

5.8 CYPRODINIL (207)

RESIDUE AND ANALYTICAL ASPECTS

Cyprodinil was first evaluated for residues and toxicological aspects by the 2003 JMPR. An ADI of 0–0.03 mg/kg bw for cyprodinil was established, and an ARfD was concluded as unnecessary. The residue definition was established as cyprodinil for both compliance with MRLs and dietary risk assessment for both plant and animal commodities. The residue is fat soluble.

Cyprodinil was evaluated by 2013 JMPR for additional crops. A number of Codex Maximum Residue limits for cyprodinil were established. Cyprodinil was scheduled by the Forty-sixth CCPR meeting in 2014 for evaluation of residue data for additional crops by the JMPR.

Methods of analysis

The Meeting received two analytical methods for determination of cyprodinil residues in plant matrices which are relevant to this evaluation. The LOQ for the HPLC-MS/MS (226.01–93.10) methods for rapeseed and meal was 0.02 mg/kg, and for rapeseed oil, 0.01 mg/kg.

Stability of residues in stored analytical samples

The Meeting received information on the storage stability of cyprodinil residues in plant matrices from trials conducted in conjunction with the residue studies submitted to the Meeting. These data and stability data from JMPR 2003 and 2013 covers the maximum storage period for samples in the residue studies submitted to this Meeting.

Residues of supervised trials on crops

The Meeting received supervised trial data for application of cyprodinil to oilseed rape, potatoes, and carrots, which was evaluated by 2013 JMPR.

Potato

Cyprodinil is registered in the Brazil for use on potatoes at a GAP of 4× 0.25 kg ai/ha and PHI of 7-days.

The residues of cyprodinil in potatoes from two trials conducted in Brazil and one trial in South Africa matching the Brazilian GAP were all < 0.02 mg/kg (LOQ). The meeting noted that three trials was insufficient to make a recommendation for a maximum residue level for potatoes.

Ginseng

The meeting received the request to extrapolate the maximum residue level from carrots to ginseng. The 2013 Meeting received supervised residue trials of carrots matching the US GAP. The Meeting noted that although the US GAP for ginseng is the same as that for carrots, the growth traits and cultivation practices are significantly different, and agreed not to extrapolate from carrots to ginseng.

Oilseed

Cyprodinil is registered in Canada for use on rapeseed at a GAP of 1× 0.365 kg ai/ha and a 35-day PHI.

Nine independent residue trials were conducted in rapeseed at GAP in Canada. Residues in seed of rapeseed at the 35 day PHI were all < 0.02 mg/kg (n=9).

Based on the residues from the Canadian trials, the Meeting estimated a maximum residue level of 0.02 mg/kg for seed of rapeseed and an STMR of 0.02 mg/kg.

Processing studies

A processing study for oilseed rape was evaluated by the current Meeting in which the application rate of cyprodinil was 1098 g ai/ha, 3-times the label rate. No residues (< LOQ), were found in seed, meal and oil, and therefore no processing factors could be established.

*Residues in animal commodities**Farm animal dietary burden*

Dietary burden calculations incorporating all commodities considered by the current, 2003 and 2013 Meetings for beef cattle, dairy cattle, broilers and laying poultry are presented in Annex 6. The calculations are made according to the livestock diets of the USA/Canada, the European Union, Australia and Japan as laid out in the OECD table. The animal dietary burden is the same as the results from 2013 meeting, and the Meeting confirmed the previous recommendation of MRLs in animal products.

	US/CAN		EU		AU		Japan	
	Max.	Mean	Max.	Mean	Max.	Mean	Max.	Mean
Beef cattle	0.91	0.37	13.9	1.8	5.8	1.4	0.46	0.46
Dairy cattle	1.7	0.87	13.5	1.4	23.3	1.8	0.26	0.26
Poultry— broiler	0.49	0.49	0.80	0.54	0.12	0.12	0.066	0.066
Poultry— layer	0.49	0.49	4.1	0.76	0.12	0.12	—	—

DIETARY RISK ASSESSMENT*Long-term intake*

The International Estimated Dietary Intakes (IEDIs) of cyprodinil were calculated for the 17 GEMS/food cluster diets using STMRs/STMR-Ps estimated by the current Meeting and by the 2003 JMPR. The ADI is 0–0.03 mg/kg bw and the calculated IEDIs were 6–70% of the maximum ADI (0.03 mg/kg bw). The Meeting concluded that the long-term intakes of residues of cyprodinil, resulting from the uses considered by the current Meeting and by the 2003 JMPR are unlikely to present a public health concern.

Short-term intake

The 2003 JMPR decided that an ARfD was unnecessary and concluded that the short-term intake of cyprodinil residues is unlikely to present a public health concern.