# Pesticide residues in food — 2019

Extra Joint FAO/WHO Meeting on Pesticide Residues

# EVALUATIONS 2019

Part II — **Toxicological** 





## Pesticide residues in food – 2019

### **Toxicological evaluations**

Sponsored jointly by FAO and WHO

Extra 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

Gatineau, Canada, 7–17 May 2019

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Pesticide residues in food - 2019: toxicological evaluations / Extra 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, Gatineau, Canada, 7–17 May 2019

ISBN (WHO) 978-92-4-165534-7 (electronic version) ISBN (WHO) 978-92-4-002945-3 (print version) ISBN (FAO) 978-92-5-134619-8

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Suggested citation. Pesticide residues in food - 2019: toxicological evaluations / Extra 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, Gatineau, Canada, 7–17 May 2019. Geneva: World Health Organization and Food and Agriculture Organization of the United Nations; 2019. Licence: CC BY-NC-SA 3.0 IGO.

Cataloguing-in-Publication (CIP) data. CIP data are available at http://apps.who.int/iris.

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#### 2019 Extra 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

#### Gatineau, Canada, 7-17 May 2019

#### List of participants

- Dr Christos Anagnostopoulos, Laboratory of Pesticide Residues, Benaki Phytopathological Institute, 8 Stefanou Delta Street, Kifisia, Athens 14561, Greece (FAO Expert)
- Professor Eloisa Dutra Caldas, Pharmaceutical Sciences Department, College of Health Sciences, University of Brasilia, Campus Universitário Darci Ribeiro, 70910-900 Brasília/DF, Brazil (FAO Expert)
- Dr Ian Dewhurst, Sunnycroft, Leavening, North Yorkshire Y017 9SA, United Kingdom (WHO Expert)
- Dr Michael Doherty, Office of Pesticide Programs, Health Effects Division, Risk Assessment Branch II, United States Environmental Protection Agency, MS 7509C, Washington, DC 20460, USA (FAO Expert)
- Dr Ngan Chai Keong, Soil Science and Water Programme, Soil Science, Water and Fertilizer Research Centre, Malaysian Agricultural Research and Development Institute, PO Box 12301, 50774 Kuala Lumpur, Malaysia (FAO Expert)
- Dr Hidetaka Kobayashi, Food Safety and Consumer Affairs Bureau, Ministry of Agriculture, Forestry and Fisheries, 1-2-1 Kasumigaseki, Chiyoda-ku, Tokyo 100-8950, Japan (FAO Expert)
- Mr David Lunn, Plants & Pathways Directorate, Ministry for Primary Industries, PO Box 2526, Wellington, New Zealand (FAO Expert)
- Mr Peter Rembischevski, Toxicology Division, Brazilian Health Regulatory Agency Anvisa, SIA Trecho 5 Area Especial 57, 71205-050 Brasília/DF, Brazil (FAO Expert)
- Dr Rebecca Scrivens, Chemicals Regulation Division, Health & Safety Executive, Mallard House, Kings Pool, 3 Peasholme Green, York YO1 7PX, United Kingdom (FAO Expert)
- Dr Prakashchandra V. Shah, Brookeville, MD 20833, United States of America (WHO Expert)
- Mr Christian Sieke, Residues and Analytical Methods Unit, Department of Pesticide Safety, Federal Institute for Risk Assessment, Max-Dohrn-Strasse 8-10, 10589 Berlin, Germany (FAO Expert)
- Dr Yukiko Yamada, Ministry of Agriculture, Forestry and Fisheries, 1-2-1 Kasumigaseki, Chiyodaku, Tokyo 100-8950, Japan (*FAO Expert*)
- Dr Guibiao Ye, Institute for the Control of Agrochemicals, Ministry of Agriculture and Rural Affairs, Maizidian 22, Chaoyang District, Beijing 100125, China (FAO Expert)
- Dr Midori Yoshida, Commissioner, Food Safety Commission, Cabinet Office, Akasaka Park Building, 22nd Floor, 5-2-20 Akasaka Minato-ku, Tokyo 107-6122, Japan (WHO Expert)
- Ms Guang Yan Zhu, Residue Division, Institute for the Control of Agrochemicals, Ministry of Agriculture and Rural Affairs, Maizidian 22, Chaoyang District, Beijing 100125, China (FAO Expert)

#### Secretariat

Mr Kevin Bodnaruk, West Pymble, NSW 2073, Australia (FAO Editor)

Dr Jeevan Khurana, Lyneham, ACT 2602, Australia (FAO Editor)

- Mr Soren Madsen, Department of Food Safety and Zoonoses, World Health Organization, 1211 Geneva 27, Switzerland (WHO JMPR Secretariat)
- Ms Marla Sheffer, Orleans, Ontario, Canada K1E 2K5 (WHO Editor)
- Ms Yong Zhen Yang, Plant Production and Protection Division, Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, 00153 Rome, Italy (FAO JMPR Secretariat)

#### Abbreviations used

4-HPPD 4-hydroxyphenylpyruvate dioxygenase

5-OH-dicamba 2,5-dichloro-3-hydroxy-6-methoxybenzoic acid

ADI acceptable daily intake AFC antibody-forming cell

AMBA 2-amino-4-methylsulfonylbenzoic acid

AR applied radioactivity
ARfD acute reference dose

AUC area under the concentration—time curve

bw body weight

CHO Chinese hamster ovary  $C_{\text{max}}$  maximum concentration CMC carboxymethylcellulose CYP cytochrome P450

DCGA 3,6-dichlorogentisic acid
DCSA 3,6-dichlorosalicylic acid
DMBA 7,12-dimethylbenz[a]anthracene

DMSO dimethyl sulfoxide
DNA deoxyribonucleic acid
EC<sub>50</sub> median effective dose
EMS ethyl methanesulfonate

equiv equivalent
EU European Union
Exp. experiment

FAO Food and Agriculture Organization of the United Nations

FOB functional observational battery

GLP good laboratory practice

HPLC high-performance liquid chromatography

Hprt hypoxanthine-guanine phosphoribosyltransferase

IC<sub>50</sub> median inhibitory concentration

IgM immunoglobulin M

JMPR Joint FAO/WHO Meeting on Pesticide Residues

LC liquid chromatography
LD<sub>50</sub> median lethal dose
LMA locomotor activity

LOAEL lowest-observed-adverse-effect level MNBA 2-nitro-4-methylsulfonylbenzoic acid

MS mass spectrometry

MS/MS tandem mass spectrometry m/z mass-to-charge ratio

NADPH nicotinamide adenine dinucleotide phosphate (reduced)

nd not detected NE not examined

NOAEC no-observed-adverse-effect concentration

NOAEL no-observed-adverse-effect level

NRU neutral red uptake
NS not specified
NZW New Zealand white

OECD Organisation for Economic Co-operation and Development

PCE polychromatic erythrocytes

PEG polyethylene glycol PIF photoirritation factor PND postnatal day ppm parts per million

QSAR quantitative structure–activity relationship

ROI region of interest RRT relative retention time

S9  $9000 \times g$  supernatant fraction from rat liver homogenate

SD standard deviation; Sprague Dawley

 $\begin{array}{lll} SN & scheduled necropsy \\ T_3 & triiodothyronine \\ T_4 & thyroxine \\ TK & thymidine kinase \end{array}$ 

 $T_{\rm max}$  time to reach maximum concentration

TSH thyroid stimulating hormone TTC threshold of toxicological concern

U uniformly labelled UD unscheduled death USA United States of America

UVA ultraviolet A

WHO World Health Organization

WI Wistar

w/v weight per volume w/w weight per weight

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