

IPCS

International Programme on Chemical Safety

Summary of toxicological evaluations
performed by the Joint FAO/WHO Meeting on
Pesticide Residues (JMPR)

1994



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INTERNATIONAL LABOUR ORGANIZATION
BUREAU INTERNATIONAL DU TRAVAIL



WORLD HEALTH ORGANIZATION
ORGANISATION MONDIALE DE LA SANTÉ

SUMMARY OF TOXICOLOGICAL EVALUATIONS PERFORMED BY THE JOINT FAO/WHO MEETING ON PESTICIDE RESIDUES [JMPR] THROUGH 1994

FIFTH EDITION

This index summarizes the toxicological assessments of pesticides by the WHO Expert Groups on Pesticide Residues that meet regularly with the FAO Panel of Experts on Pesticide Residues in Food and the Environment in what is known as the Joint FAO/WHO Meeting on Pesticide Residues [JMPR]. It does not include the maximum residue limits (MRLs) that have been estimated by the FAO Panel of Experts.

Table 1 summarizes the current acceptable daily intakes (ADIs) and provisional tolerable daily intakes (PTDIs) that have been established by the WHO Expert Groups. It also gives the chemical class and primary use(s) of each pesticide, and indicates other WHO publications on these pesticides. Table 2 summarizes in more detail the history of the evaluations. It should be noted that the first entry under each pesticide is the one that is currently applicable.

Annex 1 defines the codes used in Table 1 and Annex 2 lists the reports and other documents resulting from the Joint Meetings that have been held to date. Many of the older publications that are listed are out of print. Most of the recent reports and evaluations have been published by FAO and may be obtained from Distribution and Sales Section, Food and Agriculture Organization of the United Nations, Via delle Terme di Caracalla, 00100 Rome, Italy. WHO publications may be obtained from Distribution and Sales, World Health Organization, 1211 Geneva 27, Switzerland.

We gratefully acknowledge the assistance provided by Dr J. Sekizawa and his coworker at the National Institute of Hygienic Sciences, Tokyo, Japan (a Participating Institution of the International Programme on Chemical Safety (IPCS)), who prepared the original data base upon which this summary is based.

Additional copies of this summary are available from the International Programme on Chemical Safety, World Health Organization, 20 Avenue Appia, 1211 Geneva 27, Switzerland. Please direct your requests to the attention of the WHO Joint Secretary of the Joint FAO/WHO Meeting on Pesticide Residues. **If you would like to be placed on the mailing list for future editions of this summary (which are free of charge), please send or telefax ((+41 22)788 1949) the request with your name and address to the WHO Joint Secretary.**

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The International Programme on Chemical Safety (IPCS) is a joint venture of the United Nations Environment Programme, the International Labour Organisation and the World Health Organization. The main objective of IPCS is to carry out and disseminate evaluations of the effects of chemicals on human health and the quality of the environment. Supporting activities include the development of epidemiological, experimental laboratory, and risk-assessment methods that could produce internationally comparable results, and the development of manpower in the field of toxicology. Other activities carried out by IPCS include the development of know-how for coping with chemical accidents, coordination of laboratory testing and epidemiological studies, and promotion of research on the mechanisms of the biological action of chemicals.

Table 1
Current status (1994) of toxicological evaluations by the
the Joint FAO/WHO Meeting on Pesticide Residues (JMPR)

Pesticide	Chemical class	Use	Latest year of evaluation by JMPR	ADI (mg/kg bw)	Comments	References (See Annex 2)	IARC Monograph	JMPR ERG Assessment	WHO/FAO Data Sheet
ABAMECTIN	OT	IN AC	1994	0-0.0002		71,73			
ACEPHATE	OT	IN	1990	0-0.03		59,61			
ACRYLONITRILE	OT	FM	1985	NO ADI		3,5	19	28	
ALDICARB	CB	IN AC NE	1992	0-0.0003		65,67	53	121	53
ALDRIN	OC	CO	1994	0.0001 (PTDI)	COMBINED TOTAL ALDRIN + DIELDRIN; SEE ALSO DIELDRIN	71	5	91	41
ALLETHRIN	PY	IN	1985	NO ADI	SEE HYDROGEN PHOSPHIDE	3,4		87	
ALUMINIUM PHOSPHIDE									
AMINOCARB	CB	IN	1979	NO ADI		32,33			
AMITRAZ	OT	IN AC	1990	0-0.0003		59			
AMITROLE	HC	HB	1993	0-0.0005 TEMPORARY		68,70	7,41		79
ANILAZINE	OC HC	FU	1989	0-0.1		56,58			
ARSENATE, CALCIUM & LEAD	AS	IN HB RO	1988	NO ADI		10,11	1* 2* 23*	18*	
AZINPHOS-ETHYL	OP HC	IN AC	1973	NO ADI		20,21			72
AZINPHOS-METHYL	OP HC	IN AC	1991	0-0.005		62,64			59
AZOCYCLOTIN	SN HC	AC	1994	0-0.007	GROUP ADI WITH CYHEXATIN	71			
BENALAXYL	OT	FU	1987	0-0.05		50,52			
BENDIOCARB	CB HC	IN	1984	0-0.004		42,43			52
BENOMYL	CB HC	FU	1983	0-0.02		40,41		148	87
BENTAZONE	HC	HB	1991	0-0.1		62,64			
BENZENE HEXACHLORIDE					SEE LINDANE OR BHC / HCH				
BHC / HCH	OC	IN	1973	NO ADI	TECHNICAL GRADES; MIXTURES OF ISOMERS	20,21	5* 20* 42*	123*	

(See Annex 1)

Table 1 Current status (1994) of toxicological evaluations by the Joint FAO/WHO Meeting on Pesticide Residues (JMPR)

Pesticide	Chemical class	Use	Latest year of evaluation by JMPR	ADI (mg/kg bw/d)	Comments	Reference (See Annex 2)	IARC Monograph	IPCS EHC document	WHO/FAO Data Sheet
BIFENTHRIN	PY	IN AC	1992	0-0.02		65,67			
BINAPACRYL	DN	FU AC	1985	NO ADI		44,46			34
BIORESMETHRIN	PY	IN	1991	0-0.03		62,64			
BITERTANOL	HC	FU	1988	0-0.01		53			
BROMIDE ION	BR	FM	1988	0-1.0	SEE ALSO BROMOMETHANE & DIBROMOETHANE	53,55			
BROMOMETHANE	BR	FM IN TE NE RO	1966	0-1.0 AS BROMIDE ION	SEE ALSO BROMIDE ION	6,7	41* 45*		5*
BROMOPHOS	OP	IN	1977	0-0.04		28,29			76
BROMOPHOS-ETHYL	OP	IN AC	1975	0-0.003		24,25			
BROMOPROPYLATE	OT	AC	1993	0-0.03		88,70			
BUPROFEZIN	HC	IG IN	1991	0-0.01		62,64			
BUTOCARBOXIM	CB	IN	1985	NO ADI		44			
BUTYLAMINE, SEC-	OT	FU	1984	TEMP ADI WITHDRAWN		42			
CADUSAFOS	OP	IN NE	1991	0-0.0003		62,64			
CALCIUM ARSENATE					SEE ARSENATE, CALCIUM & LEAD				
CAMPHECHLOR	OC	IN RO AC	1973	NO ADI		20,21	20*	45	20
CAPTAFOL	OC HC	FU	1985	TEMP ADI WITHDRAWN		44	53		
CAPTAN	OC HC	FU	1990	0-0.1		59,61	30		9
CARBARYL	CB	IN PG	1973	0-0.01		20,21	12		3
CARBENDAZIM	CB HC	FU	1985	0-0.01		44,46		149	89
CARBOFURAN	CB HC	IN AC NE	1982	0-0.01		38			56
CARBON DISULFIDE	OT	FM IN	1965	NO ADI		3,5		10	

(See Annex 1)

(See Annex 1)

Current status (1994) of toxicological evaluations by the
the Joint FAO/WHO Meeting on Pesticide Residues (JMPR)

Table 1

Pesticide	Chemical class	Use	Latest year of evaluation by JMPR	ADI (mg/kg bw/d)	Comments	References (See Annex 2)	IARC Monograph	IPCS/EHC assessment	WHO/FAO Data Sheet
CARBON TETRACHLORIDE	OC	FM	1965	NO ADI		3,5	1 20		
CARBOPHENOTHION	OP	IN AC	1980	0-0.0005		34,35			
CARBOSULFAN	CB HC	IN NE	1996	0-0.01		47,49			
CARTAP	TC	IN	1978	0-0.1		30,31		76	
CHINOMETHIONAT	HC	AC FU	1987	0-0.006		50,52			
CHLORBENSIDE	OC	AC	1965	0-0.01		4			
CHLORDANE	OC	CO	1994	0.0005 (PTDI)		71	20 42 53	34	36
CHLORDIMEFORM	OT	IN AC	1987	TEMP ADI WITHDRAWN		50,52	30		
CHLORFENSON	OC	AC	1965	0-0.01		4			
CHLORFENVINPHOS	OP	IN AC	1994	0-0.0005		71,73			
CHLORMEQUAT	OT	PG	1994	NO ADI		71,73			
CHLOROBENZILATE	OC	AC	1980	0-0.02		34,35	5 30		
CHLOROCHOLINE CHLORIDE									
CHLOROPICRIN	OC	FM FU ME IN RO	1965	NO ADI		3,5			
CHLOROPROPYLATE	OC	AC	1972	TEMP ADI WITHDRAWN		18			
CHLOROTHALONIL	OC	FU	1992	0-0.03		65,67	30		
CHLOROPROPHAM	CB	HB PG	1965	NO ADI		3,4	12		
CHLORPYRIFOS	OP HC	IN	1982	0-0.01		38,39			18
CHLORPYRIFOS-METHYL	OP HC	IN AC	1992	0-0.01		65,67			33
CHLORTHON	OP	IN	1965	NO ADI		4			
CLETHODIM	OT	HB	1994	0-0.01		71,73			

SEE CHLORMEQUAT

(See Annex 1)

(See Annex 1)

Table 1 Current status (1994) of toxicological evaluations by the Joint FAO/WHO Meeting on Pesticide Residues (JMPR)

Pesticide	Chemical class	Use (See Annex 1)	Latest year of evaluation by JMPR	ADI (mg/kg bw/d)	Comments	Reference (See Annex 1)	IARC Monograph	JCS/ERC Assessment	WHO/FAO Data Sheet
CLOFENTEZINE	HC	AC	1986	0-0.02		47,49			
COUMAPHOS	OP HC	AC IN	1990	NO ADI		59,61			
CRUFOMATE	OT	IN AN	1988	0-0.1		10,11			
CYANOFENPHOS	OP	IN	1983	TEMP ADI WITHDRAWN		40			
CYCLOXYDIM	HC	HB	1992	0-0.07		65,67			
CYFLUTHRIN	PY	IN	1987	0-0.02		50,52			
CYHALOTHRIN	PY	IN	1984	0-0.02		42,43		99	
CYHEXATIN	SN	AC	1984	0-0.007	GROUP ADI WITH AZOCYCLOTIN	71,73		15*	58
CYPERMETHRIN	PY	IN	1981	0-0.05		36,37		82	
CYROMAZINE	HC	IG	1990	0-0.02		59,61			
D, 2,4-	PO	HB	1975	0-0.3		24,25	15	29,84	37
DAMINOZIDE	AM	PG	1991	0-0.5	DAMINOZIDE CONTAINING LESS THAN 30 MG 1,1-DIMETHYLHYDRAZINE (UDMH) / KG	62,64			
DDT	OC	CO	1984	0.02 (PTDI)		71	5,42,53	9,83	21
DECAMETHRIN					SEE DELTAMETHRIN				
DELTAMETHRIN	PY	IN	1982	0-0.01		38,39	53	97	50
DEMETON	OP	IN AC	1984	NO ADI		42,43			60
DEMETON-S-METHYL & RELATED COMPOUNDS	OP	IN AC	1989	0-0.0003	GROUP ADI, ALONE OR IN COMBINATION	56,58			61
DEMETON-S-METHYL SULFONE					SEE DEMETON-S-METHYL & RELATED COMPOUNDS				
DEMETON-S-METHYL SULFOXIDE					SEE OXYDEMETON-METHYL				
DIALIFOS	OP HC	IN AC	1982	ADI WITHDRAWN		38			
DIAZINON	OP HC	IN AC	1993	0-0.002		68,70			45

Current status (1994) of toxicological evaluations by the
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Table 1

