Brief Aims and Scope

Journal of the Science of Food and Agriculture publishes peer-reviewed original research, reviews, and perspectives in these areas, with particular emphasis on interdisciplinary studies at the agriculture/food interface. The journal focuses on hypothesis-driven research studies suitable for an international audience. Studies of local products or descriptive studies are discouraged. Consult our website for the full description of the area related to your manuscript before submitting to ensure it is appropriate for the Journal.

- **Integrated (or Multidisciplinary) Studies**: those addressing multiple topics listed below are especially encouraged.
- **Food – Health and Nutrition**: Enhancing human or animal health and wellness with novel or supplemented foods, especially for chronic diseases; evaluating nutritional endpoints versus food composition.
- **Food Qualities**: Novel development or production of human food that alters product qualities, including sensory or stability factors, and study of related food components.
- **Food Safety**: Evaluation and management of risks including chemical, microbiological, and molecular biology issues.
- **Food Materials and Food Engineering**: Food structure and physical properties of raw materials and processed foods, as well as insights into process engineering; packaging; biomass and bioenergy.
- **Food Science and Technology, Sustainable Production**: Innovations in development, production and processing of human or animal food, and beverages; innovations that improve stability or enhance sustainability; measurement of characteristics and functionalities.
- **Sensory and Consumer Sciences**: Perception and characteristics of foods and beverages; consumer behaviour issues, including acceptability and preference.
- **Agriculture – Production**: Plant and animal breeding and management including value-added products that affect yield, quality and sustainability. Systems biology studies are encouraged.
- **Agriculture – Utilisation**: Post harvest utilisation of plants, animals, fish and derived products as human food, animal feed, or for industrial applications.
- **Agriculture – Environment**: The impact of agricultural practices on the environment, through altered or novel farming methods; impacts and adaptation to climate change.

Many studies are likely to overlap several subject areas. Manuscripts will be allocated to the editor whose primary interests are appropriate to the main subject of the paper.
Editorial

Innovations in Publishing
A Waterhouse and M Shepherd

Reviews

Changes in volatile composition and sensory attributes of wines during alcohol content reduction
R Longo, JW Blackman, PJ Torley, SY Rogiers and LM Schimidtke (Australia)

Implications of climate change predictions for UK cropping and prospects for possible mitigation: a review of challenges and potential responses
K Rial-Lovera, WP Davies and ND Cannon (UK)

Recent applications of NMR in food and dietary studies
V Ramakrishnan and DL Luthria (USA)

Research Articles

Synthesis of raffinose by transfructosylation using recombinant levansucrase from Clostridium arbusti SL206
W Li, S Yu, T Zhang, B Jiang and W Mu (China)

Gelation properties of myofibrillar protein under malondialdehyde-induced oxidative stress
L Wang, M Zhang (China), Z Fang and B Bhandari (Australia)

Modified properties of a glycated and cross-linked soy protein isolate by transglutaminase and an oligochitosan of 5 kDa
M Fu and X-H Zhao (China)

Grape and environmental mycoflora monitoring in old, traditionally cultivated vineyards on Mount Etna, southern Italy
C Oliveri, P Bella, M Tessitori, V Catara and R La Rosa (Italy)

Meat batter production in an extended vane pump–grinder injecting curing salt solutions to reduce energy requirements: variation of curing salt amount injected with the solution
SB Irmscher, E-M Terjung, M Gibis, K Herrmann, R Kohlus and J Weiss (Germany)

The effect of oregano essential oil on microbial load and sensory attributes of dried meat
H Hernández, A Fraňková, T Sýkora, P Kloužek, L Kouřímková, I Kučerová and I Banout (Czech Republic)

Elicitation of Jerusalem artichoke (Helianthus tuberosus L.) cell suspension culture for enhancement of inulin production and altered degree of polymerisation
C Ma, D Zhou, H Wang, D Han, Y Wang and X Yan (China)

