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Pesticide residues in food 2009

Joint FAO/WHO Meeting on Pesticide Residues

FAO PLANT PRODUCTION AND PROTECTION PAPER

196

REPORT 2009





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Report 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, 16–25 September 2009

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D, dietary risk assessment; R, residue and analytical aspects; T, toxicological evaluation.

^{*} New compound

^{**} Evaluated within the periodic review programme of the Code Committee on Pesticide Residues

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ABBREVIATIONS

ADI acceptable daily intake

ai active ingredient

ALP alkaline phosphatase

ALT alanine aminotransferase

ARfD acute reference dose

AST aspartate aminotransferase

AUC area under the curve for concentration—time

BMDL₁₀ benchmark-dose lower 95% confidence level

BROD benzyloxyresorufin *O*-de-ethylase

bw body weight

CAR constitutive androstane receptor
CAS Chemical Abstracts Service

CCFAC Codex Committee on Food Additives and Contaminants

CCN Codex classification number (for compounds or commodities)

CCPR Codex Committee on Pesticide Residues

C_{max} maximum concentration

CXL Codex MRL

 DT_{50} time taken for 50% of the concentration to dissipate

EC₅₀ the concentration of agonist that elicits a response that is 50% of the possible

maximum

EROD ethoxyresorufin *O*-deethylase

 F_0 parental generation F_1 first filial generation

F₂ second filial generation

FAO Food and Agricultural Organization of the United Nations

FOB functional observational battery

GAP good agricultural practice

GC gas chromatography

GC-FPD gas chromatography with flame photometric detection

GGT gamma-glutamyltransferase

GEMS/Food Global Environment Monitoring System–Food Contamination Monitoring and

Assessment Programme

HR highest residue in the edible portion of a commodity found in trials used to

estimate a maximum residue level in the commodity

HR-P highest residue in a processed commodity calculated by multiplying the HR of the

raw commodity by the corresponding processing factor

IC₅₀ concentration required to inhibit activity by 50%

IEDI international estimated daily intake

IESTI international estimate of short-term dietary intake
ISO International Organization for Standardization

IUPAC International Union of Pure and Applied Chemistry

JECFA Joint Expert Committee on Food Additives

JMPR Joint Meeting on Pesticide Residues

JMPS Joint FAO/WHO Meeting on Pesticide Specifications

LC liquid chromatography

LC₅₀ median lethal concentration

LD₅₀ median lethal dose

LOAEL lowest-observed-adverse-effect level

LOAEC lowest-observed-adverse-effect concentration

LOD limit of detection

LOQ limit of quantification

MCH mean corpuscular haemoglobin

MCV mean corpuscular volume

MEQ methylethoxyquin

MLE maximum likelihood estimation

MRL maximum residue limit

MS mass spectrometry

MS/MS tandem mass spectrometry

NOAEL no-observed-adverse-effect level

NTE neuropathy target esterase

OECD Organization for Economic Co-operation and Development

PPARα peroxisome proliferator-induced receptor alpha

PHI pre-harvest interval ppm parts per million

PROD pentylresorufin *O*-dealkylase
STMR supervised trials median residue

STMR-P supervised trials median residue in a processed commodity calculated by

multiplying the STMR of the raw commodity by the corresponding processing

factor

T3 triiodothyronine

T4 thyroxine

TRR total radiolabelled residue
TSH thyroid stimulating hormone

TMDI theoretical maximum daily intake

UCL upper confidence limit

WHO World Health Organization

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