Pesticide	Chemical class	Use	Latest year of evaluation by JMPR	ADI (mg/kg bw)	Comments	Reference (See Annex 1)	IARC Monograph	ECES EHC document	WHO/FAO Data Sheet
DIBROMOETHANE, 1,2-	BR	FM IN NE	1966	0-1.0 AS BROMIDE ION	SEE ALSO BROMIDE ION	6,7	15*		
DICHLORFLUANID	OT	FU	1963	0-0.3		40,41			
DICHLOROETHANE, 1,2-	OC	FM IN NE	1965	NO ADI		3,5	20	62	
DICHLORVOS	OP	IN AN	1993	0-0.004		66,70	20 53	79	2
DICLORAN	OC	FU	1977	0-0.03		28,29			
DICOFOL	OC	AC	1992	0-0.002		65,67	30		81
DIELDRIIN	OC	CO	1994	0.0001 (PTDI)	COMBINED TOTAL ALDRIN + DIELDRIN; SEE ALSO ALDRIN	71	5	91	17
DIFLUBENZURON	UR	IG	1985	0-0.02		44,46			77
DIMETHIPIN	HC	HB PG	1988	0-0.02		53,55			
DIMETHOATE	OP	IN AC	1987	0-0.01		50,52		90	42
DIMETHRIN	PY	IN	1965	NO ADI		3,4			
DINOCAP	DN	AC FU	1989	0-0.001		56,58			
DIOXATHION	OP HC	IN AC	1968	0-0.0015		10,11			
DIPHENYL	OT	FU	1967	0-0.125		8,9			
DIPHENYLAMINE / DPA	OT	OT	1984	0-0.02	FOR 98.9% PURE MATERIAL AS DIQUAT ION	42,43			
DIQUAT	HC	HB	1993	0-0.002		68,70		39	40
DISULFOTON	OP	IN AC	1991	0-0.0003		62,64			68
DITHIANON	HC	FU	1992	0-0.01		65,67			
DNOC	DN	IN FU AC HB	1966	NO ADI		4			
DODINE	OT	FU	1976	0-0.01		26,27			
DPA					SEE DIPHENYLAMINE				
EDIFENPHOS	OP	FU	1981	0-0.003		36,37			

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Table 1

Pesticide	Chemical class	Use	Latest year of evaluation by JMPR	ADI (mg/kg bw/d)	Comments	Reliability (See Annex 2)	IARC Monograph	JRC/SEIO do-summery	WHO/FAO Data Sheet
(See Annex 1)									
ENDOSULFAN (ENDOSULFAN A, ENDOSULFAN B, ENDOSULFAN SULFATE)	OC HC	IN AC	1989	0-0.006		\$6,58		40	15
ENDRIN	OC	CO	1994	0.0002 (PTDI)		71	5	130	1
ETHEPHON	OT	PG	1993	0-0.05		68,70			
ETHIOFENCARB	CB	IN	1982	0-0.1		38,39			
ETHION	OP	IN AC	1990	0-0.002		59,61			
ETHOPROPHOS	OP	IN NE	1987	0-0.0003		50,52			70
ETHOXYQUIN	HC	PG	1989	0-0.06		12,13			
ETHYLENE DIBROMIDE					SEE 1,2-DIBROMOETHANE		15		
ETHYLENE DICHLORIDE					SEE 1,2-DICHLOROETHANE				
ETHYLENE OXIDE	OT	FM IN	1988	NO ADI		10,11	11 36,42	55	
ETHYLENETHIOUREA / ETU	UR		1993	0-0.004		68,70	7	78	
ETOFENPROX	PO	IN	1993	0-0.03		68,70			
ETRIMFOS	OP HC	IN AC	1986	0-0.003		47			
ETU					SEE ETHYLENETHIOUREA				
FENAMIPHOS	OT	NE IN	1987	0-0.0005		50,52			92
FENBUTATIN OXIDE	SN	AC	1992	0-0.03		65,67			
FENCHLORPHOS	OP	IN	1988	0-0.01		10,11			
FENITROTHION	OP	IN	1988	0-0.006		53,55		133	30
FENPROPATHRIN	PY	AC IN	1993	0-0.03		68,70			
FENPROIMORPH	HC	FU	1994	0-0.003		71,73			
FENSULFOTHION	OP	IN NE	1982	0-0.0003		38,39			44
FENTHION	OP	IN	1980	0-0.001		34,35			23

**Current status (1994) of toxicological evaluations by the
the Joint FAO/WHO Meeting on Pesticide Residues (JMPR)**

Table 1

Pesticide	Chemical class	Use	Latest year of evaluation by JMPR	ADI (mg/kg bw)	Comments	Reference (See Annex 2)	IARC Monograph	IPCS EPC (document)	WHO/FAO Data Sheet
FENTIN ACETATE	SN	FU AL MO	1970	0-0.0005	ALONE OR IN COMBINATION WITH OTHER FENTIN COMPOUNDS	14,15		15*	22
FENTIN CHLORIDE	SN	FU AL	1970	0-0.0005	ALONE OR IN COMBINATION WITH OTHER FENTIN COMPOUNDS	14,15		15*	22
FENTIN COMPOUNDS	SN	FU AL MO	1991	0-0.0005		62,64		15*	22
FENTIN HYDROXIDE	SN	FU	1970	0-0.0005	ALONE OR IN COMBINATION WITH OTHER FENTIN COMPOUNDS	14,15		15*	22
FENVALERATE	PY	IN AC	1986	0-0.02		47	53	95	90
FERBAM	TC	FU	1980	0-0.02	LISTED UNDER DITHIOCARBAMATES; SUM OF FERBAM & ZIRAM	34,35	12 42	78	94
FLUCYTHRINATE	PY	IN	1985	0-0.02		44,46			
FLUSILAZOLE	HC	FU	1989	0-0.001		56,58			
FOLPET	OC HC	FU	1993	0-0.01 TEMPORARY		68			
FORMOTHION	OP	IN AC	1973	0-0.02	SEE LINDANE	20,21			
GAMMA-BHC / GAMMA-HCH / GAMMA-HEXACHLORO- CYCLOHEXANE									
GLUFOSINATE- AMMONIUM	OT	HB	1991	0-0.02		62,64			
GLYPHOSATE	OT	HB	1986	0-0.3		47,49			91
GUAZATINE	OT	FU RE	1978	0-0.03		30,31			
HCB					SEE HEXACHLOROBENZENE				
HCH					SEE BHC				
HEPTACHLOR / HEPTACHLOR EPOXIDE	OC	CO	1994	0.0001 (PTDI)		71	5 20 53	38	19
HEXACHLORO- BENZENE / HCB	OC	FU	1978	COND ADI WITHDRAWN		30,31	20		26

(See Annex 1)

(See Annex 1)

**Current status (1994) of toxicological evaluations by the
the Joint FAO/WHO Meeting on Pesticide Residues (JMPR)**

Table 1

Pesticide	Chemical class	Use	Latest year of evaluation by JMPR	ADI (mg/kg bw)	Comments	Reference (See Annex 2)	IARC Monograph	ICES ERG assessment	WHO/FAO Data Sheet
HEXACHLORO-CYCLOHEXANE					SEE LINDANE OR BHC / HCH		5 20 42	123 124*	
HEXACONAZOLE	HC	FU	1990	0-0.005		59,61			
HEXYTHIAZOX	HC	AC	1991	0-0.03		62,64			
HYDROGEN CYANIDE	OT	FM IN RO	1965	0-0.05		3,5			
HYDROGEN PHOSPHIDE	OT	FM IN RO	1966	ADI NOT NECESSARY	ON BASIS OF NO RESIDUE IN FOOD	6,7		73*	46*
IMAZALIL	HC	FU	1991	0-0.03		62,64			
IPIODIONE	HC	FU	1992	0-0.2		65,67			
ISOFPENPHOS	OT	IN	1986	0-0.001		47,49			
LEAD ARSENATE					SEE ARSENATE, CALCIUM & LEAD				
LEPTOPHOS	OT	IN	1978	TEMP ADI WITHDRAWN		30,31			38
LINDANE	OC	IN	1989	0-0.008		56,58	5* 20* 42*	124	12
MALATHION	OP	IN AC	1966	0-0.02		6,7	30		29
MALEIC HYDRAZIDE	HC	PG HB	1984	0-5	SODIUM OR POTASSIUM SALTS, 99.9% PURE & NOT MORE THAN 1 MG HYDRAZINE / KG	42,43	4 42		
MANCOZEB	TC	FU	1993	0-0.03	GROUP ADI WITH MANEB, METIRAM & ZINEB	68,70		78	94
MANEB	TC	FU	1993	0-0.03	GROUP ADI WITH MANCOZEB, METIRAM & ZINEB	68,70	12	78	94
MECARBAM	OP CB	IN AC	1986	0-0.002		47,49			
METALAXYL	OT	FU	1982	0-0.03		38,39			
METHACRIFOS	OP	IN AC	1990	0-0.006		59,61			
METHAMIDOPHOS	OT	IN AC	1990	0-0.004		59,61			
METHIDATHION	OP HC	IN AC	1992	0-0.001		65,67			

(See Annex 1)

(See Annex 1)

Current status (1994) of toxicological evaluations by the
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Table 1

Pesticide	Chemical class	Use (See Annex 1)	Latest year of evaluation by JMPR	ADI (mg/kg bw)	Comments	References (See Annex 3)	IARC Monograph	WHO/FAO Data Sheet
METHIOCARB	CB	MO IN AC RE	1987	0-0.001		50		
METHOMYL	CB	IN AC	1989	0-0.03		58,58		55
METHOPRENE	OT	IG	1987	0-0.1		50		47
METHOXYCHLOR	OC	IN	1977	0-0.1		28,29	5 20	28
METHYL BROMIDE					SEE BROMOMETHANE		41 45	5
METHYL PARATHION					SEE PARATHION-METHYL			
METIRAM	TC	FU	1993	0-0.03	GROUP ADI WITH MANCOZEB, MANEB & ZINEB	68,70		
MEVINPHOS	OP	IN AC	1972	0-0.0015		18,19		14
MGK 264	HC	SY	1967	NO ADI		8,9		
MONOCROTOPHOS	OP	IN AC	1993	0-0.0006		68,70		
MYCLOBUTANIL	HC OC	FU	1982	0-0.03		65,67		
NABAM (CONVERTED INTO ZINEB WHEN USED WITH ZINC SULFATE)	TC	FU AL	1977	TEMP ADI WITHDRAWN	LISTED UNDER DITHIOCARBAMATES	28,29	78	94
NITROFEN	OC	HB	1963	NO ADI		40,41	30	84
OMETHOATE	OP	IN AC	1985	0-0.0003		44,46		
OPP / SOPP					SEE PHENYLPHENOL, 2- & ITS SODIUM SALT			
ORGANOMERCURY COMPOUNDS	HG	FU	1967	NO ADI		8,9		66*
OXAMYL	CB AM	IN AC NE	1985	0-0.03		44,46		54
OXYDEMETON-METHYL/ DEMETON-S-METHYL SULFOXIDE	OP	IN AC	1989		EVALUATED UNDER DEMETON-S-METHYL & RELATED COMPOUNDS	58,58		
OXYTHIOQUINOX					SEE CHINOMETHIONAT			

(See Annex 1)

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Table 1

Pesticide	Chemical class	Use	Latest year of evaluation by JMPR	ADI (mg/kg bw)	Comments	Reference (See Annex 2)	IARC Monograph	JMPR occurrence	WHO/FAO Data Sheet
PACLOBUTRAZOL	HC	PG	1988	0-0.1		53,55			
PARAQUAT	HC	HB	1986	0-0.004	AS PARAQUATION	47,49		39	4
PARATHION	OP	IN AC	1967	0-0.005		8,9	30		6
PARATHION-METHYL	OP	IN AC	1984	0-0.02		42,43	30	145	7
PENCONAZOLE	HC OC	FU	1992	0-0.03		65,67			
PERMETHRIN	PY	IN	1987	0-0.05	FOR THE NOMINAL 40% CIS-, 60% TRANS- & 25% CIS-, 75% TRANS-MATERIALS	50,52	53	94	51
PHENOTHRIN	PY	IN	1988	0-0.07	20:80 CIS-TRANS RATIO; ADI APPLIES TO "d-PHENOTHRIN"	53,55		96	85
PHENTHOATE	OP	IN AC	1984	0-0.003		42,43			48
PHENYLMERCURIC ACETATE					SEE ORGANOMERCURY COMPOUNDS				
PHENYLPHENOL, 2- & ITS SODIUM SALT	OT	FU	1990	0-0.02		59,61	30		
PHORATE	OP	IN AC NE	1994	0-0.0005		71,73			75
PHOSALONE	OP HC	IN AC	1993	0-0.001		68,70			
PHOSMET	OP HC	IN AC	1994	0-0.01		71,73			
PHOSPHAMIDON	OP	IN AC	1986	0-0.0005		47,49		73	74
PHOSPHINE					SEE HYDROGEN PHOSPHIDE				
PHOXIM	OP	IN	1984	0-0.001		42,43			31
PIPERONYL BUTOXIDE	HC	SY	1992	0-0.03		65,67	30		
PIRIMICARB	CB HC	IN	1982	0-0.02		38,39			
PIRIMIPHOS-METHYL	OP HC	IN AC	1992	0-0.03		65,67			49
PROCHLORAZ	OC HC	FU	1983	0-0.01		40,41			
PROCYMIDONE	OC HC	FU	1989	0-0.1		56,58			
PROFENOFOS	OP	IN AC	1990	0-0.01		59,61			
PROPAMOCARB	CB	FU	1986	0-0.1		47,49			

