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Pesticide residues and maximum residue levels (mg/kg)

Code number	Products to which MRLs apply (Part A of Annex I to Reg. 396/2005)	Imidacloprid
0231010	<input type="checkbox"/> Tomatoes	0.5

Showing 1 to 1 of 1 entries        1

**Table legend**

☒ Category    ☐ Group    ☐ Subgroup    ☐ Main product    ☐ Others    Clickable Footnotes

☐ N/A Not published yet    \* Indicates lower limit of analytical determination

Last update: 26.01.2015



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Pesticide residues and maximum residue levels (mg/kg)

Code number	Products to which MRLs apply (Part A of Annex I to Reg. 396/2005)	Lambda-Cyhalothrin (F) (R) ⓘ
0231010	<input type="checkbox"/> Tomatoes	0.1

Showing 1 to 1 of 1 entries      1

Table legend

Category    ☐ Group    ☐ Subgroup    ☐ Main product    ☐ Others    Clickable Footnotes

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only imidacloprid was analysed in the pepper fruits, the data could not be used for evaluation. Two further foliar spray trials from Brazil did not match the GAP.

A total of four residue trials were conducted in sweet pepper simulating drip irrigation application in greenhouses in the Netherlands. The pepper crop was grown on rock wool. 10 mg imidacloprid was applied in 10 ml water at the base of each plant. This quantity corresponds to an application rate of 0.2 - 0.32 kg ai/ha, which is in accordance with GAP (9.8 g/1000 plants). The residue concentrations were 0.16, 0.17, 0.24 and 0.27 mg/kg.

In two pepper greenhouse residue trials (Italy, Portugal) a rate of 0.2 kg ai/ha imidacloprid was applied with the irrigation water to the soil. The trials were in accordance with Danish GAP. Residues below the LOQ were found at all sampling dates (3 - 60 days). The residues were <0.05 (2) mg/kg.

The current USA labels allow soil application with 0.28 - 0.56 kg ai/ha with a 21-day PHI and 5 foliar spray applications of 0.053 kg ai/ha with a 0-day PHI. Nine pepper field studies were conducted with three applications of imidacloprid. The first application was a soil drench application, localised at the base of the plants. Fourteen days after transplanting, a rate of 0.025 g ai/plant was applied (0.41 - 0.67 kg ai/ha). The remaining applications were two foliar spray applications at rates of 0.12 kg ai/ha. These overdosed trials could not be used for evaluation.

The remaining sixteen US pepper residue trials were bridging studies to compare the residues from the various types of soil applications and formulations. Treatments were made at the time of planting, or two weeks after planting at the latest. Only two trials for sweet pepper and one for hot pepper with soil drench application of 0.41-0.49 kg ai/ha matched the GAP resulting in concentrations of residues of <0.05, 0.06 and 0.24 mg/kg at PHIs of 54 - 60 days. As the Meeting was informed that the waiting period of 21 days ('do not apply a soil application within 21 days of harvest'), prescribed in the US label of the 240 SC formulation for fruiting vegetables is not a normal residue related PHI, the results were used for evaluation..

The Meeting considered that the data from indoor and outdoor trials as well as from the different treatments are from the same pool and combined them, resulting in a ranked order as follows: <0.05 (4), 0.06, 0.07, 0.07, 0.09, 0.1, 0.1, 0.11, 0.11, 0.12, 0.15 (3), 0.16, 0.17, 0.17, 0.21, 0.22, 0.24 (3), 0.26, 0.27, 0.27 and 0.48 mg/kg.

The Meeting estimated a maximum residue level, an STMR value and an HR value for imidacloprid in peppers of 1, 0.15 and 0.48 mg/kg, respectively.

Imidacloprid is registered in tomatoes world-wide as foliar spray, application with the irrigation water or treatment in nutrition solution in rock wool.

Imidacloprid is registered for indoor and outdoor use with foliar spray treatment in tomatoes in Italy (200 SL: 1 x 0.1 - 0.15 kg ai/ha, 0.01 - 0.015 kg ai/hl, 7-day PHI, 100 EC: 0.09 kg ai/ha, 0.011 kg ai/hl, 3-day PHI greenhouse, 7-day PHI field) and in Spain/Portugal (1 - 2 x 0.1 kg ai/ha, 0.01 kg ai/hl, 3-day PHI). The southern European trials (9 indoor, 9 outdoor) treated with 0.015 kg ai/ha complied with Italian GAP (PHI 7 or 3 days) and those with 0.1 kg ai/ha with Spanish GAP (PHI 3 days). The residue concentrations from trials according to GAP were <0.05 (6), 0.05, 0.06, 0.06, 0.07 (3), 0.08 (3), 0.09, 0.09, 0.1, 0.1, 0.12, 0.13, 0.14, 0.17, 0.18 and 0.29 mg/kg. Two further foliar spray trials from Brazil did not match the GAP.

