

Pesticide residues in food — 2016

**Joint FAO/WHO Meeting on
Pesticide Residues**

EVALUATIONS 2016

Part II — Toxicological



**Food and Agriculture
Organization of the
United Nations**



**World Health
Organization**

Pesticide residues in food – 2016

Toxicological evaluations

Sponsored jointly by FAO and WHO

**Special Session of the Joint Meeting of the
FAO Panel of Experts on Pesticide Residues
in Food and the Environment
and the
WHO Core Assessment Group on Pesticide Residues**

Geneva, Switzerland, 9–13 May 2016

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**Food and Agriculture
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**World Health
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* Evaluated within the periodic review programme of the Codex Committee on Pesticide Residues

**2016 Special Session of the Joint Meeting of the FAO Panel of Experts on
Pesticide Residues in Food and the Environment
and the WHO Core Assessment Group on Pesticide Residues**

Geneva, 8–13 May 2016

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Abbreviations used

AChE	acetylcholinesterase
ACP	acid phosphatase
ADI	acceptable daily intake
AFC	antibody-forming cell
AHS	Agricultural Health Study
AhR	aryl hydrocarbon receptor
ALP	alkaline phosphatase
AMPA	aminomethylphosphonic acid
aOR	adjusted odds ratio
AP	apurinic/apyrimidinic
APG	alkyl polyglucoside
AR	androgen receptor
ARfD	acute reference dose
aRR	adjusted risk ratio
ASDN	androstene-4-ene-3,17-dione
AST	aspartate aminotransferase
AUC	area under the plasma concentration–time curve
AUC _t	area under the concentration versus time–curve calculated up to the last detectable sample
BChE	butyrylcholinesterase
<i>B</i> _{max}	maximum amount of binding
BfR	German Bundesinstitut für Risikobewertung
BMD	benchmark dose
BMD ₁₀	estimated benchmark dose for a 10% inhibition
BMD ₁₅	estimated benchmark dose for a 15% inhibition
BMD ₂₀	estimated benchmark dose for a 20% inhibition
BMD ₃₀	estimated benchmark dose for a 30% inhibition
BoNT	botulinum neurotoxin
BUN	blood urea nitrogen
bw	body weight
CA	chromosomal aberrations
CAS	Chemical Abstracts Service
CCPR	Codex Committee on Pesticide Residues
CEBS	Chemical Effects in Biological Systems
cfu	colony-forming unit
ChE	cholinesterase
CHO	Chinese hamster ovary
Ci	curie (1 Ci = 3.7 × 10 ¹⁰ becquerel [Bq])
CI	confidence interval
<i>C</i> _{max}	maximum concentration
CYP	cytochrome P450
CMC	carboxymethylcellulose
CYP	cytochromes P450
2,4-D	2,4-dichlorophenoxyacetic acid
DEL	yeast deletion (assay)
DEP	diethylphosphoric acid
DETP	diethylphosphorothioic acid
DMSO	dimethyl sulfoxide
DMDTP	dimethyl dithiophosphate
DMP	dimethyl phosphate

DMTP	dimethyl thiophosphate
DNA	deoxyribonucleic acid
DPRA	direct peptide reactivity assay
DSB	double strand break
EDSP	Endocrine Disruptor Screening Program
ELISA	enzyme-linked immunosorbent assay
ENDO	endonuclease
EPSPS	5-enolpyruvylshikimate 3-phosphate synthase
eq	equivalent
ER	estrogen receptor
ERTA	estrogen receptor transcriptional activation
F	female
F ₀	parental generation
F ₁	first filial generation
F ₂	second filial generation
F _{2A}	second filial generation, first litter
F _{2B}	second filial generation, second litter
FAO	Food and Agriculture Organization of the United Nations
Fpg	formamidopyrimidine-DNA-glycosylase
FSH	follicle-stimulating hormone
FSTRA	fish short-term reproduction assay
GD	guideline
GGT	gamma-glutamyltransferase
GIT	gastrointestinal tract
GLP	good laboratory practice
GSH	glutathione
Hb	haemoglobin
Hct	haematocrit
Hep2	epidermoid cancer
HepG2	hepatocellular carcinoma
HESS	Hazard Evaluation Support System
HIC	highest ineffective concentration
HPLC	high-performance liquid chromatography
HPLC-EC	high pressure liquid chromatography-electrochemical-γ-electrochemical detection
HPLC/MS-MS	high-performance liquid chromatography with mass spectrometry
HPRT	hypoxanthine-guanine phosphoribosyltransferase
HTC	hepatoma cell
IARC	International Agency for Research on Cancer
IC ₅₀	median inhibitory concentration
IEDI	international estimated daily intake
IL	interleukin

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