(See Annex 1)

Current status (1994) of toxicological evaluations by the
the Joint FAO/WHO Meeting on Pesticide Residues (JMPR)

Table 1

Pesticide	Chemical class	Use	Latest year of evaluation by JMPR	ADI (mg/kg bw/d)	Comments	Reference (See Annex 2)	JARC Monograph	IPCS ERG Abatement	WHO/FAO Data Sheet
PROPARGITE	PO	AC	1982	0-0.15		38,39			
PROPHAM	CB	HB PG	1992	NO ADI		65,67	12		
PROPICONAZOLE	HC	FU	1987	0-0.04		50,52			
PROPINEB	TC	FU AC	1993	0-0.007		68,70		78	94
PROPOXUR	CB	IN	1989	0-0.02		56,58			25
PROPYLENETHIOUREA/ PTU	UR		1993	0-0.0002 TEMPORARY		68,70			
PTU					SEE PROPYLENETHIOUREA				
PYRAZOPHOS	OP HC	FU	1992	0-0.004		65,67			
PYRETHRINS	PY	IN AC	1972	0-0.04		18,19			11
QUINTOZENE	OC	FU	1977	0-0.007		28,29	5	41	
T, 2,4,5-	PO	HB	1981	0-0.03	CONTAINING NOT MORE THAN 0.01 MG TETRA-CHLORODIBENZODIOXIN (TCDD) / KG	38,37	15		13
TEBUCONAZOLE	HC	FU	1994	0-0.03		71,73			
TECNAZENE	OC	FU PG	1994	0-0.02		71,73		42	
TEFLUBENZURON	UR	IG	1994	0-0.01		71,73			
TERBUFOS	OP	IN NE	1989	0-0.0002		56,61			
THIABENDAZOLE	HC	FU AN	1992	0-0.1		SEE ANNEX 3			
THIODICARB	CB	IN MO	1986	0-0.03		47,49			67
THIOMETON	OP	IN AC	1979	0-0.003		32,33			
THIOPHANATE-METHYL	CB	FU	1977	0-0.08		28,29			
THIRAM	TC	FU RE	1992	0-0.01		65,67	12 53	78	71
TIN & ORGANOTIN COMPOUNDS					SEE FENTIN COMPOUNDS			15	
TOLCLOFOS-METHYL	OP	FU	1994	0-0.07		71,73			
TOLYLFLUANID	OT	FU AC	1988	0-0.1		53,55			

(See Annex 1)

(See Annex 3)

Current status (1994) of toxicological evaluations by the
the Joint FAO/WHO Meeting on Pesticide Residues (JMPR)

Table 1

Pesticide	Chemical class	Use	Latest year of evaluation by JMPR	ADI (mg/kg bw)	Comments	Reference (See Annex 2)	IARC Monograph	IPCIS/ERG Assessment	WHO/FAO Data Sheet
TOXAPHENE							20		
TRIADIMEFON	PO HC	FU	1985	0-0.03	SEE CAMPHECHLOR	44,46			
TRIADIMENOL	PO HC	FU	1989	0-0.05		56,58			
TRIAZOLYLALANINE	HC		1989	ADI NOT NECESSARY	METABOLITE OF TRIAZOLE PESTICIDES	56,58			
TRIAZOPHOS	OP HC	IN AC NE	1993	0-0.001		68,70			
TRICHLORFON	OT	IN	1978	0-0.01		30,31	30	132	27
TRICHLORONATE	OT	IN	1971	0-NO ADI		16,17			
TRICYCLOHEXYLTIN HYDROXIDE					SEE CYHEXATIN				
TRIFORINE	OC HC	FU	1978	0-0.02		30,31			
TRIPHENYLTIN COMPOUNDS					SEE FENTIN COMPOUNDS				
VAMIDOTHION	OP CB	IN AC	1988	0-0.008		53,55			
VINCLOZOLIN	HC	FU	1988	0-0.07		53,55			
ZINEB	TC	FU	1993	0-0.03	GROUP ADI WITH MANCOZEB, MANEB & METIRAM	68,70	12	78	94
ZIRAM	TC	FU RE	1980	0-0.02	LISTED UNDER DITHIOCARBAMATES; SUM OF FERBAM & ZIRAM	34,35	12,53	78	73

(See Annex 1)

(See Annex 1)

Table 2

Profiles of toxicological evaluations by JMPR

Year of evaluation	ADI (mg/kg bw)	Comments	Reference (See Annex 2)
ABAMECTIN			
1994	0-0.0002		71,73
1992	0-0.0001		65,67
ACEPHATE			
1990	0-0.03		59,61
1988	0-0.03		53,55
1987	0-0.003		50,52
1984	0-0.0005	TEMPORARY	42,43
1982	0-0.003	TEMPORARY	38,39
1976	0-0.02		26,27
ACRYLONITRILE			
1965	NO ADI		3,5
ALDICARB			
1992	0-0.003		65,67
1982	0-0.005		38,39
1979	0-0.001		32,33
ALDRIN			
1994	0.0001 (PTDI)	COMBINED TOTAL ALDRIN + DIELDRIN; SEE ALSO DIELDRIN	71
1977	0-0.0001	COMBINED TOTAL ALDRIN + DIELDRIN; SEE ALSO DIELDRIN	28,29
1966	0-0.0001	SUM OF ALDRIN & DIELDRIN; SEE ALSO DIELDRIN	6,7
1965	NO ADI	SEE ALSO DIELDRIN	3,4
1963	NO ADI	SEE ALSO DIELDRIN	2
ALLETHRIN			
1965	NO ADI		3,4
ALUMINIUM PHOSPHIDE			
SEE HYDROGEN PHOSPHIDE			
AMINOCARB			
1979	NO ADI		32,33
AMITRAZ			
1990	0-0.003		59
1984	0-0.003		42,43
1980	0-0.0005	TEMPORARY	34,35
AMITROLE			
1993	0-0.0005	TEMPORARY	68,70
1977	0-0.00003	CONDITIONAL	28,29
1974	0-0.00003	CONDITIONAL	22,23
ANILAZINE			
1989	0-0.1		56,58
ARSENATE, CALCIUM & LEAD			
1968	NO ADI		10,11
1965	NO ADI		3,4
1963	NO ADI		2
AZINPHOS-ETHYL			
1973	NO ADI		20,21

Table 2

Profiles of toxicological evaluations by JMPR

Year of evaluation	ADI (mg/kg bw)	Comments	Reference (See Annex 2)
AZINPHOS-METHYL			
1991	0-0.005		62,64
1973	0-0.0025		20,21
1968	0-0.0025		10,11
1965	0-0.0025		4
1963	0-0.0025		2
AZOCYCLOTIN			
1994	0-0.007	GROUP ADI WITH CYHEXATIN	71
1991	0-0.001		62
1989	0-0.003		56,58
1981	0-0.003		36,37
BENALAXYL			
1987	0-0.05		50,52
BENDIOCARB			
1984	0-0.004		42,43
1982	0-0.002	TEMPORARY	38,39
BENOMYL			
1983	0-0.02		40,41
1975	NO ADI		24,25
BENTAZONE			
1991	0-0.1		62,64
BENZENE HEXACHLORIDE			
SEE LINDANE OR BHC / HCH			
BHC / HCH			
1973	NO ADI	TECHNICAL GRADES; MIXTURES OF ISOMERS	20,21
1968	NO ADI	TECHNICAL GRADES; MIXTURES OF ISOMERS	10,11
BIFENTHRIN			
1992	0-0.02		65,67
BINAPACRYL			
1985	NO ADI		44,46
1982	ADI WITHDRAWN		38
1969	0-0.0025		12,13
BIORESMETHRIN			
1991	0-0.03		62,64
1976	NO ADI		26,27
BITERTANOL			
1988	0-0.01		53
1987	0-0.003		50,52
1983	0-0.005	TEMPORARY	40,41
BROMIDE ION			
1988	0-1.0	SEE ALSO BROMOMETHANE & DIBROMOETHANE	53,55
1971	0-1.0	ADI ESTABLISHED IN 1966; SEE ALSO BROMOMETHANE & DIBROMOETHANE	16,17
BROMOMETHANE			
1966	0-1.0 AS BROMIDE ION	SEE ALSO BROMIDE ION	6,7
1965	NO ADI	SEE ALSO BROMIDE ION	3,5
BROMOPHOS			
1977	0-0.04		28,29
1972	0-0.006	TEMPORARY	18,19

Table 2

Profiles of toxicological evaluations by JMPR

Year of evaluation	ADI (mg/kg bw)	Comments	Reference (See Annex 2)
BROMOPHOS-ETHYL			
1975	0-0.003		24,25
1972	0-0.003	TEMPORARY	18,19
BROMOPROPYLATE			
1993	0-0.03		68,70
1973	0-0.008		20,21
BUPROFEZIN			
1991	0-0.01		62,64
BUTOCARBOXIM			
1985	NO ADI		44
1984	NO ADI		42
BUTYLAMINE, SEC-			
1984	TEMP ADI WITHDRAWN		42
1981	0-0.1	TEMPORARY	36,37
1978	0-0.1	TEMPORARY	30,31
1975	0-0.2	TEMPORARY	24,25
CADUSAFOS			
1991	0-0.0003		62,64
CALCIUM ARSENATE			
SEE ARSENATE, CALCIUM & LEAD			
CAMPHECHLOR			
1973	NO ADI		20,21
1968	NO ADI		10,11
CAPTAFOL			
1985	TEMP ADI WITHDRAWN		44
1982	0-0.01	TEMPORARY	38
1977	0-0.1		28,29
1973	0-0.05	TEMPORARY	20,21
1969	0-0.05	TEMPORARY	12,13
CAPTAN			
1990	0-0.1		59,61
1984	0-0.1		42,43
1982	0-0.01	TEMPORARY	38,39
1978	0-0.1		30,31
1977	0-0.1		28,29
1973	0-0.1		20,21
1969	0-0.125	TEMPORARY	12,13
1965	0-0.1		3,4
1963	0-0.1		2
CARBARYL			
1973	0-0.01		20,21
1969	0-0.01	TEMPORARY	12,13
1967	0-0.02		8,9
1966	0-0.01		6,7
1965	0-0.02		3,4
1963	0-0.02		2
CARBENDAZIM			
1985	0-0.01		44,46
1983	0-0.01		40,41
1977	NO ADI		28,29
1973	NO ADI		20,21

Table 2

Profiles of toxicological evaluations by JMPR

Year of evaluation	ADI (mg/kg bw)	Comments	Reference (See Annex 2)
CARBOFURAN			
1982	0-0.01		38
1980	0-0.01		34,35
1979	0-0.003	TEMPORARY	32,33
1976	0-0.003	TEMPORARY	26,27
CARBON DISULFIDE			
1965	NO ADI		3,5
CARBON TETRACHLORIDE			
1965	NO ADI		3,5
CARBOPHENOTHION			
1980	0-0.0005		34,35
1979	0-0.0005		32,33
1977	0-0.0002	TEMPORARY	28,29
1976	TEMP ADI WITHDRAWN		26,27
1972	0-0.005	TEMPORARY	18,19
CARBOSULFAN			
1986	0-0.01		47,49
1984	0-0.005	TEMPORARY	42,43
CARTAP			
1978	0-0.1		30,31
1976	0-0.05	TEMPORARY	26,27
CHINOMETHIONAT			
1987	0-0.006		50,52
1984	TEMP ADI WITHDRAWN		42
1981	0-0.003	TEMPORARY	36,37
1977	0-0.003	TEMPORARY	28,29
1974	0-0.003	TEMPORARY	22,23
1968	NO ADI		10,11
CHLORBENSIDE			
1965	0-0.01		4
1963	0-0.01		2
CHLORDANE			
1994	0.0005 (PTDI)		71
1986	0-0.0005		47,49
1984	0-0.001	TEMPORARY	42
1982	0-0.001	TEMPORARY	38,39
1978	0-0.001		30
1977	0-0.001		28,29
1970	0-0.001		14,15
1967	0-0.001		8,9
1965	NO ADI		3,4
1963	NO ADI		2
CHLORDIMEFORM			
1987	TEMP ADI WITHDRAWN		50,52
1985	0-0.0001	TEMPORARY	44,46
1980	0-0.0001	TEMPORARY	34,35
1979	0-0.0001	TEMPORARY	32,33
1978	0-0.001	TEMPORARY	30,31
1977	0-0.01	TEMPORARY	28
1975	0-0.01	TEMPORARY	24,25
1971	0-0.01	TEMPORARY	16,17
CHLORFENSON			
1965	0-0.01		4
1963	0-0.01		2

