

# FOOD CONTROL

## CONTENTS

Volume 57 November 2015

- 1 An event-specific qualitative and real-time PCR detection of 98140 maize in mixed samples  
F.-L. ZHANG, J. SONG, B. NIU, Q. YIN, L.-J. CHANG, D. WANG, W.-J. LIU, S.-R. LEI & Y. LIU (China)
- 9 Application of ultraviolet-C light on oranges for the inactivation of postharvest wound pathogens  
G.T. GÜNDÜZ (Turkey), V.K. JUNEJA (USA) & F. PAZIR (Turkey)
- 14 Foodborne transmission of *Listeria monocytogenes* via ready-to-eat salad: A nationwide outbreak in Switzerland, 2013–2014  
R. STEPHAN, D. ALTHAUS, S. KIEFER, A. LEHNER, C. HATZ, C. SCHMUTZ, M. JOST, N. GERBER, A. BAUMGARTNER, H. HÄCHLER & M. MÄUSEZAHN-FEUZ (Switzerland)
- 18 Risk characterization of antimicrobial resistance of *Salmonella* in meat products  
E. DOMÉNECH, A. JIMÉNEZ-BELENGUER, R. PÉREZ, M.A. FERRÚS & I. ESCRICHE (Spain)
- 24 Awareness and attitudes towards the emerging use of nanotechnology in the agri-food sector  
C.E. HANDFORD, M. DEAN, M. SPENCE (United Kingdom), M. HENCHION (Ireland), C.T. ELLIOTT & K. CAMPBELL (United Kingdom)
- 35 Practice of hand hygiene in a university dining facility  
D.B. DO PRADO, A.P. BETTONI, V.A. CORREA, B.A. DE ABREU FILHO, L.B. GARCIA, M.C.B. TOGNIM & C.L. CARDOSO (Brazil)
- 41 Inactivation of *Salmonella* spp. in ground chicken using high pressure processing  
S. SHEEN, J. CASSIDY, B. SCULLEN, J. UKNALIS & C. SOMMERS (USA)
- 48 Single- and mixed-species biofilm formation by *Escherichia coli* O157:H7 and *Salmonella*, and their sensitivity to levulinic acid plus sodium dodecyl sulfate  
D. CHEN, T. ZHAO & M.P. DOYLE (USA)
- 54 Flavonoid glycosides as floral origin markers to discriminate of unifloral bee pollen by LC–MS/MS  
J. ZHOU (PR China), Y. QI, J. RITHO (USA), Y. ZHANG, X. ZHENG, L. WU, Y. LI & L. SUN (PR China)
- 62 Reflections on ‘Microbiological quality of packaged water sold in Accra, Ghana’  
A.C. DADA (Malaysia)
- 65 State of traceability in the Norwegian food sectors  
E. FORÅS, M. THAKUR, K. SOLEM & R. SVARVA (Norway)
- 70 Implementation of Food Safety Management Systems in small food businesses in Cyprus  
M. CHARALAMBOUS, P.J. FRYER (UK), S. PANAYIDES (Cyprus) & M. SMITH (UK)
- 76 Direct construction of predictive models for describing growth of *Salmonella* Enteritidis in liquid eggs – A one-step approach  
L. HUANG (USA)

(Contents continued on next page)

