

ANIMAL PRODUCTION SCIENCE

CONTENTS Volume 56, Issue 7, 2016, 1017–1216

Reducing the carbon footprint of Australian milk production by mitigation of enteric methane emissions

Peter J. Moate, Matthew H. Deighton, S. Richard O. Williams, Jennie E. Pryce, Ben J. Hayes, Joe L. Jacobs, Richard J. Eckard, Murray C. Hannah and William J. Wales 1017–1034

Enteric methane emissions in response to ruminal inoculation of *Propionibacterium* strains in beef cattle fed a mixed diet
D. Vyas, A. Alazzeb, S. M. McGinn, T. A. McAllister, O. M. Harstad, H. Holo and K. A. Beauchemin 1035–1040

Intake, apparent digestibility, and methane emission in bulls receiving a feed supplement of monensin, virginiamycin, or a combination
Marcelina Pereira da Fonseca, Ana Luiza da Costa Cruz Borges, Ricardo Reis e Silva, Helena Ferreira Lage, Alexandre Lima Ferreira, Fernando César Ferraz Lopes, Carlos Giovani Pancoti and José Avelino Santos Rodrigues 1041–1045

Genomic scan for identifying candidate genes for paratuberculosis resistance in sheep
Bianca Moioli, Silvia D'Andrea, Luigi De Grossi, Erminia Sezzi, Bruno De Sanctis, Gennaro Catillo, Roberto Steri, Alessio Valentini and Fabio Pilla 1046–1055

Bovine *STAT5A* gene polymorphism and its influence on growth traits in Podolica breed
Maria Selvaggi, Angela Gabriella D'Alessandro and Cataldo Dario 1056–1060

Application of classification trees in determining the impact of phenotypic factors on conception to first service in Holstein cattle
Heydar Ghiasi, Dariusz Piwczyński, Majid Khalldari and Magdalena Kolenda 1061–1069

Resource use and environmental impacts from Australian export lamb production: a life cycle assessment
S. G. Wiedemann, M.-J. Yan and C. M. Murphy 1070–1080

Validation of PigBal model predictions for pig manure production
A. G. Skerman, S. Willis, E. J. McGahan, M. G. Borgognone and D. J. Batstone 1081–1090

Modelling the egg components and laying patterns of broiler breeder hens
Nayara T. Ferreira, Nilva K. Sakomura, Juliano César de Paula Dorigam, Edney Pereira da Silva and Robert M. Gous 1091–1098

Changes in the feather-free body of broiler breeder hens after sexual maturity
M. K. Nonis and R. M. Gous 1099–1104

Exhaled breath condensate hydrogen peroxide concentration, a novel biomarker for assessment of oxidative stress in sheep during heat stress

Surinder S. Chauhan, Pietro Celi, Brian Leury, Fan Liu and Frank R. Dunshea 1105–1112

Metabolic indicators for retention of fetal membranes in Zebu and crossbred dairy cattle
Susavi Kumari, Shiv Prasad, T. K. Patbandha, R. Pathak, A. Kumaresan, P. Boro, A. Manimaran and T. K. Mohanty 1113–1120

Using growth and body composition to determine weight at maturity in Nellore cattle
Marcos Inacio Marcondes, Luís Orlindo Tedeschi, Sebastião de Campos Valadares Filho, Luiz Fernando Costa e Silva and Alex Lopes da Silva 1121–1129

Analysis of population structure and genetic variability in Iranian buffaloes (*Bubalus bubalis*) using pedigree information
Navid Ghavi Hossein-Zadeh 1130–1135

Replacing conventional with brown midrib corn silage in a total mixed ration: the impact on early and late lactation dairy cow intake, milk yield and composition, and milk fatty acids profile
G. A. Genero, C. A. Cangiano, J. P. Raimondi, J. M. Roig and G. A. Gagliostro 1136–1143

Effect of the type of dietary fat when added as an energy source on animal performance, carcass characteristics and meat quality of intensively reared Friesian steers

A. Guerrero, E. Muñoz, I. N. Prado, M. M. Campo, J. L. Olleta, O. Catalán and C. Sanudo 1144–1151

Use of n-alkanes for determination of Kikuyu grass (*Pennisetum clandestinum*) intake in free-range broilers
M. Singh, T. Durali and A. J. Cowieson 1152–1160

Effects of potassium diformate on the gastric function of weaning piglets
S. Xia, W. Yao, B. Zou, Y. Lu, N. Lu, H. Lei and D. Xia 1161–1166

The effect of inclusion level and basal diet on the determination of the digestible and metabolisable energy content of soybean oil and its digestibility when fed to growing pigs
Yongbo Su, Xiaohua Bi, Qiang Huang, Ling Liu, Xiangshu Piao and Defa Li 1167–1173

Increasing the proportion of female lambs by feeding Merino ewes a diet high in omega-6 fatty acids around mating
E. H. Clayton, M. A. Friend and J. F. Wilkins 1174–1184

Rosiglitazone maleate increases weight gain and body fat content in growing lambs
F. T. Fahri, I. J. Clarke, D. W. Pethick, R. D. Warner and F. R. Dunshea 1185–1193

Effects of dietary calcium propionate on growth performance and carcass characteristics of finishing lambs
German D. Mendoza-Martínez, Juan M. Pinos-Rodríguez, Héctor A. Lee-Rangel, Pedro A. Hernández-García, Rolando Rojo-Rubio and Alejandro Relling 1194–1198

Plant extracts in heavy pig feeding: effects on quality of meat and Cremona salami
G. Pastorelli, R. Rossi, S. Ratti and C. Corino 1199–1207

Proximate composition and variation in colour, drip loss and pH of breast meat from broilers supplemented with *Moringa oleifera* leaf meal over time

T. T. Nkukwana, V. Muchenje, P. J. Masika, E. Pieterse, L. C. Hoffman and K. Dzama 1208–1216