Table 2

Profiles of toxicological evaluations by JMPR

Year of evaluation	ADI (mg/kg bw)	Comments	Reference (See Annex 2)
CHLORFENVINPHOS			
1994	0-0.0005		71,73
1971	0-0.002		16,17
CHLORMEQUAT			
1994	NO ADI		71,73
1972	0-0.05		18,19
1970	NO ADI		14,15
CHLOROBENZILATE			
1980	0-0.02		34,35
1968	0-0.02		10,11
1965	NO ADI		4
1963	NO ADI		2
CHLOROCHOLINE CHLORIDE			
SEE CHLORMEQUAT			
CHLOROPICRIN			
1965	NO ADI		3,5
CHLOROPROPYLATE			
1972	TEMP ADI WITHDRAWN		18
1968	0-0.01	TEMPORARY	10,11
CHLOROTHALONIL			
1992	0-0.03		65,67
1990	0-0.03		59,61
1987	0-0.003	TEMPORARY	50,52
1985	0-0.0005	TEMPORARY	44,46
1983	0-0.005	TEMPORARY	40,41
1981	0-0.005	TEMPORARY	36,37
1979	0-0.03	TEMPORARY	32,33
1977	0-0.03	TEMPORARY	26,29
1974	0-0.03	TEMPORARY	22,23
CHLORPROPHAM			
1965	NO ADI		3,4
1963	NO ADI		2
CHLORPYRIFOS			
1982	0-0.01		38,39
1977	0-0.001		28,29
1972	0-0.0015		18,19
CHLORPYRIFOS-METHYL			
1992	0-0.01		65,67
1991	0-0.001		62,64
1975	0-0.01		24,25
CHLORTHION			
1965	NO ADI		4
1963	NO ADI		2
CLETHODIM			
1994	0-0.01		71,73
CLOFENTEZINE			
1986	0-0.02		47,49

Table 2

Profiles of toxicological evaluations by JMPR

Year of evaluation	ADI (mg/kg bw)	Comments	Reference (See Annex 2)
COUMAPHOS			
1990	NO ADI		59,61
1987	NO ADI		50
1980	TEMP ADI WITHDRAWN		34,35
1978	0-0.0005	TEMPORARY	30
1975	0-0.0005	TEMPORARY	24
1972	0-0.0005	TEMPORARY	18,19
1968	0-0.0005	TEMPORARY	10,11
CRUFOMATE			
1968	0-0.1		10,11
CYANOFENPHOS			
1983	TEMP ADI WITHDRAWN		40
1980	0-0.001	TEMPORARY	34,35
1975	0-0.005	TEMPORARY	24,25
CYCLOXYDIM			
1992	0-0.07		65,67
CYFLUTHRIN			
1987	0-0.02		50,52
CYHALOTHRIN			
1984	0-0.02		42,43
CYHEXATIN			
1994	0-0.007	GROUP ADI WITH AZOCYCLOTIN	71,73
1991	0-0.001		62,64
1989	0-0.008		56,58
1988	0-0.008		53
1981	0-0.008		36,37
1980	0-0.008	TEMPORARY	34,35
1978	0-0.008	TEMPORARY	30,31
1977	0-0.007	TEMPORARY	28
1973	0-0.007	TEMPORARY	20,21
1970	0-0.0075	TEMPORARY	14,15
CYPERMETHRIN			
1981	0-0.05		36,37
1979	0-0.006	TEMPORARY	32,33
CYROMAZINE			
1990	0-0.02		59,61
D, 2,4-			
1975	0-0.3		24,25
1974	0-0.3		22,23
1971	0-0.3		16,17
1970	NO ADI		14,15
DAMINOZIDE			
1991	0-0.5	DAMINOZIDE CONTAINING LESS THAN 30 MG UDMH / KG	62,64
1989	0-0.5	DAMINOZIDE CONTAINING LESS THAN 30 MG 1,1-DIMETHYLHYDRAZINE (UDMH) / KG	56,58
1983	NO ADI		40,41
1977	0-NO ADI		28,29

Table 2

Profiles of toxicological evaluations by JMPR

Year of evaluation	ADI (mg/kg bw)	Comments	Reference (See Annex 2)
DDT			
1994	0.02 (PTDI)		71
1984	0-0.02		42,43
1983	0-0.005	CONDITIONAL	40
1979	0-0.005	CONDITIONAL	32,33
1977	0-0.005	CONDITIONAL	28
1974	0-0.005	CONDITIONAL	22
1971	0-0.005	CONDITIONAL	16
1969	0-0.005	CONDITIONAL	12,13
1967	0-0.01	ANY COMBINATION OF DDT, DDD & DDE	8,9
1966	0-0.01		6,7
1965	0-0.01		3,4
1963	0-0.005		2
DECAMETHRIN			
SEE DELTAMETHRIN			
DELTAMETHRIN			
1982	0-0.01		38,39
1981	NO ADI		36,37
1980	NO ADI		34,35
DEMETON			
1984	NO ADI		42,43
1982	ADI WITHDRAWN		38
1965	0-0.0025		4
1963	0-0.0025		2
DEMETON-S-METHYL & RELATED COMPOUNDS			
1989	0-0.0003	GROUP ADI, ALONE OR IN COMBINATION	56,58
1984	NO ADI	EVALUATED UNDER OXYDEMETON-METHYL / DEMETON-S-METHYL SULFOXIDE	42,43
1982	ADI WITHDRAWN		38
1973	0-0.005	TOTAL DEMETON-S-METHYL & RELATED COMPOUNDS SHOULD NOT EXCEED THIS FIGURE	20,21
DEMETON-S-METHYL SULFONE			
SEE DEMETON-S-METHYL & RELATED COMPOUNDS			
DEMETON-S-METHYL SULFOXIDE			
SEE OXYDEMETON-METHYL			
DIALIFOS			
1982	ADI WITHDRAWN		38
1976	0-0.003		26,27
DIAZINON			
1993	0-0.002		68,70
1970	0-0.002		14,15
1966	0-0.002		6,7
1965	0-0.0002		3,4
1963	NO ADI		2
DIBROMOETHANE, 1,2-			
1966	0-1.0 AS BROMIDE ION	SEE ALSO BROMIDE ION	6,7
1965	NO ADI	SEE ALSO BROMIDE ION	3,5
DICHOFLUANID			
1983	0-0.3		40,41
1979	0-0.3	TEMPORARY	32,33
1977	0-0.3	TEMPORARY	28,29
1974	0-0.3	TEMPORARY	22,23
1969	NO ADI		12,13
DICHLOROETHANE, 1,2-			
1965	NO ADI		3,5

Table 2

Profiles of toxicological evaluations by JMPR

Year of evaluation	ADI (mg/kg bw)	Comments	Reference (See Annex 2)
DICHLORVOS			
1993	0-0.004		68,70
1977	0-0.004		28,29
1970	0-0.004		14,15
1967	0-0.004		8,9
1966	0-0.004		6,7
1965	NO ADI		3,4
DICLORAN			
1977	0-0.03		28,29
1974	0-0.03	TEMPORARY	22,23
DICOFOL			
1992	0-0.002		65,67
1968	0-0.025		10,11
DIELDRIN			
1994	0.0001 (PTDI)	COMBINED TOTAL ALDRIN + DIELDRIN; SEE ALSO ALDRIN	71
1977	0-0.0001	COMBINED TOTAL ALDRIN + DIELDRIN; SEE ALSO ALDRIN	28,29
1970	0-0.0001	SUM OF ALDRIN & DIELDRIN BY WEIGHT; SEE ALSO ALDRIN	14,15
1967	0-0.0001	SUM OF ALDRIN & DIELDRIN; SEE ALSO ALDRIN	8,9
1966	0-0.0001	SUM OF ALDRIN & DIELDRIN; SEE ALSO ALDRIN	6,7
1965	NO ADI	SEE ALSO ALDRIN	3,4
1963	NO ADI	SEE ALSO ALDRIN	2
DIFLUBENZURON			
1985	0-0.02		44,46
1984	0-0.004	TEMPORARY	42,43
1981	0-0.004	TEMPORARY	36,37
DIMETHIPIN			
1988	0-0.02		53,55
1987	0-0.003	TEMPORARY	50
1985	0-0.003	TEMPORARY	44,46
DIMETHOATE			
1987	0-0.01		50,52
1984	0-0.002	TEMPORARY	42,43
1967	0-0.02		8,9
1965	0-0.004		3,4
1963	0-0.004		2
DIMETHRIN			
1965	NO ADI		3,4
DINOCAP			
1989	0-0.001		56,58
1974	NO ADI		22,23
1969	NO ADI		12,13
DIOXATHION			
1968	0-0.0015		10,11
DIPHENYL			
1967	0-0.125		8,9
1966	0-0.125		6,7
DIPHENYLAMINE / DPA			
1984	0-0.02	FOR 99.9% PURE MATERIAL	42,43
1982	0-0.02	TEMPORARY	38,39
1976	0-0.02		26,27
1969	0-0.025		12,13

Table 2

Profiles of toxicological evaluations by JMPR

Year of evaluation	ADI (mg/kg bw)	Comments	Reference (See Annex 2)
DIQUAT			
1993	0-0.002	AS DIQUAT ION	68,70
1977	0-0.008	AS DIQUAT ION	28,29
1972	0-0.0036	AS DIQUAT ION	18,19
1970	0-0.002	TEMPORARY AS DIQUAT ION	14,15
DISULFOTON			
1991	0-0.0003		62,64
1975	0-0.002		24,25
1973	0-0.001	TEMPORARY	20,21
DITHIANON			
1992	0-0.01		65,67
DNOC			
1965	NO ADI		4
1963	NO ADI		2
DODINE			
1976	0-0.01		26,27
1974	0-0.01	TEMPORARY	22,23
DPA			
SEE DIPHENYLAMINE			
EDIFENPHOS			
1981	0-0.003		36,37
1979	0-0.003	TEMPORARY	32,33
1976	0-0.003	TEMPORARY	26,27
ENDOSULFAN (ENDOSULFAN A, ENDOSULFAN B, ENDOSULFAN SULFATE)			
1989	0-0.006		56,58
1985	0-0.008	TEMPORARY	44
1982	0-0.008	TEMPORARY	38,39
1968	0-0.0075		10,11
1967	NO ADI		8,9
1965	NO ADI		4
1963	NO ADI		2
ENDRIN			
1994	0-0.0002 (PTDI)		71
1970	0-0.0002		14,15
1965	NO ADI		3,4
1963	NO ADI		2
ETHEPHON			
1993	0-0.05		68,70
1978	NO ADI		30,31
1977	NO ADI		28
ETHIOFENCARB			
1982	0-0.1		38,39
1977	0-0.1	TEMPORARY	28,29
ETHION			
1990	0-0.002		59,61
1989	0-0.006	TEMPORARY	56
1986	0-0.006	TEMPORARY	47,49
1985	0-0.0005	TEMPORARY	44
1982	0-0.001	TEMPORARY	38,39
1972	0-0.005		18,19
1968	0-0.00125		10,11
ETHOPROPHOS			
1987	0-0.0003		50,52
1983	NO ADI		40,41

Table 2

Profiles of toxicological evaluations by JMPR

Year of evaluation	ADI (mg/kg bw)	Comments	Reference (See Annex 2)
ETHOXYQUIN			
1969	0-0.06		12,13
ETHYLENE DIBROMIDE			
SEE 1,2-DIBROMOETHANE			
ETHYLENE DICHLORIDE			
SEE 1,2-DICHLOROETHANE			
ETHYLENE OXIDE			
1968	NO ADI		10,11
1965	NO ADI		3,5
ETHYLENETHIOUREA / ETU			
1993	0-0.004		68,70
1988	0-0.002	TEMPORARY	53,55
1986	0-0.002	TEMPORARY	47
1980	0-0.002	TEMPORARY LISTED UNDER DITHIOCARBAMATES	34,35
ETOFENPROX			
1993	0-0.03		68,70
ETRIMFOS			
1986	0-0.003		47
1982	0-0.003		38,39
1980	0-0.003	TEMPORARY	34,35
ETU			
SEE ETHYLENETHIOUREA			
FENAMIPHOS			
1987	0-0.0005		50,52
1985	0-0.0003	TEMPORARY	44,46
1974	0-0.0006		22,23
FENBUTATIN OXIDE			
1992	0-0.03		65,67
1977	0-0.03		28,29
FENCHLORPHOS			
1968	0-0.01		10,11
FENTROTHION			
1988	0-0.005		53,55
1986	0-0.003		47,49
1984	0-0.003	TEMPORARY	42,43
1982	0-0.001	TEMPORARY	38,39
1977	0-0.005		28,29
1974	0-0.005		22,23
1969	0-0.001	TEMPORARY	12,13
FENPROPATHRIN			
1993	0-0.03		68,70
FENPROPIMORPH			
1994	0-0.003		71,73
FENSULFOTHION			
1982	0-0.0003		38,39
1972	0-0.0003		18,19

