

# CONTENTS

## Breeding and genetics

*Kyriazakis, I.*

Opportunities to improve nutrient efficiency in pigs and poultry through breeding 821

*Dimauro, C., Steri, R., Pintus, M. A., Gaspa, G. and Macciotta, N. P. P.*

Use of partial least squares regression to predict single nucleotide polymorphism marker genotypes when some animals are genotyped with a low-density panel 833

*Queiroz, S. A., Oliveira, J. A., Costa, G. Z. and Fries, L. A.*

Estimates of genetic parameters for visual scores and daily weight gain in Brangus animals 838

*Palazzo, M., Vizzarri, F., Cinone, M., Corino, C. and Casamassima, D.*

Assessment of a natural dietary extract, titrated in phenylpropanoid glycosides, on blood parameters and plasma oxidative status in intensively reared Italian hares (*Lepus corsicanus*) 844

## Nutrition

*Jensen, A. N., Mejer, H., Mølbak, L., Langkjær, M., Jensen, T. K., Angen, Ø., Martinussen, T., Klitgaard, K., Baggesen, D. L., Thamsborg, S. M. and Roepstorff, A.*

The effect of a diet with fructan-rich chicory roots on intestinal helminths and microbiota with special focus on *Bifidobacteria* and *Campylobacter* in piglets around weaning 851

## Physiology and functional biology of systems

*Graham, N. S., May, S. T., Daniel, Z. C. T. R., Emmerson, Z. F., Brameld, J. M. and Parr, T.*

Use of the Affymetrix Human GeneChip array and genomic DNA hybridisation probe selection to study ovine transcriptomes 861

*Cassar-Malek, I., Guillemain, N., Hocquette, J.-F., Micol, D., Bauchart, D., Picard, B. and Jurie, C.*

Expression of *DNAJA1* in bovine muscles according to developmental age and management factors 867

*McGilchrist, P., Pethick, D. W., Bonny, S. P. F., Greenwood, P. L. and Gardner, G. E.*

Beef cattle selected for increased muscularity have a reduced muscle response and increased adipose tissue response to adrenaline 875

*Guillemain, N., Jurie, C., Cassar-Malek, I., Hocquette, J.-F., Renand, G. and Picard, B.*

Variations in the abundance of 24 protein biomarkers of beef tenderness according to muscle and animal type 885

## Behaviour, welfare and health

*Doeschl-Wilson, A. B.*

The role of mathematical models of host–pathogen interactions for livestock health and production – a review\* 895

*Huneau-Salaün, A., Guinebretière, M., Taktak, A., Huonnic, D. and Michel, V.*

Furnished cages for laying hens: study of the effects of group size and litter provision on laying location, zootechnical performance and egg quality 911

*Roussel, S., Ennifar, M., Boissy, A., Louyot, T. and Duvaux-Ponter, C.*

Stray voltage threshold is better determined under choice test conditions in sheep 918

*Braghieri, A., Pacelli, C., De Rosa, G., Girolami, A., De Palo, P. and Napolitano, F.*

Podolian beef production on pasture and in confinement 927

*Catanese, F., Freidin, E., Cuello, M. I. and Distel, R. A.*

Devaluation of low-quality food during early experience by sheep 938

*Phythian, C. J., Michalopoulou, E., Jones, P. H., Winter, A. C., Clarkson, M. J., Stubbings, L. A., Grove-White, D., Cripps, P. J. and Duncan, J. S.*

Validating indicators of sheep welfare through a consensus of expert opinion 943

*Kim, M. H., Seo, J. K., Yun, C. H., Kang, S. J., Ko, J. Y. and Ha, J. K.*

Effects of hydrolyzed yeast supplementation in calf starter on immune responses to vaccine challenge in neonatal calves 953

## Farming systems and environment

*Bernard, J., Le Gal, P. Y., Triomphe, B., Hostiou, N. and Moulin, C. H.*

Involvement of small-scale dairy farms in an industrial supply chain: when production standards meet farm diversity 961

*Mellado, M., Aguilar, C. N., Arévalo, J. R., Rodríguez, A., García, J. E. and Mellado, J.*

Selection for nutrients by pregnant goats on a microphyll desert scrub 972

*Hall, S. J. G.*

Number of females in cattle, sheep, pig, goat and horse breeds predicted from a single year's registration data 980