CYPERMETHRIN (118)

EXPLANATION

Cypermethrin was first evaluated in 1979 and has been reviewed by the JMPR in most years since; MRLs have been recommended on a wide range of food and feed commodities. The new residues data on berries and other small fruit referred to in the report of the 1988 JMPR were submitted for evaluation.

USE PATTERN

Federal Republic of Germany

The 100 g/l emulsifiable concentrate is registered in the FRG for use on red and white currants and strawberries as follows:

currants: 50 g ai/ha in 1000 litres of water, maximum 2 applications, timing depending on infestation, no treatment during blossom.

strawberries: 100 g ai/ha in 2000 litres of water, maximum 2 applications, the first before blossom, the second after harvest.

RESIDUES RESULTING FROM SUPERVISED TRIALS

Residues data from a number of trials, all in the Federal Republic of Germany, on raspberries, blackberries, blueberries and red currants are summarized in Tables 1 and 2.

Table 1. Residues of cypermethrin in raspberries, blackberries and blueberries.

Crop/Year	Treatment			Residues. mg/kg Days after treatment			
	formuln. g/l EC	dose g/ha	concn. g/hl	0	1	3	7
raspberries 1984	100	60	30	1.2	0.4	0.2	0.2
	100	60	10	0.5	0.5	0.5	0.2
	100	60	10	0.2	0.03	0.02	0.01
raspberries 1986	400	68	300	0.7	0.3	0.1	0.2
	400	600	-	0.04	0.2	0.03	0.08
blackberries 1984	100	60	(600 l/ha)	1.7	1.2	0.9	0.7
	100	60	30	0.3	0.3	0.2	0.2
	100	60	10	0.2	0.1	0.1	0.1
blackberries 1986	400	600	300	1.1	0.4	0.9	0.6
	400	600	100	0.2	0.2	0.2	0.2
	400	54	300 (18 l/ha)	1.0	0.8	0.7	0.5
blueberries 1984	100	60	10 (600 l/ha)	0.07	0.04	0.03	0.02
blueberries 1986	400	68	300 (22 l/ha)	0.8	0.6	0.6	0.6

In most trials the application resulted in the expected deposit on fruit assumed to be close to harvest. There was no information on weather conditions at the time of application nor for the period between application and final sampling. Data on the weight of individual fruit in samples were available from one trial on blackberries and these indicated a 50% increase in the weight of fruit in the 7-day period between application and final sample. Such an increase in weight alone would account for the apparent loss of residue in many trials.

In two trials the deposit was well below expectations, without any obvious explanation.

Table 2. Residues of cypermethrin in red currants (1987).

Treatment			Residues. mg/kg Days after treatment			
formul. g/l EC	dose g/ha	concn. g/hl	0	7	14	21
100	80	10	1.2	1.0	1.1	1.1
100	80	10	1.7	0,7	0.9	0.7

Treatment at 800 litres per ha. Two applications at 14-day interval.

Two trials (BEGR.86.005 and BEGR.86.006), on blackberries and blueberries respectively, were carried out to determine the possible presence of metabolites in harvested fruit. No determinable residues of any metabolite greater than 0.05 mg/kg were found in any sample.

The Meeting was informed that the trials on raspberries, blackberries and blueberries were carried out in a forest environment. The berries were not cultivated and were picked as wild berries.

APPRAISAL

Cypermethrin was first evaluated in 1979 and has been reviewed by the JMPR in most years since. The present Codex MRL for cypermethrin on berries and other small fruit is 0.5 mg/kg based on an interval of 14 days between last application and harvest (JMPR Evaluations 1984). The new residues data on berries and small fruit referred to in the report of the 1988 JMPR were submitted for evaluation. These data present no information at relevant registered rates of application or harvest intervals which require any change in the present MRL for berries and other small fruit.

REFERENCES

BETR.85.012 Residues of cypermethrin in raspberries treated with Ripcord in Germany, 1984.

BETR.87.014 Residues of cypermethrin in raspberries treated with Ripcord in Germany, 1986.

BETR.85.014 Residues of cypermethrin in blackberries treated with Ripcord in Germany, 1984.

BETR.87.012 Residues of cypermethrin in blackberries treated with Ripcord in Germany, 1986.

BETR.85.015 Residues of cypermethrin in blueberries treated with Ripcord in Germany, 1984.

BETR.87.013 Residues of cypermethrin in blueberries treated with Ripcord in Germany, 1986.

BETR.87.016 Residues of cypermethrin in red currants treated with Ripcord in Germany, 1987.

BEGR.86.005 Residues of metabolites WL 44607 - WL 47113 and WL 44776 in blackberries treated with Ripcord in Germany, 1984.

BEGR.86.006 Residues of metabolites WL 44607 - WL 47133 and WL 44776 in blueberries treated with Ripcord in Germany, 1984.