Table 2

Profiles of toxicological evaluations by JMPR

Year of evaluation	ADI (mg/kg bw)		Comments	Reference (See Annex 2)
FENTHION				
1980	0-0.001			34,35
1979	0-0.0005	TEMPORARY		32,33
1978	0-0.0005	TEMPORARY		30,31
1975	0-0.0005	TEMPORARY		24,25
1971	0-0.0005	TEMPORARY		16,17
FENTIN ACETATE				
1970	0-0.0005		ALONE OR IN COMBINATION WITH OTHER FENTIN COMPOUNDS	14,15
1965	NO ADI		EVALUATED UNDER TRIPHENYL TIN	3,4
1963	NO ADI		EVALUATED UNDER TRIPHENYL TIN	2
FENTIN CHLORIDE				
1970	0-0.0005		ALONE OR IN COMBINATION WITH OTHER FENTIN COMPOUNDS	14,15
1965	NO ADI		EVALUATED UNDER TRIPHENYL TIN	3,4
1963	NO ADI		EVALUATED UNDER TRIPHENYL TIN	2
FENTIN COMPOUNDS				
1991	0-0.0005			62,64
1970	0-0.0005		APPLICABLE TO FENTIN ACETATE, FENTIN CHLORIDE & FENTIN HYDROXYDE & TO THE SUM OF EACH	14,15
1965	NO ADI		EVALUATED UNDER TRIPHENYL TIN	3,4
1963	NO ADI		EVALUATED UNDER TRIPHENYL TIN	2
FENTIN HYDROXIDE				
1970	0-0.0005		ALONE OR IN COMBINATION WITH OTHER FENTIN COMPOUNDS	14,15
1965	NO ADI		EVALUATED UNDER TRIPHENYL TIN	3,4
1963	NO ADI		EVALUATED UNDER TRIPHENYL TIN	2
FENVALERATE				
1986	0-0.02			47
1984	0-0.02	TEMPORARY		42,43
1982	0-0.007	TEMPORARY		38
1981	0-0.007	TEMPORARY		36,37
1979	0-0.06	TEMPORARY		32,33
FERBAM				
1980	0-0.02		LISTED UNDER DITHIOCARBAMATES; SUM OF FERBAM & ZIRAM	34,35
1977	0-0.02		LISTED UNDER DITHIOCARBAMATES; SUM OF FERBAM & ZIRAM	28,29
1974	0-0.005	TEMPORARY	LISTED UNDER DITHIOCARBAMATES; SUM OF ALL DITHIOCARBAMATES	22,23
1970	0-0.025	TEMPORARY	LISTED UNDER DITHIOCARBAMATES; APPLICABLE TO THE PARENT COMPOUNDS ONLY & TO THE SUM OF ALL THE DITHIOCARBAMATE FUNGICIDES	14,15
1967	0-0.025	TEMPORARY	ALONE OR IN COMBINATION WITH OTHER DIMETHYLDITHIOCARBAMATES (THIRAM & ZIRAM)	8,9
1965	NO ADI			4
1963	NO ADI			2
FLUCYTHRINATE				
1985	0-0.02			44,46
FLUSILAZOLE				
1989	0-0.001			56,58

Table 2

Profiles of toxicological evaluations by JMPR

Year of evaluation	ADI (mg/kg bw)	Comments	Reference (See Annex 2)
FOLPET			
1993	0-0.01	TEMPORARY	68
1990	0-0.01	TEMPORARY	59,61
1986	0-0.01	TEMPORARY	47,49
1984	TEMP ADI WITHDRAWN		42,43
1982	0-0.1	TEMPORARY	38
1973	0-0.1		20,21
1969	0-0.16	TEMPORARY	12,13
FORMOTHION			
1973	0-0.02		20,21
1969	NO ADI		12,13
GAMMA-BHC / GAMMA-HCH / GAMMA-HEXACHLOROCYCLOHEXANE			
SEE LINDANE			
GLUFOSINATE-AMMONIUM			
1991	0-0.02		62,64
GLYPHOSATE			
1986	0-0.3		47,49
GUAZATINE			
1978	0-0.03		30,31
HCB			
SEE HEXACHLOROBENZENE			
HCH			
SEE BHC			
HEPTACHLOR / HEPTACHLOR EPOXIDE			
1994	0.0001 (PTDI)		71
1991	0-0.0001		62,64
1970	0-0.0005		14,15
1966	0-0.0005		6,7
1965	NO ADI		3,4
1963	NO ADI		2
HEXACHLOROBENZENE / HCB			
1978	COND ADI WITHDRAWN		30,31
1974	0-0.0006	CONDITIONAL	22,23
1973	NO ADI	INTAKE OF 0.0006 MG/KG BW DAILY IS CONSIDERED BELOW ANY DOSAGE RATE KNOWN TO BE HARMFUL	20,21
1969	0-0.0006	TENTATIVE NEGLIGIBLE DAILY INTAKE	12,13
HEXACHLOROCYCLOHEXANE			
SEE LINDANE OR BHC / HCH			
HEXACONAZOLE			
1990	0-0.005		59,61
HEXYTHIAZOX			
1991	0-0.03		62,64
HYDROGEN CYANIDE			
1965	0-0.05		3,5
HYDROGEN PHOSPHIDE			
1966	ADI NOT NECESSARY	ON BASIS OF NO RESIDUE IN FOOD	6,7
1965	NO ADI		3,5

Table 2

Profiles of toxicological evaluations by JMPR

Year of evaluation	ADI (mg/kg bw)	Comments	Reference (See Annex 2)
IMAZALIL			
1991	0-0.03		62,64
1986	0-0.01		47,49
1985	0-0.01	TEMPORARY	44,46
1984	0-0.01	TEMPORARY	42,43
1980	0-0.01	TEMPORARY	34,35
1977	0-0.01	TEMPORARY	28,29
IPIRODIONE			
1992	0-0.2		65,67
1977	0-0.3		28,29
ISOFENPHOS			
1988	0-0.001		47,49
1982	0-0.0005	TEMPORARY	38,39
1981	0-0.0005	TEMPORARY	36,37
LEAD ARSENATE			
SEE ARSENATE, CALCIUM & LEAD			
LEPTOPHOS			
1978	TEMP ADI WITHDRAWN		30,31
1975	0-0.001	TEMPORARY	24,25
1974	NO ADI		22,23
LINDANE			
1989	0-0.008		56,58
1977	0-0.01		28,29
1973	0-0.01	TEMPORARY	20,21
1970	0-0.0125		14,17
1966	0-0.0125	EVALUATED UNDER GAMMA-BHC	6,7
1965	0-0.0125		4
1963	0-0.0125		2
MALATHION			
1966	0-0.02		6,7
1965	0-0.02		3,4
1963	0-0.02		2
MALEIC HYDRAZIDE			
1984	0-5	SODIUM OR POTASSIUM SALTS, 99.9% PURE & NOT MORE THAN 1 MG HYDRAZINE / KG	42,43
1980	0-1	TEMPORARY SODIUM OR POTASSIUM SALTS, 99.9% PURE & NOT MORE THAN 1 MG HYDRAZINE / KG	34,35
1976	NO ADI	SODIUM OR POTASSIUM SALTS, 99.9% PURE & NOT MORE THAN 1 MG HYDRAZINE / KG	26,27
MANCOZEB			
1993	0-0.03	GROUP ADI WITH MANEB, METIRAM & ZINEB	68,70
1980	0-0.05	LISTED UNDER DITHIOCARBAMATES; INDIVIDUALLY OR THE SUM OF MANCOZEB, MANEB & ZINEB	34,35
1977	0-0.005	TEMPORARY LISTED UNDER DITHIOCARBAMATES; SUM OF MANCOZEB, MANEB & ZINEB	28,29
1974	0-0.005	TEMPORARY LISTED UNDER DITHIOCARBAMATES; SUM OF DITHIOCARBAMATES	22,23
1970	0-0.025	TEMPORARY APPLICABLE TO THE PARENT COMPOUNDS ONLY & THE SUM OF ALL ETHYLENE BISDITHIOCARBAMATE FUNGICIDES	14,15
1967	0-0.025	TEMPORARY ALONE OR IN COMBINATION WITH OTHER ETHYLENE BISDITHIOCARBAMATES (MANEB & ZINEB)	8,9

Table 2

Profiles of toxicological evaluations by JMPR

Year of evaluation	ADI (mg/kg bw)		Comments	Reference (See Annex 2)
MANEB				
1993	0-0.03		GROUP ADI WITH MANCOZEB, METIRAM & ZINEB	68,70
1980	0-0.05		LISTED UNDER DITHIOCARBAMATES; INDIVIDUALLY OR THE SUM OF MANCOZEB, MANEB & ZINEB	34,35
1977	0-0.005	TEMPORARY	LISTED UNDER DITHIOCARBAMATES; SUM OF MANCOZEB, MANEB & ZINEB	28,29
1974	0-0.005	TEMPORARY	LISTED UNDER DITHIOCARBAMATES; SUM OF ALL DITHIOCARBAMATES	22,23
1970	0-0.025	TEMPORARY	LISTED UNDER DITHIOCARBAMATES; APPLICABLE TO THE PARENT COMPOUNDS ONLY & TO THE SUM OF ALL THE DITHIOCARBAMATE FUNGICIDES	14,15
1967	0-0.025	TEMPORARY	ALONE OR IN COMBINATION WITH OTHER ETHYLENE BISDITHIOCARBAMATES (MANCOZEB & ZINEB)	8,9
1965	NO ADI			4
1963	NO ADI			2
MECARBAM				
1986	0-0.002			47,49
1985	0-0.0005	TEMPORARY		44
1983	0-0.001	TEMPORARY		40,41
1980	0-0.001	TEMPORARY		34,35
METALAXYL				
1982	0-0.03			38,39
METHACRIFOS				
1990	0-0.006			59,61
1988	0-0.003	TEMPORARY		53,55
1986	0-0.0003	TEMPORARY		47,49
1982	0-0.0003	TEMPORARY		38,39
1980	0-0.0003	TEMPORARY		34,35
METHAMIDOPHOS				
1990	0-0.004			59,61
1985	0-0.0006			44,46
1982	0-0.0004	TEMPORARY		38,39
1976	0-0.002			26,27
METHIDATHION				
1992	0-0.001			65,67
1975	0-0.005			24,25
1972	0-0.005	TEMPORARY		18,19
METHIOCARB				
1987	0-0.001			50
1985	0-0.001			44,46
1984	0-0.001			42
1983	0-0.001			40,41
1981	0-0.001			36,37
METHOMYL				
1989	0-0.03			56,58
1986	0-0.01	TEMPORARY		47,49
1978	NO ADI			30,31
METHOPRENE				
1987	0-0.1			50
1984	0-0.06	TEMPORARY		42,43
METHOXYCHLOR				
1977	0-0.1			28,29
1965	0-0.1			4
1963	0-0.1			2

