue level of 0.7 mg/kg and an STMR of 0.1055 mg/kg for the subgroup beans with pods (except soya bean).

Peas with pods

In Canada and the USA, the critical GAP for flonicamid on peas is 100 g ai/ha with a maximum of 3 applications or 300 g ai/ha/season and a PHI of 7 days.

A total of five independent trials were conducted in the USA and Canada, during the 2012 and 2013 growing seasons, in accordance with the critical GAP. Residues were 0.040, 0.13, 0.14, and 0.35 (2) mg/kg.

The Meeting estimated a maximum residue level of 0.8 mg/kg and an STMR of 0.14 mg/kg for the subgroup peas with pods.

Succulent beans without pods

In Canada and the USA, the critical GAP for flonicamid on beans is 100 g ai/ha with a maximum of 3 applications or 300 g ai/ha/season and a PHI of 7 days.

A total of six independent trials were conducted in the USA and Canada, during the 2012 growing season, in accordance with the critical GAP. Residues were 0.038, 0.039, 0.076, 0.078, 0.086 and 0.10 mg/kg.

The Meeting estimated a maximum residue level of 0.3 mg/kg and an STMR of 0.077 mg/kg for the subgroup succulent beans without pods (except soya bean).

Succulent peas without pods

In Canada and the USA, the critical GAP for flonicamid on peas is 100 g ai/ha with a maximum of 3 applications or 300 g ai/ha/season and a PHI of 7 days.

A total of six independent trials were conducted in the USA and Canada,, during the 2012 and 2013 growing seasons, in accordance with the critical GAP. Residues were 0.041, 0.045, 0.048, 0.10, 0.18 and 0.20 mg/kg.

The Meeting estimated a maximum residue level of 0.4 mg/kg and an STMR of 0.077 mg/kg for on the subgroup succulent peas without pods.

Pulses

Beans (dry)

In Canada and the USA, the critical GAP for flonicamid on beans is 100 g ai/ha with a maximum of 3 applications or 300 g ai/ha/season and a PHI of 7 days.

A total of nine independent trials were conducted in the USA on beans during the 2010 and 2011 growing seasons. Residues in samples treated in accordance with the critical GAP were < 0.020 (6), 0.028, 0.030 and 0.091 mg/kg.

The Meeting estimated a maximum residue level of 0.15 mg/kg and an STMR of 0.02 mg/kg for the subgroup dry beans (except soya bean (dry)).

Peas (dry)

In Canada and the USA, the critical GAP for flonicamid on peas is 100 g ai/ha with a maximum of 3 applications or 300 g ai/ha/season and a PHI of 7 days.

Five independent trials were conducted in the USA on peas during the 2012 growing season. All trials were conducted in accordance with the critical GAP. Residues were 0.073, 0.091, 0.16, 0.38 and 0.52 mg/kg.

The Meeting estimated a maximum residue level of 1 mg/kg and an STMR of 0.16 mg/kg for the subgroup dry peas.

Residues in animal commodities

Flonicamid residues in feed items derived from legume vegetables (dry bean seeds, dry field peas, cowpeas and lupins) did not add significantly to the dietary burden. Therefore, there is no impact on the previous recommendations for maximum residue levels for animal commodities made by the 2016 Meeting of the JMPR.

RECOMMENDATIONS

On the basis of the data obtained from supervised field trials, the Meeting concluded that the residue levels listed below are suitable for establishing maximum residue limits and for IEDI assessment.

CCN	Commodity Name	Recommended maximum residue level, mg/kg	STMR, mg/kg
VP 2060	Subgroup of Beans with pods (except soya bean)	0.7	0.1055
VP 2061	Subgroup of Peas with pods	0.8	0.14
VP 2062	Subgroup of Succulent beans without pods (except soya bean)	0.3	0.077
VP 2063	Subgroup of Succulent peas without pods	0.4	0.077
VD 2065	Subgroup of Dry beans (except soya bean (dry))	0.15	0.02
VD 2066	Subgroup of Dry peas	1	0.16

DIETARY RISK ASSESSMENT

Long-term dietary exposure

The International Estimated Dietary Intakes (IEDIs) of flonicamid were calculated for the 17

GEMS/Food cluster diets using STMRs estimated by the current Meeting (Annex 3 to the 2017 Report). The ADI is 0–0.07 mg/kg bw and the calculated IEDIs were 0–10% of the maximum ADI. The Meeting concluded that the long-term dietary exposure to residues of flonicamid resulting from the uses considered by the JMPR is unlikely to present a public health concern.

Short-term dietary exposure

The 2015 JMPR decided that an ARfD for flonicamid was unnecessary. The Meeting therefore concluded that the short-term dietary exposure to residues of flonicamid resulting from uses that have been considered by the current Meeting is unlikely to present a public health concern.

REFERENCES

Code	Author	Year	Title, Institute
IR-4 Project number 10472	Kenneth S. Samoil	2015	Flonicamid: Magnitude Of The Residue On Pea (Edible Podded And Succulent Shelled); IR-4 Project HQ, Rutgers, The State University Of New Jersey, Princeton, NJ 08540; Dated: 25 June 2015. GLP, Not Published
IR-4 Project number 10473	Kenneth S. Samoil	2015	Flonicamid: Magnitude Of The Residue On Pea (Dry); IR-4 Project HQ, Rutgers, The State University Of New Jersey, Princeton, NJ 08540; Dated: 25 June 2015. GLP, Not Published
IR-4 Project number 10474	Kenneth S. Samoil	2015	Flonicamid: Magnitude Of The Residue On Bean (Edible Podded And Succulent Shelled; IR-4 Project HQ, Rutgers, The State University Of New Jersey, Princeton, NJ 08540; Dated 24 July 2015. GLP, Not Published
IR-4 Project number 10475	Kenneth S. Samoil	2012	Flonicamid: Magnitude Of The Residue On Bean (Dry Shelled); IR-4 Project HQ, Rutgers, The State University Of New Jersey, Princeton, NJ 08540; Dated 11 December 2012. GLP, Not Published