

# Journal of the Science of Food and Agriculture

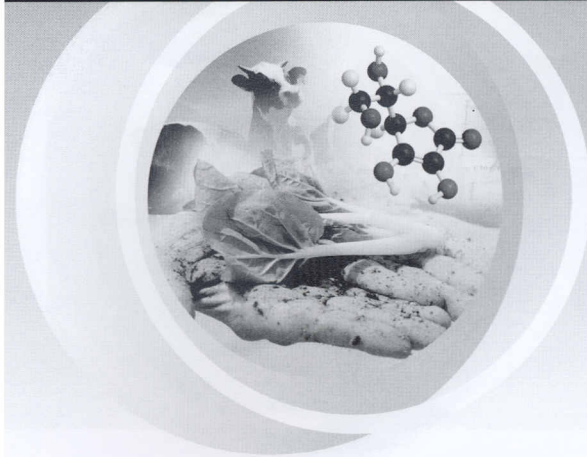
[www.interscience.wiley.com/jsfa](http://www.interscience.wiley.com/jsfa)





## Research Articles

- Nitrate modifies the assimilation pattern of ammonium and urea in wheat seedlings** 357  
M Garnica, F Houdusse, AM Zamarreño and JM Garcia-Mina (Spain)
- Participation of cysteine protease cathepsin L in the gel disintegration of red bulleye (*Priacanthus macracanthus*) surimi gel paste** 370  
Y Hu (China), K Morioka and Y Itoh (Japan)
- Cod and rainbow trout as freeze-chilled meal elements** 376  
LHS Jensen, J Nielsen, BM Jørgensen and S Frosch (Denmark)
- Chemistry and antioxidant activity of essential oil and oleoresins of black caraway (*Carum bulbocastanum*) fruits: Part 69** 385  
IPS Kapoor, B Singh, G Singh (India), CS De Heluani, MP De Lampasona and CAN Catalan (Argentina)
- Fatty acid and essential oil composition of three Tunisian caraway (*Carum carvi* L.) seed ecotypes** 391  
B Laribi, K Kouki, A Mougou and B Marzouk (Tunisia)
- In vitro studies on the hypoglycemic potential of *Ficus racemosa* stem bark** 397  
F Ahmed and A Urooj (India)
- Development and in-house validation of the event-specific qualitative and quantitative PCR detection methods for genetically modified cotton MON15985** 402  
L Jiang, L Yang, J Rao, J Guo, S Wang, J Liu (PR China), S Lee (Korea) and D Zhang (PR China)
- Effect of acetic acid deamidation-induced modification on functional and nutritional properties and conformation of wheat gluten** 409  
L Liao, M Zhao, J Ren, H Zhao, C Cui and X Hu (China)
- Red clover (*Trifolium pratense* L.) isoflavones: root phenolic compounds affected by biotic and abiotic stress factors** 418  
NMM Saviranta, R Julkunen-Tiitto, E Oksanen and RO Karjalainen (Finland)
- Physicochemical properties of octenyl succinic anhydride-modified potato starch with different degrees of substitution** 424  
J Wang, L Su and S Wang (China)
- The effect of dietary *Laminaria*-derived laminarin and fucoidan on nutrient digestibility, nitrogen utilisation, intestinal microflora and volatile fatty acid concentration in pigs** 430  
MB Lynch, T Sweeney, JJ Callan, JT O'Sullivan and JV O'Doherty (Ireland)



Contents continued

- Volatile compounds profile and sensory evaluation of Beninese condiments produced by inocula of *Bacillus subtilis*** 438  
P Azokpota, JD Hounhouigan (Bénin), NT Annan (Ghana), T Odjo (Bénin), MC Nago (Bénin) and M Jakobsen (Denmark)
- Composition, nutritional aspects and effect on serum parameters of marine algae *Ulva rigida*** 445  
C Taboada, R Millán and I Míguez (Spain)
- Experimental evidence for the protective effects of coffee against liver fibrosis in SD rats** 450  
J-W Shin, J-H Wang, J-K Kang and C-G Son (Korea)
- Evaluation of tropical plants containing tannin on *in vitro* methanogenesis and fermentation parameters using rumen fluid** 456  
BT Hariadi and B Santoso (Indonesia)
- The influence of organ, season and drying method on chemical composition and antioxidant and antimicrobial activities of *Juniperus phoenicea* L. essential oils** 462  
M Ennajar (Tunisia), J Bouajila, A Lebrihi, F Mathieu, A Savagnac (France), M Abderraba, A Raies and M Romdhane (Tunisia)
- Effect of dietary level of methionine on growth performance and immune response in Japanese quails (*Coturnix coturnix japonica*)** 471  
R Parvin, AB Mandal, SM Singh and R Thakur (India)
- Steering nitrogen fertilisation by means of portable chlorophyll meter reduces nitrogen input and improves quality of fertigated cantaloupe (*Cucumis melo* L. var. *cantalupensis* Naud.)** 482  
G Gianquinto, M Fecondini, M Mezzetti and F Orsini (Italy)
- Impact of  $\alpha$ -amylase and maltodextrin on physicochemical, functional and antioxidant capacity of spray-dried purple sweet potato flour** 494  
M Ahmed, MS Akter and J-B Eun (South Korea)
- Immunogold labelling to localize polyphenol oxidase (PPO) during wilting of red clover leaf tissue and the effect of removing cellular matrices on PPO protection of glycerol-based lipid in the rumen** 503  
MRF Lee, JKS Tweed, A Cookson (UK) and ML Sullivan (USA)
- Effects of extracts of spices on rumen methanogenesis, enzyme activities and fermentation of feeds *in vitro*** 511  
AK Patra, DN Kamra and N Agarwal (India)
- Timing clorpirifos + cypermethrin and indoxacarb applications to control European corn borer damage and fumonisin contamination in maize kernels** 521  
M Blandino, A Peila and A Reyneri (Italy)