Table 2

Profiles of toxicological evaluations by JMPR

Year of evaluation	ADI (mg/kg bw)	Comments	Reference (See Annex 2)
METHYL BROMIDE			
SEE BROMOMETHANE			
METHYL PARATHION			
SEE PARATHION-METHYL			
METIRAM			
1993	0-0.03	GROUP ADI WITH MANCOZEB, MANEB & ZINEB	68,70
MEVINPHOS			
1972	0-0.0015		18,19
1965	NO ADI		4
1963	NO ADI		2
MGK 264			
1967	NO ADI		8,9
MONOCROTOPHOS			
1993	0-0.0006		68,70
1991	0-0.00005		62,64
1975	0-0.0006		24,25
1972	0-0.0003		18,19
MYCLOBUTANIL			
1992	0-0.03		65,67
NABAM (CONVERTED INTO ZINEB WHEN USED WITH ZINC SULFATE)			
1977	TEMP ADI WITHDRAWN	LISTED UNDER DITHIOCARBAMATES	28,29
1974	0-0.005 TEMPORARY	LISTED UNDER DITHIOCARBAMATES; SUM OF ALL DITHIOCARBAMATES	22,23
1970	0-0.025 TEMPORARY	LISTED UNDER DITHIOCARBAMATES; APPLICABLE TO THE PARENT COMPOUNDS ONLY & TO THE SUM OF ALL DITHIOCARBAMATE FUNGICIDES	14,15
1967	0-0.025 TEMPORARY	AS ZINEB ALONE OR IN COMBINATION WITH OTHER ETHYLENE BISDITHIOCARBAMATES (MANCOZEB, MANEB & ZINEB)	8,9
1965	NO ADI		4
1963	NO ADI		2
NITROFEN			
1983	NO ADI		40,41
OMETHOATE			
1985	0-0.0003		44,46
1981	0-0.0005 TEMPORARY		36,37
1979	0-0.0005 TEMPORARY		32,33
1978	0-0.0005 TEMPORARY		30,31
1975	0-0.0005 TEMPORARY		24,25
1971	0-0.0005 TEMPORARY		16,17
OPP / SOPP			
SEE PHENYLPHENOL, 2- & ITS SODIUM SALT			
ORGANOMERCURY COMPOUNDS			
1967	NO ADI		8,9
1966	NO ADI		6,7
1965	NO ADI		4
1963	NO ADI		2
OXAMYL			
1985	0-0.03		44,46
1984	0-0.03		42,43
1983	0-0.01 TEMPORARY		40
1980	0-0.01 TEMPORARY		34,35

Table 2

Profiles of toxicological evaluations by JMPR

Year of evaluation	ADI (mg/kg bw)	Comments	Reference (See Annex 2)
OXYDEMETON-METHYL / DEMETON-S-METHYL SULFOXIDE			
1989		EVALUATED UNDER DEMETON-S-METHYL & RELATED COMPOUNDS	56,58
1984	NO ADI		42,43
1982		EVALUATED UNDER DEMETON-S-METHYL & RELATED COMPOUNDS	38
1973		EVALUATED UNDER DEMETON-S-METHYL & RELATED COMPOUNDS	20,21
1968	ADI WITHDRAWN		10,11
1967	0-0.0025		8,9
1965	0-0.0025		4
1963	0-0.0025		2
OXYTHIOQUINOX			
SEE CHINOMETHIONAT			
PACLOBUTRAZOL			
1988	0-0.1		53,55
PARAQUAT			
1986	0-0.004	AS PARAQUAT ION	47,49
1985	0-0.0007	TEMPORARY AS PARAQUAT ION	44
1982	0-0.0007	TEMPORARY AS PARAQUAT ION	38,39
1976	0-0.0014	AS PARAQUAT ION	26,27
1972	0-0.0014	AS PARAQUAT ION	18,19
1970	0-0.0007	TEMPORARY AS PARAQUAT ION	14,15
PARATHION			
1967	0-0.005		8,9
1965	0-0.005		3,4
1963	0-0.005		2
PARATHION-METHYL			
1984	0-0.02		42,43
1982	0-0.001	TEMPORARY	38,39
1980	0-0.001	TEMPORARY	34,35
1979	0-0.001	TEMPORARY	32,33
1975	0-0.001	TEMPORARY	24,25
1972	0-0.001	TEMPORARY	18,19
1968	0-0.001	TEMPORARY	10,11
1965	0-0.01		4
1963	0-0.01		2
PENCONAZOLE			
1992	0-0.03		65,67
PERMETHRIN			
1987	0-0.05	FOR THE NOMINAL 40% CIS-, 60% TRANS- & 25% CIS-, 75% TRANS- MATERIALS	50,52
1986	0-0.05	FOR THE NOMINAL 40% CIS-, 60% TRANS MATERIAL ONLY	47
1982	0-0.05	FOR THE NOMINAL 40% CIS-, 60% TRANS- MATERIAL ONLY	38
1981	0-0.03	TEMPORARY	36,37
1979	0-0.03	TEMPORARY	32,33
PHENOTHRIN			
1988	0-0.07	20:80 CIS-TRANS RATIO; ADI APPLIES TO "d-PHENOTHRIN"	53,55
1984	0-0.04	TEMPORARY 20:80 CIS-TRANS RATIO; ADI APPLIES TO "d-PHENOTHRIN"	42,43
1982	0-0.2	TEMPORARY 20:80 CIS-TRANS RATIO	38
1980	0-0.2	TEMPORARY 20:80 CIS-TRANS RATIO	34,35
PHENTHOATE			
1984	0-0.003		42,43
1980	0-0.001	TEMPORARY	34,35

Table 2

Profiles of toxicological evaluations by JMPR

Year of evaluation	ADI (mg/kg bw)	Comments	Reference (See Annex 2)
PHENYLMERCURIC ACETATE			
SEE ORGANOMERCURY COMPOUNDS			
PHENYLPHENOL, 2- & ITS SODIUM SALT			
1990	0-0.02		59,61
1989	0-0.02	TEMPORARY	56
1985	0-0.02	TEMPORARY	44,46
1983	0-0.02	TEMPORARY	40
1969	0-1.0		12,13
PHORATE			
1994	0-0.0005		71,73
1985	0-0.0002		44,46
1983	0-0.0002	TEMPORARY	40
1982	0-0.0002	TEMPORARY	38,39
1977	NO ADI		28,29
PHOSALONE			
1993	0-0.001		68,70
1972	0-0.006		18,19
PHOSMET			
1994	0-0.01		71,73
1979	0-0.02		32,33
1978	0-0.005	TEMPORARY	30,31
PHOSPHAMIDON			
1986	0-0.0005		47,49
1985	0-0.0005	TEMPORARY	44
1982	0-0.001	TEMPORARY	38,39
1968	0-0.001		10,11
1966	0-0.001		6,7
1965	NO ADI		4
1963	NO ADI		2
PHOSPHINE			
SEE HYDROGEN PHOSPHIDE			
PHOXIM			
1984	0-0.001		42,43
1982	0-0.0005	TEMPORARY	38,39
PIPERONYL BUTOXIDE			
1992	0-0.03		65,67
1972	0-0.03		18,19
1966	0-0.03	TEMPORARY	6,7
1965	NO ADI		3,4
PIRIMICARB			
1982	0-0.02		38,39
1981	0-0.01	TEMPORARY	36,37
1978	0-0.01	TEMPORARY	30,31
1976	0-0.004	TEMPORARY	26,27
PIRIMIPHOS-METHYL			
1992	0-0.03		65,67
1976	0-0.01		26,27
1974	0-0.005	TEMPORARY	22,23
PROCHLORAZ			
1983	0-0.01		40,41
PROCYMIDONE			
1989	0-0.1		56,58
1982	NO ADI		38
1981	NO ADI		36,37

Table 2

Profiles of toxicological evaluations by JMPR

Year of evaluation	ADI (mg/kg bw)	Comments	Reference (See Annex 2)
PROFENOFOS			
1990	0-0.01		59,61
PROPAMOCARB			
1986	0-0.1		47,49
1984	0-0.02	TEMPORARY	42,43
PROPARGITE			
1982	0-0.15		38,39
1980	0-0.08	TEMPORARY	34,35
1977	0-0.08	TEMPORARY	28,29
PROPHAM			
1992	NO ADI		65,67
1965	NO ADI		3,4
1963	NO ADI		2
PROPICONAZOLE			
1987	0-0.04		50,52
PROPINEB			
1993	0-0.007		68,70
1985	TEMP ADI WITHDRAWN		44,46
1983	0-0.005	TEMPORARY	40
1980	0-0.005	TEMPORARY	34,35
1977	0-0.005	TEMPORARY LISTED UNDER DITHIOCARBAMATES	28,29
PROPOXUR			
1989	0-0.02		56,58
1973	0-0.02		20,21
PROPYLENETHIOUREA / PTU			
1993	0-0.0002	TEMPORARY	68,70
PTU			
SEE PROPYLENETHIOUREA			
PYRAZOPHOS			
1992	0-0.004		65,67
1985	NO ADI		44
PYRETHRINS			
1972	0-0.04		18,19
1970	0-0.04	TEMPORARY	14,15
1966	0-0.04	TEMPORARY	6,7
1965	NO ADI		3,4
QUINTOZENE			
1977	0-0.007		28,29
1975	0-0.007		24,25
1973	0-0.001	TEMPORARY	20,21
1969	0-0.001	TEMPORARY	12,13
T, 2,4,5-			
1981	0-0.03	CONTAINING NOT MORE THAN 0.01 MG TETRACHLORODIBENZODIOXIN (TCDD) / KG	36,37
1979	0-0.003	TEMPORARY	32,33
1970	NO ADI		14,15
TEBUCONAZOLE			
1994	0-0.003		71,73

Table 2

Profiles of toxicological evaluations by JMPR

Year of evaluation	ADI (mg/kg bw)		Comments	Reference (See Annex 2)
TECNAZENE				
1994	0-0.02			71,73
1983	0-0.01			40
1981	0-0.01	TEMPORARY		36,37
1978	0-0.01	TEMPORARY		30,31
1974	NO ADI			22,23
TEFLUBENZURON				
1994	0-0.01			71,73
TERBUFOS				
1989	0-0.0002			56,61
THIABENDAZOLE				
1992	0-0.1			SEE ANNEX 3
1977	0-0.3			28,29
1970	0-0.05			14,15
THIODICARB				
1986	0-0.03			47,49
1985	0-0.01	TEMPORARY		44,46
THIOMETON				
1979	0-0.003			32,33
1973	0-0.005	TEMPORARY		20,21
1969	NO ADI			12,13
THIOPHANATE-METHYL				
1977	0-0.08			28,29
1975	0-0.08			24,25
1973	0-0.08			20,21
THIRAM				
1992	0-0.01			65,67
1987	NO ADI			50
1985	TEMP ADI WITHDRAWN			44
1980	0-0.005	TEMPORARY	LISTED UNDER DITHIOCARBAMATES	34,35
1977	0-0.005	TEMPORARY	LISTED UNDER DITHIOCARBAMATES	28,29
1974	0-0.005	TEMPORARY	LISTED UNDER DITHIOCARBAMATES; SUM OF ALL DITHIOCARBAMATES	22,23
1970	0-0.025	TEMPORARY	LISTED UNDER DITHIOCARBAMATES; APPLICABLE TO THE PARENT COMPOUNDS ONLY & TO THE SUM OF ALL THE DITHIOCARBAMATE FUNGICIDES	14,15
1967	0-0.025	TEMPORARY	ALONE OR IN COMBINATION WITH OTHER DIMETHYLDITHIOCARBAMATES (FERBAM & ZIRAM)	8,9
1965	0-0.025			4
1963	0-0.025			2
TIN & ORGANOTIN COMPOUNDS				
SEE FENTIN COMPOUNDS				
TOLCLOFOS-METHYL				
1994	0-0.07			71,73
TOLYLFLUANID				
1988	0-0.1			53,55
TOXAPHENE				
SEE CAMPHECHLOR				
TRIADIMEFON				
1985	0-0.03			44,46
1983	0-0.01	TEMPORARY		40,41
1981	0-0.01	TEMPORARY		36,37