Heterologous expression and characterisation of the Aspergillus aspartic protease involved in the hydrolysis and decolourisation of red-pigmented proteins
S Takenaka, M Umeda, H Senba, D Koyama, K Tanaka, K-i Yoshida and M Doi (Japan)

Contents continued overleaf
## Contents continued

### Antioxidant effects of supercritical fluid garlic extracts in sunflower oil
E Bravi, G Perretti, C Falconi, O Marconi and P Fantozzi (Italy)  
102

### Crystalline, thermal and swelling properties of starches from single-segment substitution lines with different Wx alleles in rice (Oryza sativa L.)
B Teng, Y Zhang, S Du, J Wu, Z Li, Z Luo and J Yang (China)  
108

### Specification of a new de-stoner machine: evaluation of machining effects on olive paste’s rheology and olive oil yield and quality
R Romaniello, A Leone and A Tamborrino (Italy)  
115

### Over-expression of (1,3;1,4)-β-D-glucanase isoenzyme EII gene results in decreased (1,3;1,4)-β-D-glucan content and increased starch level in barley grains
N Han, C Na, Y Chai, J Chen, Z Zhang, B Bai, H Bian, Y Zhang and M Zhu (China)  
122

### Effect of corona discharge plasma jet on surface-borne microorganisms and sprouting of broccoli seeds
J-W Kim, P Puligundla and C Mok (Republic of Korea)  
128

### Changes in volatile profile of soybean residue (okara) upon solid-state fermentation by yeasts
WC Vong (Singapore) and S-Q Liu (Singapore, China)  
135

### Effect of nitrogen fertilisation on the amino acid digestibility of different triticale genotypes in caecectomised laying hens
W Siegert, J Boguhn, HP Maurer, J Weiss, T Zuber, J Möhring and M Rodehutscord (Germany)  
144

### Preparation and characterization of baru (Dipteryx alata Vog) nut protein isolate and comparison of its physico-chemical properties with commercial animal and plant protein isolates
Å Nunes, SP Favaro, CHB Miranda and VA Neves (Brazil)  
151

### Selection of promising sweet potato clones using projective mapping
E Vicente, G Ares, G Rodriguez, P Varela, F Bologna and J Lado (Uruguay)  
158

### A new genotype of flax (Linum usitatissimum L.) with decreased susceptibility to fat oxidation: consequences to hematological and biochemical profiles of blood indices
B Króliczewska, D Miśta, J Króliczewska, W Zawadzki, R Kubaszewski, E Wincewicz, M Zuk and J Szopa (Poland)  
165

### The effect of supplementation with three commercial inactive dry yeasts on the colour, phenolic compounds, polysaccharides and astringency of a model wine solution and red wine
E González-Royo, M Esterruelas, N Kontoudakis, F Fort, JM Canals and F Zamora (Spain)  
172

### Preparation and structural characterization of corn starch–aroma compound inclusion complexes
S Zhang, Y Zhou, S Jin, X Meng, L Yang and P Wang (China)  
182

### Rheological properties and bread quality of frozen yeast-dough with added wheat fiber
V Adams, SM Ragae and E-SM Abdel-Aal (Canada)  
191

### Enzymatic characterisation of the immobilised Alcalase to hydrolyse egg white protein for potential allergenicity reduction
A Yang, C Long, J Xia, P Tong, Y Cheng, Y Wang and H Chen (China)  
199

### Actein protects against methylglyoxal-induced oxidative damage in osteoblastic MC3T3-E1 cells
KS Suh, S Chon and EM Choi (Republic of Korea)  
207
Exploitation of hazelnut, maize germ and sesame seed aqueous extraction residues in the stabilisation of sesame seed paste (tahini)
A Evlogimenou, A Paraskevopoulou and V Kiosseoglou (Greece)

Valorisation of untreated cane molasses for enhanced phytase production by Bacillus subtilis K46b and its potential role in dephtytinisation
K Rocky-Salimi, M Hashemi, M Safari and M Mousivand (Iran)