- 82 Effect of binder on the physical stability and bactericidal property of titanium dioxide (TiO<sub>2</sub>) nanocoatings on food contact surfaces  
V.K. YEMMIREDDY & Y.-C. HUNG (USA)
- 89 Methenamine in dairy products by isotope dilution gas chromatography coupled with triple quadrupole mass spectrometry: Method validation and occurrence  
X. XU, X. ZHANG, S. ABBAS, E. KARANGWA, E. DUHORANIMANA, F. PENG & P. SHU (PR China)
- 96 Potential application of PTR-TOFMS for the detection of deoxynivalenol (DON) in durum wheat  
A. INFANTINO, G. AURELI, C. COSTA, C. TAITI, F. ANTONUCCI, P. MENESATTI, F. PALLOTTINO, S. DE FELICE, M.G. D'EGIDIO & S. MANCUSO (Italy)
- 105 Growth inhibition effects of ferulic acid and glycine/sodium acetate on *Listeria monocytogenes* in coleslaw and egg salad  
H. TAKAHASHI, T. TAKAHASHI, S. MIYA, H. YOKOYAMA, T. KUDA & B. KIMURA (Japan)
- 110 Effect of X-ray treatments on *Salmonella enterica* and spoilage bacteria on skin-on chicken breast fillets and shell eggs  
B.S.M. MAHMOUD, S. CHANG, Y. WU, R. NANNAPANENI, C.S. SHARMA & R. COKER (USA)
- 115 Enzyme immunoassay for monitoring aflatoxins in eggs  
L. ANFOSSI, F. DI NARDO, C. GIOVANNOLI, C. PASSINI & C. BAGGIANI (Italy)
- 122 Mycobiota and toxicogenic *Alternaria* spp. strains in Malbec wine grapes from DOC San Rafael, Mendoza, Argentina  
L.P. PRENDES, M.G. MERÍN, M.A. ANDREONI, M.L. RAMIREZ & V.I. MORATA DE AMBROSINI (Argentina)
- 129 Stable isotope and fatty acid compositions of monovarietal olive oils: Implications of ripening stage and climate effects as determinants in traceability studies  
S. PORTARENA, D. FARINELLI, M. LAUTERI, F. FAMIANI, M. ESTI & E. BRUGNOLI (Italy)
- 136 Antimicrobial resistance in thermotolerant *Campylobacter* isolated from different stages of the poultry meat supply chain in Argentina  
M.V. ZBRUN, C. OLIVERO, A. ROMERO-SCHARPEN, E. ROSSLER, L.P. SOTO, D.M. ASTESANA, J.E. BLAJMAN, A. BERISVIL, M.L. SIGNORINI & L.S. FRIZZO (Argentina)
- 142 Fate of ochratoxin A during wheat milling and some Chinese breakfast processing  
C. PENG, L. WANG, F. AN, L. ZHANG, Y. WANG, S. LI, C. WANG & H. LIU (China)
- 147 Occurrence and risk assessment of zearalenone through *broa* consumption, typical maize bread from Portugal  
N.M.C. RIBEIRO, L.J.G. SILVA, A. PENA & C.M. LINO (Portugal)
- 152 Identification of meat spoilage gene biomarkers in *Pseudomonas putida* using gene profiling  
F. MOHAREB, M. IRIONDO (UK), A.I. DOULGERAKI (Greece), A. VAN HOEK, H. AARTS (The Netherlands), M. CAUCHI (UK) & G.-J.E. NYCHAS (Greece)
- 161 Evaluation of reduced toxicity of zearalenone as measured by the Hep G2 cell assay on degradation enzymes  
X. HE, S. LI, Y. LI, W. GU, Y. SUN & X. SUN (China)