160%. Consequently, the Meeting used the prospective alternative GAP approach and selected residue data according to the Spanish GAP for the maximum residue level estimation.

Based on the Spanish GAP the Meeting estimated a maximum residue level, an STMR value and an HR value for lambda-cyhalothrin in head cabbages of 0.3, 0.08 and 0.17 mg/kg, respectively.

#### *Spinach*

Lambda-cyhalothrin is registered in France for use on spinach at 0.006 kg ai/ha with a PHI of 7 days. Supervised residue trials conducted in France according to this GAP were submitted. In spinach residues were ( $n = 2$ ): 0.04 and 0.08 mg/kg.

The Meeting decided that the residue data submitted for spinach is not sufficient to recommend a maximum residue level, an STMR and an HR value for spinach.

#### *Fruiting vegetables – Cucurbits*

Lambda-cyhalothrin is registered in Spain for use on cucurbits (outdoor and protected) at 0.02 kg ai/ha with a PHI of 3 days. Supervised residue trials conducted in Spain and Italy according to this GAP were submitted.

In cucumbers grown indoors residues were ( $n = 4$ ): < 0.01(4) mg/kg.

For courgettes grown in field residues were ( $n = 7$ ): < 0.01, < 0.01, 0.01(5) mg/kg.

In France lambda-cyhalothrin is registered on melons (outdoor and protected) at 0.02 kg ai/ha with a PHI of 3 days. Supervised residue trials conducted in Northern France according to the GAP were submitted for the indoor and outdoor application.

In whole melon fruits grown in field residues were ( $n = 6$ ): < 0.01(6) mg/kg. The corresponding residue values in melon pulp (outdoor melons) were ( $n = 6$ ): < 0.01(6) mg/kg.

In whole melon fruits grown under protection residues were ( $n = 5$ ): < 0.01(4) and 0.02 mg/kg. The corresponding residue values in melon pulp (protected melons) were ( $n = 5$ ): < 0.01(5) mg/kg.

The Meeting decided to combine the trials for cucumbers, courgettes and melons for mutual support for the purpose of estimating a maximum residue level, an HR and a STMR. Residues for fruiting vegetables, cucurbits in rank order were ( $n = 22$ ): < 0.01(16), 0.01(5) and 0.02 mg/kg.

The Meeting estimated a maximum residue level, an STMR value and an HR value for lambda-cyhalothrin in fruiting vegetables, cucurbits of 0.05, 0.01 and 0.02 mg/kg, respectively.

#### *Fruiting vegetables other than cucurbits, except mushrooms*

Lambda-cyhalothrin is registered in the United States for use on sweet peppers at 0.034 kg ai/ha with a PHI of 5 days. Supervised residue trials on bell pepper conducted in the US according to this GAP were submitted. In bell pepper residues were ( $n = 8$ ): 0.01, 0.02(3), 0.05, 0.05, 0.12 and 0.15 mg/kg.

For the purpose to extrapolate to dry Chilli pepper the Meeting estimated an STMR value and an HR value for lambda-cyhalothrin in sweet peppers of 0.035 and 0.15 mg/kg, respectively.

For tomatoes lambda-cyhalothrin is registered in the United States at 0.034 kg ai/ha with a PHI of 5 days. Supervised residue trials conducted in the US according to this GAP were submitted. In tomatoes residues were ( $n = 23$ ): < 0.01(4), 0.01, 0.01, 0.02(4), 0.03(3), 0.04(5), 0.06, 0.08, 0.09, 0.13 and 0.15 mg/kg.

Lambda-cyhalothrin is registered in the United States for use on sweet corn at 0.034 kg ai/ha with a PHI of 1 days. Supervised residue trials conducted in the US according to this GAP were submitted. In sweet corn (on the cob) residues were ( $n = 6$ ): < 0.01(4), 0.14 and 0.18 mg/kg.