Table 2

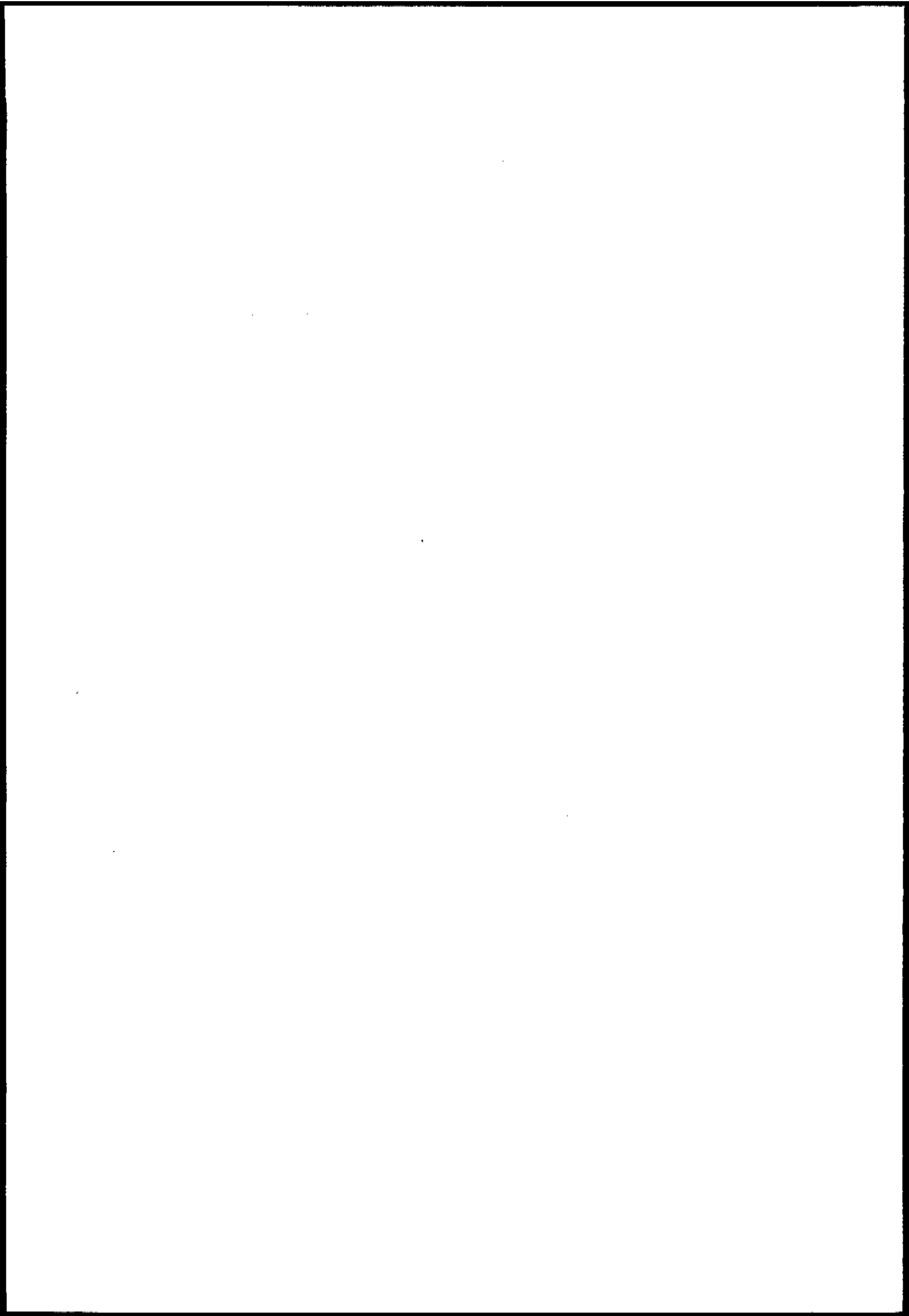
Profiles of toxicological evaluations by JMPR

Year of evaluation	ADI (mg/kg bw)	Comments	Reference (See Annex 2)
TRIADIMENOL			
1989	0-0.05		56,58
TRIAZOLYLALANINE			
1989	ADI NOT NECESSARY	METABOLITE OF TRIAZOLE PESTICIDES	56,58
TRIAZOPHOS			
1993	0-0.001		68,70
1991	0-0.0002	TEMPORARY	62,64
1986	0-0.0002	TEMPORARY	47,49
1982	0-0.0002	TEMPORARY	38,39
TRICHLORFON			
1978	0-0.01		30,31
1975	0-0.005	TEMPORARY	24,25
1971	0-0.01	TEMPORARY	16,17
TRICHLORONATE			
1971	NO ADI		16,17
TRICYCLOHEXYLTIN HYDROXIDE			
SEE CYHEXATIN			
TRIFORINE			
1978	0-0.02		30,31
1977	NO ADI		28,29
TRIPHENYLTIN COMPOUNDS			
SEE FENTIN COMPOUNDS			
VAMIDOTHION			
1988	0-0.008		53,55
1985	0-0.0003	TEMPORARY	44,46
1982	0-0.0003	TEMPORARY	38,39
1973	NO ADI		20,21
VINCLOZOLIN			
1988	0-0.07		53,55
1986	0-0.04	TEMPORARY	47,49
ZINEB			
1993	0-0.03		68,70
1980	0-0.05		34,35
1977	0-0.005	TEMPORARY	28,29
1974	0-0.005	TEMPORARY	22,23
1970	0-0.025	TEMPORARY	14,15
1967	0-0.025	TEMPORARY	8,9
1965	NO ADI		4
1963	NO ADI		2

Table 2

Profiles of toxicological evaluations by JMPR

Year of evaluation	ADI (mg/kg bw)		Comments	Reference (See Annex 2)
ZIRAM				
1980	0-0.02		LISTED UNDER DITHIOCARBAMATES; SUM OF FERBAM & ZIRAM	34,35
1977	0-0.02		LISTED UNDER DITHIOCARBAMATES; SUM OF FERBAM & ZIRAM	28,29
1974	0-0.005	TEMPORARY	LISTED UNDER DITHIOCARBAMATES; SUM OF ALL DITHIOCARBAMATES	22,23
1970	0-0.025	TEMPORARY	LISTED UNDER DITHIOCARBAMATES; APPLICABLE TO THE PARENT COMPOUNDS ONLY & TO THE SUM OF ALL THE DITHIOCARBAMATE FUNGICIDES	14,15
1967	0-0.025	TEMPORARY	ALONE OR IN COMBINATION WITH OTHER DIMETHYLDITHIOCARBAMATES (FERBAM & THIRAM)	8,9
1965	NO ADI			4
1963	NO ADI			2



ANNEX 1

1. Codes for chemical class

AM	acid amide	OP	organophosphate/organothiophosphate
AS	arsenic compound	OT	other
BR	bromide	PO	phenoxy
CB	carbamate	PY	pyrethroid
DN	dinitrophenol/dinitrophenolate	SN	organotin
HC	heterocyclic	TC	thiocarbamate
HG	organomercury	UR	urea
OC	organochlorine		

2. Codes for use

AC	acaricide, miticide	MO	molluscicide
AL	algicide	NE	nematicide
AN	anthelmintic	OT	other
BA	bactericide	PG	plant growth regulator
FM	fumigant	RE	repellent
FU	fungicide	RO	rodenticide
HB	herbicide	SY	synergist
IG	insect growth regulator	TE	termiticide
IN	insecticide		

3. IARC Monograph

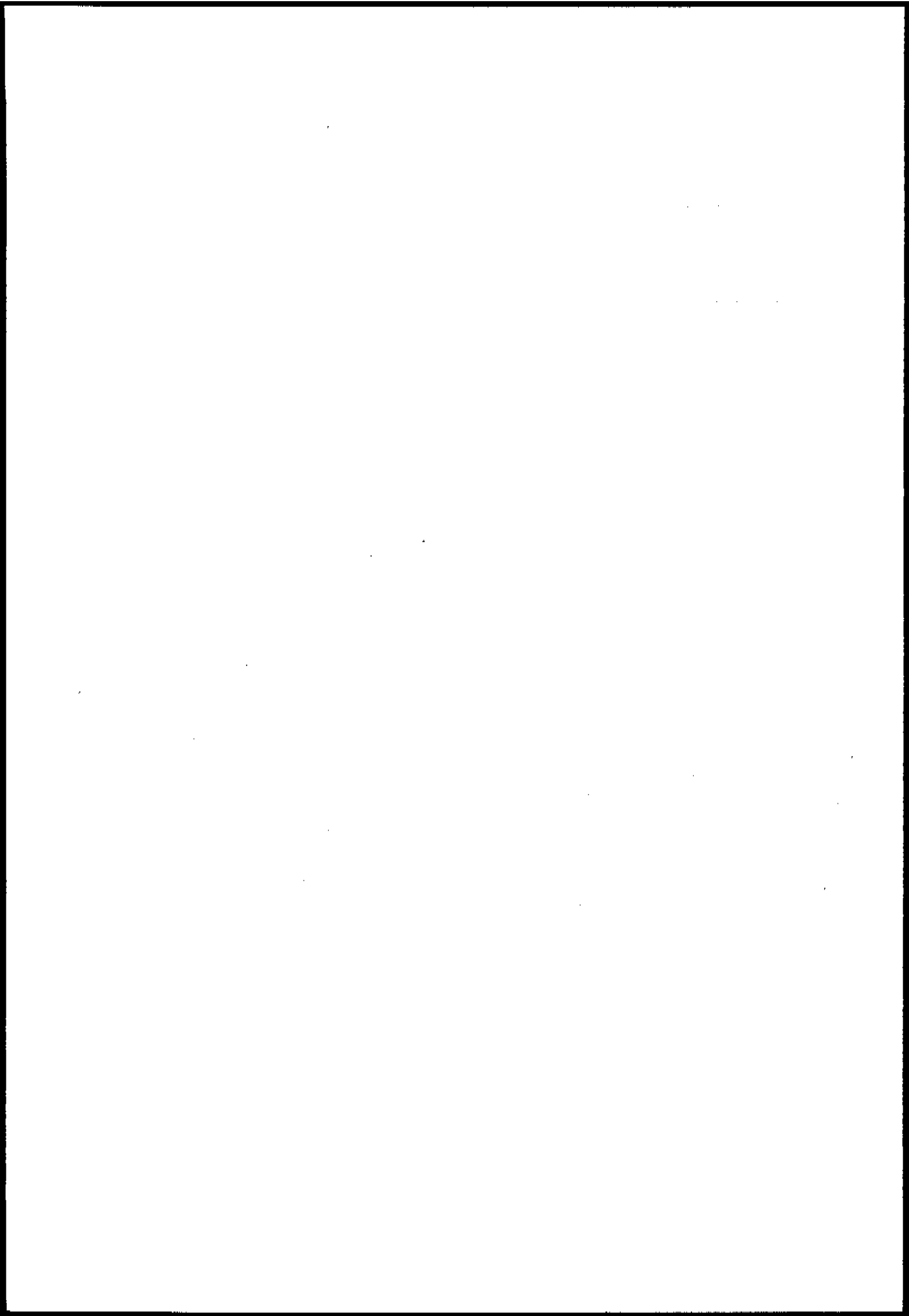
The number refers to the number of the publication in the International Agency for Research on Cancer Monograph Series. An asterisk (*) indicates that a synonym rather than the common name is used in the publication. IARC monographs are available through the network of WHO Sales Agents or from Distribution and Sales Service, World Health Organization, 1211 Geneva 27, Switzerland.

4. IPCS EHC Document

The number refers to the number of the publication in the WHO Environmental Health Criteria series. An asterisk (*) indicates that a synonym rather than the common name is used in the publication. In some cases the EHC publication includes a broader subject area than the listed pesticide. Some of the listed publications have not yet been published. EHC publications are available through the network of WHO Sales Agents or from Distribution and Sales Service, World Health Organization, 1211 Geneva 27, Switzerland. A free catalogue of EHC publications is available upon request at this address.

5. WHO/FAO Data Sheets

Some of the higher-numbered data sheets have not yet been published. An asterisk (*) indicates that a synonym rather than the common name is used to identify the data sheet. Pesticide data sheets are available from the Director, International Programme on Chemical Safety, World Health Organization, 1211 Geneva 27, Switzerland.



ANNEX 2

REPORTS AND OTHER DOCUMENTS RESULTING FROM JOINT MEETINGS OF THE FAO PANEL OF EXPERTS ON PESTICIDE RESIDUES IN FOOD AND THE ENVIRONMENT AND WHO EXPERT GROUPS ON PESTICIDE RESIDUES¹

PREVIOUS FAO AND WHO DOCUMENTS

1. Principles governing consumer safety in relation to pesticide residues. Report of a meeting of a WHO Expert Committee on Pesticide Residues held jointly with the FAO Panel of Experts on the Use of Pesticides in Agriculture. FAO Plant Production and Protection Division Report, No. PL/1961/11; WHO Technical Report Series, No. 240, 1962.
2. Evaluation of the toxicity of pesticide residues in food; report of a Joint Meeting of the FAO Committee on Pesticides in Agriculture and the WHO Expert Committee on Pesticide Residues. FAO Meeting Report, No. PL/1963/13; WHO/Food Add./23, 1964.
3. Evaluation of the toxicity of pesticide residues in food. Report of the Second Joint Meeting of the FAO Committee on Pesticides in Agriculture and the WHO Expert Committee on Pesticide Residues. FAO Meeting Report, No. PL/1965/10; WHO/Food Add./26.65, 1965.
4. Evaluation of the toxicity of pesticide residues in food. FAO Meeting Report, No. PL/1965/10/1; WHO/Food Add./27.65, 1965.
5. Evaluation of the hazards to consumers resulting from the use of fumigants in the protection of food. FAO Meeting Report, No. PL/1965/10/2; WHO/Food Add./28.65, 1965.
6. Pesticide residues in food. Joint report of the FAO Working Party on Pesticide Residues and the WHO Expert Committee on Pesticide Residues. FAO Agricultural Studies, No. 73; WHO Technical Report Series, No. 370, 1967.
7. Evaluation of some pesticide residues in food. FAO/PL:CP/15; WHO/Food Add./67.32, 1967.
8. Pesticide residues. Report of the 1967 Joint Meeting of the FAO Working Party and the WHO Expert Committee. FAO Meeting Report, No. PL:1967/M/11; WHO Technical Report Series, No. 391, 1968.
9. 1967 Evaluations of some pesticide residues in food. FAO/PL:1967/M/11/1; WHO/Food Add./68.30, 1968.
10. Pesticide residues in food. Report of the 1968 Joint Meeting of the FAO Working Party of Experts on Pesticide Residues and the WHO Expert Committee on Pesticide Residues. FAO Agricultural Studies, No. 78; WHO Technical Report Series, No. 417, 1969.
11. 1968 Evaluation of some pesticide residues in food. FAO/PL:1968/M/9/1; WHO/Food Add./69.35, 1969.
12. Pesticide residues in food. Report of the 1969 Joint Meeting of the FAO Working Party of Experts on Pesticide Residues and the WHO Expert Group on Pesticide Residues. FAO Agricultural Studies, No. 84; WHO Technical Report Series, No. 458, 1970.