- 169 Polycyclic aromatic hydrocarbons (PAH) in Danish barbecued meat  
L. DUEDAHL-OLESEN, M. AASLYNG, L. MEINERT, T. CHRISTENSEN, A.H. JENSEN & M.-L. BINDERUP (Denmark)
- 177 Essential oil composition and biological/pharmacological properties of *Salmea scandens* (L.) DC  
N. VILLA-RUANO, Y. PACHECO-HERNÁNDEZ, E. RUBIO-ROSAS, E. LOZOYA-GLORIA, C. MOSSO-GONZÁLEZ, L.G. RAMÓN-CANUL & R. CRUZ-DURÁN (Mexico)
- 185 Development of a quantitative real-time PCR assay for viable *Salmonella* spp. without enrichment  
L. XIAO, Z. ZHANG, X. SUN, Y. PAN & Y. ZHAO (China)
- 190 Knowledge, attitudes, practices and training needs of food-handlers in large canteens in Southern Vietnam  
T.H. VO (Viet Nam, Finland), N.H. LE, A.T.N. LE, N.N. TRAN MINH (Viet Nam) & J.P. NUORTI (Finland)
- 195 Development and validation of an enzyme linked immunosorbent assay for fluoroquinolones in animal feeds  
R.A. TUFÁ, D.G. PINACHO, N. PASCUAL, M. GRANADOS, R. COMPANYÓ & M.P. MARCO (Spain)
- 202 Ultrasensitive immunoassays based on biotin–streptavidin amplified system for quantitative determination of family zearalenones  
N. LIU, D. NIE, Z. ZHAO, X. MENG & A. WU (PR China)
- 210 Highly sensitive toxin microarray assay for aflatoxin B1 detection in cereals  
A. BEIZAEI (Ireland, Iran), S.L. O' KANE (Ireland), A. KAMKAR, A. MISAGHI (Iran), G. HENEHAN & D.J. CAHILL (Ireland)
- 216 Microbial community structure and dynamics during the traditional brewing of *Fuzhou* Hong Qu glutinous rice wine as determined by culture-dependent and culture-independent techniques  
X.-C. LV, Z.-C. CHEN, R.-B. JIA, Z.-B. LIU, W. ZHANG, S.-J. CHEN, P.-F. RAO & L. NI (China)
- 225 Copper–4,4'-dipyridyl coordination compound as solid reagent for spectrophotometric determination of reducing sugar employing a multicommutation approach  
D.M.S. LEOTÉRIO, P.A.B. SILVA, G.C.S. SOUZA, A.D.A. ALVES, M.F. BELIAN, A. GALEMBECK & A.F. LAVORANTE (Brazil)
- 232 The effect of high pressure on the microbiological quality and other characteristics of cooked sausages packed in a modified atmosphere or vacuum  
J. KAMENÍK, A. SALÁKOVÁ, R. HULÁNKOVÁ & G. BORILOVA (Czech Republic)
- 238 Miniaturized polymerase chain reaction device for rapid identification of genetically modified organisms  
M.L. HA & N.Y. LEE (Republic of Korea)
- 246 Distribution and importance of meat inspection tasks in Finnish high-capacity slaughterhouses  
J. LUUKKANEN, N. KOTISALO, M. FREDRIKSSON-AHOMAA & J. LUNDÉN (Finland)
- 252 Inactivation of enterotoxic and non-enterotoxic *Staphylococcus aureus* strains by high pressure treatments and evaluation of its impact on virulence factors  
I. BAPTISTA, R.P. QUEIRÓS, Â. CUNHA, J.A. SARAIVA, S.M. ROCHA & A. ALMEIDA (Portugal)

