

CONTENTS

Review

1. A. Stygar, J. Makulska – Application of mathematical modelling in beef herd management – a review 333
2. E. Sosnówka-Czajka, E. Herbut, I. Skomorucha – Effect of different housing systems on productivity and welfare of laying hens 349

Genetics and farm animal breeding

3. B. Danielak-Czech, A. Kozubska-Sobocińska, B. Rejduch – Diagnosis of tandem fusion-translocation in the boar using FISH technique with human painting probes 361
4. B. Rejduch, B. Danielak-Czech, A. Kozubska-Sobocińska – FISH-based comparative analysis of human and porcine chromosome region involving obesity-related genes 367
5. A. Radko, T. Rychlik – Evaluating the usefulness of polymorphism of 7 microsatellite DNA markers for genetic diversity studies of sheep 373

The biology, physiology and reproduction of animals

6. M. Bochenek, Z. Smorąg – The level of sperm DNA fragmentation in bulls of different breeds . . . 379
7. M. Samiec, M. Skrzyszowska – Preimplantation developmental capability of cloned pig embryos derived from different types of nuclear donor somatic cells 385
8. M. Samiec, M. Skrzyszowska – The use of different methods of oocyte activation for generation of porcine fibroblast cell nuclear-transferred embryos 399
9. M. Murawski, D. Wrońska-Fortuna, D.A. Zięba – High doses of copper administered to sheep and the postnatal adaptation of the twin lambs 413
10. J. Jura, J. Jura, B. Ryńska, Z. Smorąg – Comparison of transfection methods for rabbit zygotes. . . 425
11. P. Gogol – Ferrous ion induced photon emission of rabbit spermatozoa 431

Animal nutrition and feedstuffs

12. K. Bilik, M. Łopuszańska-Rusek – Effect of organic and conventional feeding of Red-and-White cows on productivity and milk composition. 441
13. D. Korniewicz, J. Hoffman, A. Korniewicz, Z. Dobrzański – Effect of new feed phosphate on balance and apparent absorption of calcium and phosphorus in fattening pigs 459

Environment, hygiene and animal production technology

14. A. Węglarz – Quality of beef from Polish Holstein-Friesian bulls as related to weight at slaughter . . 467
15. J. Pytlewski, I. Antkowiak, M. Staniek, R. Skrzypek – Intensity and causes of culling in Polish Black-and-White Holstein-Friesian cows 477
16. I. Skomorucha, E. Sosnówka-Czajka, R. Muchacka – Effect of thermal conditions on welfare of broiler chickens of different origin 489

Economics and the organization of animal production

17. Z. Kołozsko-Chomentowska – Economic consequences of financing dairy cattle farms in the Podlaskie province from EU funds 499