Iodide and iodate effects on the growth and fruit quality of strawberry
R Li, H-P Liu, C-L Hong, Z-X Dai, J-W Liu, J Zhou, C-Q Hu and H-X Weng (China)

Influence of genetic and vintage factors in flavan-3-ol composition of grape seeds of a segregating Vitis vinifera population
MM Hernández (Spain), S Song (Spain, China) and CM Menéndez (Spain)

Fermentation of rapeseed meal, sunflower meal and faba beans in combination with wheat bran increases solubility of protein and phosphorus
HD Poulsen and K Blaabjerg (Denmark)

Integration of antimicrobial pectin-based edible coating and active modified atmosphere packaging to preserve the quality and microbial safety of fresh-cut persimmon (Diospyros kaki Thunb. cv. Rojo Brillante)
E Sanchís, C Ghidelli, CC Sheth, M Mateos, L Palou and MB Pérez-Gago (Spain)

Effects of pulsed light treatments and pectin edible coatings on the quality of fresh-cut apples: a hurdle technology approach
MR Moreira, MV Álvarez (Argentina), O Martín-Belloso and R Soliva-Fortuny (Spain)

Effect of different production techniques on bioactive compounds and antioxidant capacity of einkorn (Triticum monococcum L.) and durum (Triticum turgidum subsp. durum) bulgur
VA Yilmaz and AF Koca (Turkey)

Comparative study on fermentation performance in the genome shuffled Candida versatilis and wild-type salt tolerant yeast strain
W Qi, H-L Guo, C-L Wang, L-H Hou, X-H Cao, J-F Liu and F-P Lu (China)

Shelf-life extension of Pacific white shrimp using algae extracts during refrigerated storage
Y Li, Z Yang and J Li (China)

Functional, bioactive and antigenicity properties of blue whiting protein hydrolysates: effect of enzymatic treatment and degree of hydrolysis
PJ García-Moreno, R Pérez-Gálvez, FJ Espejo-Carpio, C Ruiz-Quesada, AI Pérez-Morilla, O Martínez-Agustín, A Guadix and EM Guadix (Spain)

Influence of gas–liquid two-phase flow on angiotensin-I converting enzyme inhibitory peptides separation by ultra-filtration
N Charoenphun and W Youravong (Thailand)

Contents continued overleaf
Contents continued

Detection of aflatoxin and surface mould contaminated figs by using Fourier transform near-infrared reflectance spectroscopy 317
E Durmuş, A Güneş and H Kalkan (Turkey)

Oxidation–reduction potential and lipid oxidation in ready-to-eat blue mussels in red sauce: criteria for package design 324
K Bhunia, M Ovissipour, B Rasco, J Tang and SS Sablani (USA)

Safety assessment of selected medicinal food plants used in Ayurveda through CYP450 enzyme inhibition study 333
A Kar, S Pandit, K Mukherjee, S Bahadur and PK Mukherjee (India)

Improving the emulsifying properties of $\beta$-lactoglobulin–wild almond gum (Amygdalus scoparia Spach) exudate complexes by heat 341
A Golkar, A Nasirpour and J Keramat (Iran)

Protection of sunflower seed and sunflower meal protein with malic acid and heat: effects on in vitro ruminal fermentation and methane production 350
JL Vanegas, MD Carro, MR Alvir and J González (Spain)

Short Communications

Rapid screening of Alternaria mycotoxins using MALDI-TOF mass spectrometry 357
K Sivagnanam, E Komatsu, C Rampitsch, H Perreault and T Graefenhahn (Canada)

Molecular characterization of antibiotic resistance in Escherichia coli strains from a dairy cattle farm and its surroundings 362
EV Navajas-Benito, CA Alonso, S Sanz, C Olarte, R Martínez-Olarte, S Hidalgo-Sanz, S Somalo and C Torres (Spain)

The cover image, by Rocco Longo et al., is based on the Review Changes in volatile composition and sensory attributes of wines during alcohol content reduction, DOI: 10.1002/jsfa.7757.