¹Publications in the WHO Technical Report Series (1962-1977) were produced in English, French and Spanish. Publications in the WHO Pesticide Residues Series (1972-1976) were published in English and French. When one of these editions is out of print, it is so indicated after the reference.

13. 1969 evaluations of some pesticide residues in food. FAO/PL:1969/M/17/1; WHO/Food Add./70.38, 1970.
14. Pesticide residues in food. Report of the 1970 Joint Meeting of the FAO Working Party of Experts on Pesticide Residues and the WHO Expert Committee on Pesticide Residues. FAO Agricultural Studies, No. 87; WHO Technical Report Series, No. 474, 1971.
15. 1970 Evaluations of some pesticide residues in food. AGP:1970/M/12/1; WHO/Food Add./71.42, 1971.
16. Pesticide residues in food. Report of the 1971 Joint Meeting of the FAO Working Party of Experts on Pesticide Residues and the WHO Expert Committee on Pesticide Residues. FAO Agricultural Studies, No. 88; WHO Technical Report Series, No. 502, 1972.
17. 1971 Evaluations of some pesticide residues in food. AGP-1971/M/9/1; WHO Pesticide Residues Series, No. 1, 1972.
18. Pesticide residues in food. Report of the 1972 Joint Meeting of the FAO Working Party of Experts on Pesticide Residues and the WHO Expert Committee on Pesticide Residues. FAO Agricultural Studies, No. 90; WHO Technical Report Series, No. 525, 1973.
19. 1972 Evaluations of some pesticide residues in food. AGP:1972/M/9/1; WHO Pesticide Residues Series, No. 2, 1973.
20. Pesticide residues in food. Report of the 1973 Joint Meeting of the FAO Working Party of Experts on Pesticide Residues and the WHO Expert Committee on Pesticide Residues. FAO Agricultural Studies, No. 92; WHO Technical Report Series, No. 545, 1974.
21. 1973 Evaluations of some pesticide residues in food. FAO/AGP/1973/M/ 9/1; WHO Pesticide Residues Series, No. 3, 1974.
22. Pesticide residues in food. Report of the 1974 Joint Meeting of the FAO Working Party of Experts on Pesticide Residues and the WHO Expert Committee on Pesticide Residues. FAO Agricultural Studies, No. 97; WHO Technical Report Series, No. 574, 1975.
23. 1974 Evaluations of some pesticide residues in food. FAO/AGP/1974/ M/11; WHO Pesticide Residues Series, No. 4, 1975.
24. Pesticide residues in food. Report of the 1975 Joint Meeting of the FAO Working Party of Experts on Pesticide Residues and the WHO Expert Committee on Pesticide Residues. FAO Plant Production and Protection Series, No. 1; WHO Technical Report Series, No. 592, 1976.
25. 1975 Evaluations of some pesticide residues in food. AGP:1975/M/13; WHO Pesticide Residues Series, No. 5, 1976.
26. Pesticide residues in food. Report of the 1976 Joint Meeting of the FAO Panel of Experts on Pesticide Residues and the Environment and the WHO Expert Group on Pesticide Residues. FAO Food and Nutrition Series, No. 9; FAO Plant Production and Protection Series, No. 8; WHO Technical Report Series, No. 612, 1977.
27. 1976 Evaluations of some pesticide residues in food. AGP:1976/M/14, 1977.
28. Pesticide residues in food - 1977. Report of the Joint Meeting of the FAO Panel of Experts on Pesticide Residues and Environment and the WHO Expert Group on Pesticide Residues. FAO Plant Production and Protection Paper 10 Rev, 1978.

29. Pesticide residues in food: 1977 evaluations. FAO Plant Production and Protection Paper 10 Sup, 1978.
30. Pesticide residues in food - 1978. Report of the Joint Meeting of the FAO Panel of Experts on Pesticide Residues and Environment and the WHO Expert Group on Pesticide Residues. FAO Plant Production and Protection Paper 15, 1979.
31. Pesticide residues in food: 1978 evaluations. FAO Plant Production and Protection Paper 15 Sup, 1979.
32. Pesticide residues in food - 1979. Report of the Joint Meeting of the FAO Panel of Experts on Pesticide Residues in Food and the Environment and the WHO Expert Group on Pesticide Residues. FAO Plant Production and Protection Paper 20, 1980.
33. Pesticide residues in food: 1979 evaluations. FAO Plant Production and Protection Paper 20 Sup, 1980.
34. Pesticide residues in food - 1980. Report of the Joint Meeting of the FAO Panel of Experts on Pesticide Residues in Food and the Environment and the WHO Expert Group on Pesticide Residues. FAO Plant Production and Protection Paper 26, 1981.
35. Pesticide residues in food: 1980 evaluations. FAO Plant Production and Protection Paper 26 Sup, 1981.
36. Pesticide residues in food - 1981. Report of the Joint Meeting of the FAO Panel of Experts on Pesticide Residues in Food and the Environment and the WHO Expert Group on Pesticide Residues. FAO Plant Production and Protection Paper 37, 1982.
37. Pesticide residues in food: 1981 evaluations. FAO Plant Production and Protection Paper 42, 1982.
38. Pesticide residues in food - 1982. Report of the Joint Meeting of the FAO Panel of Experts on Pesticide Residues in Food and the Environment and the WHO Expert Group on Pesticide Residues. FAO Plant Production and Protection Paper 46, 1983.
39. Pesticide residues in food: 1982 evaluations. FAO Plant Production and Protection Paper 49, 1983.
40. Pesticide residues in food - 1983. Report of the Joint Meeting of the FAO Panel of Experts on Pesticide Residues in Food and the Environment and the WHO Expert Group on Pesticide Residues. FAO Plant Production and Protection Paper 56, 1984.
41. Pesticide residues in food: 1983 evaluations. FAO Plant Production and Protection Paper 61, 1985.
42. Pesticide residues in food - 1984. Report of the Joint Meeting on Pesticide Residues. FAO Plant Production and Protection Paper 62, 1985.
43. Pesticide residues in food - 1984 evaluations. FAO Plant Production and Protection Paper 67, 1985.
44. Pesticide residues in food - 1985. Report of the Joint Meeting of the FAO Panel of Experts on Pesticide Residues in Food and the Environment and a WHO Expert Group on Pesticide Residues. FAO Plant Production and Protection Paper 68, 1986.
45. Pesticide residues in food - 1985 evaluations. Part I Residues. FAO Plant Production and Protection Paper 72/1, 1986.

46. Pesticide residues in food - 1985 evaluations. Part II - Toxicology. FAO Plant Production and Protection Paper 72/2, 1986.
47. Pesticide residues in food - 1986. Report of the Joint Meeting of the FAO Panel of Experts on Pesticide Residues in Food and the Environment and a WHO Expert Group on Pesticide Residues. FAO Plant Production and Protection Paper 77, 1986.
48. Pesticide residues in food - 1986 evaluations. Part I - Residues. FAO Plant Production and Protection Paper 78, 1986.
49. Pesticide residues in food - 1986 evaluations. Part II - Toxicology. FAO Plant Production and Protection Paper 78/2, 1987.
50. Pesticide residues in food - 1987. Report of the Joint Meeting of the FAO Panel of Experts on Pesticide Residues in Food and the Environment and a WHO Expert Group on Pesticide Residues. FAO Plant Production and Protection Paper 84, 1987.
51. Pesticide residues in food - 1987 evaluations. Part I - Residues. FAO Plant Production and Protection Paper 86/1, 1988.
52. Pesticide residues in food - 1987 evaluations. Part II - Toxicology. FAO Plant Production and Protection Paper 86/2, 1988.
53. Pesticide residues in food - 1988. Report of the Joint Meeting of the FAO Panel of Experts on Pesticide Residues in Food and the Environment and a WHO Expert Group on Pesticide Residues. FAO Plant Production and Protection Paper 92, 1988.
54. Pesticide residues in food - 1988 evaluations. Part I - Residues. FAO Plant Production and Protection Paper 93/1, 1988.
55. Pesticide residues in food - 1988 evaluations. Part II - Toxicology. FAO Plant Production and Protection Paper 93/2, 1989.
56. Pesticide residues in food - 1989. Report of the Joint Meeting of the FAO Panel of Experts on Pesticide Residues in Food and the Environment and a WHO Expert Group on Pesticide Residues. FAO Plant Production and Protection Paper 99, 1989.
57. Pesticide residues in food - 1989 evaluations. Part I - Residues. FAO Plant Production and Protection Paper 100, 1990.
58. Pesticide residues in food - 1989 evaluations. Part II - Toxicology. FAO Plant Production and Protection Paper 100/2, 1990.
59. Pesticide residues in food - 1990. Report of the Joint Meeting of the FAO Panel of Experts on Pesticide Residues in Food and the Environment and a WHO Expert Group on Pesticide Residues. FAO Plant Production and Protection Paper, 103, 1990.
60. Pesticide residues in food - 1990 evaluations. Part I - Residues. FAO Plant Production and Protection Paper, 103/1, 1990.
61. Pesticide residues in food - 1990 evaluations. Toxicology. World Health Organization, WHO/PCS/91.47, 1991.
62. Pesticide residues in food - 1991. Report of the Joint Meeting of the FAO Panel of Experts on Pesticide Residues in Food and the Environment and a WHO Expert Group on Pesticide Residues. FAO Plant Production and Protection Paper, 111, 1991.

63. Pesticide residues in food - 1991 evaluations. Part I - Residues. FAO Plant Production and Protection Paper, 113/1, 1991.
64. Pesticide residues in food - 1991 evaluations. Part II - Toxicology. World Health Organization, WHO/PCS/92.52, 1992.
65. Pesticide residues in food - 1992. Report of the Joint Meeting of the FAO Panel of Experts on Pesticide Residues in Food and the Environment and a WHO Expert Group on Pesticide Residues. FAO Plant Production and Protection Paper, 116, 1993.
66. Pesticide residues in food - 1992 evaluations. Part I - Residues. FAO Plant Production and Protection Paper, 118, 1993.
67. Pesticide residues in food - 1992 evaluations. Part II - Toxicology. World Health Organization, WHO/PCS/93.34, 1993.
68. Pesticide residues in food - 1993. Report of the Joint Meeting of the FAO Panel of Experts on Pesticide Residues in Food and the Environment and a WHO Expert Group on Pesticide Residues. FAO Plant Production and Protection Paper, 122, 1993.
69. Pesticide residues in food - 1993 evaluations. Part I - Residues. FAO Plant Production and Protection Paper, 124, 1994.
70. Pesticide residues in food - 1993 evaluations. Part II - Toxicology. World Health Organization, WHO/PCS/94.4, 1994.
71. Pesticide residues in food - 1994. Report of the Joint Meeting of the FAO Panel of Experts on Pesticide Residues in Food and the Environment and a WHO Expert Group on Pesticide Residues. FAO Plant Production and Protection Paper, 127, 1995.
72. Pesticide residues in food - 1994 evaluations. Part I - Residues. FAO Plant Production and Protection Paper, in preparation.
73. Pesticide residues in food - 1994 evaluations. Part II - Toxicology. World Health Organization, WHO/PCS/95.2, 1995.

ANNEX 3

ASSESSMENT OF THIABENDAZOLE

The most recent WHO toxicological assessment of thiabendazole was performed by the Joint FAO/WHO Expert Committee on Food Additives (JECFA) in 1992 under the name *tiabendazole*.

The report, titled *Evaluation of certain veterinary drug residues in food* (Fortieth report of the Joint FAO/WHO Expert Committee on Food Additives), was published in WHO Technical Report Series, No. 832, 1993 (English and French versions available from WHO, Spanish edition under preparation).

The toxicological monograph was published in WHO Food Additives Series, No. 31, 1993 (*Toxicological evaluation of certain veterinary drug residues in food*; available from WHO in English only).

The residues monograph was published in FAO Food and Nutrition Paper 41/5, 1993 (*Residues of some veterinary drugs in animals and foods*; available from FAO in English only).