- 258 Methods for detection of pork adulteration in veal product based on FT-NIR spectroscopy for laboratory, industrial and on-site analysis  
M. SCHMUTZLER, A. BEGANOVIĆ, G. BÖHLER & C.W. HUCK (Austria)
- 268 Classification of monovarietal Argentinean white wines by their elemental profile  
S.M. AZCARATE, L.D. MARTINEZ, M. SAVIO, J.M. CAMIÑA & R.A. GIL (Argentina)
- 275 Technological implications of reducing nitrate and nitrite levels in dry-fermented sausages: Typical microbiota, residual nitrate and nitrite and volatile profile  
X.F. HOSPITAL, J. CARBALLO, M. FERNÁNDEZ, J. ARNAU, M. GRATACÓS & E. HIERRO (Spain)
- 282 Simultaneous determination of mycotoxin in commercial coffee  
A. GARCÍA-MORALEJA, G. FONT, J. MAÑES & E. FERRER (Spain)
- 293 A quick method for routine analysis of C18 *trans* fatty acids in non-hydrogenated edible vegetable oils by gas chromatography–mass spectrometry  
M. ZHANG, X. YANG, H.T. ZHAO, A.J. DONG, J. WANG, G.Y. LIU, P. WANG, C.L. CHENG & H. ZHANG (PR China)
- 302 Assessment of microbiological quality of raw fruit juice vended in Dar es Salaam city, Tanzania  
E. SIMFORIAN, H.E. NONGA & B.K. NDABIKUNZE (Tanzania)
- 308 Prevalence, enumeration, and characterization of *Salmonella* isolated from aquatic food products from retail markets in China  
X. YANG, Q. WU, J. ZHANG, J. HUANG, L. CHEN, S. LIU, S. YU & S. CAI (China)
- 314 Development of an SD-PMA-mPCR assay with internal amplification control for rapid and sensitive detection of viable *Salmonella* spp., *Shigella* spp. and *Staphylococcus aureus* in food products  
L. WANG, C. YE, H. XU (PR China), Z.P. AGUILAR (USA), Y. XIONG, W. LAI & H. WEI (PR China)
- 321 Phenotypic and genotypic characteristics of *Listeria monocytogenes* strains isolated during 2011–2014 from different food matrices in Switzerland  
R. EBNER, R. STEPHAN, D. ALTHAUS (Switzerland), S. BRISSE, M. MAURY (France) & T. TASARA (Switzerland)
- 327 A simple analytical method for determining inorganic anions and formate in virgin olive oils by capillary electrophoresis with capacitively coupled contactless conductivity detection  
M.A. TRAVASSOS LEMOS, R.J. CASSELLA & D.P. DE JESUS (Brazil)
- 333 Effect of organic acids on the photodynamic inactivation of selected foodborne pathogens using 461 nm LEDs  
V. GHATE, A. KUMAR (Singapore), W. ZHOU & H.-G. YUK (Singapore, China)
- 341 Consistency in inspection processes of food control officials and efficacy of official controls in restaurants in Finland  
T. LÄIKKÖ-ROTO, S. MÄKELÄ, J. LUNDÉN, J. HEIKKILÄ & M. NEVAS (Finland)
- 351 Assessment of aflatoxin M1 levels in pasteurized and UHT milk consumed in Prishtina, Kosovo  
A. RAMA, F. LATIFI, D. BAJRAKTARI & N. RAMADANI (Serbia)
- 355 Evaluation of a new Maillard reaction type time-temperature integrator at various temperatures  
H. ROKUGAWA & H. FUJIKAWA (Japan)
- 362 Cross-linked chitosan polymers as generic adsorbents for simultaneous adsorption of multiple mycotoxins  
Z. ZHAO, N. LIU, L. YANG, J. WANG, S. SONG, D. NIE, X. YANG, J. HOU & A. WU (PR China)
- 370 Duplex real-time PCR assay for the simultaneous determination of the roe deer (*Capreolus capreolus*) and deer (sum of fallow deer, red deer and sika deer) content in game meat products  
B. DRUML, R. HOCHEGGER & M. CICHNA-MARKL (Austria)
- 377 Ochratoxin A contamination of the autochthonous dry-cured meat product “Slavonski Kulen” during a six-month production process  
J. PLEADIN, D. KOVAČEVIĆ & N. PERŠI (Croatia)
- 385 A COIBar-RFLP strategy for the rapid detection of *Engraulis encrasicolus* in processed anchovy products  
A.M. PAPPALARDO & V. FERRITO (Italy)
- 393 Food traceability: New trends and recent advances. A review  
R. BADIA-MELIS, P. MISHRA & L. RUIZ-GARCÍA (Spain)
- 402 Electrochemical biosensor based on REGO/Fe<sub>3</sub>O<sub>4</sub> bionanocomposite interface for xanthine detection in fish sample  
M. DERVISEVIC, E. CUSTIUC, E. ÇEVİK, Z. DURMUS, M. ŞENEL & A. DURMUS (Turkey)
- 411 Transfer of chloramphenicol from milk to commercial dairy products – Experimental proof  
T. SNEGOCKI, M. GBYLIK-SIKORSKA & A. POSYNIK (Poland)
- 419 Development and application of an analytical procedure for specific migration of green tea compounds in IV gamma nectarine active packaging  
M. COLÓN & C. NERÍN (Spain)
- 426 RE: Reflections on “Microbiological quality of packaged water sold in Accra, Ghana”  
A.S. OSEI (Ghana)