

ANIMAL PRODUCTION SCIENCE

CONTENTS Volume 60, Issue 15, 2020, 1769–1868

Genetics and Genomics

Development and evaluation of a low-density single-nucleotide polymorphism chip specific to *Bos indicus* cattle
J. B. S. Ferraz, X.-L. Wu, H. Li, J. Xu, R. Ferretti, B. Simpson, J. Walker, L. R. Silva, J. F. Garcia, R. G. Tait Jr and S. Bauck 1769–1776

Nutrition and Environment

Methane emissions from sheep fed *Eragrostis curvula* hay substituted with *Lespedeza cuneate*
C. J. L. du Toit, W. A. van Niekerk, H. H. Meissner, L. J. Erasmus and R. J. Coertze 1777–1784

Production, nitrogenous compounds in manure and serum chemistry of laying hens provided multi-species (*Lactobacillus* spp.) probiotics
Sadia Naseem, Neil Willits and Annie J. King 1785–1792

Feed Quality and Performance

Dietary supplementation with protected calcium effects production and egg quality of Hy-line brown laying hens
H. Shi, K. Y. Lee and I. H. Kim 1793–1799

Energy and protein requirements of crossbred Holstein × Gyr calves fed milk with milk replacer containing increasing dry-matter concentrations
M. R. Jolomba, A. L. Silva, C. M. Veloso, R. A. Azevedo, S. G. Coelho, M. M. Campos, F. S. Machado and M. I. Marcondes 1800–1807

Replacement of a protein–energy supplement by a same-cost maize-based supplement on performance and product quality of pasture-finished Nellore heifers
Laura Cristina Souza Castro, Wellington da Costa de Campos, Ivanna Moraes de Oliveira, Rodolfo Maciel Fernandes, Matheus Henrique Moretti, Marcella Toledo Piza Roth, Flávio Dutra de Resende and Gustavo Rezende Siqueira 1808–1813

Production Systems and Management

Effect of high-intensity rotational grazing on the growth of cattle grazing buffel pasture in the Northern Territory and on soil carbon sequestration
T. Schatz, D. Ffoulkes, P. Shotton and M. Hearnden 1814–1821

The effect of preconditioning on production and antibiotic use in a South African beef feedlot
A. H. R. Hentzen, P. N. Thompson and D. E. Holm 1822–1829

The relationships between udder-quarter somatic-cell counts and milk and milking parameters in cows managed with an automatic milking system
Beata Sitkowska, Dariusz Piwczyński and Magdalena Kolenda 1830–1837

Production Systems in Transition

A survey of management practices and major diseases of dairy cattle in smallholdings in selected towns of Jimma zone, south-western Ethiopia
Belay Duguma 1838–1849

Meat Science and Product Quality

Effect of feeding forage or concentrate starter diets in early life on life-time growth, carcass traits and meat quality of Wagyu × Friesian cattle
V. T. Burggraaf, C. R. Craigie, M. A. Khan, P. D. Muir, B. C. Thomson, K. A. Lowe, S. R. Leath, K. R. Taukiri, M. Staincliffe and S. A. McCoard 1850–1860

Electrical stimulation extends the time limits for very fast chilling of lamb loins
Robin H. Jacob, Katja Rosenqvist, Michael North, Robert Kemp and Robyn D. Warner 1861–1868